

Project Report
on
**PROBLEMS OF BORDER AREAS
IN NORTH EAST INDIA : IMPLICATIONS
FOR THE THIRTEENTH FINANCE COMMISSION**

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Consolidated Report

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PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA: IMPLICATIONS FOR THIRTEENTH FINANCE COMMISSION (CONSOLIDATED REPORT)

Introduction:

Border areas have their own problems and peculiarities. Such areas are in general less accessible, making provision of basic facilities more difficult and costly. Such areas are often more vulnerable to illegal infiltration of population, which adds pressure on their economic and environmental resources. Moreover, porous nature of the border enables easy cross border passage for insurgents and criminals including drug traffickers. Thus, governments of the states with international border are required to bear heavier burden for not only providing basic facilities to the people living in such areas but also for the broader national goal of securing the border.

The Northeast region with 99 per cent of its boundary being international border, the problems and peculiarities are even more accentuated. The region consists of Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim. The region is located between latitudes 29° and 22° North and longitudes about 89.46 and 97.5° East. The region is covering an area of 262185 sq. km, which is nearly 8 per cent of the total geographical area of the country. The region has a population of 389.84 lakh that is 3.79 per cent of the total population of India. The region has a vast coverage of forest nearly 55 per cent of the total geographical area. The States of the region are surrounded by China, Bangladesh, Myanmar and Bhutan. In fact, the region has a long international border of (5182 km), which is more than 99 percent of its total geographical boundary. These States have international border with China (1395 km), Bhutan (455 km), Myanmar (1640 km), Bangladesh (1596 km) and Nepal (97 km). On the other hand the region is connected with the mainland India through a very narrow strip of land with the width of about 22 km called '*chicken neck*'. The region is best known for its picturesque topography, cultural heritage, ethnic beauty and rich natural resources. The region has rich bio diversity, oil and natural gas, coal, limestone, hydro potential and forest wealth. Given the peculiar geo-political location, the region can develop cross-border markets, which are likely to be more cost effective for North East India's surplus production than the distant national markets. The region is famous for its exotic flora and fauna. It is ideally situated to produce spices, fruit & vegetables, flowers and herbs. Therefore, the North East India can emerge as an exporter of orchids, flowers, apple, orange, pineapples, spices, herbs, etc. to the South East Asian Region. The vast array of aromatic plants of the region can be used in aromatic industry for the manufacture of perfumes, incenses, etc. Rich bio-diversity, heritage sites & ethnic beauty can make it a destination for the tourists. Several big & small rivers flowing across this region are suitable to construct hydro projects to generate electricity. Moreover, owing to climatic advantage the region can also be a major producer and exporter of tea.

In spite of resourcefulness the entire region is regarded as underdeveloped. The remoteness, difficult terrain, infrastructural bottlenecks and unfriendly neighbors are the serious impediments of the development of the region. Being a border area, the region is suffering from specific problems like illegal cross-border movements, law and order, security, insurgency, smuggling etc.

In this age of globalization and increased international cooperation, however, border areas also signify some new opportunities. Such opportunities are believed to be immense for Northeast

India due to its geographical proximity to the prosperous East and Southeast Asian economies. However preparing the region to exploit such opportunities also first requires investment in the necessary infrastructure.

While the need for additional resources for states with international border may be easily understood, the fixation of quantum of such additional resource flows needs further investigation and estimation. Accordingly a comprehensive study of the border areas of the country falling in the Northeast region is made under the sponsorship of the Thirteenth Finance Commission (TFC) of Government of India.

The topography, accessibility, climate, altitude, population density, ethnicity, levels of development, the relationships with the border countries etc. of the entire border region of the North East widely vary. Therefore, the development strategy for different border segments will be different. For example, the development strategy of border areas of Arunachal Pradesh with China will be different from Assam's border with Bangladesh. Besides the problems of development, different border segments have different social problems such as incursion, infiltration, migration, smuggling, drug trafficking, AIDS etc. Therefore, different segments of border have been studied by different research teams, which have been presented in this report in consolidated form.

Objectives of the Study:

The specific objectives of the study are-

1. To find out whether the border districts face any disadvantages compared to other districts of a particular border state in terms of status of infrastructure, both physical and social which may lead to higher unit cost of service provisioning.
2. If such disadvantages exist then-
 - (a) What are the problems in tackling these disadvantages under the existing State/ Central Government schemes,
 - (b) To find out whether there is need for special dispensation for overcoming these disadvantages of border districts, if they exist.

Methodology:

The study is based primarily on secondary data collected from District Headquarters, Census Reports and other relevant documents. These data are supplemented by primary data collected through village schedule surveys and Focus Group Discussions (FGDs). FGDs were organised by involving persons like prominent local residents, politicians, academic, administrators, various development and social activists, Panchyat representatives, security personnel, traders, contractors, businessmen, village heads, women organisation, NGOs etc.

In selecting the border blocks for the collection of primary data both random and purposive sampling techniques are followed. Out of 136 Border Blocks in the eight States of the region 15 Blocks (11 per cent) were purposively selected for field investigations. Because of the vastness of the border area, the research work was distributed among 10 Research Teams from 10 higher educational institutions of the region. Each Research Team has selected the sample border Blocks from the area convenient to it. The number of sample Blocks of different border areas selected by different Teams has been presented in Table – 1.

Table – 1**Allocation of Sample Blocks among Institute and Universities of North East India**

Border Countries	Research Team/Institute/ Universities									Total
	Dibrugarh University	Gauhati University and IIT, Guwahati	Rajib Gandhi University	NEHU	Manipur University	Mizoram University	Sikkim University	Tripura University	Assam University	
China	1	-	3	-	-	-	-	-	-	4
Bangladesh	-	1	-	1	-	-	-	2	1	4
Bhutan	-	1	-	-	-	-	1	-	-	2
Myanmar	1	-	-	-	2	1	-	-	-	4
Nepal	-	-	-	-	-	-	1	-	-	1

For maintaining uniformity in the research methodology and design, a central workshop was arranged at IIT, Guwahati on 13th September 2008, which was attended by all members of different Research Teams including representatives from the Thirteenth Finance Commission, New Delhi.

ARUNACHAL PRADESH:

Two Research Teams, one from the Rajiv Gandhi University and the other from the Dibrugarh University have studied the problems of border areas of Arunachal Pradesh. For intensive study, both the teams have purposively selected three districts, viz., Tawang, Anjaw and Changlang and four border Blocks from these Districts have again purposively selected for the present study. Altogether 20 villages from 4 Development Blocks from the three sample Districts have been selected for the collection of data through village schedules and Focus Group Discussions (FGDs).

Socio-economic Profile of the Border Area of Arunachal Pradesh:

The population density of the border Districts of the State is extremely low ranging from 4 (Anjaw District and Dibang Valley) to 43 (Tirap District) against the State average of 13 as per 2001 Census Report. The percentage of area under forests in the border area of Arunachal Pradesh is as high as 78. The average life expectancy of the people of the border Districts of Arunachal Pradesh is 50.44 against the State average of 54.05. The average literacy rate of the border area is 48.17 against the State average of 54.3. The workforce rate participation rate in the border District is 48.64 that is relatively better than the State average of 43.98. The average number of schools is 21.47, PHCs and Sub-PHCs is 9.35, doctors are 4.19 and hospital beds are 20.85 per 10,000 population. The percentage of household having tap water facility within the premises is 26.64 that are almost equal to State average.

The road density of the border Districts varies from 2.53 km (Kurung Kumey District) to 47.43 km (Tirap District), the average density being 17 sq. km per 100 sq. km. The average percentage of electrified villages in the border areas is 46.32.

On the basis of the information collected from six Focus Group Discussions (FGDs) with people's representatives, Government officials, Block officials, school teachers, village headmen, NGOs, businessmen, contractors, security personnel, women's bodies, etc.; data collected from the border villages and the experience gathered by the Study Teams from the border villages, the following observations about the situation of Arunachal Pradesh border can be made.

1. Mindset of the people of the Border Areas:

It is found in the surveyed districts that the people living on both sides of the international border of Arunachal Pradesh belong to the same tribes. Along the border of Changlang District lives the *Tangsa* tribe on both sides of India and Myanmar, the *Mishimi* tribe in both sides of India and China in Anjaw District and the *Mompas* in both sides of India and China in Tawang District. As a result cross-border movements of men and materials existed before India's Independence. Though such movements continued in a restricted manner in the Indo-Myanmar border in Changlang District, these are completely sealed in the Indo-China border in Anjaw and Tawang Districts, particularly after the Chinese aggression in 1962.

From discussion with the village people of the border area of Anjaw District, it has been felt that the people in general still feel that their counterparts across the border in China are much better off in terms of both economic and social developments. Some of them are found to have been praising the initiatives taken by the Chinese Government in uplifting the economic status of their own tribe living in the other side of the border in China. The Study Team also had an opportunity to observe the developments in the agglomerated clusters of Chinese border villages on the fringe of Indo-China border from the Kibithoo border point with the help of high-power distance viewer (binocular) provided by the Indian army officials.

It is to be noted that a few old people met by the Study Team have all praise for Chinese soldiers when the Chinese army entered into their area in 1962 aggression because the civilians of Arunachal Pradesh were treated well by the Chinese army. It may also be noted that the local inhabitants of both the Blocks under study do not have any conflict with the Indian army unlike Manipur.

All these show that a section of the people living in the villages bordering China in Anjaw District are not happy with development activities initiated by the Government of India. On the other hand, the *Tangsa* tribes living in the border of the Changlang District do not feel inferior to their counterparts across the border in Myanmar. It is because unlike the Chinese Government, the Myanmar Government has not taken any initiatives in developing their areas bordering Arunachal Pradesh.

2. Scattered Human Habitation:

The population density in the border areas is so low that economic and social infrastructures development programmes are difficult to be implemented because costs far exceed the benefits. The unit cost of road construction is Rs 80 lakh per km, in Nampong Block, which is almost double of that of plains. But in Hawaii Block it is as high as three to four times of that of the plains. This is because of stiff hills the costs of development in the border region are very high.

3. Transport and Communication:

Development of transport and communication is most challenging in the border areas of Arunachal Pradesh because of scattered habitation, stiff hills and uneven topography. At present percentage of villages having road connectivity are 60 in Changlang District and 14 in Anjaw District against the State average of 38. Thus about 86 per cent of the villages in Anjaw District have no road connectivity. The people of these villages have to use Porters Tracks for their all kinds of movements. Tata Sumu service is the primary mode of transport for the villages having road connectivity. State transport service is very limited in border areas. Telecommunication connectivity is also extremely poor in the border area as the private telecommunication service providers are not interested for low profitability.

The Stilwell/Ledo Road was built during the Second World War connecting Kunming-Baoshan (China)-Myitkyina (Myanmar)-Ledo (India). The total length of the road between Kunming and Ledo is about 1700 km of which 800 km is in Yunnan Province of China, 727 km in Myanmar and 173 km in India. But between Myitkyina and Pangshu Pass (border point with India) a stretch of about 200 km, this route needs rebuilding because beyond Myitkyina up to Kunming the road is already well developed. Thus, from Ledo to the extreme border point of India (except 'no man land' portion on Indian side) has been developed recently. Since Kunming is already connected with Hong Kong by an express highway, the North East India, for that matter India as a whole, could establish direct road link with Hong Kong if the Stilwell Road is well developed. Moreover, since Lashio is well connected by rail and road with provinces of south and central Myanmar, bordering Laos, Thailand, Malaysia and Singapore, the Stilwell Road can connect India with the entire South East Asian countries by land route.

4. Porter Tracks:

It is observed that in the stiff hilly region the only means of movements of men and materials are the porter tracks. Villagers with marketable articles on their back move along these tracks to reach markets. But the conditions of these tracks are so poor that the villagers find it very difficult in treading along these tracks. This has been highlighted in the FGDs at Hawaii and Wallong of Anjaw District.

5. Agricultural Practice:

Jhum is the common practice of cultivation in the border areas, which gives very low productivity. The cropping pattern of the area includes paddy, millet, opium, though the region is very suitable for horticultural crops like orange, cardamom etc. on permanent basis. The Study Team has observed that orange and cardamoms cultivations are successfully practiced in some border villages of Anjaw District.

6. Rural Development Schemes:

Various rural development schemes are being implemented through Panchayati Raj Institutions (PRIs). Centrally structured schemes are difficult to implement in the border areas because of very high unit cost. For example, in the FGDs it has been highlighted that the construction cost of a latrine under Total Sanitation Programme and the Indira Awas Yojana (IAY) is almost double of the amount sanctioned. Similarly, most of the villages of border area of Arunachal Pradesh are not eligible for the implementation of the Prime Minister's Gramin Sadak Yojana because of very low density of population. Thus, villagers of the border areas are deprived of many important rural development programmes.

7. Health and Health Delivery System:

In both the sample border Blocks, the predominant disease among the inhabitants is found to be malaria. Existence of deep forests has made the entire border area damped and breeding ground for the mosquitoes. People do not use mosquito net. People are not aware of protecting themselves from mosquito bite by using mosquito net and other methods. Diarrhea and cholera also frequently occur in the villages of the border area.

The poor status of health delivery system in the border districts can be gauged from the fact that there are only 3 PHCs per 10,000 populations in Changlang District against the State average of 6. As it is evident from the village survey, villagers of certain border villages are to travel

up to 27 km to reach the nearest PHC in Nampong Block of Changlang District. However, the situation is relatively better in Anjaw District since the no of PHCs per 10,000 populations is 10 and the maximum distance the villagers have to cover to reach the nearest PHC is 10 km. In the border blocks under study, the number of doctors per 10,000 populations is 4, which is almost at par with State average. The number of hospital beds per 10,000 populations is 11 in Changlang District and 31 in Anjaw District against the State average of 20. In the absence of the adequate health delivery system, people had to resort to traditional method of treatment whenever they are ill.

It was evident from the FGDs that the health delivery system in border areas is not only deficient in terms of quantity but also in terms of quality. Absentee doctors and paramedical personnel and shortage of required medicines are common phenomena in border PHCs and hospitals. In the absence of diagnostic equipments and modern medicines, substantial number of patients are referred either to Coal India Hospital, Margherita or to Assam Medical College, Dibrugarh (500 km from Kibithoo border of Anjaw District and 160 km from Nampong border of Changlang District). However, it is evident from the FGDs that immunization scheme even in the border areas of Arunachal Pradesh is successful and the children are protected from several fatal diseases.

8. Education:

The status of primary and middle school education in the border areas of surveyed Blocks is found to be good in the surveyed villages in the sense that there is one primary school in each surveyed village and one ME school for three or four villages. However the High and Higher Secondary Schools for most of the villages are beyond the walking distance.

9. Banking Infrastructure:

The border Blocks are found to be highly inadequate in banking facilities because only the District Headquarters have a branch of nationalized bank. The villagers have to travel a long distance to get the benefit of banking service.

10. Marketing Infrastructure:

Some amount of marketing infrastructure has been developed at Nampong (only 12 km from Myanmar border), because of the existence of border trade with Myanmar. Because of very thin population and low commercial activities the marketing infrastructure is very poor in Anjaw District. However, a few roadside petty markets are observed in this district.

11. Natural Disaster:

Landslide is found to be the most frequent natural disaster in the border areas. Border roads are blocked for days together disrupting all transport activities during the rainy season. As a result supply of all essential commodities and essential services are severely disrupted.

Implications for the Thirteenth Finance Commission: (Arunachal Pradesh)

The implications for the Thirteenth Finance Commission of the observations and findings of the Study Team are the following:

1. The feeling of being deprived of the developmental facilities, which their counter part is enjoying on the other side of the Chinese border, must be removed by special initiatives for development of the border areas. The Finance Commission can take initiative in this front.

2. The scattered habitation with hilly terrain and high altitude, which is the characteristic of the border areas of Arunachal Pradesh, has been putting stumbling blocks on the way of implementing developmental programmes in the region. The unit cost of development is too high. The Finance Commission should allocate adequate fund for the programme of agglomeration of villages in clustered form, wherever possible like China in their hilly areas so that the development activities can be accelerated. Another way of natural agglomeration as highlighted in the FGD at Nampong can be the development of a township, in a convenient place near border, say Nampong, with all state of the art of social, cultural, educational, medical and physical infrastructural facilities viz. marketing, transport and communication to which people will automatically agglomerate. Such agglomerations either induced or natural shall reduce the unit cost drastically of all developmental activities to be undertaken in future.
3. If the Governments of India and Myanmar agree to develop the Stillwell Road from the Pangshu Pass to Myitkyina, a distance of about 200 km, which is in a very bad shape now, the Finance Commission can allocate fund for the purpose. This road shall accelerate border trade between India and Myanmar, which will generate income and employment opportunities to the border people of the area.
4. The Finance Commission can give special emphasis on the development of the porter tracks for the benefit of the villagers in the border areas where the agglomeration is not possible. Similarly, the border villages that fail to fulfill the conditions required under the existing rural development programmes due to low density of population could be compensated by other schemes for which the Finance Commission can allocate more fund.
5. The Finance Commission through the State Government should give emphasis on popularization of horticultural crops like orange, cardamom, orchids, medicinal plants like *Mishimitita* in the border areas of Arunachal Pradesh. The help of local NGOs and Panchyats in eradicating the habit of opium cultivation and consumption can be sought.
6. The Finance Commission can recommend for sufficient fund allocation for (i) establishing a modern referral hospital in the Headquarters of the border Districts to which the Doctors of PHCs and dispensaries in interior places can refer the patients for better treatment, (ii) for improving the existing PHCs and hospitals and (iii) granting attractive monetary benefits to the doctors and paramedical personnel working in the remote border areas of Arunachal Pradesh.

ASSAM:

The State of Assam has three international border segments, viz., western Assam-Bangladesh border, northwestern Assam-Bhutan border and southern Assam-Bangladesh border. Therefore, three Research Teams, one from the Gauhati University covering western border, one from Assam University covering southern border and one from Indian Institute of Technology, Guwahati, covering northwestern border have studied the problems of border areas of Assam. Each Research Team has selected one Border District from each border segment viz. Dhubri, Karimganj and Baksa. One Border Block from each of the three sample Border Districts has been selected for intensive study.

Socio-economic Profile of the Border Areas (Assam):

(i) The District of Dhubri of Assam bordering Bangladesh is partly land and partly riverine. Though border fencing has been started in many stretches, fencing is incomplete and even non-existent. The border demarcation over the river is not entirely clear. Guarding of Assam's border with Bangladesh is complicated due to the existence of *char* islands dotted along the border some of which fall in India and some in Bangladesh. The cultural continuity of the inhabitants of Indian and Bangladeshi chars complicates policing of these areas. Therefore, the administration is loose. Incidence of crime against women, incursions by dacoits, theft and robbery, from across the border, are very frequent in border areas. Illegal cattle trading from India to Bangladesh and smuggling are very common in the border areas.

(ii) Out of the three districts of southern Assam, Karimganj District has the longest borderline with Bangladesh, which is 92 km in length. The blocks bordering Bangladesh are Patharkandi, the North Karimganj, South Karimganj and Badarpur. Out of these four border Blocks only the North Karimganj Block has been selected for intensive study. The total population of the sample Block is 1.19 lakh that is 44 per cent of the district population. The sample Block consists of 126 villages. The villages covered for the study are Latu, Maizgram, Ranibari and Mahishashan.

(iii) Assam shares about 262 km of international border with Bhutan. Altogether four districts viz, Udalguri, Baksa, Chirang and Kokrajhar share their northern boundary with Bhutan. Baksa District was selected for the study. The District shares 83 km border with Bhutan that is about 32 per cent of the border Assam with Bhutan. The Assam Bhutan border does not have any clear demarcation

On the basis of the information collected from Focus Group Discussions (FGDs) of all the three border segments, data collected from the border villages and the experience gathered by the Study Teams from the border villages, the following observations about the situation of Assam border (Bhutan and Bangladesh) could be made.

The Assam-Bangladesh is economically is one of the most backward pockets of Assam. The per capita income and Human Development Index of the border Districts of Dhubri is the lowest in Assam. People are dependent on agriculture. There is no industry. Before partition, Dhubri was the gateway for trade and commerce for the entire Brahmaputra valley and other parts of the North East. Illegal immigration from Bangladesh is a major problem of the District. Indigenous population harbours a sense of being outnumbered by the immigrants. Literacy rate of the border area is very low and excess to health care facility is inadequate.

The Border Area Development Programme (BADP), the Minority Development Programme (MDP) and the *Char* Area Development Programme (CADP) could not make much headway in this region. Such programmes are poorly implemented and grossly inadequate. The delivery of basic services viz., health care, education etc. in the *char* areas of the border. The border police force is not adequately equipped. Flood and erosion is a major problem in the area.

The District of Karimganj of Assam bordering Bangladesh suffers from acute poverty and lack of any kind of development. The people of this border area strongly feel that they are deprived of all development facilities because they are in the border areas. Scarcity of safe drinking water is a major problem of this border area. Another problem peculiar to this area is the existence of the border fencing. This fencing has created problem for those whose land and property and even houses which have fallen on the other side of the fencing. There is no 'no man's land' in this border area. All the villagers of the border area have vented out their anger for the poor quality of life, the apathy of the government, bad road condition, and inadequate educational facilities.

The Bhutan border areas in Assam are facing the inadequate transport facilities for poor road condition. Non-availability of proper health care facility is another problem of the border area. Scarcity of safe drinking water is also a major problem of this border District. Malaria is still taking heavy tolls of life in the area. The villagers of the area are still deprived of proper sanitation facilities and majority of the people use open fields for defecation. Power supply in the District is highly inadequate as only 40 per cent of the households are found to have electricity connections. Non-availability of banking facilities is another problem of the border villages. An absentee doctor is a common phenomenon in this border area.

Implications for Finance Commission (Assam):

The implications for the Thirteenth Finance Commission of the observations and findings of the Study Teams are the following:

1. Flood and erosion is a major problem in West Assam – Bangladesh border as the Brahmaputra passes along this border. Plans to mitigate the problem will require a heavy dose of investment. Finance commission can intervene by awarding adequate amount for the purpose. Such a permanent measure will substantially reduce recurrent annual expenditure on relief and rehabilitation.
2. Erosion is a problem with not only has economic cost but also adverse social repercussions. As erosion-displaced people move out to other parts of Assam and Meghalaya, they often face harassment as they are often mistaken as illegal Bangladeshi immigrants. To avoid such sufferings of people from border areas, it is urgently necessary to give identity documents. Indeed issue of such documents should be extended to other parts of the region as soon as possible. Giving identity documents will have the twin benefits of protecting bona-fide Indian citizens and detecting illegal immigrants.
3. The Assam-Bangladesh international border is partly on land surface and partly on the river. For protecting the land border, fencing and border road construction has been taken up. Wherever the fencing is in place the border is well protected but the fencing yet to be completed. Border fencing is also necessary to protect people in border areas from incursions for theft, dacoity and other crimes from across the border. For completing the fencing expeditiously, adequate allocation should be considered by the Commission
4. Protecting the riverine border poses more difficult challenge and as of now the river protection is grossly inadequate. Substantial enhancement of allocation for setting up adequate riverine border protection mechanism is urgent.
5. The police forces in border areas are as of now not equipped to deal with the peculiar problems in such areas. Equipping the police force would require additional allotment of resources.
6. Some parts of Assam-Bangladesh are covered by none of the Indian mobile service providers but networks of number of Bangladesh based service providers were found to be active. Availability of Bangladesh network and absence of operation of Indian service provider has induced many in the border area to use SIM cards procured from Bangladesh. Such practices can potentially create serious security hazard. The Finance Commission should consider subsidizing the network providers to set up network in the border area which may not be otherwise economically viable
7. As in most of the border areas, in Assam-Bhutan border areas too are also grossly deficient in supply of basic facilities like health care, sanitation, safe drinking water, education, roads

connectivity, power supply, banking etc. Enhanced devolution of fund to overcome the backlogs in such basic amenities in border areas should receive due consideration from the 13th Finance Commission.

MANIPUR

Manipur is a land-locked, isolated and mountain-girt State having a geographically distinct identity. It is situated in the easternmost part of North- Eastern Mountain Region of India. The 22,327 sq. km. area of the State is divided into two distinct spaces. In the middle we have a valley of 2,238 sq. km. (10 per cent of the total) surrounded by mountains stretching from the northern to the southern direction. The mountains constitute 20089 sq. km. (90 per cent of the total). The average height of the mountains surrounding the valley ranges from 1,500 to 1,800 metres above the mean sea level. The mountains on the northern portion are higher and measure around 3,000 metres above the mean sea level. The mountains enjoy sub-temperate to temperate climate, while the valley has sub-tropical to sub-temperate climate.

Manipur has two important river basins, the Imphal River (Manipur River) Basin and the Barak River Basin with many small rivers serving these two basins. The Imphal River Basin is served by eight major rivers such as Imphal, Iril, Nambul, Sekmai, Chakpi, Thoubal and Khuga. The Barak is the largest river of the State and it originates from the northern mountains. The Irang, Maku and the Tuivai are important tributaries of this river. All the rivers of Manipur originate from the surrounding mountains. The Loktak Lake in the southern part of the valley area of Manipur is the biggest fresh water lake in the North Eastern Region of India.

The literacy rate of Manipur stood at 68.87 percent in 2001 as against 59.89 percent in 1991. It is above the all India average figure of 64.8 percent and is only next to Mizoram and Tripura among the north eastern States. The gap between male and female literacy rates has narrowed down in 2001 census. This is because there was substantial improvement in the female literacy rate from 47.60 percent in 1991 to 59.70 percent in 2001. Literacy rate of the State can be further enhanced if female education is given more priority specially in Chandel, Senapati and Tamenglong districts where a large proportion of females are still illiterate.

Among the North Eastern States, the number of persons served by a doctor is the least in Manipur. It stood at 2,930 as against 10,360 and 11,980 for Mizoram and Assam respectively. On the other hand, the number of persons per hospital bed is found to be 1,450 in Manipur as against 367 for Arunachal Pradesh, 872 for Mizoram and 1,247 for Meghalaya.

A contrasting situation is observed when we compare the healthcare facilities between the plain and mountain districts and even within the valley districts as well. The number of persons served by a doctor in the mountains was 3,948 while it was 2192 in the valley districts.

Agriculture occupies an important place in the economy of the State. It is not only a major contributor to the State income but is also a major source of employment. Rice is the most important crop of the State and is cultivated in about 80 percent of the total agricultural area of the State. Maize, oilseeds, potato, etc. are also some important crops of the State. Production and yield can be further enhanced in the State if irrigation facilities are adequately provided.

A major cause of concern in the mountains of the State has been slash and burn or jhum technique of cultivation. In fact Manipur has the largest area under jhum in the entire north east though of late there are signs that it is decreasing. Further, it is also found that the proportion of jhum area coverage has also increased in Churachandpur and Ukhrul districts. Jhum area in Senapati district has now shrunken to zero. Until and unless there is institutional and technological changes of agriculture in the other mountain districts, further deterioration of agriculture in these areas cannot be ruled out.

Power supply in the State is poor and continues to be a major obstacle to economic development of the region. The gap between demand and supply has widened over the years and as a result load shedding is a common phenomenon in the State. The per capita consumption of electricity in the State stood at 194.48 kwh in 2006-07 which is less than half the national average.

As per the 2001 Census the proportion of main workers was found to be 33.99 percent of the total population in the mountain districts as against 28.52 percent of the valley districts. It is to be noted that 72.21 percent of the main workers in the mountain districts are engaged in the agricultural sector as against just 25.3 percent in the plains. On the other hand, only 2.92 percent of the main workers in the mountains are engaged in the secondary sector as against 30.94 percent in the plains. Similarly, employment in the tertiary sectors is also low in the mountains. These data reveals the lack employment opportunities in the secondary and tertiary sectors in the mountain districts which also show that the mountain economy is primarily an agricultural economy.

Implications for Thirteenth Finance Commission :

The non-existence of all weather roads connecting the border villages is a critical factor adversely impacting on them in many fronts. The adverse impact on education is rather unfortunate. None of the villages has any functional primary school. Besides the existing ones have classes upto V (five) at the most. This being so, the parents have to put their children in boarding houses at district or sub-divisional headquarters at a distance of at least 35 kilometres. But this entails transporting the entire year's ration for the child during the dry season immediately after harvest as rest of the year are disconnected by wet conditions. Very few parents can afford this as their own production is not only insufficient, but also incapable of affording the fees. This leads to drop-out of students at the minimum rate of 30 per cent in all the border villages before completing primary school, while going upto as high as 50 per cent in some villages.

The immediate intervention needed for this is institution of ration and fee coverage schemes for children in the border villages during their stay at boarding houses away from home. The long term intervention is to make schools in the nearest junctions functional. The other long term approach could be to adopt a cluster approach for these villages and make at least a school fully functional. This becomes paramount for the children population size of the villages is rather small.

The other critical issue is the prevalence of tuberculosis among children and the non-availability of drugs for the treatment. This issue needs to be addressed without any delay. The Thirteenth Finance Commission can extend additional financial grant in this regard to Manipur.

Another important issues is related to the children because of the presence of orphans and single parent (particularly women) children in alarmingly large proportions, sometimes reaching almost 50 per cent of the number of children in the villages. The main causes happen to be death of parents due to malaria, HIV infection and typhoid. There is an urgent need of evolving schemes for addressing the survival and educational needs of such children.

There are villages in these border areas which have proven their proficiency in certain fields. The villages around Wakshu are adept in bamboo crafts. Challou villagers earn well through salt manufacturing. A scheme should be evolved for making these villages thriving industrial villages.

Villages in the Molcham and surrounding areas live in very critical environments. There are many cases of households having not returned after fleeing to avoid the cross-fire between insurgents and the state security forces, and sometimes even among antagonistic insurgent groups. Many kutchra houses in these villages have dilapidated due to the absence of owners and non maintenance. Besides, the households remaining in the villages have a space dug up below their houses meant for hiding in case of cross-fire between insurgents and the state security forces.

The interventions required in such context are two-fold. First, the villagers should be helped out in their rehabilitation for they turn out to be relatively poorer households in that non-developed context. Secondly, special schemes should be evolved for addressing the health and educational needs of children in these villages.

There is an urgency of building up a data base for all these border villages. As stated earlier, all the official statistics relating to these villages are suspect. This exercise should be taken up in right earnest and through independent agencies. While the focus group discussions in situ have enabled us to appreciate the pressing livelihood and developmental problems being faced by the border villages, these definitely are not adequate for construction of a strong database. While sitting in the powers of centre, it is easy to be concerned about environmental issues and saving the rare species of animals. But the people living in these villages have very little alternative, if any, except

cutting down the trees for business and household use, and also kill the rare animals whenever they come across for food. (We have not intentionally provided pictures of these in this Report in honour of the hard lives with very little alternatives being led by the villagers here). The villagers are aware of the increasing hardships they face for water due to the depletion of forest coverage, but they have no alternative in the absence of any developmental intervention being felt. The evolution of a strong data base is also important for there exists a strong element of rent seeking in the current approach of inviting village chiefs or village authority members to the district and State headquarters for development framing development interventions. The villagers themselves are not aware of the schemes, or even if they are aware, they are helpless. The National Rural Employment Guarantee Scheme scores in its presence across the villages, but there is no way of the villagers enjoying the benefit of employment for one hundred days. In other words, while the scheme is wide in coverage, the administration of the scheme is dubious. Still further the evolution for a strong data base on livelihood patterns for development planning is all the paramount today for there now is emerging a strong trend of poppy plantation in the mountain areas of Manipur in the absence of any fruitful employment and earning opportunities. The implications of this on health, governance and future livelihood patterns are tremendous on the negative side.

MEGHALAYA

The Research Team from the North Eastern Hill University (NEHU), Shillong, has studied the border areas of Meghalaya. Meghalaya is bounded by Bangladesh on the south and southwest. Meghalaya shares a 443 km long international boundary with Bangladesh. Out of its seven districts, five districts have international border, viz., West Garo Hills, South Garo Hills, West Khasi Hills, East Khasi Hills and Jaintia Hills. Out of 32 Development Blocks of the State, 10 are border Blocks. These are- Zikzik and Dalu in West Garo Hills; Banghmara and Rongara in South Garo Hills; Ranikor in West Khasi Hills; Mawsynram, Shella-Bholaganj and Pynursla in East Khasi Hills; Amlarem and Khleihriat in Jaintia Hills. On the basis of the information collected from Focus Group Discussions (FGDs), data collected from the border villages and the experience gathered by the Study Teams from the border villages, the following observations about the situation of Meghalaya border could be made.

Socio-economic Profile of the Border Districts and Blocks (Meghalaya):

Out of the total population of 23.19 lakh, as many as 81 per cent live in the five border districts of which 27 per cent live in the ten border Blocks. The average density of population in the border districts is 113 per sq. km which is 87 in border Blocks against the State average of 103. The average sex ratio is 963 in border blocks, 971 in border Districts against the State average of 972. The average literacy rate in the border Block is 59.76, border Block is 58.67 against the State average of 62.6. The average percentage of rural population 89.73 against the State average of 81.42. The average workforce participation rate of the border districts is 43.68, border Blocks is 42.21 against the State average of 41.84. The average per capita income of the population of the five border Districts is Rs 21,009 against the State average of Rs 20,094. The percentage of household below poverty line to the total households of the border Districts is 36, border Blocks is 46.36 against the State average of 48.90. The percentage of electrified villages in the border Districts is 45.57 that are almost equal to the State average. The total number of bank

branches is 157 in the border districts and the population served per bank branch is eleven thousand two hundred against the State average of about thirteen thousand. The number of hospitals, public health centre, and hospital beds in the border Districts of Meghalaya are 27, 79 and 2786 respectively.

Although in terms of per capita income of the border people of Meghalaya seem to be better off, the border areas of the State suffer from the problems of lack of adequate marketing facilities, poor agricultural productivity, inadequate road connectivity, transport & communication, power supply, and other social infrastructure like safe drinking water, sanitation, health and educational facilities. Illegal immigration, insurgency, and smuggling are also major social problems faced by the border people.

Implications for Finance Commission (Meghalaya):

The Finance Commission can address some of the above problems faced by the border people of Meghalaya. Construction of all weather motorable road connecting border Blocks with the border District Headquarters which will remove the bottlenecks of the border area to a great extent. Safe drinking water and proper sanitation facilities are found to be very poor in the border areas of Meghalaya for which infant mortality rate (54 per 1000 birth) is found to be relatively high. The Finance Commission can provide additional fund for developing these facilities through appropriate schemes.

For generating employment avenues the Finance Commission can allocate additional fund for setting up vocational training centres at Headquarters of the border Blocks. The State has got high potentials for production and exports of flowers like anthurium; fruits like strawberries, orange, pineapple, passion fruits; spices like turmeric, ginger, cardamom. and vegetables like potato, squash. Already a good number of unemployed youths of the State have taken up settled cultivation (in lieu of *Jhum*) of these crops on commercial basis and the Centre of Excellence sponsored by the Horticulture Mission of Government of India is assisting them. The Finance Commission can encourage the extension of cultivation of these crops by granting additional funds.

Immigration from Bangladesh is a major problem of Meghalaya like some of the other States of North East. The protection of international border either through erecting border fencing or through stationing additional border security force is a very costly affair. The Finance Commission can address this problem by allocating adequate funds.

MIZORAM:

The Research Team from the Mizoram University, Aizawl has studied the border areas of Mizoram, which is bounded by Bangladesh on the east, and Myanmar on the west. On the basis of the information collected from Focus Group Discussions (FGDs), data collected from the border villages and the experience gathered by the Study Team from the border villages, the following observations about the situation of Mizoram border could be made.

Mizoram has 404 km long international border with Myanmar in the east & the south and 318 km long border with Bangladesh in the west. Out of the eight districts of the State, six districts have international border, viz, Mamit, Champhai, Serchhip, Lunglei, Lawngtlai and Saiha. At present border trade is going on at two trading points, viz., Zokhawthar in Champhai District and Tlabung in Lunglei District.

Socio-economic Profile of the Border Areas (Mizoram):

The total population of the six border districts is 4,97,037, which is about 56 per cent of the total population of the State. The percentage of rural population of the six border districts is 70.25 against the State average of 50.40. The average literacy rate of the border districts is 84.42 against the State average of 88.80. The average workforce participation rate of the border districts is 53.68 against the State average of 52.60. The percentage of households below poverty line to the total households of the border districts is 62 per cent, which reflects the level of poverty in the border areas. The percentage of electrified household to the total household is 66, which shows the satisfactory power position of the State. However, safe drinking water is a major problem of Mizoram due to its topography. The percentage of household having water connection little over 7 per cent. Most of the households, therefore, depend on public water points and rainwater harvest. The total number of bank branches is 50 for total population of 4,97,037 that is on average one bank branch per 10,000 populations. All the six border districts have 5 hospitals (Mamit and Lawngtlai Districts have any hospital), 5 Community Health Centers, and 41 Public Health Centers. The total number of hospital beds in border districts of Mizoram is 1082 that is 22 hospital beds per 10,000 population. Birth and Death rates of the border district range from 17.71 to 21.94 and 3.95 to 5.4 respectively which are much lower than the national averages.

Mizoram including its border districts has adequate educational infrastructure. The number of Primary Schools in the border is 1049 and the teacher-student ratio ranges from 14 to 18 and the numbers of ME School is 620, High Higher Secondary School is 322 and total number of colleges is 11.

All the six-border districts have 26 Development Blocks, out of which 16 Blocks have been identified as Border Blocks. West Phaileng Block (bordering Bangladesh) of Mamit District, Khawzawl Block (bordering Myanmar) of Champhai District, Chawngte Block (bordering Bangladesh) of Lawngtlai District and Tuipang Block (bordering Myanmar) of Saiha District have been studied. Four border villages along India-Myanmar Border in Khawzawl Block have been purposively selected to assess the socio-economic conditions of the border villages.

The primary occupation of the population of the border villages is cultivation including the cultivation of grapes while the secondary occupations of the villagers are animal husbandry, business & trade and daily wage earners. The percentage of household electrified in the border villages ranges from 64 to 96 and almost all the surveyed have latrine facility within the premises. Every villages surveyed have Primary and ME Schools. The maximum distance from the surveyed villages to Higher Secondary is 30 km and 50 km to Post Office, Bank and Police Station.

In spite of having road infrastructure, the border area is suffering from lack of adequate public transport facility. Occurrence of malaria disease is found to be common while kidney disease is also reported in some of the border villages surveyed.

The Mizoram borders have no problems of immigration from Myanmar & Bangladesh and no security conflict with the local inhabitants.

Implications for the Finance Commission (Mizoram):

Mizoram including its border areas has high potentials for power generation, border trade, and skill development due to the existence of abundant water resources, long borders and high literacy respectively. The State is a reservoir of exotic orchid, horticultural crops such as grapes, apple, mushroom; plantation crops like bamboo, tea, coffee & rubber; spices like ginger etc. A few local entrepreneurs have already initiated the exploitation of these resources.

The Finance Commission can popularize such exploitation of the resources among the local entrepreneurs of the border areas in particular and in the State in general. The entrepreneurs can be encouraged for scientific plantation of high yielding quick growing bamboo plantation and establishing bamboo-processing units by using appropriate technology. Modern bamboo furniture, floor tiles and other housing materials (door, window, room partition etc.), which have growing market demand domestically as well as internationally can be produced from the bamboo. Similarly, the Commission can encourage the border people for commercial cultivation of exotic orchid anthurium, which has high international demand. These will enhance employment and income of the local people.

NAGALAND:

The Research Team of Dibrugarh University has conducted the study of the problems of border districts of Nagaland. The study is based on secondary data collected from different sources. The total area of Nagaland is 16,488 sq. km with hilly rugged and mountainous topography having the forest coverage of 52 per cent. The State has 280 km international border with Myanmar. Out of the total eleven districts of the State, four are border districts, viz., Mon, Tuensang, Kiphire (which was a part of Tuensang District) and Phek. Out of 52 Developmental Blocks, seven Blocks belong to border area of these seven districts.

Socio-economic Profile of the Border Areas (Nagaland):

The total population of the State is 19.88 lakh in 2001 and the decadal growth is 64.41 per cent against the national average of 21.34. The high growth of population in Nagaland is mainly due to increasing trend of migration and small population base. This is reflected in the sex ratio of 909 against national average of 933. The density of population is 120 against the national average of 324. The infant mortality rate of Nagaland is 38 against the national average of 57. The literacy rate of Nagaland is 68.1 against the national average of 65.4. The average number of primary school in the border areas of Nagaland is 5.52 per 10,000 populations against the State average of 5.79. The average number of Public Health Centre and Sub-centre for 10,000 populations is 2.28 against the State average of 2.10. The average number of doctors per 10,000 populations in the border areas is 1.31 against the State average of 1.93. It is found that AIDs is widespread in the border areas of Nagaland. The basic reasons are proximity to Golden Triangle, high unemployment, high migrant population, psychosocial instability of the youths and inadequate health infrastructure to prevent and cure such disease. The average percentage of villages in the border areas having drinking water facilities is 19.14 that are almost same with the State average.

The per capita State Domestic Product (2004-05) in Nagaland is Rs 26,129 against the national average of Rs 25,944. Despite such high per capital income it is noted that in Nagaland, people living below the poverty is 32.8 against the national average of 26.1. This shows uneven distribution of income. Out of the seven Border Blocks, the banking facilities are available only in three Blocks, viz., Tobu, Meluri and Noklak while other four Border Blocks, i.e. Chen, Phomching, Pungro and Thoncknyu do not have banking facilities. The credit-deposit ratio of the State is hardly 23 against the national average of 66. Similarly post office facility is inadequate.

Agriculture is the main occupation of the border areas of Nagaland. Both the jhum and settled cultivation are prevalent. Terrace rice cultivation in some areas is predominant. Besides agriculture, people engaged in weaving, bamboo and wood curving and making fruit juice. The average work participation rate of the border areas is found to be 47.54 against the State average of 42.60.

From the above socio-economic conditions the following issues can be highlighted. The per capita income of the border areas of Nagaland is much lower than the State average. Lack of proper infrastructure both physical and social, heavy dependence on *jhum* cultivation are some of the reasons for such backwardness. Both sericulture and horticulture have very high potentials for generating employment and income. Scattered and thin habitation stand in the way of providing adequate infrastructural facilities.

Implications for Finance Commission (Nagaland):

As per recommendation of Vision 2020 of North Eastern Region prepared by the Ministry of Development of North Eastern Region, Government of India, the highest comparative advantage for growing horticulture products in Nagaland are passion fruit and pineapple. Moreover, medicinal and aromatic plants are found in abundant in the State mainly due to favourable climatic condition. Ginseng is the most valuable medicinal plant commonly available in Nagaland and has tremendous potential for exports. Similarly, the aromatic plant like Chitranela is grown in Nagaland, which has a good international market and is also used in making perfumes, mosquito repellents, ointments and sprays. There is scope for the expansion of floriculture for commercial purposes.

Sericulture can play an important role in improving the socio-economic status of the people of Nagaland as the geo-climatic conditions of the State is favourable for rearing of silk worm such as Eri, Mulberry, Oaktasar and Muga. Thus the Finance Commission can encourage boosting up these areas by providing special assistance to the State.

There is a great possibility to set up the border trade points to formalize the informal trade that exists between Nagaland and Myanmar through several points. Longsa is one trading point, which has already been in operation, and other such points are Longwa, Pongru, Pangsha, Avangkhu and Pokhungri. This will contribute economic gains to the border people living in Nagaland. The Finance Commission can consider to develop adequate infrastructure for promoting formal border trade which will yield revenue to the Governments both State and Central and provide income and employment opportunities to the border people for Nagaland.

Although the process of agglomeration has been started in Nagaland mainly with the set up of district headquarters, there exist further scopes to enhance the process by extending it to the Block level. The Finance Commission can initiate important measures in this regard for Nagaland as well.

SIKKIM:

The Research Team from the Sikkim University, Gangtok, has studied the border areas of Sikkim, which is bounded by Nepal, Bhutan and China. Sikkim with 7096 sq. km geographical area has 350 km of international border, 220 km with China, 33 km with Bhutan and 97 km with Nepal. The State has four districts with the capital city of Gangtok. The Research Team has studied two Border Districts, viz., the East and the West Districts.

Socio-economic Profile of the Border Areas (Sikkim):

Sikkim has a total of 5.41 lakh, the sex ratio being only 875. The literacy rate is 68.80 and the infant mortality rate is as high as 57 per thousand birth. Agriculture and animal husbandry are the main occupation of the people. Tourism is emerging as an industry in the State. The State has a high per capita income, which is nearly Rs 30,000/- against the national average of about Rs 26,000/-. The poverty ratio based on MRP consumption (2004-05) is 15.2 against the national average of 23.6.

Road transport is the only means of transport in the entire State. Sikkim does not have any railway and air connectivity. Four-wheel drives are the most popular means of transport as they can navigate rocky slopes. Mini buses also ply between urban centres. The length of road per 100 sq. km is 25.2 km. The State has the highest density of telephone network among the Indian States with 35,000 mobile and 50,000 landline connections. There are 211 post offices in the State and the number of post offices per 10,000 populations is 4. The number of fair price shop in the State is 1184 and the number of cooperative societies is 591. The number of fair price shops and cooperatives together is 17 per 100 sq. km area.

The State has got 6 hospitals, 24 Primary Health Centres (PHCs) and 147 Health Sub-centres. The number of Primary Health Centres per 10,000 populations is only 0.44 while the number of such centres per 100 sq. km is 0.34. The number of hospital beds per 10,000 populations is 22. About 70 per cent in the border districts of Sikkim has covered by safe drinking water facilities.

There are 1134 schools in Sikkim and 16 schools per 100 sq km and 21 schools per 10,000 populations. The teacher-student ratio is 1: 16. About 94 per cent of the villages of Sikkim have been electrified.

In the border of China and India Nathula pass an ancient trade route is opened in recent years for border trade between India and China.

On the basis of the information collected from Focus Group Discussions (FGDs), data collected from the border villages and the experience gathered by the Study Team from the border villages, the following about the situation of Sikkim and West Bengal borders could be made.

Three contrasting pictures have emerged from the case studies of three border villages in Simana Basti (hill area) and Tarabari Village (terai area) in Darjeeling District of West Bengal and Aritar Revenue Block in Sikkim. Firstly, all these villages have had very wide variations of governmental development interventions. Unlike Sikkim where most of the Central and State Governments schemes have reached widely, in Darjeeling District very few of them are noticeable. Second, unlike Darjeeling District, despite high potentials the cross border interactions are very limited in Sikkim. However, in Darjeeling District also cross border interactions and exchanges are done in a very haphazard and unscientific manner. There are serious traces of cross border crimes including smuggling of banned items like firearms. In fact cross border exchanges if done in an organised and scientific manner, could bring substantive changes in the living standard of inhabitants on both sides of the border. Thirdly unlike in Sikkim where the people have become too dependent on the State doles and support, one could find a lot of societal voluntariness and community efforts towards self-reliance in the villages of Darjeeling District. This is a positive sign as people have found their own solutions and mechanism to overcome the poor delivery systems of the State-led institutions. On the other hand, if people's dependence on the Government further increases in Sikkim, not only the social initiatives will erode but it could also lead to frustration at many levels triggering instability and conflicts. This will start happening as and when Government diminishes its role as a development authority. ***

The State has got tremendous potentialities in tourism industry due to its natural resources, scenic beauty and excellent climate. However, this industry could failed to attract sufficient number of foreign tourists as compared to domestic tourists mainly due to lack of air connectivity. The peaceful socio-economic condition of the State and its healthy climate has made the State a destination for the investors in education and industry. The State has also potentiality in border trade with China.

Implications for Finance Commission (Sikkim):

Given the changing context of development scenario at the national level, transformation in India's nature and content of interactions with the neighbouring countries and the newly emerging interpretations of the borders and borderland, one has to consider the issues of development interventions and finance in these frontier areas from a much broader perspective. The national security issues continue to remain paramount in this new framework. However, at the same time, increasing varieties of non-military threats including terrorism, illegal immigration, cross border environmental injuries, trafficking of arms and narcotics and illegal appropriation of traditional knowledge base have all made the dimensions of national security threats much wider and diverse. The issues of human security are core to the entire management of Border Districts and Borderland.

Mountain Border Districts are peculiar geographical locations and have different demographic patterns. They have diverse yet different development needs. Therefore, they require an exclusive planning and development interventions. This is for instance, in a way reflected the demand for relaxation and modification of norms in Central Projects for hilly terrains like that of Darjeeling and Sikkim. For instance, in the development of rural road network under Pradhan Mantri Gram Sadak Yojana (PMGSY) the existing bench mark for providing connectivity to a habitation from 500 populace must be revised to at least 250 to negotiate and match with hilly terrains.

The very topography, landlockedness and agro-climatic variations have forbidden Sikkim to go for an array of interventions making economic development process very limited. The globalizations and reforms process while providing newer opportunities has further exposed the hill and mountain economies to serious dislocations and instabilities, it needs to be considered and corrected by the TFC for the sustained national and regional development.

Another important issue is an exclusive fund for Disaster Management specifically for the Border Districts should be created which could cater to disaster relief and disaster prevention. Both the Government and Non-Government institutions in terms of training people, supporting institutions and societal groups in disaster management and prevention, could utilize this fund.

Border Area Development Programme (BADP) is now visible in some parts of Sikkim and Darjeeling. However, one does not find any major difference between general planned development projects and BADP thereby diluting the very purpose of BADP projects. Even the modes of operation of BADP projects should be drastically changed. For instance, there is total absence of transparency in West Bengal about the availability, use and locations of these projects. The details of BADP projects to concentrate on the points are mentioned in the detailed report.

TFC can consider 'Comprehensive Security Fund' for the Border States/Districts like Sikkim and Darjeeling in providing comprehensive security to the Indian State in terms of military security, environmental security and human security.

In terms of per capita income Sikkim is a better off State in the Indian Union. The contribution to the SDP from tourism is significant and there is much scope for development of tourism industry in the State. Air connectivity is found to be an impediment towards the growth of this industry. The Finance Commission can look into this aspect by providing adequate fund for the development of air connectivity, hospitality industry and financial & banking facilities.

In recent years the Nathula pass has opened for border trade with China. To accelerate this trade the Finance Commission can establish certain infrastructural facilities in and around the pass so that traders from both the countries can smoothly transact their business. Nathula pass can be developed as a business hub.

Because of climatic and conducive educational atmospheres in Sikkim it is observed that some private educational institutions are attracted to the State. Therefore, education can be developed as an industry in the State. The Finance Commission can consider this aspect and can do the needful in this regard.

The health infrastructure of the State is found to be poor and the Finance Commission can extend support for developing a better health infrastructure to improve the quality of population of Sikkim that will enhance the process of economic development of the State.

Livelihood through sustainable agriculture is critical in both Darjeeling and Sikkim from the major perspectives of natural heritage, livelihood management and societal sustenance. The entire Eastern Himalayas is declared as one of the 25 bio-diversity hotspots in the world. Nowhere in the world one finds such a magnificently diverse and rich biodiversity in such a relatively small stretch of land. The kind attention of TFC in this regard will be highly appreciated. (Details in the Report of Sikkim).

TRIPURA:

The Research Team from the Tripura University, Agartala, has studied the border areas of Tripura, which is bounded by Bangladesh on three sides. Tripura has 856 km long international border passing through difficult terrains of forests, rivers and mountains across all the four border districts. Out of 40 Development Blocks of Tripura, 24 Blocks in four Districts, viz., West Tripura, South Tripura, Dhalai and North Tripura share the international border with Bangladesh. More than 60 per cent of the State population live in these 24 border Blocks.

Socio-economic Profile of the Border Areas (Tripura):

The socio-economic conditions of the people of the sample border Districts of Tripura are much below the national average in almost in all counts. Only 3.72 per cent of the households have permanent housing structure, 42 per cent have access to safe drinking water, only 30 per cent have electricity connections, 80 per cent have latrine within the premises. Though the literacy level of Tripura is high at 73 per cent that is more than the national average of 59.4, there is a large-scale variation among the districts ranging from 30 per cent in Chhamanu Block (Dhalai District) to 83 per cent in Dukli Block (West Tripura). The number of primary health centers is less than one in the entire border Districts except North Tripura. However, the status of road connectivity in Tripura is improving over the years and at present the length of roadways per 100 sq. km is 162.08 km.

On the basis of the information collected from Focus Group Discussions (FGDs), data collected from the border villages and the experience gathered by the Study Team from the border villages, the following observations about the situation of Tripura border could be made.

A major problem of border area of Tripura is that 7123 families (about 35,000 persons) of the villages have lost 11,375 hectares of cultivable land due to border fencing thereby they have lost their major source of livelihood. Another problem of the border people arising out of border fencing is that before the erection of the fencing many people were involved in informal trade across the border. But after the erection of the fencing, they have lost that occupation too.

Another problem of the Tripura border is the illegal trade between the border people of both the countries resulting into conflict between the border people and Border Security Force which tries to prevent such illegal trade.

Implications for Finance Commission (Tripura):

Poverty stricken villagers in the Tripura border that is accessible, are susceptible to allurements as well as threats from anti-social elements across the border, which may create security problem in the border area.

Therefore, the border management is not only the policing of the border but also developing the economy of the border people by ensuring universal primary education, guaranteeing basic health services including social and economic infrastructure. The Finance Commission should give serious thought to this issue and allocate sufficient fund to the State for poverty alleviation schemes specially in border areas.

For uplifting the socio-economic condition of the border people of Tripura who have lost cultivable land and other occupations due to the erection of border fencing, the Governments may initiate special programmes for their rehabilitation and the Finance Commission can provide special fund for that purpose.

It is observed from survey that the housing condition of the border people is extremely poor. The State Government can initiate special housing development schemes jointly with the commercial banks and Finance Commission can join hands with them.

In some border Districts the educational infrastructure is very poor which needs special attention from the State Government and the Finance Commission. As in other border areas of the North East, Tripura is also very weak in health delivery system. This issue should attract the attention of the Governments and the Commission.



**PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA:
IMPLICATIONS FOR 13TH FINANCE COMMISSION**

**ARUNACHAL PRADESH
(PART-I)**

by
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PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA : IMPLICATIONS FOR THIRTEENTH FINANCE COMMISSION (ARUNACHAL PRADESH CHAPTER)

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**ARUNACHAL PRADESH
(PART I)**

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Introduction:

The problems and challenges of development along the border regions have a unique place and significance in the process of national planning due to the specific needs of the people living in the stressful environmental conditions. However, the magnitude of the problem differs from region to region depending upon the physiographical condition, socio-cultural set-up etc. In this chapter an attempt is made to study the problems of the border areas of Arunachal Pradesh. The present chapter deals with all the border blocks of Arunachal Pradesh in general, and two border blocks (bordering with China) in particular¹. There are seven sections in the present chapter. The first section concentrates on the data base and methodology. The second section deals with the background of Arunachal Pradesh as a border State. The third section describes in details the socio-demographic, economic features as well as the status of infrastructural and basic facilities of the border districts. The fourth section deals with physical, socio-demographic, and economic features of the border blocks. Section V concentrates on socio-demographic peculiarities as well as resource base and infrastructural facilities of the surveyed blocks. Section VI discusses the socio-demographic and economic condition of the surveyed border villages. Finally the section VII deals with the recommendations and conclusions.

¹Dibrugarh University will study in details one border block bordering with Myanmar and one border block with China.

SECTION I

Data Base and Methodology :

The present study is basically empirical in nature. It is based on both secondary data as well as primary data. The secondary data regarding demographic and economic characteristics of the district and block level were collected from the latest census records i.e. 2001 census and Human Development Report of Arunachal Pradesh, 2005. However in 2001, the numbers of border blocks were less in number. Depending on the availability of data, an attempt is made to update the present number of blocks on the basis of the circle data of 2001. The data regarding infrastructural indicators of border districts and blocks were collected from the District Statistical Handbooks. The data regarding physical features, land used/land cover etc., were collected from Arunachal Pradesh Remote Sensing and Application Centre, State Development Report (Draft) of Arunachal Pradesh and the data available from studies conducted by other scholars. Regarding the primary data, a village survey was conducted through a multi- stage sampling technique. The different stages under the technique were as follows:

Stage I: Selection of Border Districts

Stage II: Selection of Border Blocks

Stage III: Selection of Villages

At Stage I, two border districts namely, viz Tawang and Anjaw were selected by purposive sampling on the basis of length of boundary and the strategic importance of the respective districts. At stage II, one block in each district viz, namely Lumla (Tawang) and Chaglagham (Anjaw) were selected by purposive sampling on the basis of their relative backwardness. Finally, the villages were selected randomly. In addition to it, the focal group discussions were held with the representatives of the communities from various categories. In our focal group discussion, one more border district namely Mechuka (West Siang district) was included in order to get a better picture of the problems of the border area.

SECTION II

Background of Arunachal Pradesh as a Border State

Arunachal Pradesh is located in the extreme north-eastern corner of India. It is bordered by Bhutan (160 km) on the west, China on the north and north eastern (1080 km) and Myanmar to the east and south east (440 km)². In fact, Arunachal Pradesh is one among a few states of India which has international border with three countries. The state has a territory of 83, 743 square kilometer which is around 2.55 per cent of India's land area and around one-third area of North-east India. As the largest State in North-east India, Arunachal's area is slightly more than that of Assam but its population is 0.11 percent of India's population and only 2.85 per cent of the population of North-east India. All the States of North-east India, except Mizoram, have a population larger than that of Arunachal Pradesh. The socio-demographic characteristics of the State vis-a-vis North- eastern Region of India are shown in Table A.1.

² The figure is taken from Border Area Development Programme in Arunachal Pradesh, Department of Planning, Government of Arunachal Pradesh p.4

Arunachal Pradesh is not only the largest in terms of area but it has the largest international order among the States of North-east India. For example, it consists of only 2.55% of India's landmass but it shares 11.65% of India's total international boundary. Out of India's total border with China (3488 km), Myanmar (1643 km) and Bhutan (699 km) Arunachal Pradesh shares 30.96 per cent, 26.78 percent and 22.89 per cent respectively. At present, Arunachal Pradesh has sixteen districts and out of these sixteen districts, twelve districts have international border. In other words, around 75 percent of the total districts of the State have international border. The details are given in Table 1.

Table: 1

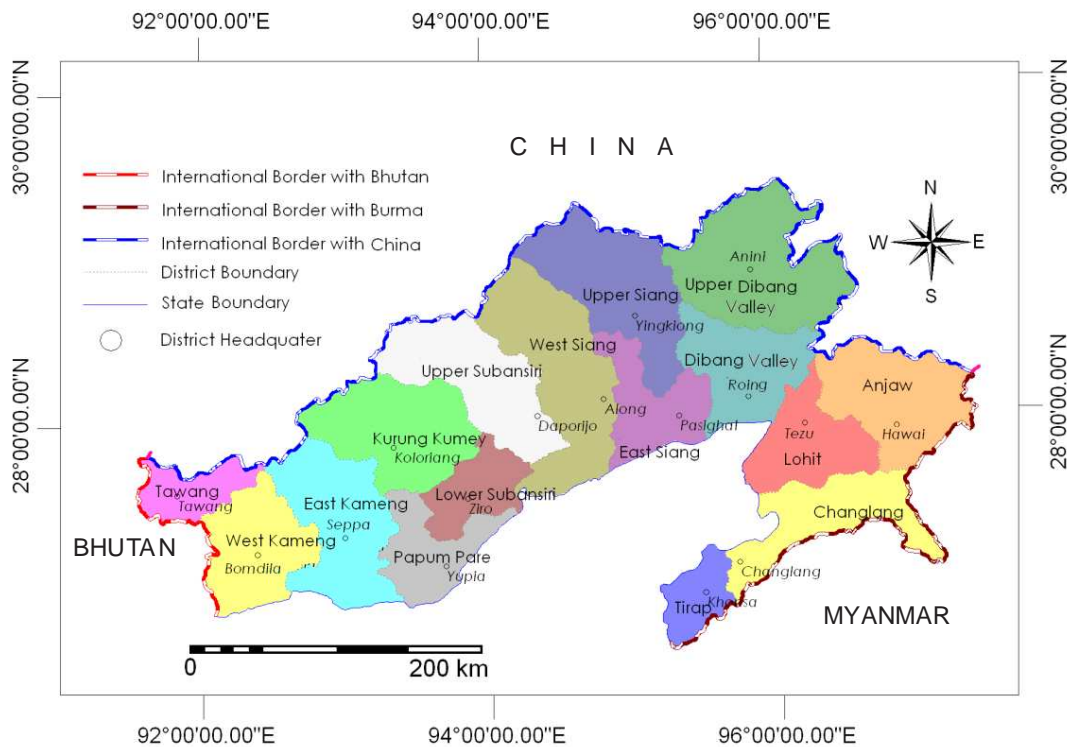
Border Districts of Arunachal Pradesh and their length of International Border (in km).

<i>Districts</i>	<i>Countries with International Border</i>	<i>Length of International Border (in km.)*</i>
Tawang	Bhutan& China	208.49
West Kameng	Bhutan& China	84.74
East Kameng	China	41.05
Kurung Kumey	China	97.28
Upper Subansiri	China	111.06
West Siang	China	53.69
Upper Siang	China	153.85
Dibang Valley	China	357.32
Lower Dibang Valley	China	26.60
Anjaw	China & Myanmar	253.73
Changlang	Myanmar	278.21
Tirap	Myanmar	68.65

Sources :

- (1) Statistical Abstract of Arunachal Pradesh, 2006, Directorate of Economics and Statistics, Government of Arunachal Pradesh.
- (2) Border Area Development Programme in Arunachal Pradesh, Department of Planning, Government of Arunachal Pradesh.
- (3) *Digitized in ILWIS 3.4 Software by J.S.Rawat, Research Scholar, Department of Geography, Rajiv Gandhi University.

Table I shows that two districts, viz namely Tawang and West Kameng have international border with both Bhutan and China. As many as seven districts of the state have international border with China alone. Anjaw is the only district which is bordering with both China and Myanmar. On the other hand, at the south-eastern tip of the state, two districts i.e. Changlang and Tirap, have border with Myanmar. As a whole, the border districts consist of 83.17 per cent of the total area of the State, and, 64.43 per cent of the total population live in those border districts (Table A2).



MAP 1: Location Map of Arunachal Pradesh and its Sixteen Districts.

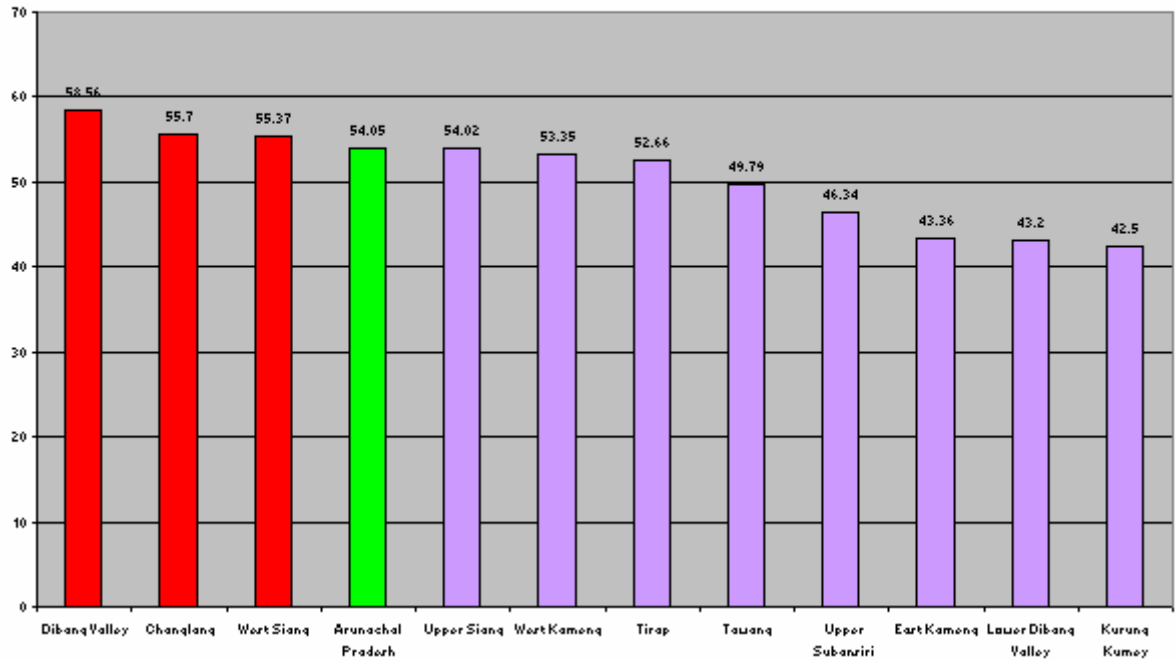
SECTION III

Socio-demographic Features of the Border Districts :

Based on four selected indicators such as i) life expectancy ii) literacy and iii) scheduled tribe population as a percentage of total population (Table A.3). We attempt to examine the socio-demographic features of the border districts of Arunachal Pradesh in comparison with the State figures.

The life expectancy at birth is a summary measure of the health conditions of the entire population of a particular area. As a measure of health, it provides a basis for a comparison of the health status of people living in different societies. Among the twelve border districts, eight districts have life expectancy which is, less than that of the State average (Table A.3). In fact, five border districts like Tawang, East Kameng, Kurung Kumey, Upper Subansiri, and Lower Dibang Valley, districts have an expectation of life below 50 years. As far as the literacy rate is concerned, all the border districts except West Siang and Lower Dibang Valley have a lower level of literacy than that of the State average of 54.3 per cent. In fact, the difference is as high as 28.6 percent in Kurung Kumey and 15.9 per cent in Anjaw districts. As far as the composition of scheduled tribe population is concerned, most of the border districts have a higher scheduled tribe population than that of the State average of 64.22 per cent. In some border districts like Kurung Kumey (97.88 per cent) and East Kameng (86.71) have a notable high concentration of scheduled tribe population. Thus, (Table A.3) clearly shows that the people who live in the border districts situated in the upper hill ranges have a lower life expectancy, lower literacy level and a comparatively high concentration of scheduled tribe population than those who live in districts in the plains and valleys.

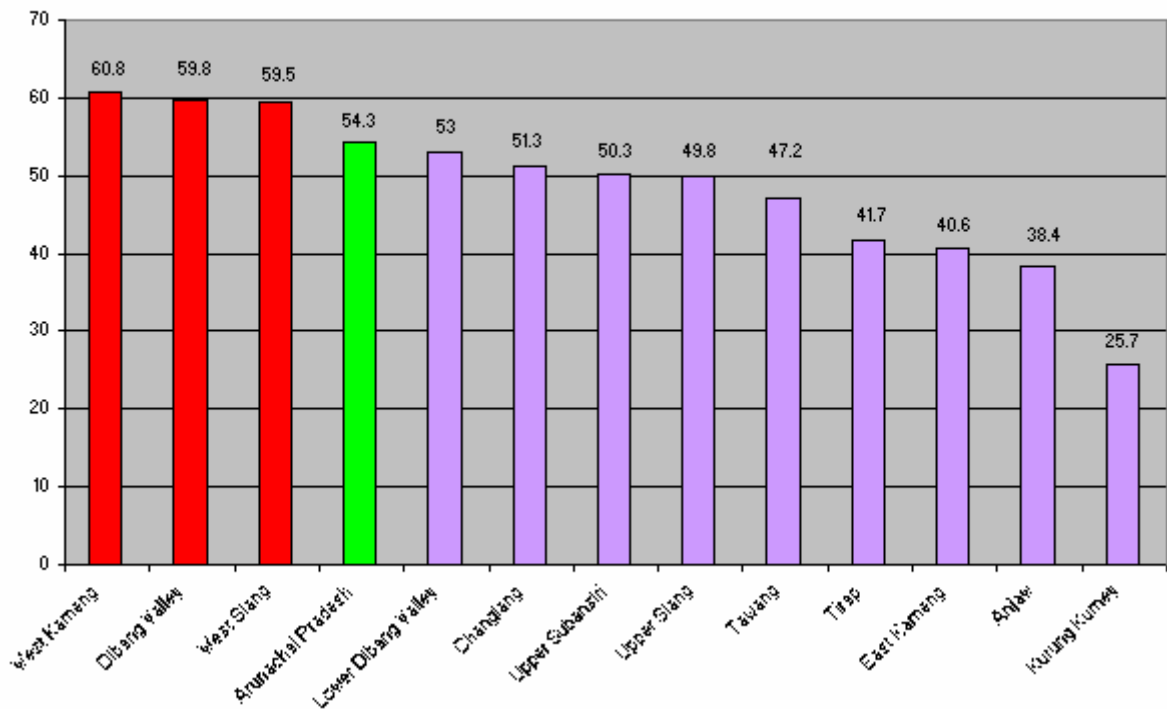
Fig 1: Life Expectancy of the Arunachal Pradesh and the Border Districts



Green = State Average, Red = Above Average, Violet = Below Average

Source: Human Development Report, 2005

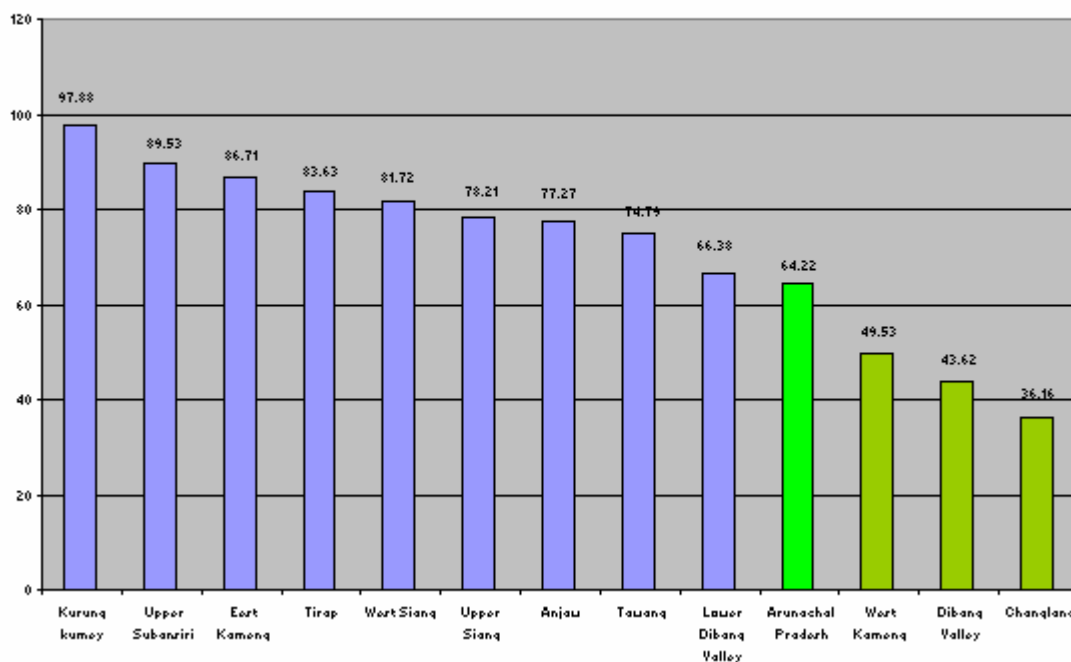
Fig 2: Literacy Rate of the Arunachal Pradesh and Border Districts



Green = State Average, Red = Above Average, Violet = Below Average

Source: Census of India, Arunachal Pradesh, 2001

Fig 3: Composition of ST Population of Arunachal Pradesh and the Border District.



Source : Census of India, Arunachal Pradesh, 2001

Economic Features of the Border Districts

Let us now look into the economic features of the border districts by taking four variables viz, i) real per-capita net district domestic product ii) work participation rate iii) percentage of main workers, engaged in the agricultural sector and iv) human poverty index. The details are given in table A-3. The average per capita NSDP is considered as a rough measure of the district income and represents the economic position of the districts for the entire period. However in case of Arunachal Pradesh, it may not provide a true picture because in most of the border districts the population base is relatively low. For example, the undivided Dibang Valley district (where the population density is the lowest comprising of only 3 persons per square km.) has 152.28 percentage of per capita income than the State average income. On the other hand another border district Changlang (which is the most populus district) has a per capita income of only 81.82 per cent of the State income.

In Arunachal Pradesh as a whole, the work participation rate is 43.97 percentage which is declining but still it is higher than the national average of 39.26 percentage. This is because in the State the female work participation rate is as high as 36.45 percentages. It was found that the majority of female workers were employed in the agricultural sector. As a result, we find that in most of the border districts the work participation rate is much higher than that of State average because of their higher dependence on the agricultural sector. This supports our view when we examined the third Indicator i.e., the percentage of main workers engaged in the agricultural sector. In fact, nine out of twelve border districts have a higher percentage of main workers engaged in the agricultural sector. In some districts like Kurung Kumey it is as high as 85.82 percentage. (Table A.4)

In Arunachal Pradesh there is no reliable estimate of poverty at the State as well as the district level (State Development Report (Draft) of Arunachal Pradesh 2008). Hence, as a proxy variable Human Poverty Index (HPI) is taken into account which measures health, education and economic provisioning. As far as human poverty index is concerned, it is found that out of the nine border districts, (as far as availability of data is concerned); six have a higher HPI than that of the State average. Thus, on the basis of the economic indicators we find that the border districts have a higher dependence on traditional agriculture and have a higher incidence of poverty.

Border Districts on the Basis of Infrastructural Indicators

Economic backwardness is often associated with the inadequate availability of infrastructure. Hence, it describes the availability of infrastructural facilities of the border districts as compared with the State average. Roads constitute the principal mode of access and communication in the hilly and difficult terrains of the State. However, the State has the lowest road development index in the country. For example, the road density is around 17 km per 100 sq.km. of the area as against the Indian average of 75 km per 100 sq km and north eastern regional average of 52 km per 100 sq.km. In the border districts the road density is even much lower than that of the State average. In fact, the eight border districts have a lower road density than that of the State average. In some districts like Kurung Kumey, the road density is as low as 2.53 km per 100 sq.km. However, an indicator like road density may not capture the poor communication network in the border districts of Arunachal Pradesh because many villages are scattered and continue to remain unconnected. Therefore, the road connectivity status of the villages in the State needs to be considered. Villages that are within a radius of one km (in hilly terrains) and five km (in the plains) from a constructed road, (pucca or kuchcha) are considered as being connected by the Arunachal Public Works Department.

The data in (Table A.5) shows that only 38.53 per cent of the villages in the State were connected by road. The condition of the border districts of northern and eastern Arunachal, especially those bordering with China were worse than that of the State average.

In some border districts with China like Kurung Kumey and Anjaw, the difference from the State figure is as high as 31.06 per cent and 24.65 per cent respectively. As far as the road density and road connectivity are concerned, the two districts bordering Myanmar like Tirap and Changlang are relatively better off and higher than that of the State average.

As far as the electrification of villages are concerned, some border districts are higher than that of the State average. As far as educational and health infrastructure is concerned, in some border districts like Kurung Kumey, Upper Siang, Lower Dibang Valley and Anjaw, the facilities are worse. For example there is only one school per 100 sq.km. in the districts like Kurung Kumey, Upper Siang, Lower Dibang Valley and Anjaw. There are as many as nine border districts which do not have a single primary health centre and sub centre per 100 sq.km. Thus, the average distance of medical facilities from the villages of the border districts is very high and hence the people find it difficult to avail themselves of these basic services.

What is happening in the other side of the Border of Arunachal Pradesh?

Arunachal Pradesh has the largest border with China. In fact, out of thirty three border blocks twenty eight blocks are bordering with China. The Chinese provinces that are bordering Arunachal Pradesh are Tibet and Yunnan. The questions are what is the changing structure of the regional economy of Tibet and Yunnan as compared to that of Arunachal Pradesh? li) What are the infrastructural facilities available in these two provinces of China? The contribution of the agricultural sector was around 22.31 percentage and 32.97 percentage in Yunnan and Tibet respectively during 1999 as against Arunachal's contribution of 39.69 per cent from the primary sector. The contribution of industrial section was 43.13 per cent and 22.73 per cent in Yunnan and Tibet respectively whereas Arunachal's contribution to the industrial sector was only 16.81 per cent in 1999-2000. The contribution to the services sector was 34.56 per cent and 44.90 per cent in Yunnan and Tibet respectively against Arunachal's contribution to the services sector of 43.59per cent in 1999-2000. It shows that both the provinces of China are much more industrially advanced than Arunachal because of their higher contribution from the industrial sector to the State domestic income.

Regarding the infrastructural facilities, only the road density data is available. The road density of Yunnan and Tibet were 26.95 km and 20.90 km per 100 sq.km against Arunachal's road density of around 16 km per 100 sq.km. in 1999-2000. For many years now, the status of railways in Arunachal Pradesh has been at a standstill with the State having on negligible of 1.26 km of meter gauge rail way line. On the other hand, China has brought the railway line up to Lhasa in Tibet. Even in the focal group discussion of both the surveyed blocks, the people have pointed out let on the other side of the border there is a four-lane road but on the Indian side either there is no road at most a single lane road, which is also not properly maintained. Thus, developmental process on the other side of the border appears to be far more advanced than on the Indian side and this is a matter of concern for the people of this strategically important State.

*Sources: 1) S K Nayak, Human Capital and Chinese Economic Miracle: Lessons for North East India, Paper presented in National Seminar in November, 2004.
2. Human Development Report of Arunachal Pradesh, 2005.*

Status of Asset Accumulation and Basic Services of the Border Districts

The assets are either in some forms of inputs or in some form of output that used in the course of an individual's functioning. The assets are a revelation not only of the present condition but also of the future. However, in the present study the range of assets considered is very limited, the limitation is being imposed by the scarcity of data. The main data source for the study is the census, which reports information on a few items which are largely consumer durables such as

radio, television, telephone etc. The selected assets are not uniformly used throughout the State, and there are substantial inter-district differences. For example, the radio is expected to reach the far-flung villages of the border districts of the State. However, it is found that in some border districts like East Kameng and Kurung Kumey only 17.24 per cent and 11.66 per cent of households have radios as compared with the State average of 38.96 per cent (Table A.6). As far as television is concerned, eight border districts have a lower possession of television as compared with the State average of 23.96 per cent. (Table A.6) The lowest use of television sets is again found in Kurung Kumey district where only 1.55 per cent of the households possess television.

The asset which has a markedly lower rate of use in the State than in the rest of the country is bicycle. This is because of hill topography. For example, among the border districts, Tawang is the lowest user with only 0.53 per cent households owning bicycles. As far as telephone connectivity is concerned, as per 2001 census the State does not have much telephone connectivity, only 9.19 per cent households have telephone. The condition of the border districts is much worse. Eleven border districts have less telephone connectivity as compared with the State average. The only district above the State average is Tawang district. However the condition has improved after the introduction of mobile services. Regarding the financial assets, the only information available is the number of households having bank accounts. As high as 38.96 per cent of all the households in Arunachal Pradesh have bank accounts as compared with the national average of 35.5 per cent. However, there are some border districts like Kurung Kumey and Anjaw where only 6.58 percentage and 20.59 percentage of households have the bank accounts (table A6).

Regarding basic services (Table A 7) electricity is a basic infrastructure providing an important amenity. In Arunachal Pradesh the successive five year plans had specific targets for extending the coverage of electricity to households. As a result, as per 2001 Census in many of the border districts, the percentage of households having electricity is higher than that of the State Average (54.69 per cent). The availability of drinking water is another indicator of basic services. According to the 2001 census, a good number of households had piped or tapped water as the dominant source. However, a few observations can be made regarding data. Firstly, if we look at the tap water within the premises it is found to be low. For example in some districts like Kurung Kumey and Changlang only 15.22 percentages and 18.78 percentages of households had tap water within the premises. Secondly, most of the tapped water was found to be supplying untreated water. Regarding the drainage facilities, it was found that most of the households in the border districts had no drainage facilities (table A7)

So far we have discussed regarding the demographic, economic features and infrastructural facilities of the border districts. Now we will be discussing at a more micro level i.e. at the block level.

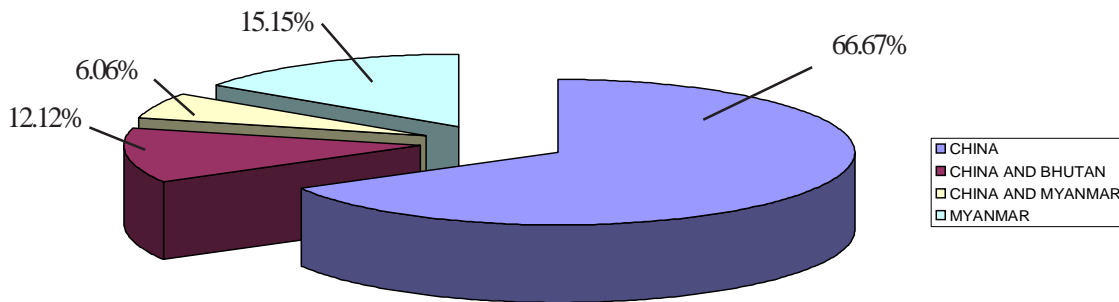
Section IV

Physical Features of the Border Blocks

Arunachal Pradesh has 33 border blocks (Government of Arunachal Pradesh, 2007). Out of 33 border blocks twenty two blocks are bordering China alone, four blocks are bordering both China and Bhutan and two blocks are bordering China and Myanmar and five blocks are bordering

Myanmar only (Figure.4). At the same time, twenty-five border blocks are in the northern side and the rest eight blocks are in the eastern side bordering China or Myanmar. The names of the border blocks along with their population are given in Table A.7.

Fig 4: Number of Blocks of Arunachal Pradesh with Border of Different Countries



Source : Border Area Development Programme in Arunachal Pradesh, Department of Planning, Government of Arunachal Pradesh, 2008

Altitude and relative relief are the two dominant factors that define complexity of terrain in terms of solar illuminations and thus control the land cover and land use type of the State. Altitude information in the form of Digital Elevation Model (DEM) is now being integrated with the Remote Sensing data. As there is constraint of availability of data on these terrain parameters, only eighty percent area has been studied for the exercise (State Development Report of Arunachal Pradesh (Draft), 2008, Chapter Nine). It was found that out of this area, more than 65 per cent is highly elevated being 1000 meters above mean sea level. Areas close to international border in the northern side which were excluded have extremely high altitude (more than 2500 meters). The study also shows that the border districts like Tawang (where all the blocks have international borders) has no land below 1000 meters. On the other hand, the other border blocks in West Kameng, Kurung Kumey, Dibang Valley and Anjaw districts have no low altitude area. In fact, the map shows that districts of West Kameng, Kurung Kumey, Upper Subansiri, Upper Siang, Dibang Valley and Anjaw with high slope values which were identified as the most under-privileged districts of Arunachal Pradesh (Government of Arunachal Pradesh, 2005). It may be noted that steep slope has a direct bearing on the cost of building infrastructure and its maintenance. On the other hand, the other border districts of eastern Arunachal Pradesh like Tirap and Changlang have relatively moderate slope gradients and have relatively more plain land.

Land use/Land Cover Pattern of Border Blocks

The land cover of Arunachal Pradesh is basically 'forest dominated' as a major source of land is under forests. However, there are four main features of land use/land user patterns emerging in the natural landscape of Arunachal Pradesh. These are i) the land under barren rocky, slope including snow covered areas of conical hills of Greater Himalayas ii) the land under forest over in most parts of the Lesser Himalayas iii) the moderate slopes of main river valley which cover the land under degraded forests and shifting cultivation and iv) the alluvial plains of Siang, Dibang and Lohit rivers under settled cultivation. On the basis of the study undertaken by Singh (1999) we get a picture of the land use/land cover pattern of the different blocks of the State. Although the study

was relatively old and many blocks were combined at that time but we get a picture of land use/land cover pattern of the border blocks (Table A.9). It was found that more than one fifth areas of the border blocks of Tawang and Mukto-Thimbu blocks of Tawang districts (Table A.9) is under the category of barren rocky and snow covered land. Similarly, in the border block of Bameng in East Kameng, a good percentage of land is under snow cover (Table A.9). Such type of large barren-based land cover is found in most of the northern border blocks like Koloriang (14.32 per cent), Damin (15.56 per cent), Nacho-Siyum (17.36 per cent), Mechuka (7.82 per cent) Tuting (14.78 per cent), Anini-Etalin (28.38 per cent), Hayuliang (12.25 per cent), and Walong (22.38 per cent). In most of the border blocks the area under both settled and shifting cultivation was found to be insignificant except Mechuka and Hayuliang block. The blocks like Pongchau-Wakka (92.21 per cent) Anini-Etalin (90.56 per cent) are dominated by evergreen forests.

Socio-demographic and Economic Features of the Border Blocks

Here, we try to examine the socio-demographic and economic features of the border blocks by taking some indicators depending on the availability of data at the block level. The details are given in Table A.10 which also incorporates the difference of block level data from the State coverage and the concerned districts average. Arunachal Pradesh has the lowest density of population in the country. However, if we look at the density of people of the border blocks, it was found that twenty two border blocks (out of thirty two) has less than the State average (of 13 persons per sq.km.). Around twenty-three border blocks has less than the respective district averages (Table A.10) In fact, it was found that in two of the border blocks of Dibang Valley viz Anini-Mipi and Etalin-Malinye there was only one person per square km. As many as nine border blocks have density of population of only two persons per square km.

As far as literacy rate is concerned, twenty five blocks (out of thirty two) have less than the State average (54.3 per cent) and twenty two blocks have less than the respective district averages, (see table A.10). In some border blocks like Pongchau-Wakka (Tirap), Chaglagham (Anjaw) the level of literacy is only 15.3 per cent and 15.8 per cent respectively. As far as the composition of scheduled tribe population is concerned, as many as twenty-four and twenty one border blocks have higher than the State average and the respective district average respectively. For example, Parsi-Parlo block of Kurung Kumey district has almost cent percent scheduled tribe population. In fact, it is found from Table A.10 that all the border blocks of East Kameng, Kurung Kumey, Upper Subansiri, Upper Siang and Tirap districts had a concentration of more than 90 per cent scheduled tribe population.

The work participation rate of Arunachal Pradesh as a whole is high because of a higher level of female work participation rate and they are mainly engaged in the primary sector. However, it is found from table A.10 that twenty nine (out of thirty two) border blocks have higher female work participation rate than that of the State average of 44.55 per cent. There are four border blocks where the work participation rate is as high as more than 60 per cent. This is because in most of the border blocks, people are mainly employed in the agricultural sector due to a lack of avenues in other sectors like secondary and services sector. As many as twenty two border blocks have a higher percentage of main workers engaged in the agricultural sector than that of the State average of 59.16 per cent.

The availability of household good in the houses of the border blocks portrays the economic status of the people. Radio was expected to be an important asset for the far flung border blocks. However Table A.11 shows that the households of twenty one border blocks have less radio sets than the State average. In some border blocks of East Kameng and Kurung Kumey less than ten per cent households possess a radio. As far as the possession of television and telephone are concerned, the picture is even worse. The households of twenty six and twenty nine border blocks possess television and telephone less than the State average (25.7 and 9.19 per cent respectively). The households of twelve border blocks did not have a single telephone connection.

Thus, the analysis reveals that most of the border blocks of Arunachal are much worse off as compared to the State average and even the respective district averages.

Section V

Surveyed Blocks at a Glance

For a detailed study, two blocks with the Chinese border were selected by purposive sampling. These are Lumla block (in Tawang district) lying to Western Chinese border of the State and Chaglagham (in Anjaw district) which is to the extreme eastern Chinese border of the State. Both the blocks are very back ward in terms of socio demographic and economic indicators (Table A 10). These two blocks were selected for the present study due to their backwardness and unique location (surrounded by China on two sides).

Lumla block alone covers 33.46 per cent of the total area of the district and consists of 26.89 per cent population of the district. On the other hand Chaglagham block covers around 30.64 per cent of the total area of the district and consists of only 12.79 per cent population of the district. In Chaglagham, the density of population is as low as two persons per sq.km. The details are given in Table 2.



MAP 2: Location Map of Tawang District and the Surveyed Block Lumla.



MAP 3: Location Map of Anjaw District and the Surveyed Block Chaglagham.

Table 2

DEMOGRAPHIC CHARACTERISTICS OF SURVEYED BLOCKS

Characteristics	Lumla Block	Chaglagham Block	State Average
Density of Population (persons per square Km)	14(18)	2(4)	13
Literacy Rate (percentage)	26.6(47.3)	16.8(38.4)	54.3
Percentage of Scheduled Tribe Population	91.14 (74.99)	96.43(77.27)	64.22
Sex-ratio	1007(782)	946 (858)	893
Work Participation Rate (percentage)	53.52(55.57)	53.50(51.62)	44.55
Percentage of Main Workers Engaged in Agricultural Sector	72.17 (41.89)	88.19(64.65)	59.16

Note: Figures in the parentheses indicate district average.

Source: Census of India, Final Population Table, 2001, Arunachal Pradesh.

Table 2 show that both the districts have very low literacy rate as compared to the district and State average. In fact, the literacy rate of Chaglagham was only 16.8 percent in 2001 which is much less than the State average and respective district average. Both the blocks have higher composition of scheduled tribe population and much higher percentage of main workers engaged in the agricultural sector.

As far as the resource base is concerned, flora and fauna are the important resources base of the surveyed blocks. From Table A 9, it is found that in Lumla block 67.61 percentage of area was covered under evergreen forests and 17.78 per cent of area was covered under degraded and deciduous forests. On the other hand, in Chaglagham block, around 63.17 per cent of the total area was covered under evergreen forests and 8.67 percent was covered under degraded and deciduous forests. Both the blocks have a high percentage of barren land due to snow cover and rocky mountains. In Chaglagham block, a good percentage of area was reported to be under shifting cultivation.

Both the blocks under study are predominantly agro-based economy. Around 88.19 percentages and 72.17 percentages of main workers are engaged in the agricultural sector for their livelihood in Chaglagham and Lumla blocks respectively. In Lumla block, a good percentage of workers are engaged as laborers in construction activities because of lack of agricultural land. In both the blocks, they produce maize, millet etc. In Chaglagham block, it was found that in most of the villages the villagers produce opium illicitly in spite of Government's efforts to reduce its production. The sale of opium is a good source of income for them.

Infrastructural Facilities of the Surveyed Blocks

A study of the existing levels of infrastructure in a block level is a pre-requisite for the formulation of policy for future development. Hence, we try to provide in table A.12, the existing infrastructure at the block levels.

When we consider educational infrastructure, the primary school is regarded as the base for educational development. However, there are only eight primary schools and two middle schools in the surveyed Chaglagham block. Thus, a wide gap is observed in the existing educational infrastructure in the surveyed blocks. The condition of health infrastructure is pathetic. There is no primary health centre but two sub-centers in Chaglagham block which covers an area of 1346.2Sq.km. The hospital is managed by one doctor who stays most of the time in Hayuliang (57 km away from Chaglagham). There are only two primary health centers and one sub-centre in the whole block of Lumla. Thus, we find that there is also a significant gap in the existing health infrastructure. Although the situation is slightly better in Lumla block, in comparison with Chaglagham, yet the situation is way below the desired level of infrastructural development.

SECTION VI

Profile of the Surveyed Villages

Physical and Demographic Features

In this section, an attempt is made to provide a brief profile of the villages surveyed. The villages surveyed in Chaglagham block are i) Tabaikun ii) Tarampa iii) Tegamna iv) Taflagham v) Apumna vi) Abuagham. On the other hand, the surveyed villages in Lumla block are a) Muchlat, b) Gorsam c) Lumpo d) Kharman e) Zeminthang. In addition, two villages namely Targelling and Segong of Mechuka block were surveyed (Table A.13). There are variations in the altitude among the surveyed villages (Table A.9). The altitudes of the surveyed villages of Lumla block are within the range of 3000 to 7000 feet above the sea level. However, the villages in the Chaglagham block are in a lower altitude and are within the range of 2000 to 3000 feet above the sea level. The number of households in the surveyed villages of Chaglagham block is very small, varying from 6 to 28 but the populations of the villages are not so small. For example in Tarampa village, the number of households is only 6 but the population is approximately 236. This is because they live in a joint family and the size of the family surveyed is on an average 40 persons per family. During the survey, we met a family having 63 members. In fact, Chaglagham block is mainly inhabited by Taraoons or Digaru Mishmi. Their houses are long and raised on pillars. A corridor runs along the length of the house on one side and the other side is partitioned off into a number of rooms, with hearths of their own. Each room is about 12-15 feet long and about 10-20 feet wide. The members of the whole family inhabit each house, and separate rooms are allotted to married couples.

On the other hand, Lumla block is inhabited by the Monpas and they are Buddhist by religion. Most of the surveyed villages are located in the steep mountain slopes at an average distance of around 10-15 km from the Chinese Border. The number of households in the surveyed villages varies from 25 to 90. The area is very thin and sparsely populated. There is limited cultivated land in the surveyed villages due to hilly terrain. The rocky soil and climatic condition is not conducive for cultivation. The villages grow mainly millet, maize and chilly. The main source of livelihood is no doubt agriculture and animal rearing but it is not sufficient for the whole year. Hence, many villages are found to be working as laborers in Prime Minister's Gram Sadak Yojana (PMGSY) and GREF's road construction work. They are also engaged as laborers to carry the loads of defence forces up to the Chinese border.

Economic Features

The main occupation of the surveyed villages of Chaglagham block is agriculture. They mainly practice shifting cultivation with no fixed recycle period. The crops grown are maize, millet and paddy. The area under maize and millet is much higher than that of paddy. In addition to it, cardamom (big variety) is cultivated in some of the villages. However, few of them sell cardamom in the market. The most important feature of the surveyed villages of Chaglagham block is that all the villages surveyed showed almost ubiquitous cultivation of opium. The area of cultivation ranges from 0.5 acre to 4 acre with yield ranging from 50 gm to 2.5 kg. The sowing of poppy plants starts around late September and continues up to December. The crop is harvested between the months of February and April. Opium is smeared on a cloth and dried and thereafter usually stored in a bamboo. The opium is sold at the range between Rs.400 to Rs.1000 per tola.

Livelihood linkages

The question of livelihood linkages is essentially an issue of quality of life, diversification of occupation. In the surveyed villages, the occupational structure outside the household was not usually well-articulated and formalized. Their living was tightly bound up with the household vis-à-vis the community and the economy. The local economy was something that can not be isolated from the society. Rather, the economy was embedded in the social relations of the family and their community. They undertake a wide range of productive activities, in the farm, they grow crops, rear animals, engaged in home-based activities like making baskets, mat, repairing and construction activities. However on the off farm they participated in the formal economy through selling or buying of different products in the local markets and sometimes beyond the border. Thus, we find that the villagers in the border area had limited livelihood strategies. It was observed that the majority of villagers were dependent on their livelihood conditions i.e. agriculture, forestry and animal husbandry. Apart from this combination, the major occupation found in villages of Lumla block was that of wage labour.

Infrastructure and Basic Services

If we undertake an analysis of infrastructural facilities like connectivity, health, education etc. available to these villages, it is found that there is high variation among the surveyed villages. The details are given in Table A.14. There is only one surveyed village in Chaglagham block and three villages in Lumla block which are within a distance of 1 km from jeep able road. Many villages are not even connected by Kuchcha road.

In the surveyed villages of the both the blocks, the medical facilities are hopelessly inadequate. There is only one surveyed village i.e. Zemithang which has a primary health centre. In other surveyed villages, the users have to walk more than 5 km. for availing themselves of the medical services from primary health centers. It was observed that the primary health centers were managed by the nurses. The doctor was posted, but he was not found in the health centre. Thus, the villages scattered in border areas of Arunachal Pradesh witness many untimely deaths due to non-availability of medical services and also because of their strong belief in traditional medical practices. The field investigators of our team heard sad narratives of deaths, many of which could have been avoided through the provision of medical services. Children dying of diarrhea, young people dying of fever and Tuberculosis, women dying of simple complications of pregnancy etc, are common in surveyed villages, which require one days' foot march to reach the nearest health centre. At the same time, their faith is still in traditional system where Priests, locally known as gokham in Chaglagham block and Lama, in Lumla block, are the persons who take care of ill people.

There is also lack of educational infrastructure in the surveyed villages. For example, six villages surveyed in Chaglagham block have a primary school located at Taflagham village. Similarly, in Lumla block Zemithang village has only one primary school and Gorsam has one middle school among the surveyed villages. Both the schools lack basic facilities. Thus, the education of the surveyed villages is restricted up to primary education and middle school only.

There is a lack of basic amenities like electricity. All the surveyed villages in Chaglagham block do not have electricity. On the other hand, all the surveyed villages in Lumla block have electricity but the electricity supply is very erratic. Water is available in all the surveyed villages and drinking water is basically delivered from spring. However, water which was supplied by tap was not available during winter. Sanitation in the surveyed villages is either traditional or in open space. Pigs act as scavengers, clearing things ranging from rind of an orange to other waste.

Problems Identified by Villagers

On the basis of villages survey conducted in three blocks, the major problems of the surveyed blocks have been identified. The identification of problems is necessary to understand the felt needs of the people for future action plan. (Details given in Table A-15). In addition, on the basis of several rounds of focal group discussion held with government officials, teachers posted in the villages as well as knowledgeable persons of the area, the felt needs of the people of both the blocks have been identified. The identified felt needs of both the blocks have been summarized as follows:

Table 3.

Felt Needs of the People of Lumla and Chaglagham Block

Chaglagham Block	Lumla Block
<u>Health Sector</u>	
<ul style="list-style-type: none"> ● More numbers of Primary Health Centers ● To set up at least one hospital in each block ● Doctors to be available in Health centers ● Medicines for main diseases to be available in the Health centers ● X-ray machines to be made available in health centers ● De-addiction centre for opium addicted people 	<ul style="list-style-type: none"> ● More numbers of Primary Health Centers ● To set up at least one hospital in each block ● Doctors to be available in Health centers ● Medicines for main diseases to be available in the Health centers ● X-ray machines to be made available in health centers ● Ambulance facility
<u>Education Sector</u>	
<ul style="list-style-type: none"> ● More primary and middle schools ● To set up a secondary school in the block head quarter ● To construct Toilets in the existing Schools in the existing schools ● Security wall at middle school; ● To construct teacher's quarters 	<ul style="list-style-type: none"> ● More primary and middle school ● To upgrade the middle school ● To improve the infrastructure including sanitation ● To construct teacher's quarters ● Regularity of teaching staff needed
<u>Infrastructure Sector</u>	
<ul style="list-style-type: none"> ● To broaden the existing road from Hayuliang to Chaglagham ● To start Government buses regularly from Chaglagham to Hayuliang ● To improve the connectivity of villages ● To electrify the villages including the block headquarter ● To improve drinking water facility villages from frequent landslide ● To provide at least land telephone facility in block headquarter ● To construct security fencing in some villages 	<ul style="list-style-type: none"> ● To widen the road from Tawang to Zemithang ● To improve public transport facility. ● To connect the villages by road ● To ensure regular supply of electricity ● To construct land retention wall in order to save ● To improve the telephone exchange for better land telephone connectivity. ● To construct Gompa type of community Hall

Agricultural and Allied Flood Control Measures Sector

- Improvement of cash crop cultivation like cardamom and introduction of other crops like oranges, plums etc. in order to make a viable alternative to opium cultivation.
- To save existing agricultural land from landslides and frequent flood
- To emphasize on poultry farming and piggery development
- To emphasize on proper commercial utilization of medicinal plants.
- To supply seeds of cash crops
- To take measures for reducing bamboo flowering
- To protect agricultural crops from wild animals
- To emphasize on Buddhism based and nature-based Tourism
- To start Border Trade
- To start Border Trade

Security Sector

- To shift the border post of ITBP near the border instead of camping at near the villages
- Pucca road along the border.
- ITBP which protects the border have no artillery
- To provide a police station/outpost in Zemithang Circle.
- To start construction of road up to Border
- Solar lights near the border.
- Need for regular army patrolling.

Source: Focal Group Discussion, 2008

Section VII

Major Observations and Recommendations

The following are the major observations of the study:

- Arunachal Pradesh is one among a few States of India which has international boundary with three countries. In fact, it has the largest international border among the States of North East India. It is bordered by Bhutan (160km) on the west, China on the north and north eastern (1080 km) and Myanmar to the east and south east (440km). It consists of only 2.55 per cent of India's landmass but it shares 11.65 per cent of India's total international boundary. Out of India's total border with China (3488 km), Myanmar (1643 km) and Bhutan (699 km), Arunachal Pradesh shares 30.96 per cent, 26.78 per cent and 22.89 per cent respectively.
- Out of the sixteen districts of Arunachal Pradesh, twelve districts have international border. As a whole, the border districts consist of 83.17 per cent of the total area of the State and 64.43 per cent of the total population live in those border districts.
- On the basis of the selected socio-demographic indicators, it was found that the people who live in upper hill ranges in border districts have a lower life expectancy, lower literacy level and a comparatively higher concentration of scheduled tribe population than those who live in the non-border districts. For example, five border districts like Tawang, East Kameng, Kurung Kumey, Upper Subansiri and Lower Dibang Valley have life expectancy of below 50 years. As far as literacy is concerned, all the border districts (except West Siang and Lower Dibang Valley) have a lower level of literacy than that of the State average of 54.34 per cent. In fact, the percentage difference from the State average is as high as 28.6 per cent in Kurung Kumey and 15.9 per cent in Anjaw districts.

- On the basis of the selected economic indicators, it was observed that most of the border districts have a higher dependence on agriculture, but low agricultural productivity and also a higher incidence of human poverty.
- With reference to the selected infrastructural indicators it was observed that eight border districts have a lower road density than that of the State average of around 17 km per 100 sq.km. In some other border districts like Kurung Kumey, the road density is as low as 2.53 km per 100 sq.km. The road density may not capture the poor communication network in the border districts of the State because many villages are scattered and only connected by footpaths. Hence, road connectivity is taken as an alternative indicator and on that basis it is observed that all the border districts of northern and eastern Arunachal Pradesh, especially those bordering with China are worse off than that of the State average of 38.53 per cent. However, as far as road density and road connectivity are concerned, two districts bordering Myanmar like Tirap and Changlang are relatively higher than that of the State average. As regards the other infrastructural facilities like the health and the education, the border districts are by no means in a better condition. If we take the case of primary health centers, then we find that as many as eight border districts, there is no primary health center per 100 sq.km.
- At present Arunachal Pradesh has 33 border blocks, out of which twenty two blocks are bordering with China, four blocks are bordering both China and Bhutan, two blocks are bordering China and Myanmar and five blocks are bordering Myanmar only. On the basis of remote sensing data, it is observed that all the border blocks bordering China alone. China and Bhutan and China and Myanmar have an average altitude of more than 2000 meters and high slope gradients. On the other hand, the border blocks of Tirap and Changlang districts have relatively moderate slope gradients and therefore, they also have relatively more plain land.
- It was further observed from land use data that a good percentage of land of the border blocks of Tawang, East Kameng, Kurung Kumey, Upper Subansiri, Dibang Valley and Anjaw districts fall under the category of barren rocky and snow covered land.
- On the basis of the selected socio-demographic and economic indicators it is observed that most of the border blocks of Arunachal are worse off as when compared to the State average or even the respective district averages.
- Both the surveyed blocks like Lumla (Tawang district) and Chaglagham (Anjaw district) are located to the extreme west and east corners of Arunachal Pradesh. Both the blocks are backward in terms of socio-demographic and economic indicators. In fact, the literacy level of Chaglagham block was only 16.8 per cent in 2001. Around 88.19 per cent and 72.17 percent of the main workers are engaged in the agricultural sector for their livelihood in Chaglagham and Lumla blocks respectively. In Chaglagham block, all the villages surveyed showed the almost ubiquitous cultivation of opium. The area of cultivation ranges from 0.5 acre to 4 acres.

- In the surveyed villages of both the blocks, the medical facilities are hopelessly inadequate. There is only one surveyed village i.e. Zemithang which has a primary health centre. In the other surveyed villages, the users have to walk more than 5 km for availing themselves of the medical services from primary health centers. It was observed that the primary health centers were managed by the nurses. A doctor was posted, but he was not found in the health centre. Thus, the villages scattered in the border areas of Arunachal Pradesh witness many untimely deaths due to non-availability of medical services
- There is also a lack of educational infrastructure in the surveyed villages. For example, six villages surveyed in Chaglagham block there is only one primary school located at Taflagham village. Similarly, in Lumla block, Zemithang village has only one primary school and one middle school among the five surveyed villages. Schools in both the villages lack certain basic facilities. Thus, the education of the surveyed villages is restricted up to primary education and middle school only.
- The main problems identified in the surveyed blocks are lack of transport and communication, lack of educational facilities, lack of health facilities, erratic supply of electricity, almost no potable water supply, sanitation problem, frequent landslides isolation and remoteness. Further based on the assessment of the problems of the village people and taking into account the focal group discussion with various categories of people held in Chaglagham and Lumla, the sector-wise felt needs of the people have been enlisted for the surveyed blocks. The enlisting of the felt needs have been done as per the priorities perceived by the people in both the blocks
- From the point of view of security in this strategic region, research team found that feeling of insecurity is observed in the Chaglagham block. Here, the Indian side is protected only by a platoon of ITBP and they have no artillery backing. The army patrols the border for about one month only. On the other side, it was informed that the Chinese have a large force well equipped with arms and ammunition. In case of a war like situation, the nearest brigade is in Lohitpur which is around 169 km from Chaglagham. On the other hand in the Lumla block the people viewed that they are secured and defended by the Indian army. However, they become scared when they hear about Chinese intrusion into Indian territories or Chinese claim for the Indian Territory.
- Regarding the movement of the people across the border, it was observed that Chaglagham block is mainly inhabited by the Digaru Mishmi Tribe. The same tribe inhabits on the Chinese side of the border area speaking the same dialogue and practicing the same culture. Most of the villagers of the block have their relatives on the Chinese side and even matrimonial relations in the other side of the border are often carried out. They used to visit quite frequently earlier, but now their movement is limited because of strict vigilances patrolling on the Chinese side. The same type of movement was also heard in the Mechuka block. However, in the Lumla block the movement into Chinese border is completely restricted since the border is totally sealed. However, there is frequent movement to Bhutan's border.

Recommendations:

On the basis of the findings and observations, the following recommendations have been made to prepare an action plan for further development of the border blocks in general, and surveyed blocks in particular.

- It was found that there is a wide infrastructural gap between a majority of the border districts and border blocks with respect to the State average and the respective district averages. The gap is wider in case of road density, connectivity and medical and educational facilities. Hence, it is imperative that these facilities should be extended and consolidated, so that these border blocks may at least come nearer to the level of the relatively developed blocks. It is true that the cost of construction of road in hilly terrain is difficult and the cost of construction is around 3 to 4 times higher because of hills cutting and high transport cost of road equipments(as stated by the engineers of border blocks). However, the road has to be constructed at any cost since an increase in road connectivity will lead to improved health and better educational facilities as well as to higher income earnings and better economic development. Further, it will remove the isolation of the people living in the border areas. This will necessitate more allocation of funds in the border blocks on a priority basis for the construction of all weather roads. However, the road construction should be in a proper way. For example recently a pucca road was constructed between Hayuliang to the border block headquarter, Chaglagham (57 km). The road that was built is so narrow (width approx 5 feet) so that no State transport bus ply between them. As a result, in spite of construction of a pucca road the people prefer to walk instead of hiring the costly private vehicles like Tata Sumo.
- The border blocks also require special attention with regard to the health services sector, since it is observed that in surveyed blocks the medical facilities are hopelessly inadequate. It is no doubt, that there is a felt need in many of the villages to set up more primary health centers (PHCs) since the people have to walk long distances to avail of the modern medical facilities. Our research team also observes that many existing PHCs in the border areas of the State were not-functional due to absenteeism of doctors and nurses. The Government should take immediate steps to fill the vacant posts of medical personnel in all the PHCs especially in border blocks. At the same time the problem of over staffing in the more accessible areas and under-staffing of PHCs in the inaccessible border areas needs to be addressed on a priority basis.
- The Non-availability of medicines is another complaint voiced in the remote border blocks. In one surveyed block it was reported that poor quality medicines are often distributed to the unsuspecting patients. Another complaint that is commonly heard is that medicines meant for the border villages in Chaglagham block is distributed in Hayuliang itself since it is difficult to transport these to PHC of Chaglagham block. The medical resources in the State are limited but the Government must ensure that available resources are distributed equally and it should reach the border blocks and villages
- Access to education is another issue in the border blocks of the State. It is necessary to set up more primary and middle schools in the border blocks. Specific strategies need to

be devised to engage with local communities to ensure that education, particularly at the primary level becomes universal. At the same time there should be a secondary school in each headquarter of the border block. Thanks to Sarva Shiksha Abhiyan (SSA) many local teachers are employed in the border villages. But absenteeism among the teachers is a serious issue. In fact, SSA has led to one more serious problem i.e. of proxy teachers. These are the issues that require urgent intervention especially when the quality of education is being jeopardized by unscrupulous people.

- Our research team found that in one of the border blocks there is large scale opium cultivation which is being sold in the open market. There is no denying the fact that opium is being cultivated because of its economic returns. Therefore, introduction of cash crop could be a viable alternative. Our research team has observed that cardamom (big variety) is cultivated in a very large scale in those areas. However, the main problem faced by the producers is that the production drops significantly in 5-6 years period when the plants have to be shifted to another area. The Government agencies should tackle the problem in a planned way since the production of cardamom can act as a very good alternative to opium cultivation. At the same time the other cash crops like orange, plum can also be encouraged to produce particularly during the winter season, which is the opium production season. However, before cultivation of cash crops marketing network should be strengthened.
- It was observed that almost all the elders of the villages are addicted in the Chaglagham block since for the older generation opium smoking is attached with their tradition. However, for the new generation it acts more like a fashion. It was also found that most of the educated young boys were not much addicted. Hence, in order to minimize the problem of opium cultivation, the spread of education and public awareness is a must. Hence, it is suggested that mass campaign highlighting the harm from opium addiction could be brought to them through street plays, radio talks etc.
- The Border Area Development Programme (BADP) was started in Arunachal Pradesh in 1997-98 with a provision of Rs.4 crores and it increased to Rs 47.8 crores in 2007-08 (Table A 16) in order to remove the critical gaps in physical and social infrastructure and to strengthen the economic condition of the remote border areas. The State Government distributed the fund in the security sector and in various border blocks of the border districts (Table A 17). However, our research team found that the villagers had never heard of the Programme under BADP schemes in the surveyed blocks. In fact, the villagers talked about other Government programmes like PMGSY, NREGP etc, but no mention was made of BADP. Hence, it appears that BADP is implemented without understanding the felt needs of the people of the border areas and without involving the grass root institutions like Gaon Burans etc. Hence the following suggestions are made for better utilization of BADP funds :-

a) It was observed that funds for BADP were used in more accessible areas in a border block than the border circle and villages. This should be checked as far as possible, as it would not lead to the development of the border blocks, instead urban centers would emerge faster leading to migration of these people from the border blocks.

b) The construction of administrative buildings even at the border district or block headquarters should not be allowed.

c) The funds of BADP fall under non-lapsable category. Therefore, formulation and funding of short term projects under BADP may be given a re-thought. It is advisable that projects of importance and priority should be formulated and implemented on a long term basis. For example, in the surveyed blocks it was observed that priority should get road connectivity and health and educational infrastructure. In fact, there may be proper coordination of other central Government schemes like Bharat Nirman and National Rural Health Mission with BADP Schemes.

d) All construction work under the scheme should inscribe on the walls 'construction under BADP' and the year of the relevant scheme.

e) The State Government also should implement those projects on the basis of the felt needs of the people and the critical gaps in physical and social infrastructure in border area must be addressed more sympathetically.

f) The view of the State Government is that the present quantum of allocation is inadequate to bring about any substantial changes in the status of infrastructure sector development and livelihood pattern in the remote and inaccessible border areas of the State. Hence, it is necessary that there should be considerable enhancement in the allocation of funds under BADP from strategic point of view.

g) It is observed that in Arunachal Pradesh the BRDA schemes are managed by the State Planning Department with very limited manpower. The task force headed by Shri. B N Yugandhar, Member, Planning Commission has suggested, amongst others, the creation of a separate department/cell (under Home Department) to look after the matters of border management including BADP. **Therefore, it is felt that unless a separate department/cell is created with adequate manpower/expertise, the proper formulation and effective of implementation of BADP may not be possible.**

- In order to remove isolation of the people of border areas and to bring them the main stream the radio centre/relay centre may be established in each border block head quarter in phases. The people can listen to radio/transistor even if there is no electricity.
- The flourishing border trade of the past is languishing in the recent years. For example in Chaglagham block, the villagers used to exchange their goods across the border. The main articles exchanged were common salt from Indian side and from the Chinese side it was brass utensils, Tibetan silver coin and food articles. However it is now restricted. The

people in the border areas strongly feel that the centre should reintroduce the border trade. In fact, the Central Government may seriously think not only to promote border trade but to use the border outlets for full-fledged international trade in the background of the "Look East Policy".

- It is observed that there is a huge potential for hydropower generation in the border blocks. However, substantial investment is required to harness this latent potential. It is also found that there is large potential for developing nature-based and to some extent Buddhism-based tourism in the border blocks, provided road, and other basic infrastructural amenities are built up. It is observed that border blocks of Arunachal with its beautiful villages, verdant forests, spectacular rivers and fascinating people has immense potential for eco-tourism. However, tourism requires that infrastructure should be adequately developed. The Department of Tourism needs to draw up a based plan to develop areas selectively and promote certain destinations by providing accommodation and other facilities. The destinations will have to be developed in consonance with the local people. It may be possible to provide a unique experience to tourists by building low cost infrastructure in the villages adjoining block/circle head quarters by using local materials and local inputs. This will create employment opportunities for the local people and will arrest to large scale exodus of people from border areas to administrative centers in search of better jobs and livelihood opportunities.

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APPENDIX

Table: A.1.				
Socio Demographic Features of Arunachal Pradesh vis a vis North Eastern Region of India, 2001.				
States	Population	Density	Sex ratio	Literacy Rate
(1)	(2)	(3)	(4)	(5)
Arunachal Pradesh	1097968	13	893	54.34
Assam	26655528	340	935	64.28
Manipur	2166788	97	978	68.87
Meghalaya	2318822	103	972	63.31
Mizoram	888573	40	935	88.49
Nagaland	1990036	120	900	67.11
Sikkim	540851	76	875	69.68
Tripura	3199203	305	948	73.66
Total N E REGION	38857769	148	937	68.84

SOURCE: Basic Statistics of North Eastern Region, 2006

Table: A.2.		
Area and Population of Border Districts of Arunachal Pradesh, 2001.		
Border Districts.	Area (in sq. km.)	Population.
(1)	(2)	(3)
Tawang	2172	38924
West Kameng	7422	74599
East Kameng	4134	57179
Kurung Kumey	8818	42518
Upper Subansiri	7032	55343
West Siang	7643	103918
Upper Siang	6188	33363
Dibang Valley	8350	7272
Lower Dibang Valley	4679	50448
Anjaw	6190	18441
Changlang	4662	125442
Tirap	2362	100326
TOTAL	69652(83.17)	707396(64.43)
ARUNACHAL PRADESH	83734	1097968

Note: Figures in the bracket indicate percentage to total area and population of State respectively.

SOURCE: Census of India, Final Population Totals, 2001, Arunachal Pradesh.

Table: A.3.			
Socio-demographic Characteristics of Border Districts of Arunachal Pradesh.			
			Schedule Tribe
	Life Expectancy	Literacy	Population as Percentage
Border Districts	(in years)	(in Percentage)	of Total Population
(1)	(2)	(3)	(4)
Tawang	49.79 (-4.26)	47.2 (-7.1)	74.79 (+10.57)
West Kameng	53.35 (-0.7)	60.8 (+6.5)	49.53 (-14.69)
East Kameng	43.36 (-10.69)	40.6 (-13.7)	86.71 (+22.49)
Kurung Kumey	42.50 (-11.55)	25.7 (-28.6)	97.88 (+33.66)
Upper Subansiri	46.34 (-7.71)	50.3 (-4.00)	89.53 (+25.31)
West Siang	55.37 (+1.32)	59.5 (+5.2)	81.72 (+17.15)
Upper Siang	54.02 (-0.03)	49.8 (-4.5)	78.21 (+13.99)
Dibang Valley	43.20 (-10.85)	59.8 (+5.5)	43.62 (-20.60)
Lower Dibang Valley	58.56 (+4.51)	53.0 (-1.3)	66.38 (+2.16)
Anjaw	N.A.	38.4 (-15.9)	77.27 (+13.05)
Changlang	55.70 (+1.65)	51.3 (-3.00)	36.16 (-28.08)
Tirap	52.66 (-1.39)	41.7 (-12.6)	83.67 (+19.45)
ARUNACHAL PRADESH	54.05	54.3	64.22

NOTE: Figures in the brackets indicate difference of the State average from the respective Districts.

*SOURCES: (1) Statistical Abstract of Arunachal Pradesh, 2006.
(2) Human Development Report of Arunachal Pradesh, 2005.*

Table:A.4.				
Economic Features of Border Districts of Arunachal Pradesh.				
			Percentage of	
	Real Per Capita	Work	Main Workers	Human
Border District	Net District	Participation	Engaged in	Poverty
	Domestic Product	Rate	Agricultural	Index
(1)	(2)	(3)	(4)	(5)
Tawang	10541 (120.33)	55.82 (+11.84)	41.89 (-17.27)	43.45 (+3.97)
West Kameng	12391 (140.88)	46.09 (+2.11)	48.03 (-11.13)	36.11 (-3.37)
East Kameng	7237 (82.61)	45.38 (+1.4)	73.69 (+14.53)	49.27 (+9.79)
Kurung Kumey	N.A.	53.48 (+9.5)	85.82 (+26.66)	N.A.
Upper Subansiri	7268 (82.97)	40.5 (-3.48)	68.17 (+9.01)	42.07 (+2.59)
West Siang	8595 (98.12)	41.46 (-2.25)	62.25 (+3.09)	34.69 (-4.79)
Upper Siang	9878 (112.76)	51.27 (+7.29)	64.19 (+5.03)	42.46 (+2.98)
Dibang Valley	13328 (152.28)	51.66 (+7.68)	31.69 (-27.47)	38.67 (-0.81)
Lower Dibang Valley	N.A.	43.62 (-0.36)	61.21 (+2.05)	N.A.
Anjaw	N.A.	57.62 (+13.64)	65.99 (+6.83)	N.A.
Changlang	7169 (81.82)	47.87 (+3.89)	72.16 (+13.00)	41.74 (+2.26)
Tirap	7602 (86.78)	48.91 (+4.93)	74.69 (+15.53)	47.74 (+7.98)
ARUNACHAL PRADESH	8760	43.98	59.16	39.48

*NOTE: (1) The Real Per Capita Net Domestic Product is calculated for the period of 1993-94 to 2000-01.
(2) Figures in the bracket in column 2 indicates the percentage of State Income.
(3) Figures in the brackets of the rest of the column show the difference of the State average from the respective districts.*

*SOURCES: (1) Statistical Abstract of Arunachal Pradesh, 2006.
(2) Human Development Report of Arunachal Pradesh, 2005.*

TABLE A.5.												
Infrastructural Indicators of Border Districts of Arunachal Pradesh.												
Border Districts	Surfaced Road as		Percentage of Village of Total Villages	Electrified Villages as Percentage of Total Villages	Number of School per 10,000	Number of PHC and Sub-Centre		Number of Doctors per 10,000	Number of Medical Personnel		Number of Hospital Beds per 10,000	Number of Fair Price Shops per 10,000
	Length of Road per 100 Sq K. M.	Percentage of Road				Connectivity Status	Population		School per 100 Sq K. M.	per 10,000		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Tawang	11.77*	33.9*	25.66	90.55	22.61	4.05	5.91	1.06	4.37	1.8	13.87	18.49
	(-5.18)	(-29.16)	(-12.87)	(+42.37)	(+3.2)	(+1.51)	(+0.25)	(+0.32)	(+0.14)	(-0.6)	(-6.33)	(+4.69)
West Kameng	12.03*	64.49*	46.97	33.8	21.05	2.12	5.49	0.55	3.22	2.14	19.17	10.86
	(-4.92)	(+1.43)	(+8.44)	(-14.38)	(+1.64)	(-0.42)	(-0.17)	(-0.19)	(-1.01)	(-0.26)	(-1.03)	(-2.94)
East Kameng	15.49	49.56	26.52	49.67	28.33	3.92	7.34	1.02	3.32	2.27	24.48	10.86
	(-1.46)	(-13.5)	(-12.01)	(+1.49)	(+8.92)	(+1.38)	(+1.68)	(+0.28)	(-0.91)	(-0.13)	(+4.28)	(-2.94)
Kurung Kumey	2.53	41.21	7.47	N.A.	25.4	1.22	16.69	0.81	N.A.	N.A.	N.A.	23.75
	(-14.42)	(-21.85)	(-31.06)		(+5.99)	(-1.32)	(+11.03)	(+0.07)				(+9.95)
Upper Subansiri	15.33	42.7	28.18	16.33	26.74	2.1	7.59	0.6	4.34	3.43	20.59	31.44
	(-1.62)	(-20.36)	(-10.35)	(-31.85)	(+7.33)	(-0.44)	(+1.93)	(-0.14)	(+0.11)	(+1.03)	(+0.39)	(+17.64)
West Siang	22.29	52.98	45.75	44.47	24.63	3.35	6.06	0.82	4.81	2.6	22.8	18.67
	(+5.34)	(-10.08)	(+7.22)	(-3.71)	(+5.22)	(+0.81)	(+0.40)	(+0.08)	(+0.58)	(+0.20)	(+2.60)	(+4.87)
Upper Siang	13.32	57.46	56	54.34	21.88	1.18	5.99	0.32	7.19	3	23.37	17.98
	(-3.36)	(-5.6)	(+17.47)	(+6.16)	(+2.47)	(-1.36)	(+0.33)	(-0.42)	(+2.96)	(+0.6)	(+3.17)	(+4.18)
Dibang Valley	7.67#	74.85#	23.58	39.51	20.63	0.17	15.13	0.13	2.95#	5.72#	22.52#	37.13
	(-9.26)	(+11.79)	(-14.95)	(-8.67)	(+1.22)	(-2.37)	(+9.47)	(-0.61)	(-1.28)	(+3.32)	(+2.32)	(+23.33)
Lower Dibang Valley	N.A.	N.A.	66.96	53.03	11.7	1.26	5.55	0.6	N.A.	N.A.	N.A.	8.52
			(+28.43)	(+4.85)	(-7.71)	(-1.28)	(-0.11)	(-0.14)				(-5.28)
Anjaw	10.63*	73.46*	13.88	N.A.	27.66	1.16	10.3	0.43	4.34	4.34	31.45	16.81
	(-6.32)	(+10.4)	(-24.65)		(+8.25)	(-1.38)	(+4.64)	(-0.31)	(+0.11)	(+1.94)	(+11.45)	(+3.01)
Changlang	28.44	64.93	59.57	72.02	15.63	4.2	3.03	0.82	3.27	0.48	10.76	9.41
	(+11.49)	(+1.87)	(+21.04)	(+23.84)	(-3.78)	(+1.66)	(-2.36)	(+0.08)	(-0.96)	(-1.92)	(-9.44)	(-4.39)
Tirap	47.43	65.24	57.23	94.61	17.44	7.41	4.39	1.86	4.09	2.59	18.64	11.76
	(+30.48)	(+2.18)	(+18.7)	(+46.43)	(-1.97)	(+4.87)	(-1.27)	(+1.12)	(-0.14)	(+0.19)	(-1.56)	(-2.04)
ARUNACHAL PRADESH	16.95	63.06	38.53	48.18	19.41	2.54	5.66	0.74	4.23	2.4	20.2	13.8

NOTE: (1) Figures in the brackets indicates difference of the State average from the respective Districts.
(2) * indicates not including the Road under Project VARTAK, BRTF.
(3) # including the data of Lower Dibang Valley District.
(4) * including the data of Lohit District.

SOURCES: (1) Statistical Abstract of Arunachal Pradesh, 2006.
(2) Human Development Report of Arunachal Pradesh, 2005.

Table: A.6.						
Possession of Assets of Households of the Border Districts of Arunachal Pradesh, 2001 (in Percentage).						
Name of Border Districts.	Banking Services	Radio/ Transistor	Television	Telephone	Bicycle	
(1)	(2)	(3)	(4)	(5)	(6)	
Tawang	38.73 (+1.44)	50.69 (+11.73)	23.28 (-2.42)	11.95 (+2.76)	0.53 (-16.89)	
West Kameng	42.84 (+5.55)	40.72 (+1.76)	30.78 (+5.08)	8.12 (-1.07)	1.81 (-15.61)	
East Kameng	27.44 (-9.85)	17.87 (-21.09)	12.08 (-13.62)	4.05 (-5.14)	5.3 (-12.12)	
Kurung Kumey	6.58 (-30.71)	11.66 (-27.3)	1.55 (-24.15)	0.14 (-9.05)	0.07 (-17.35)	
Upper Subansiri	37.29 (0)	43.18 (+4.22)	17.7 (-8.0)	6.87 (-2.32)	6.07 (-11.35)	
West Siang	43.68 (+6.39)	47.33 (+8.37)	26.03 (+0.33)	8.16 (-1.03)	12.57 (-4.85)	
Upper Siang	45.96 (+8.67)	34.92 (-4.04)	14.73 (-10.97)	7.49 (-1.7)	1.68 (-15.74)	
Dibang Valley	30.99 (-6.3)	41.83 (+2.87)	22.36 (-3.34)	4.03 (-5.16)	0.28 (-17.14)	
Lower Dibang Valley	34.38 (-2.91)	50.92 (+11.96)	23.99 (-1.71)	7.71 (-1.48)	33.81 (+16.39)	
Anjaw	20.59 (-16.7)	30.43 (-8.53)	8.01 (-17.69)	2.1 (-7.09)	0.95 (-16.47)	
Changlang	27.62 (-9.67)	38.81 (-0.15)	19.73 (-5.97)	4.95 (-4.24)	33.39 (+15.97)	
Tirap	28.71 (-8.58)	27.58 (-11.38)	20.94 (-4.76)	4.13 (-5.06)	4.17 (-13.25)	
ARUNACHAL PRADESH	37.29	38.96	25.7	9.19	17.42	

NOTE: Figures in the bracket indicate percentage difference of the State average from the respective Districts.

SOURCE: Census of India, 2001, Tables of Houses, Household Amenities and Assets.

Table: A. 7.**Percentage of Households with Basic Services in Border Districts of Arunachal Pradesh, 2001**

Border Districts	Tap Water			
	Tap Water	(within Premises)	Electricity	No Drainage
(1)	(2)	(3)	(4)	(5)
Tawang	68.78	27.79	68.98	74.01
West Kameng	84.45	30.2	76.54	58.97
East Kameng	72.81	18.43	29.86	77.27
Kurung Kumey	62.56	15.22	33.62	86.81
Upper Subansiri	83.52	24.79	44.4	59.12
West Siang	83.64	34	51.51	49.13
Upper Siang	82.76	19.87	57.94	81.31
Dibang Valley	93.06	56.48	60.29	75.51
Lower Dibang Valley	68.84	29.58	49.21	74.26
Anjaw	85.92	22.89	29.05	84.32
Changlang	40.1	18.38	38.91	74.96
Tirap	65.05	22.1	58.08	70.02
ARUNACHAL PRADESH	67.81	26.91	54.69	65.51

Source: Census of India, 2001, Tables of Houses, Household Amenities and Assets.

Table A. 8.		
Border Blocks of Arunachal Pradesh and their Population, 2001.		
Name of Block	Countries with International Border.	Population as per 2001 Census
(1)	(2)	(3)
Tawang.	China.	17742
Mukto-Thimbu.	China and Bhutan.	10716
Lumla.	China and Bhutan.	10446
Dirang.	China and Bhutan.	18474
Kalakthang.	China and Bhutan.	17653
Nafra.	China.	13644
Bameng.	China.	9244
Chayangtajo.	China.	10881
Sarli.	China.	1951
Damin.	China.	2957
Koloriang.	China.	4798
Parsi-Parlo.	China.	3226
Pipisorang	China.	2206
Nacho.	China.	5249
Siyum.	China.	4080
Mechuka.	China.	6244
Monigong.	China.	3025
Kaying-Payum.	China.	5543
Tuting.	China.	5874
Singa-Gelling.	China.	1692
Anini-Mipi.	China.	4344
Etalin-Maliney.	China.	1575
Aneli-Arzo.	China.	1353
Hunli-Kronli.	China.	3114
Hayuliang.	China.	13294
Chaglagham	China.	2412
Walong.	China and Myanmar.	6845
Manchal	China and Myanmar.	3032
Khimiyang.	Myanmar.	5270
Nampong-Manmao.	Myanmar.	15255
Khagam-Miao.	Myanmar.	34463
Lazu.	Myanmar.	7957
Pongchau-Wakka.	Myanmar.	19662
<i>NOTE: Blocks as per Statistical Abstract of Arunachal Pradesh, 2006.</i>		
<i>SOURCE: Border Area Development Programme in Arunachal Pradesh, Department of Planning, Government of Arunachal Pradesh, 2008.</i>		

Table: A 9.

Land Use/Land Cover in Border Districts/Blocks of Arunachal Pradesh (in Percentage).

Border Districts/ Blocks	LAND UNDER CULTIVATION		FOREST COVER		Land under Barren Rocky/Snow Cover	Other**
	Settled*	Shifting	Evergreen	Degraded &		
	Cultivation	Cultivation	Forest	Deciduous		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
TAWANG (D)	0.37	0	41.74	27.94	20.4	9.55
Tawang (B)	0.3	0	41	24.26	23.25	11.19
Mukto-Thimbu (B)	0.06	0	25.33	35.14	23.7	15.77
Lumla (B)	0.05	0	67.61	17.78	14.25	0.31
WEST KAMENG (D)	0	0	69.57	27.48	2.8	0.15
Dirang (B)	0	0	63.75	35.82	0	0.43
Kalakthang (B)	0	0	82.37	17.55	0	0.08
Nafra (B)	0	0	65.54	28.32	6.11	0.03
EAST KAMENG (D)	0	0	78.9	14.79	2.42	3.89
Bameng (B)	0	0	71.24	14.76	6.64	7.36
Chayangtajo (B)	0	0	81.43	17.16	0	1.41
KURUNG KUMEY (D)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Koloriang (including Sarli) (B)	0	0	74.71	10.91	14.32	0.06
Damin (including Parsi-Parlo) (B)	0	1.15	75.67	6.7	15.56	0.92
UPPER SUBANSIRI (D)	0	2.7	82	4.54	10.24	0.52
Nacho (including Siyum) (B)	0	1.11	77.39	2.73	17.36	1.41
WEST SIANG (D)	4.08	6.13	72.53	12.47	3.33	1.46
Mechuka (including Monigong) (B)	8.37	2.62	73.75	5.89	7.82	1.55
UPPER SIANG (D)	0.82	2.3	71.93	14.1	9.55	1.3
Tuting (including Singa-Gelling) (B)	0.37	1.73	68.15	14.04	14.78	0.93
DIBANG VALLEY (D)	1.64	0.52	71.14	6.62	19.19	0.89
Anini-Etalin (including Mipi) (B)	0.12	0.71	63.97	6.68	28.38	0.14
(Anelih & Maliney) (B)	0	0	90.56	4	5.07	0.37
LOWER DIBANG VALLEY (D)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Roing (including Hunli-Kronli) (B)	9	0.38	77.77	9.81	0	3.04
ANJAW (D)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Hayuliang (including Chaglagham) (B)	2.94	12.77	63.17	8.67	12.25	0.2
Walong (B)	2.97	7.97	54.35	11.98	22.38	0.35
CHANGLANG (D)	4.77	0.27	78.24	15.11	0.76	0.85
Changlang (including Khimiyang) (B)	0	0	86.26	13.44	0	0.3
Nampong-Manmao (B)	0	1	80.95	17.36	0	0.69
Khagam-Miao (B)	0.93	0	86.48	9.88	1.5	1.21
TIRAP (D)	0	0	66.85	31.05	0	2.1
Namsang (including Lazu) (B)	0	0	75.61	22.86	0	1.53
Pongchau-Wakka (B)	0	0	92.21	5.68	0	2.11
ARUNACHAL PRADESH	2.05	3.26	71.57	8.09	7.43	7.6

NOTE: *Settled Agriculture includes Rabi, Kharif and Double Cropping Land.

**Category of other uses includes land under Water Bodies, Lakes, Streams and Build-up Areas.

SOURCES: (1) A Resource Atlas of Arunachal Pradesh, by Surendra Singh, 1999.

(2) National Remote Sensing Agency, Hyderabad.

Table A 10.										
Socio-Demographic and Economic Features of the Border Blocks of Arunachal Pradesh, 2001.										
Name of border State/Districts/Blocks	Density of Population	Difference of District Average from respective Blocks	Literacy Rate	Difference of District Average from respective Blocks	Percentage of S. T. Population	Difference of District Average from respective Blocks	Work Participation Rate	Difference of District Average from respective Blocks	Percentage of Main Workers engaged in Agricultural Sector	
									Average	Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
TAWANG (D)	18 (+5)		47.3 (-7.0)		74.99 (+10.77)		55.77 (+11.22)		41.89 (-17.27)	
Tawang (B)	80 (+67)	62	62.7 (+8.4)	15.4	61.52 (-2.70)	-13.47	56.89 (+12.34)	1.12	21.16 (-38.00)	-20.73
Mukto-Thimbu (B)	15 (+2)	-3	39.3 (-15.0)	-8	81.57 (+17.35)	6.58	56.30 (+11.75)	0.53	48.03 (-11.13)	6.14
Lumla (B)	14 (+1)	-4	26.6 (-27.7)	-20.7	91.14 (+26.92)	16.15	53.52 (+8.97)	-2.25	72.17 (+13.01)	30.28
WEST KAMENG (D)	10 (-3)		60.8 (+6.5)		49.53 (-14.69)		46.06 (+1.51)		48.03 (-11.13)	
Dirang (B)	19 (+6)	9	56.6 (+2.3)	-4.2	63.47 (-0.75)	13.94	45.69 (+1.14)	-0.37	37.10 (-22.06)	-10.93
Kalakthang (B)	13 (0)	3	72.8 (+25.5)	12	48.86 (-15.36)	-0.67	45.79 (+1.24)	-0.27	39.86 (-19.30)	-8.17
Nafra (B)	2 (-11)	-8	49.2 (-5.1)	-11.6	79.89 (+15.67)	30.36	42.33 (-2.22)	-3.73	77.65 (+18.49)	29.62
EAST KAMENG (D)	14 (+1)		40.6 (-13.7)		86.71 (+22.49)		45.38 (-0.83)		73.69 (+14.53)	
Bameng (B)	4 (-9)	-10	22.3 (-32.0)	-18.3	98.50 (+34.28)	11.79	54.63 (+10.08)	9.25	87.88 (+28.72)	14.19
Chayangtajo (B)	15 (+2)	1	26.6 (-27.7)	-32.3	98.60 (+34.38)	11.89	48.20 (+3.65)	2.82	85.55 (+26.39)	11.86
KURUNG KUMEY (D)	5 (-8)		25.7 (-28.6)		97.88 (+33.66)		53.48 (+13.93)		85.82 (+26.66)	
Sarli (B)	2 (-11)	-3	17.5 (-36.8)	-8.2	94.47 (+30.25)	-3.41	61.16 (+16.61)	7.68	89.36 (+30.20)	3.54
Damin (B)	2 (-11)	-3	26.0 (-28.3)	0.3	97.45 (+33.23)	-0.43	58.28 (+13.73)	4.8	85.83 (+26.67)	0.01
Koloriang (B)	2 (-11)	-3	27.5 (-30.8)	-2.2	96.25 (+32.03)	-1.63	48.90 (+4.35)	-4.58	80.22 (+21.06)	-5.6
Parsi-Parlo (B)	2 (-11)	-3	19.9 (-34.3)	-5.8	99.89 (+35.76)	2.1	62.08 (+17.53)	8.6	97.81 (+38.65)	11.99
UPPER SUBANSIRI (D)	8 (-5)		50.3 (-4.0)		89.53 (+25.31)		40.50 (-4.05)		68.89 (+9.73)	
Nacho (B)	2 (-11)	-6	29.0 (-25.3)	-21.3	97.68 (+33.46)	8.33	48.32 (+3.77)	7.82	82.68 (+23.52)	13.79
Siyum (B)	4 (-9)	-4	23.8 (-30.5)	-26.5	98.52 (+34.30)	8.99	52.12 (+7.57)	11.62	91.50 (+32.34)	22.61
WEST SIANG (D)	13 (0)		59.5 (+5.2)		81.73 (+17.51)		41.46 (-3.09)		62.25 (+3.09)	
Mechuka (B)	5 (-8)	-8	45.5 (-8.8)	-14	91.37 (+27.15)	9.64	46.00 (+1.45)	4.54	61.64 (+2.48)	-0.61
Monigong (B)	2 (-11)	-11	21.9 (-32.4)	-37.6	99.27 (+35.05)	17.54	31.01 (-13.54)	-10.45	85.40 (+26.24)	23.15
Kaying-Payum (B)	3 (-10)	-10	33.9 (-20.4)	-25.6	94.41 (+30.19)	12.68	45.36 (+0.81)	3.9	78.70 (+19.54)	16.45
UPPER SIANG (D)	5 (-8)		49.8 (-4.5)		78.21 (+13.99)		51.27 (+6.72)		64.19 (+5.03)	
Tuting (B)	1 (-12)	-4	46.2 (-8.1)	-3.6	77.01 (+12.79)	-1.2	57.92 (+13.37)	6.65	61.73 (+2.57)	-2.46
Singa-Gelling (B)	2 (-11)	-3	36.7 (-17.6)	-13.1	97.44 (+33.22)	19.23	63.12 (+18.57)	11.85	88.47 (+29.31)	24.28
DIBANG VALLEY (D)	4 (-9)		53.0 (-1.3)		66.38 (+2.16)		51.66 (+7.11)		31.69 (-27.47)	
Anini-Mipi (B)	1 (-12)	-3	59.5 (+5.2)	6.5	62.26 (-1.96)	-4.12	47.38 (+2.83)	-4.28	31.92 (-27.24)	0.23
Etalin-Malinye (B)	1 (-12)	-3	46.6 (-7.7)	-6.4	56.06 (-8.16)	-10.32	65.46 (+20.91)	13.8	28.28 (-30.88)	-3.41
Anelli-Arzo (B)	2 (-11)	-2	33.5 (-20.8)	-19.5	93.79 (+29.57)	27.41	46.10 (+1.55)	-5.56	56.67 (-2.49)	24.98
LOWER DIBANG VALLEY (D)	N.A.		59.8 (+5.5)		43.62 (-2.06)		43.62 (-0.93)		61.21 (+2.05)	
Hunli-Kronli (B)	1 (-12)	N.A.	48.0 (-6.3)	11.8	81.18 (+16.96)	37.56	52.57 (+8.02)	8.95	64.65 (+5.49)	3.44
ANJAW (D)	4 (-9)		38.4 (-15.9)		77.27 (+13.05)		51.62 (+7.07)		65.99 (+6.83)	
Hayuliang (B)	6 (-7)	2	37.9 (-16.4)	-0.5	76.03 (+11.81)	-1.24	50.01 (+5.46)	-1.61	49.47 (-9.69)	-16.52
Manchal (B)	1 (-12)	-3	28.2 (-26.1)	-10.2	98.25 (+34.03)	20.98	49.2 (4.65)	-2.42	92.79 (+33.63)	26.8
Chaglagham (B)	2 (-11)	-2	15.8 (-38.5)	-22.6	96.43 (+32.21)	19.16	53.58 (+9.03)	1.96	88.19 (+29.03)	22.2
Walong (B)	4 (-9)	0	41.6 (-12.7)	3.2	71.94 (+7.72)	-5.33	53.83 (+9.28)	2.21	61.66 (+2.50)	-4.33
CHANGLANG (D)	27 (+14)		51.3 (-3.0)		36.16 (-28.06)		47.87 (+3.32)		72.16 (+13.00)	
Khimiyang (B)	3 (-10)	-24	35.8 (-18.5)	-15.5	94.72 (+30.50)	58.56	56.70 (+12.15)	8.83	88.58 (+29.42)	16.42
Namong-Manmao (B)	13 (0)	-14	68.1 (+13.8)	16.8	51.37 (-12.85)	15.21	43.87 (-0.68)	-4	44.18 (-14.98)	-27.98
Khagam-Miao (B)	20 (+7)	-7	78.0 (+23.7)	26.7	32.40 (-31.82)	-3.76	46.23 (+1.68)	-1.64	76.05 (+16.89)	3.89
TIRAP (D)	43 (+30)		41.7 (-12.6)		83.67 (+19.45)		48.91 (+4.36)		74.69 (+15.53)	
Lazu (B)	18 (+5)	-25	42.5 (-11.8)	0.8	96.23 (+32.01)	12.56	54.05 (+9.50)	5.14	91.86 (+32.70)	17.17
Pongchau-Wakka (B)	46 (+33)	3	15.3 (-39.0)	-26.4	97.85 (+33.63)	14.18	53.69 (+9.14)	4.78	93.62 (+34.46)	18.93
ARUNACHAL PRADESH	13		54.3		64.22		44.55		59.16	

NOTE5: Figures in the brackets indicate difference of the State average from the respective Blocks.
Data newly created block Pippisorang is not available.

SOURCE: Census of India, Final Population Totals 2001 Arunachal Pradesh.

Table A 11.

Possession of Selected Assets of Households of the Border Blocks of the Arunachal Pradesh, 2001 (in Percentage).

Name of border State/Districts/Blocks	Concerned Blocks minus Banking Services		Concerned Blocks minus Radio/Transistor		Concerned Blocks minus Television		Concerned Blocks minus Telephone		Concerned Blocks minus Bicycle	
	respective District Average	respective District Average	respective District Average	respective District Average	respective District Average	respective District Average	respective District Average	respective District Average	respective District Average	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
TAWANG (D)	38.73 (+1.44)		50.69 (+11.73)		23.28 (-2.42)		11.95 (+2.76)		0.53 (-16.89)	
Tawang (B)	55.09 (+17.8)	16.36	59.2 (+20.24)	8.51	41.5 (+15.8)	18.22	24.06 (+14.87)	12.11	1.21 (-16.21)	0.68
Mukto-Thimbu (B)	30.59 (+6.70)	8.14	55.9 (+16.94)	5.21	13.08 (-12.62)	-10.2	4.51 (-4.68)	-7.44	0.09 (-17.33)	-0.44
Lumla (B)	23.31 (-13.98)	-15.42	33.53 (-5.43)	-17.16	7.21 (-18.49)	-16.07	1.89 (-7.3)	-10.06	0 (-17.42)	-0.53
WEST KAMENG (D)	42.84 (+5.55)		40.72 (+1.76)		30.78 (+5.08)		8.12 (-1.07)		1.81 (-15.61)	
Dirang (B)	53.45 (+16.16)	10.61	37.15 (-1.81)	-3.57	37.27 (+11.57)	6.49	12.21 (+9.19)	4.09	1.16 (-16.26)	-0.65
Kalaktang (B)	36.63 (-0.66)	-6.19	47.33 (+8.37)	6.61	31.43 (+5.73)	0.65	5.7 (-3.49)	-2.42	3.35 (-14.07)	1.54
Nafra (B)	22.28 (-15.01)	-20.56	21.64 (-17.32)	-19.08	10.68 (-15.02)	-20.1	0.27 (-8.92)	-7.85	0.73 (-16.69)	-1.08
EAST KAMENG (D)	27.44 (-9.85)		17.87 (-21.09)		12.08 (-13.62)		4.05 (-5.14)		5.3 (-12.12)	
Bameng (B)	5.91 (-31.38)	-21.53	7.29 (-31.67)	-10.58	0.09 (-25.61)	-11.99	0 (-9.19)	-4.05	0.28 (-17.14)	-5.02
Chayangtajo (B)	13.82 (-23.47)	-13.62	8.79 (-30.17)	-9.08	2.83 (-22.87)	-9.25	0 (-9.19)	-4.05	0 (-17.42)	-5.3
KURUNG KUMEY (D)	6.58 (-30.71)		11.66 (-27.3)		1.55 (-24.15)		0.14 (-9.05)		0.07 (-17.35)	
Sarli (B)	2.91 (-34.38)	-3.67	10.31 (-28.65)	-1.35	0 (-25.7)	-1.55	0 (-9.19)	-0.14	0 (-17.42)	-0.07
Damin (B)	0 (-37.29)	-6.58	11.87 (-27.09)	0.21	0.39 (-25.31)	-1.16	0 (-9.19)	-0.14	0 (-17.42)	-0.07
Koloriang (B)	17.17 (-20.12)	10.58	14.81 (-24.15)	3.15	1.13 (-24.57)	-0.42	0.85 (-8.34)	0.71	0.09 (-17.33)	0.02
Parsi-Parlo (B)	3.98 (-33.31)	-2.6	8.71 (-30.25)	-2.95	0.57 (-25.13)	-0.98	0.38 (-8.81)	0.24	0.19 (-17.23)	0.12
UPPER SUBANSIRI (D)	37.29 (0)		43.18 (+4.22)		17.7 (-8.0)		6.87 (-2.32)		6.07 (-11.35)	
Nacho (B)	1.43 (-35.86)	-35.86	41.72 (+2.76)	-1.46	1.01 (-24.69)	-16.69	0.42 (-8.77)	-6.45	0.17 (-17.25)	-5.9
Siyum (B)	7.37 (-29.92)	-29.92	15.21 (-23.75)	-28.06	0 (-25.7)	-17.7	0 (-9.19)	-6.87	0 (-17.42)	-6.07
WEST SIANG (D)	43.68 (+6.39)		47.33 (+8.37)		26.03 (+0.33)		8.16 (-1.03)		12.57 (-4.85)	
Mechuka (B)	36.9 (-0.39)	-6.78	44.81 (+5.85)	-2.52	11.32 (-14.38)	-14.71	3.64 (-5.55)	-4.52	1.5 (-15.92)	-11.07
Monigong (B)	0 (-37.29)	-43.68	31.09 (-7.87)	-16.24	0.19 (-25.51)	-25.84	0 (-9.19)	-8.16	0 (-17.42)	-12.57
Kaying-Payum (B)	28.22 (-9.07)	-15.46	41.2 (+2.24)	-6.13	1.41 (-24.29)	-24.62	0 (-9.19)	-8.16	5.46 (-11.96)	-7.11
UPPER SIANG (D)	45.96 (+8.67)		34.92 (-4.04)		14.73 (-10.97)		7.49 (-1.7)		1.68 (-15.74)	
Tuting (B)	36.81 (-0.48)	-9.15	40.16 (+1.20)	5.24	1.32 (-24.38)	-13.41	8.64 (-0.55)	1.15	0.23 (-17.19)	-1.45
Singa-Gelling (B)	11.93 (-25.36)	-34.03	42.2 (+3.39)	7.28	0 (-25.7)	-14.73	0.61 (-8.58)	-6.88	0.61 (-16.81)	-1.07
DIBANG VALLEY (D)	30.99 (-6.3)		41.83 (+2.87)		22.36 (-3.34)		4.03 (-5.16)		0.28 (-17.14)	
Anini-Mipi (B)	42.54 (+5.25)	11.55	48.21 (+9.25)	6.38	31.21 (+5.51)	8.85	5.67 (-3.52)	1.64	0.2 (-17.22)	-0.08
Etalni-Malinye (B)	0 (-37.29)	-30.99	31.66 (-7.30)	-10.17	0.77 (-24.93)	-21.59	0 (-9.19)	-4.03	0.77 (-16.65)	0.49
Aneli-Arzo (B)	6.78 (-30.51)	-24.21	16.22 (-22.74)	-25.61	0 (-25.70)	-22.36	0 (-9.19)	-4.03	0 (-17.42)	-0.28
LOWER DIBANG VALLEY (D)	34.38 (-2.91)		50.92 (+11.96)		23.99 (-1.71)		7.71 (-1.48)		33.81 (+16.39)	
Hunli-Kronli (B)	1.21 (-36.08)	-33.17	37.36 (-1.60)	-13.56	4.7 (-21.00)	-19.29	3.38 (-5.81)	-4.33	0.24 (-17.18)	-33.57
ANJAW (D)	20.59 (-16.7)		30.43 (-8.53)		8.01 (-17.69)		2.1 (-7.09)		0.95 (-16.47)	
Hayuliang (B)	38.25 (+0.96)	17.66	35.29 (-3.67)	4.86	18.81 (-6.89)	10.8	4.55 (-4.64)	2.45	0.62 (-16.80)	-0.33
Manchal (B)	11.82 (-25.47)	-8.77	23.20 (-15.76)	-7.23	3.44 (-22.26)	-4.57	2.10 (-7.09)	0	2.68 (-14.74)	1.73
Chaglagham (B)	11.9 (-25.39)	-8.69	31.97 (-6.99)	1.54	0.85 (-24.85)	-7.16	0 (-9.19)	-2.1	0.17 (-17.25)	-0.78
Walong (B)	9.18 (-28.11)	-11.41	27.99 (-10.97)	-2.44	1.48 (-24.22)	-6.53	0.31 (-8.88)	-1.79	0.62 (-16.80)	-0.33
CHANGLANG (D)	27.62 (-9.67)		38.81 (-0.15)		19.73 (-5.97)		4.95 (-4.24)		33.39 (+15.97)	
Khimiyang (B)	1.56 (-35.73)	-26.06	20.25 (-18.71)	-18.56	13.08 (-12.62)	-6.65	0 (-9.19)	-4.95	0.16 (-17.26)	-33.23
Nampong-Manmao (B)	41.18 (+3.89)	13.56	40.48 (+1.52)	1.67	26.91 (+1.21)	7.18	7.02 (-2.17)	2.07	17.35 (-0.07)	-16.04
Khagam-Miao (B)	33.99 (-3.30)	6.37	42.17 (+3.21)	3.36	23.07 (-2.63)	3.34	4.12 (-5.07)	-0.83	33.33 (+15.91)	-0.06
TIRAP (D)	28.71 (-8.58)		27.58 (-11.38)		20.94 (-4.76)		4.13 (-5.06)		4.17 (-13.25)	
Lazu (B)	8.09 (-29.2)	-20.62	13.15 (-25.81)	-14.43	5.56 (-20.14)	-15.38	0 (-9.19)	-4.13	0.17 (-17.25)	-4
Pongchau-Wakka (B)	11.58 (-25.71)	-17.13	16.74 (-22.22)	-10.84	4.03 (-21.67)	-16.91	0.09 (-9.10)	-4.04	0.21 (-17.21)	-3.96
ARUNACHAL PRADESH	37.29		38.96		25.7		9.19		17.42	

NOTE: Figures in the bracket indicate Percentage difference of the State average from the respective Blocks
Data newly created block Pippisorang is not available.

Source: Census of India, 2001, Tables of Houses, Household Amenities and Assets.

Table: A.12.		
Infrastructural Facilities of the Surveyed Blocks.		
Infrastructural Facilities.	Lumla Block.	Chaglagham Block.
(1)	(2)	(3)
1. Number of Primary Schools.	17	8
2. Number of Middle Schools.	13	2
3. Number of Primary Health Centre.	2	0
4. Number of Primary Health Sub-Centre.	1	2
5. Number of Doctors Posted.	1	1
6. Number of Banks.	1	0
7. Number of Post Office/Sub Post Office.	1	2
8. Number of Schools per 10000 Population.	5.58	4.24
9. Number of PHC and Sub-Centres per 10000 Population.	0.37	0.85
10. Number of Schools per 100 sq. k.m.	4.13	0.74
11. Number of PHC and Sub-Centre per 100 sq. k.m.	0.41	0.15
<i>SOURCE: Village Survey Data, 2008.</i>		

Table: A.13.					
Characteristics of the Surveyed Villages.					
Name of Village.	Appropriate	Distance from	Number of	Main	Secondary
	Altitude.	Border.			
(1)	(in feet)	(in km.)	(4)	(5)	(6)
Chaglagham Block, (Anjaw).					
Tabaikun.	2465	29	7	Farming	Contract
Tarampa.	2780	32	6	Farming	Contract
Tegamna.	2500	33	14	Farming	Contract
Taflagham.	2680	35	28	Farming	Contract
Apumna	2600	40	9	Farming	Contract
Abuagham.	2567	34	6	Farming	Contract
Lumla Block, (Tawang).					
Muchlat.	7000	13	25	Farming	Labour
Gorsam.	3000	13	90	Farming	Labour
Lumpo.	6000	10	45	Farming	Labour
Kharman.	4000	14	38	Farming	Labour
Zemithang.	3000	13	90	Farming	Labour
Mechukha Block, (West Siang).					
Targelling.	6200	48	22	Farming	Govt. Service.
Segong.	6300	43	11	Farming	Govt. Service.
<i>SOURCE: Village Survey Data, 2008.</i>					

Table: A. 14.											
Infrastructural Facilities in Surveyed Villages. (Distance in K.M.).											
Name of Villages.	Jeepleble	P. H. C./		Primary	Middle	Secondary				Police	Fair Price
	Road.	Sub-Centre.	Hospital.	School.	School.	School.	Market.	Post office.	Bank.	Station.	Shop.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Chaglagham Block.											
(Anjaw)											
Tabaikun.	3	2	158	2	2	58	2	2	58	58	2
Tarampa.	4	3	159	3	3	59	3	3	59	59	3
Tegamna.	1	1	157	1	1	57	1	1	57	57	1
Taflagham.	8	5	164	0	6	64	6	6	64	64	6
Apumna.	5	4	160	4	5	60	5	4	60	60	4
Abuagham.	3	2	158	2	3	58	2	2	58	58	2
Lumla Block.											
(Tawang)											
Muchlat.	1	4	108	4	14	58	4	4	58	58	4
Gorsam.	1	5	98	5	0	46	5	5	46	46	5
Lumpo.	1	10	110	10	10	60	10	10	60	60	10
Kharman.	3	4	98	4	12	45	4	4	45	45	4
Zemithang.	3	0	98	0	5	45	0	0	45	45	0

SOURCE: Data collected from Respective Blocks.

Table: A.15.		
Distribution of Villages by method of Identification Of Felt needs of the people of Chaglagham, Lumla and Mechukha Blocks.		
Name of Border Bloc	Person	Problems Identification.
Villages.	Consulted.	
Chalagham Block.		
(Anjaw)		
Tabaikhun.	Gaon Bura	Lack of Health facilities, Lack of Education, Lack of Communication, Electricity, Land Slide, Lack of Sanitation, Opium Addiction.
Tarampa.	Gaon Bura	Health problems(Direahoa,Stomach Pain, Fever), Lack of Education, Lack of Electricity, Land Slide, Lack of transportation, Opium Addiction.
Tegamna.	Gaon Bura	problems(Direahoa,Stomach pain, Common Cold, Fever), Lack of Education, Lack of Electricity, Lack of Transportation, Opium Addiction, Lack of Sanitation.
Taflagham.	Gaon Bura	problems(Direahoa,Stomach pain, Common Cold, Fever), Lack of Education, Lack of Electricity, Land Slide, Lack of Transportation, Opium Addiction.
Apumna.	Gaon Bura	problems(Direahoa,Stomach pain, Common Cold, Fever), Lack of Education, Lack of Electricity, Lack of Transportation, Opium Addiction.
Abuagham.	Gaon Bura	problems(Direahoa,Stomach pain, Common Cold, Fever), Lack of Education, Lack of Electricity, Land Slide, Lack of Transportation, Opium Addiction, Sanitation problem.
Lumla Block.		
(Tawang)		
Machlat.	Gaon Bura	Lack of Education, Lack of Water supply, Lack of Sanitation, Lack of Communication.
Gorsam.	Gaon Bura	Health problem, Lack of Transportation, Lack of Education, Lack of Sanitation.
Lumpo.	Gaon Bura	Lack of Transportation, Lack of Communication, Lack of Education Facilities.
Kharman.	Gaon Bura	Inadequate Electricity supply, Lack of Education, Lack of Transportation.
Zeminthang.	Gaon Bura	Lack of Health facilities, Lack of Education, Inadequate Electricity Supply.
Mechukha Block.		
(West Siang)		
Targelling.	Gaon Burar	Lack of Transportation, Lack of Health facilities, Lack of Educational Facilities.
Segong.	Gaon Burar	Lack of Electricity, Lack of Education, Lack of Water supply.

SOURCE: Village Survey Data, 2008.

Table: A.16.		
Allocation of BADP Fund for Arunachal Pradesh since 1997-98.		
Year.	Fund Allocation (in Rs. Crores).	Increase in Percentage over previous year.
(1)	(2)	(3)
1997-98	4	0
1998-99	11	175
1999-00	13	18.18
2000-01	6.75	-48.08
2001-02	13.51	100.15
2002-03	13.51	0
2003-04	9	-33.38
2004-05	13.51	50.11
2005-06	19.35	43.23
2006-07	44.98	132.45
2007-08	47.8	6.27
<i>SOURCE: Border Area Development Programme in Arunachal Pradesh, Department of Planning, Government of Arunachal Pradesh, 2008.</i>		

Table A.17.		
Fund Allocation of Allocation of B.A.D.P. Fund in Border Districts in 2007-08.		
Para Military Forces/ Allocation during 2007-08.		
Name of Districts.	(in Rs.lakh)	Percentage of Total Allocation.
(1)	(2)	(3)
Para Military Forces.	292.39	6.12
Tawang.	590.9	12.37
West Kameng.	510.1	10.67
East Kameng.	374.85	7.84
Upper Subansiri.	121.67	2.55
Kurung Kumey.	392.2	8.21
West Siang.	480.53	10.06
Upper Siang.	218.18	4.52
Dibang Valley.	91.48	1.91
Lower Dibang Valley.	452.53	9.45
Anjaw.	590.53	12.36
Changlang.	455.52	9.53
Tirap.	207.61	4.34
<i>SOURCE: Border Area Development Programme in Arunachal Pradesh,</i>		
<i>Department of Planning, Government of Arunachal Pradesh, 2008.</i>		

**Problems of Border Areas in North East India :
Implications for 13th Finance Commission**

**ARUNACHAL PRADESH
(Part II)**

by

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**ARUNACHAL PRADESH
(PART II)**

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Introduction :

The Department of Economics, Dibrugarh University, selected two districts viz Changlang bordering Myanmar and Anjaw bordering both China and Myanmar. One border development block from each district has been selected purposively for this survey work. These two sample blocks are - Nampong (Changlang district) and Hawaii (Anjaw district). Five villages from each development block situated both in the remote and urban triage areas of the sample blocks were selected for intensive survey.

The Research Team has also collected information through two Focus Group Discussions (FDG), one in each of the sample block, with local representatives viz, local MLA, officials, elected panchayat representatives, school teachers, gaonbura, NGOs, businessmen, contractors, etc.

The first FGD was held on 14th October, 2008 at Nampong Circle Office bordering Myanmar which was attended by 30 participants and the second FGD was held on 10th December, 2008 at Hawaii bordering Myanmar attended by 40 participants. The third FGD was held at the Kibithoo bordering China on 11th December, 2008, which was attended by army officials and villagers.

The findings of the report are based on the primary data collected by administering village schedules in the sample villages. These data were supplemented with/ by the information collected in FGDs. The Research Team also traveled intensively in the rural areas of the border to have some ideas about the social and economic life of the people of border areas of Arunachal Pradesh. The team also visited the border posts at Pangsou Pass in Changlang District bordering Myanmar and Kibithoo in Anjaw District bordering China and had discussion with defense personnel about border problems and noted their views.

Profile of the Surveyed Blocks:

To understand the level of development of region/ area, it is essential to know its physical and demographic features, availability of economic and social infrastructure, livelihood of the population etc.

Physical and Demographic Features:

A few indicators of physical and demographic features of the surveyed Blocks viz, Nampong of Changlang District and Hawaii of Anjaw District of Arunachal Pradesh are indicated below.

Nampong Block:

Nampong Block in Changlang District is a border block with a geographical area of 1007 sq. km. It is situated about 350 meters above sea level with an annual rainfall ranging from 3288 to 4866 mm. nearly one third of the land area of the Block is plains where settled cultivation is practiced. In hill slopes 'jhum' is the common practice of cultivation. Forests cover the major part of the hills. The Block Headquarters is about 15 km away from Myanmar border, 113 km from Tinsukia, a major railway junction of Assam and 58 km from Lekhapani, the nearest railway head. The Stilwell Road starting from Ledo in Assam has passed through Nampong Block to China across Myanmar. Dibrugarh airport is about 158 km from Nampong.

The Block has a population of 12260 persons with a sex ratio of 813 and a density of 12 persons per sq. km. The literacy rate of the population of the Block is 59 per cent and the percentage of ST population is 46.79. The workforce participation rate is 43.87 per cent and the proportion of workers in agriculture is 44.18. Such low proportion of workers in agriculture is due to dominance of trade and commerce sector in the Block area. The proportion of children between 0-6 years of age is 17 per cent and the dependency ratio is 1.5.

The Hawai Block in Anjaw District is situated about 1296 meters above the sea level. The geographical area of the Block 1840 sq. km. Having the annual rainfall ranging from 1050 mm to 1250 mm. The land area of the entire Block is hilly and jhum is the common practice of cultivation. The Myanmar border is nearly 40 km and China border is nearly 90 km from Hawai Block Headquarters. It may be noted that Hawai is going to be the District Headquarters of Anjaw District and the construction works are going on for the purpose.

The Block has a population of 3954 persons with a sex ratio of 980 and a density of 2.9 persons per sq. km. The low density of population of the Block is due its difficult terrain and stiff hills. The literacy rate of the population of the Block is 30.81 per cent and the percentage of ST population is 77.26. The workforce participation rate is 50.15 per cent and the proportion of workers in agriculture is 55.25. The high workforce participation rate of the Block population is due to relatively large participations of women workers and higher proportion of workers in the primary sector is due to the non-availability of opportunities in other sectors. The proportion of children between 0-6 years of age is 18.97 per cent and the dependency ratio is 2.

Social and Economic Infrastructure:

The border areas of the North East India are usually poor in social and economic infrastructure because of their remoteness and difficult terrain. The costs of constructions of these infrastructures are very high because of high transport and labour costs, shortage of skill personnel. Because of low density of population the construction of infrastructure is not cost effective. The social and economic infrastructures of the surveyed Blocks of Arunachal Pradesh also have demonstrated the above characteristics.

Social Infrastructure:

The social infrastructure of both the Blocks along with their respective districts and State average are shown in Table 1

Table 1
Social Infrastructure

		Block	District	Block	District	Arunachal Pradesh
		Nampong	Changlang	Hawai	Anjaw	Average
1	No. of Primary School	40	132	7	18	1277
2	No. of M.E. School	6	26	3	9	326
3	No. of High/Secondary School	2	7+8=15	1	1	103+69=172
4	Teacher Students Ratio	10 : 1		25 : 1	24 : 1	
5	No. of PHC sub Centre	1	0.82/100 sq. km.	1	0.43/100 sq. km.	0.74/100 sq. km.
6	No. of Hospitals	2		1		
7	No. of Doctors	4	3.27 per 10,000	3	4.34 per 10,000	4.23 per 10,000 population
8	No. of Paramedical Personnel	5		8	15	
9	No. of hospital beds	30		15	58	
10	Percentage of villages having drinking water facilities	80%	72%	74%	91%	
11	Percentage of households with sanitation	30		15		
12	No. of Police Station and outpost	1		1	2	68
13	No. of villages		285		266	

Table 1 shows that the educational infrastructure of both the sample Districts is poor because only 132 primary schools in Changlang District having 285 villages and only 18 primary schools in the entire Anjaw District having 266 villages. The distribution of primary schools in the surveyed Blocks is 40 and 7 in Nampong and Hawai Blocks respectively. Similarly, the number of ME, High and Higher Secondary schools both at Block and District levels is also low. The teacher-student ration of 1:10 in Nampong Block is much better than 1:25 in Hawai Block. It is because the population density of the former Block is much higher and it has extensive plains area.

In terms of infrastructure in health facilities both the surveyed Blocks and their respective Districts are very poor because Nampong Block has only one Public Health Centre, two State Dispensaries, four doctors, five paramedical personnel and thirty hospital beds to cater to the health needs of 12260 populations of the Block. Similarly, Hawai Block of Anjaw District has only one Public Health Centre, one State Dispensary, three doctors, eight paramedical personnel and fifteen hospital beds for a population of 3954.

The sanitation facilities of households of both the sample Blocks are also found to be very poor because only 30 per cent of households in Nampong Block and 15 per cent of households in Hawaii Block have pit and sanitary latrine facilities. Inhabitants of rest of the households use open space and jungle for defecation.

However, the surveyed Districts and Blocks are found to be well equipped in drinking water facilities because 80 per cent of the villages in Nampong Block and 74 per cent of the villages in Hawaii Block have tap water facilities and about 90 per cent of the households have tap water connection.

Economic Infrastructure:

Economic infrastructure includes transport and communication facilities, power supply, banking facilities etc. The border areas of the North East are found to be extremely poor in such economic infrastructure. The entire State of Arunachal Pradesh, which borders China and Myanmar, lacks in railway and air connectivity (except limited helicopter services). The only transport facility available in the State is road transport. But the road length of the entire State is extremely low in comparison to its size. The length of roadways per 100 sq. km. area in the State is found to be only 16 km and it is only 10 km in Anjaw District and 20 km. in Changlang District. As a result the villagers of Arunachal Pradesh have to walk extensively. Tata Sumo service in the private sector has been found to be dominant mode of transport while State Transport Corporation also provides public transport system between the District and Block Headquarters. About 42 per cent of villages in Nampong Block and 38 per cent villages in Hawaii Block have road connectivity while the State average is 38.58 per cent.

Arunachal Pradesh is rich in water resource. Large number of turbulent rivers are crisscrossing the State. A good number of micro, mini and medium hydroelectric projects are in operation in the State. Therefore, the position of availability of power is relatively better in the State as nearly 48 per cent of the villages of Arunachal Pradesh have been electrified. However, there is regional variation of power supply within the State as nearly 70 per cent of the villages in Nampong Block and only 17 per cent of villages of Hawaii are found to have electricity connectivity.

The postal services are found to be reluctant to penetrate into the State due to thin human habitation. The State has only 46 post & telegraph offices. Nampong Block is having only two post offices and Hawaii Block has only one post office.

The financial infrastructure is equally poor in the State. The total number of bank branches in the State is only 99. The sample Districts viz., Changlang and Anjaw have only 7 and 1 bank branches respectively. It is observed that the banks are concentrating only in District Headquarters and other major urban centers of the State. Rural banking is almost absent in the State. There are evident from the complaints received from the households of the surveyed villages and the interactions in the Focus Group Discussions. As a result of this poor banking facilities the rural masses are being deprived of the benefits from even the Government sponsored schemes.

The Profile of the Surveyed Villages:

The villages surveyed in Nampong Block of Changlang District are Lungpang, Changlai, Nongkey, Khamkhai and Therimkan. The surveyed villages in Hawaii Block of Anjaw District are Walla, Watong, Longling, Lautul and Wallong. It may be noted that the majority of villages surveyed in Nampong Block are from remote areas and they are very close to Myanmar border. On the other hand the majority of the villages surveyed in Hawaii Block are from urban fringe and they are slightly away from Chinese and Myanmar borders.

Demographic Features:

The demographic profile of the rural population of Arunachal bordering Myanmar and China as revealed in the village survey is shown in Table 2.

Table 2
Demographic Features of the Surveyed Villages

Name of the village	No. of Households	Male	Population Female	Total	Sex-Ratio	Avg. F. Size
Nampong Block						
Lungpang	39	165	170	335	1030	8.59
Changlai	16	59	52	111	881	6.94
Nongkey	28	74	88	162	1189	5.78
Khamkhai	33	92	93	185	1010	5.61
Therimkan	26	75	81	156	1080	6.00
Sub Total	142	465	484	949	1040	6.68
Hawaii Block						
Walla	48	136	143	279	1051	5.81
Watong	82	164	145	309	884	3.74
Longling	41	82	68	150	829	3.66
Lautul	44	73	76	149	1041	3.39
Wallong	07	22	16	38	727	5.43
Sub Total	222	477	446	925	935	4.17
Grand Total	364	942	930	1872	987	5.14

Table 2 shows that sex ratio of 987 of the people of the border villages against State and national averages of 893 and 933 respectively. This higher sex ratio reflects relatively high status of the women of the border villages. The average family size of the border villages is 5.14.

Socio-economic features of the people of Border Villages:

The villagers of the Nampong Block belong to Tangsa, a dominant tribe of Changlang district. Most of them are Christians. The other side of the border inside Myanmar is also dominated by the same tribe. As a result of which cross border social and economic relations were very strong before India's independence. However, after independence the movement of people across the border has been restricted. Cross border movements of man and material are allowed only twice in a month. One at Pangsou Pass in Myanmar and the other at Nampong in India. The existence of the Stillwell Road has helped these border trades. Medicines, consumer goods, grocery, biscuits, umbrella, clothes, utensils, baby foods, salt, bicycle spare parts are formally, imported from India to Myanmar through Nampong trading point. Similarly, vegetables, chocolates, bidi, cigarettes, electronic goods, knife, precious stones, coffee, nuts,

medicines, Burmese hats etc, are imported from Myanmar's side. However, most of these imports from Myanmar are the third country's product. Due to non availability of motorable roads, the traders from one country visit the trading point of the other country on foot and porters are used for carrying the goods. The dilapidated condition of the Stillwell road from Nampong to Myatkeniya via Pangshu Pass, non existence of currency exchange facilities, the average value of border trade (both import and export) between India and Myanmar in the Nampong - Pangshu Pass points in only Rs. 90 lakh per year (The Report and Findings of the UGC sponsored Area Study Programme Centre for Studies on Bangladesh and Myanmar, Dibrugarh University, 2007).

The villagers of the Hawaii Block mainly belong to Mishimi - a major tribe in Anjaw District and most of them are Hindus. However, few house holds are followers of Buddhism. The other side of the border in China is also inhabited by the same tribe. As a result of which cross border - social and economic relations existed before the Chinese aggression in 1962. However, after the aggression the border has been completely sealed and no cross border movement of any kind is allowed.

Livelihood:

The primary occupation of the villagers of the surveyed villages in both the Blocks is farming and jhum cultivation is the common practice as the entire region is hilly. However in a few villages of Hawaii Block some farmers are found to have settled horticultural plantation crops like orange and cardamom. Mishimitita - a medicinal plant is also cultivated in Hawaii Block which is highly demanded in the national and international markets. It is further found in this Block that the demand for branches of pine tree is growing for extraction of oil for commercial purposes. However, a few villagers are engaged in non-agricultural activities as supplementary sources of income such as petty business, small contract, fishing, hunting, etc.

It may be noted that in some villages of Hawaii Block a section of villagers are found to be engaged in poppy (opium) cultivation illegally. It is reported that such products are marketed in different parts of Arunachal Pradesh as well as neighbouring country, viz, Myanmar.

Land Ownership:

Land ownership in both the Blocks is found to be on community basis. Each clan owns land in a particular area on which they cultivate. However, such land is transferable between the households within the clan.

Economic Infrastructure of the Border Areas:

Arunachal Pradesh as a whole is poor in economic infrastructure. The road density of the State is only 17 km. per 100 sq. km. area against 75 km. of the national average. It is more so in border areas. Villages are scattered and still remaining unconnected. In the border villages it is found that a good number of villages do not have any motor-able road. In many cases it is observed that villagers have to walk 25 km. to 30 km. to reach the nearest motor-able road. Similarly some other economic infrastructures like market, fair price shops, post offices etc. are available only in urban and semi-urban areas, which are 25 to 30 km. from border villages.

In the absence of motor-able road to these places villagers are to walk to avail the benefit of such economic infrastructure. Therefore, the villagers do not like to produce marketable surplus due absence of marketing infrastructure.

Table 3
Economic Infrastructure of the Surveyed Border Areas

Name of the village	Distance from the village (in km.)					No. of H/H having Electrification
	Motor-able road	Market	Fair price shop	Post office	Bank	
Nampong Block						
Lungpang	15	15	15	15	25	21 (54%)
Changlai	27	27	27	27	47	12 (75%)
Nongkey	1	3	3	3	23	23 (82%)
Khamkhai	1	2	2	2	20	3 (9%)
Therimkan	3	2	2	2	22	19 (73%)
Sub Total						78 (55%)
Hawai Block						
Walla	0	0	0	0	60	48 (100%)
Watong	0	0	0	0	65	82 (100%)
Longling	5	5	5	5	70	0 (0%)
Lautul	0	0	0	0	0	40 (90%)
Wallong	0	0	0	0	2	7 (100%)
Sub Total						177 (80%)

Except the availability of primary and ME school facilities most of the border villages are deprived of adequate social infrastructure as reflected in Table 4.

Table 4
Social Infrastructure of the Surveyed Border Areas

Name of the village	Distance from the Village (in km.)					
	PHC/ Hospital	ICDS	Primary School	ME School	High/ HS School	Police Station
Nampong Block						
Lungpang	15	25	0	0	15	25
Changlai	27	47	0	0	27	47
Nongkey	1	23	0	5	5	23
Khamkhai	1	20	0	1	1	20
Therimkan	3	22	0	2	2	22
Hawai Block						
Walla	0	0	0	0	0	0
Watong	0	0	0	0	0	0
Longling	5	5	0	5	5	5
Lautul	0	0	0	0	0	0
Wallong	2	2	0	0	0	0

The most important social infrastructure, the Public Health Centre (PHC)/ Hospital is far away from the border villages. People of the border villages have to travel a distance of 25 to 30 km. to reach their nearest PHC or Hospital. It is heartening to note that most of the border villages have primary school within the village. But the distance to the High/ Higher Secondary school is found to be as much as 27 km. resulting into lack of High/ Higher Secondary education of the border villagers.

Major Observation of the Study:

On the basis of the information collected three Focus Group Discussion (FGDs) with people's representatives, Government officials, Block officials, school teachers, village headmen, NGOs, businessmen, contractors, security personnel, women's bodies, etc.; data collected from the border villages and the experience gathered by the Study Team from the border villages, the observations about the situation of the Arunachal Pradesh border areas are summarized below.

1. Mindset of the people of the Border Areas:

It is found in the surveyed districts that the people living on both sides of the border of Arunachal Pradesh belong to the same tribe. Along the border of Changlang District, the Tangsa tribe lives on the both sides of India and Myanmar. Similarly, along the border of Anjaw District, the Mishimi tribe lives on both sides of India and China. As a result cross-border movements of men and materials existed before India's Independence. Though such movements continued in a restricted manner in the Indo-Myanmar border in Changlang District, these are completely sealed in the Indo-China border in Anjaw District, particularly after the Chinese aggression in 1962.

From discussion with the village people of the border area of Anjaw District, it has been felt that the people in general still feel that their counterparts across the border in China are much better off in terms of both economic and social developments. Some of them are found to have been praising the initiatives taken by the Chinese Government in uplifting the economic status of their own tribe living in the other side of the border in China. The Study Team also had an opportunity to observe the developments in the agglomerated clusters of Chinese border villages on the fringe of Indo-China border from the Kibithoo border point with the help of high-power distance viewer (binocular) provided by the Indian army officials.

It is to be noted that a few old people met by the Study Team have all praise for Chinese soldiers when the Chinese army entered into their area in 1962 aggression because the civilians of Arunachal Pradesh were treated well by the Chinese army. It may also be noted that the local inhabitants of both the Block under study do not have any conflict with the Indian army unlike Manipur.

All these show that a section of the people living in the villages bordering China in Anjaw District is not happy with development activities initiated by the Government of India.

On the other hand, the Tangsa tribes living in the border of the Changlang District do not feel inferior to their counterparts across the border in Myanmar. It is because unlike the Chinese Government, the Myanmar Government has not taken any initiatives in developing the border areas.

2. Scattered Human Habitation:

The population density in the border areas is so low that economic and social infrastructures development programmes are difficult to be implemented because costs far exceed the benefits. The unit cost of road construction is Rs. 80 lakh per km. in Nampong

Block, which is almost double of that of plains. But in Hawai Block it is as high as three to four times of that of the plains. This is because of stiff hills the costs of development in the border region are very high.

3. Transport and Communication:

Development of transport and communication is most challenging in the border areas of Arunachal Pradesh because of scattered habitation, stiff hills and uneven topography. At present percentage of villages having road connectivity are 60 in Changlang District and 14 in Anjaw District against the State average of 38. Thus about 86 per cent of the villages in Anjaw District have no road connectivity. The people of these villages have to use Porter Tracks for their all kinds of movements. Tata Sumu service is the primary mode of transport for the villages having road connectivity. State transport service is very limited in border areas. Telecommunication connectivity is also extremely poor in the border area as the private telecommunication service providers are not interested for low profitability.

The Stilwell/ Ledo Road were built during the Second World War connecting Kunming-Baoshan (China)-Myitkyina (Myanmar)-Ledo (India). The total length of the road between Kunming and Ledo is about 1700 km. of which 800 km is in Yunnan Province of China, 727 km. in Myanmar and 173 km. in India. But between Myitkyina and Pangshu Pass (border point with India) a stretch of about 200 km., this route needs rebuilding because beyond Myitkyina up to Kunming the road is already well developed. Thus, from Ledo to the extreme border point of India (except 'no man land' portion on Indian side) has been developed recently. Since Kunming is already connected with Hong Kong by an express highway, the North East India, for that matter India as a whole, could establish direct road link with Hong Kong if the Stilwell Road is well developed. Moreover, since Lashio is well connected by rail and road with provinces of south and central Myanmar, bordering Laos, Thailand, Malaysia and Singapore, the Stilwell Road can connect India with the entire South East Asian countries by land route.

4. Status of Porter Tracks:

It is observed that in the stiff hilly region the only means of movements of men and materials are the porter tracks. Villagers with marketable articles on their back move along these tracks to reach markets. But the conditions of these tracks are so poor that the villagers find it very difficult in trading along these tracks. This has been highlighted in the FGDs at Hawai and Wallong of Anjaw District.

5. Uneconomic Agricultural Practice:

Jhum is the common practice of cultivation in the border areas, which gives very low productivity. The cropping pattern of the area includes paddy, millet, opium, though the region is very suitable for horticultural crops like orange, cardamom, etc. on permanent basis. The Study Team has observed that orange and cardamoms cultivations are successfully practiced in some border villages of Anjaw District.

6. Rural Development Schemes:

Various rural development schemes are being implemented through Panchayati Raj Institutions (PRIs). Centrally structured schemes are difficult to implement in the border areas

because of very high unit cost. For example, in the FGDs it has been highlighted that the construction cost of a latrine under Total Sanitation Programme and the Indira Awas Yojana (IAY) is almost double of the amount sanctioned. Similarly, most of the villages of border area of Arunachal Pradesh are not eligible for the implementation of the Prime Minister's Gramin Sadak Yojana because of very low density of population. Thus, villagers of the border areas are deprived of many important rural development programmes.

7. Status of Health and Health Delivery System:

In both the sample border Blocks, the predominant disease among the inhabitants is found to be malaria. Existence of deep forests has made the entire border area damped and breeding ground for the mosquitoes. People do not use mosquito net. People are not aware of protecting themselves from mosquito bite by using mosquito net and other methods. Diarrhea and cholera also frequently occur in the villages of the border area.

The poor status of health delivery system in the border districts can be gauged from the fact that there are only 3 PHCs per 10,000 populations in Changlang District against the State average of 6. As it is evident from the village survey, villagers of certain border villages are to travel up to 27 km. to reach the nearest PHC in Nampong Block of Changlang District. However, the situation is relatively better in Anjaw District since the no. of PHCs per 10,000 populations is 10 and the maximum distance the villagers have to cover to reach the nearest PHC is 10 km. In the border blocks under study, the number of doctors per 10,000 populations is 4, which is almost at par with State average. The number of hospital beds per 10,000 populations is 11 in Changlang District and 31 in Anjaw District against the State average of 20. In the absence of the adequate health delivery system, people had to resort to traditional method of treatment whenever they are ill.

It was evident from the FGDs that the health delivery system in border areas is not only deficient in terms of quantity but also in terms of quality. Absentee doctors and paramedical personnel and shortage of required medicines are common phenomena in border PHCs and hospitals. In the absence of diagnostic equipments and modern medicines, substantial number of patients are referred either to Coal India Hospital, Margherita or to Assam Medical College, Dibrugarh (500 km. from Kibithoo border of Anjaw District and 160 km. From Nampong border of Changlang District). However, it is evident from the FGDs that immunization scheme even in the border areas of Arunachal Pradesh is successful and the children are protected from several fatal diseases.

8. Educational Status:

The status of primary and middle school education in the border areas of surveyed Blocks is found to be good in the surveyed villages in the sense that there is one primary school in each surveyed village and one ME school for three or four villages. However the High and Higher Secondary Schools for most of the villages are beyond the walking distance.

9. Banking Infrastructure:

The border Blocks are found to be highly inadequate in banking facilities because only the District Headquarters have a branch of nationalized bank. The villagers have to travel a long distance to get the benefit of banking service.

10. Marketing Infrastructure:

Some amount of marketing infrastructure has been developed at Nampong (only 12 km. from Myanmar border), because of the existence of border trade with Myanmar. Because of very thin population and low commercial activities the marketing infrastructure is very poor in Anjaw District. However, a few roadside petty markets are observed in this district.

11. Natural Disaster:

Landslide is found to be the most frequent natural disaster in the border areas. Border roads are blocked for days together disrupting all transport activities during the rainy season. As a result supply of all essential commodities and essential services are severely disrupted. Implications for the Thirteenth Finance Commission:

The implications for the Thirteenth Finance Commission on the observations and findings of the Study Team are the following :

1. The feeling of being deprived of the developmental facilities, which their counter part is enjoying on the other side of the Chinese border, must be removed by special initiatives for development of the border areas. The Finance Commission can take initiative in this front.
2. The scattered habitation with hilly terrain and high altitude, which is the characteristic of the border areas of Arunachal Pradesh, has been putting stumbling blocks on the way of implementing developmental programmes in the region. The unit cost of development is too high. The Finance Commission should allocate adequate fund for the programme of agglomeration of village s in clustered form, wherever possible like China in their hilly areas so that the development activities can be accelerated. Another way of natural agglomeration as highlighted in the FGD at Nampong can be the development of a township, in a convenient place near border, say Nampong, with all state of the art of social, cultural, educational, medical and physical infrastructural facilities viz. marketing, transport and communication to which people will automatically agglomerate. Such agglomerations either induced or natural shall reduce the unit cost drastically of all developmental activities to be undertaken in future.
3. If the Governments of India and Myanmar agree to develop the Stillwell Road from the Pangshu Pass to Myitkyina, a distance of about 200 km., which is in a very bad shape now, the Finance Commission can allocate fund for the purpose. This road shall accelerate border trade between India and Myanmar, which will generate income and employment opportunities to the border people of the area.

4. The Finance Commission can give special emphasis on the development of the porter tracks for the benefit of the villagers in the border areas where the agglomeration is not possible. Similarly, the border villages that fail to fulfill the conditions required under the existing rural development programmes due to low density of population could be compensated by other schemes for which the Finance Commission can allocate more fund.
5. The Finance Commission through the State Government should give emphasis on popularization of horticultural crops like orange, cardamom, orchids, medicinal plants like Mishimitita in the border areas of Arunachal Pradesh. The help of local NGOs and Panchayats in eradicating the habit of opium cultivation and consumption can be sought.
6. The Finance Commission can recommend for sufficient fund allocation for (i) establishing a modern referral hospital in the Headquarters of the border Districts to which the Doctors of PHCs and dispensaries in interior places can refer the patients for better treatment, (ii) for improving the existing PHCs and hospitals and (iii) granting attractive monetary benefits to the doctors and paramedical personnel working in the remote border areas of Arunachal Pradesh.



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**PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA:
IMPLICATIONS FOR THE 13TH FINANCE COMMISSION**

**ASSAM (PART I)
WESTERN ASSAM - BANGLADESH
BORDER SEGMENT**

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I. INTRODUCTION:

I.1 Introduction to the Study Area:

As a single entity the Northeast region of India shares all but 2% of its border with foreign countries. The position of Assam is however somewhat different from the rest of the states in the region. Being located in the middle of the region, the state consists mostly of plains surrounded by the other states of the region which are almost entirely hilly or have substantial hilly components. Assam is the only state which shares boundary with all the other states of the region (except Sikkim, which was administratively tagged with the region in the 1990s, but which is not contiguous to the rest of the region). Because of this special geographical position of Assam in the region, her boundary is mostly shared with rest of the states in the region rather than with foreign countries. Yet the state has three international border segments which have their own significance in terms of cross border trade (formal or informal), cross border movement of people and security concerns and border protection. These three segments are A) Western Assam-Bangladesh Border forming most of the western boundary of the state, B) Assam-Bhutan Border forming the north-western boundary of the state and C) Southern Assam-Bangladesh Border forming the western boundary of the Barak Valley in South Assam. The present part of the report is concerned with the Western Assam-Bangladesh Border segment.

Administratively this border area constitutes the district of Dhubri. The district is bordered by Bangladesh and West Bengal in the west, Goalpara & Bongaigaon district of Assam and West Garo hills district of Meghalaya in the east, and Kokrajhar district in the north. It is again bounded by Bangladesh in the south. Topographically most of Dhubri's 2,838 sq. kms is plains with a small number of hillocks scattered across the eastern part of the district. The district also has significant extent of *char*¹ areas that are inhabited. The exact population of such char dwellers is not readily available. But as per informed sources, they constitute about 15% of the total population of the district. The river Brahmaputra flows across the district from east to west fed by tributaries such as Champabati, Gourang,

¹ Char are sandy tracts of land which lies in the middle of a river or adjacent to it. These tracts are created in the form of both lateral (point) bars and medial (braid) bars, by a complex process of continuous erosion and accumulation of sand and other solid materials over a period of time. Sand bars created in the middle of a river are called island chars, whereas those forming adjacent to it are called attached chars. To be considered a full fledged char such tracts must support vegetation and hence make settlement and agricultural activities viable.

Agricultural productivity in char areas have been found to be significantly lower than compared to that of the mainland. This is commonly attributed to inferior soil, constant erosion and perennial flooding of those areas. However most chars have extensive grassland which provides grazing for cattle. Besides thatching materials are provided by catkin grass which is grown extensively in these chars. Fishing provides an alternative form of livelihood for the residents of these areas.

The Socio-Economic Survey, 2002-2003 (Government of Assam, 2003) has identified 2,251 char villages scattered over 14 districts of Assam. The char area is constituted by 3.6 lakh hectare of land which is inhabited by population of 24.9 lakh. The people in these regions suffer from a very low level of human development as indicated by an abysmal literacy rate of 19.31 percent and deplorable 67.88 per cent population living below poverty line.

Gadadhar, Gangadhar, Tipkai, Sankosh etc. On an average the district is situated 30 meters above the sea level.

Situated at a road distance of 290 kms. from Guwahati, Dhubri (town) is the headquarter of the district. The three subdivisions of the districts are 1. Dhubri (Sadar), 2. Bilasipara and 3. South Salmara / Mankachar. Of the fourteen Community Development Blocks of the districts, eight are contiguous to the international border. These are Agomani, Golakganj, Rupshi, Gauripur, Birsingjarua, South Salmara, Fekamari and Mankachar. Of these the former four are on the North Bank part of the district and the latter four are in the South Bank part.

1.2 Data Source and Methodology:

The present report is based on analysis of broadly five sets of information collected/compiled during October and November of 2008.

The first set consists of information collected from official websites and the offices of the district civil and police administration. This information has been useful for constructing the general background of the study area.

The second set of information is sourced from interview of informed sources and Focus Group Discussions (FGD). The first focus group discussion (FGD) was held in the Dhubri Circuit House on the evening of 29.10.08. The participants included members of the administration including block development officers, and members of the *Gaon Panchayat & Zila Parishad*. On the following day, the second FGD was held in the same venue with a cross-section of the population including local politicians, lawyers, school teachers, businessman, farmers etc. Two more FGD's were conducted with the civil society on 1.11.08; one in Mankachar and the other in Hatsingimari. The first, in Mankachar was held with a cross section of the urban civil society in the town. Participants included college and school teachers, businessmen, lawyers, contractors, and local entrepreneurs. The second FGD was held in Hatsingimari. In contrast to Mankachar, the participants here were from rural areas comprising of agriculturalists, retired & serving teachers, former BSF personnel, NGO members and unemployed youths. Besides providing useful insights to the problems and prospects of the society and economy of the study area the FGDs also gave a hint of changes in popular mindset and attitude. However the FGD inputs were cross verified either with independent sources and/or with primary and secondary data collected, and are included in the report only after due filtration.

The third set of information for the study came in the form of secondary data collected from government agencies such as the Census of India and published reports of the Government of Assam such as the different editions of the Statistical Handbook of Assam and the Assam Human Development Report 2003. While the data from the publications of the Government of Assam were useful for a comparative analysis of the status of the border district of Dhubri with the state level situation, the Census data on Village Amenities enabled a comparison of the status of border blocks with the district level situation.

The fourth set of information used for this report came from a primary field survey of sample villages conducted in a border block of the district. From the eight blocks of the district that are contiguous to the international border, the Fekamari Development Block was purposively selected for the village sample survey. The block is thought to be most representative of the district as it comprises of *char* and non-*char* areas more or less in the same proportion as the district. The block includes 78 villages from which 20 randomly selected villages (approximately 25%) have been covered in the village survey.

Data collected from both secondary sources and field survey has been analyzed by computing and comparing averages and percentage ratio.

1.3 Structure of the Report:

The report consists of four broad sections. Section two presents the demographic and socio-economic profile of the study area. The third section is on the nature of the border and the border related issues. Broad conclusions emerging from the exercise are summaries in section four.

II. DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILE OF THE STUDY AREA:

II.1 *Demographic Features:*

The demographic features of the district alongside those of the state of Assam are presented in table 1. Table 2 supplements table 1 in giving the status in border blocks on a few parameters on which block level data could be collected.

Table 1: Demographic Profile of Dhubri District as Compared to that of the State of Assam as per 2001 Census Statistics



Source: Statistical Hand Book-2006

From the data in table 1 several striking features of the demographic situation of the district becomes apparent.

Compared to the state of Assam, the Dhubri district is far too densely populated. It may be noted that population density in Assam itself is higher than the all-India density. The high density has been built up by much higher population growth rate

in the district than in Assam as a whole. The relatively higher growth rate may be partly due to in-migration. That six of the eight border blocks have extremely high density of population point towards continuous net in-migration into the district across the international border (refer column 2, table 2). But higher fertility rate must have also contributed to the sustained rapid population growth in the district, as the district has a much higher proportion of under-6 population than the state. Though sex ratio is somewhat higher in Dhubri than in Assam, other demographic features indicate relative socio-economic backwardness of the district. Literacy rates are well below that of the state of Assam which itself has the second lowest rate in the Northeast region. Even this modest rate is achieved with large gender disparity. Gender disparity is also striking in workforce participation. The percentage of SC and ST population is rather small. But nearly three fourths of the population is Muslim.

Table 2: Some Demographic Parameters of the Border Blocks
Of Dhubri District as per 2001 Census Statistics



Source: Census of India-2001, District Census Handbook

II.2 State of the Economy:

Table 3 presents some statistics which summarise the state of the economy in the district. GDP per capita in the districts stands at only 57% of the state level which itself is no more than 60% of the all-India level. The primary sector still contributes nearly half of the district GDP. Apparently the kind of growth of service sector taking place in the other parts of the state has been by and large absent in the district, which is keeping the share of tertiary sector relatively lower and exaggerating the share of the secondary sector.

As per Assam Human Development Report 2003, the district not only had a low HDI value but was ranked the last among the 23 districts the state had at that time. Human poverty wise the district had a marginally better relative position as it was ranked third and not first among the districts.

Table 3: Indicators of the State of the Economy of the Dhubri District



* While HDI is the indicator of attainment of human development in 0 to1 scale, HPI is a measure of deprivation from human development on the same scale.

Among 23 districts.

Source: Assam HDR-2003, Statistical Hand Book-2006

The present dismal state of affairs of the economy in the district owes much to the disadvantage inflicted to Dhubri by partition of the country in 1947.

Before partition Dhubri used to a gateway for trade and commerce for the north-east region, especially the Brahmaputra Valley producing and exporting tea, timber and minerals, to the rest of the country and the world. The district had important heads of road, rail and waterways linking the valley through East Bengal to the ports on the Bay of Bengal and other centres in Rest of India. By snapping these vital links partition reduced the district from a junction for trade and commerce to a remote peripheral corner; a blow from which the district is yet to recover.

Table 4: Indicators of Land Use Pattern and State of Agriculture in Dhubri as compared to Assam



Sources: Census of India-2001, District Census Handbook, Statistical Hand Book-

2006 and Agricultural Census 2007

Not topping the HPI list despite the worst HDI in the state indicates that there must be some redeeming factors in the economic life of the people. As table 4 shows, the positive factor is present in the form of better agricultural practices and performance. Though the district has a relatively smaller average size of holding, the farmers in the district cultivate their land more intensively and plant larger proportion of rice acreage under HYV. As a result they have been able to achieve a significantly higher yield rate of the main crop rice, inspite of not being able to match the state as a whole in the application of expensive inputs like fertilisers. The Focus Group Discussions revealed a few more detail and insights to the economic life of the people in the district.

- About 80% of the population in the border areas depends on agriculture for their livelihood. Land is very scarce and is highly fragmented. Land disputes and related litigation are very common.
- Productivity has dramatically gone up with the introduction and wide acceptance of the *Chinese Bodo* variety of rice.
- Besides rice, the border area produces huge quantities of vegetables. Surpluses are supplied to neighboring towns in Assam and also to Garo hills in Meghalaya. Trade has given rise to a particular class of people referred to as *beparis* (traders). However the benefit have failed to reach the farmers as transportation constraint (bad and sometimes non-existent roads) and lack of cold storage facilities have deprived them from receiving fair prices for their output.
- The South Bank part of the district show more economic diversification, centered around the once important trade centre of Mankachar town. Production of cashew nut and betel nut in neighboring Garo hills of Meghalaya provides huge potentialities for their processing in Mankachar for further trading. Five processing units have already been in existence.
- The border areas have potential for the development of pisciculture, especially pond fishery. The area also has a number of natural *bee/s* (lakes) that can be properly harnessed. Growth in this sector can be facilitated by the provision of modern hatching facility and other technical and extension support.

II.3 Access to Basic Facilities in Border Areas

Access to basic facilities of the population living in the border blocks and district has been inferred by processing data on Village Amenities in District census Handbooks of the 2001 Census of India report series. The findings are presented in tables 5 to 9. Findings presented in these tables are supplemented by inputs from field study.

II.3.1 Access to Educational Facilities

Nearly 15% of the villages of Dhubri do not have any primary school. Among the border blocks, the situation is even worse in Birsingjarua, South Salmara and Rupsi.

Eighty six percent of the villages are without secondary school in the district. In Birsingjarua, the percentage is as high as 92.

In only 28% of the villages, there is a college within 5 Kms. For 43.50% of the villages of the district the nearest college is at a distance of 10 kms.

I.3.2 Access to Health Care:

Only for 7.6% of villages the Primary Health Centre (PHC) is located with the village. For as many as 56% of the villages of the district the nearest PHC is at a distance of beyond 10 kms. In Birsingjarua block, the percentage is as high as 74. On an average the nearest hospital is even farther away for a typical village in the district.

Moreover the PHCs and hospitals are poorly equipped for delivering effective curative care. The case of Mankachar subdivision can be taken here as instance for illustration.

The entire border subdivision of Mankachar is served by only one Primary Health Centre (PHC). However even this solitary centre is mostly non-functional with large scale absenteeism among doctors and other medical staff. Besides there is no modern diagnostic facilities which compels even mildly sick people to rush either to Tura (60kms away) or to Goalpara (160kms away). Given the deplorable road conditions and the inaccessibility of these regions many of the seriously sick people fail to get timely medical attention.

The deficiencies in family & child welfare institutions mean that the population is totally ignorant about the importance and means of family planning. Lack of awareness of family planning and non-availability of contraceptives may well be a contributing factor for persistence of high fertility rate in these areas.

In case of villages of char islands, the access to health care is even more remote. Because of the very nature of such island, it is difficult to set permanent health care infrastructure in such islands. Hence health care service to char island dwellers needs to be delivered in some alternative mode. One possible solution is to send floating mobile dispensaries. Indeed a few such dispensaries were reported to be operating earlier. But none of the village covered in the village survey were visited by such facility in the recent past. Obviously the service is no longer functional.

II.3.3 Access to Drinking Water

Thanks to abundance of both ground and surface water, access to drinking water is not a major problem in the study area. Well and tube wells are the predominant source of drinking water for the villages

Ground water quality is however not uniformly good. There are pockets where the ground water is high on iron content. Even incidences of arsenic contamination are reported from some areas

II.3.4 Connectivity

Nearly one third of the villages of the district are connected with public bus service. Among the border blocks Mankachar and Golokganj are in much better conditions, while Birsingjarua, Gauripur and South Salmara are relatively more disadvantaged in this regard.

Regarding tele-connectivity the situation is much worse. Nearly 62% of the villages did not have a telephone within 5 kms. (Readers may kindly recall that the position relates to the status as in the time of 2001 Census of India.). Even after the recent spread of mobile telephone network, many parts of the district are still uncovered. Interestingly in parts of Mankachar subdivision which are covered by none of the Indian mobile service providers, networks of at five Bangladesh based service providers (BANGLALINK, BGD, AKTEL, GRAMEENPHONE and BGD/GP) were found to be active. Availability of Bangladesh network and absence of operation of Indian service provider has induced many in the border area to use SIM cards procured from Bangladesh. Such practices can potentially create serious security hazard.

The postal service is somewhat more accessible. Twenty percent of the villages had a post office within the village and for only 18% of villages the nearest post office was located beyond 5kms.

II.3.5 Electricity

Two thirds of the villages of the district have electricity connection. Among the border blocks, in both Mankachar and Agomoni more than 95% of villages have electricity connection. In contrast only one fourth of the villages in Birsingjarua and half of the villages of South Salmara have electricity connection.

II.3.6 Access to Bank Facility

For 40% of the villages, the nearest commercial bank is located within 5 kms. Golokganj and Gauripur Blocks are relatively in advantageous position in this regard. But Fekamari, Mankachar and Birsingjarua blocks are relative disadvantaged. In Fekamari for 52% of villages the nearest bank is a distance of beyond 10 kms. For Birsingjarua the percentage is even higher (58.80%)



II.4 Natural Calamity

As most districts of the Brahmaputra Valley, Dhubri is also affected by annual floods and erosion. Providing flood relief in the border areas of the district is a difficult task because of their relative inaccessibility. Moreover maintaining border roads and other public infrastructure becomes a costly affair too.

Photo-1. Remains of a bridge on what once used to be a Border Road



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² Jana, J (2008), ' Erosion-induced Displacement in Nagaon, Morigaon, Barpeta, Dhubri and Goalpara Districts' in S K Das (ed.) (2008) Blisters on Their Feet: Tales of Internally Displaced Persons in India's Northeast, Sage Publications, New Delhi; Chakraborty, Gorky (2008), 'Victims of Suspicious Identity: The Char Dwellers Of Assam', *Journal of North-East Council for Social Science Research*, 32:1, Shillong.

event seems to cause a sense of alienation in the community of immigrant origin locally known as *Bhatias*.

It was suggested that such displaced people should be given special identification documents so that they cannot be victimized on mere suspicion.

Most of the participants in the FGDs favor a major flood control project that would address the problem comprehensively covering the entire stretch of the Brahmaputra in Dhubri district along with its tributaries.

II.5 Panchayati Raj Institutions and Implementation of Development Programmes

Apart from the common development programmes such as PMGSY for rural road construction, SGSY for livelihood support, IAY for housing of the poor and NREGA for employment generation, the Dhubri district is entitled for coverage under three more programmes due to its location, geographical features and religious composition of its population. These are Border Area Development Programme (BADP), Char Area Development Programme (CADP) and Minority Development Programme (MDP).

The BADP is focussed on development of infrastructure in the border areas, which among other benefits can help better protection of the border. The state of connectivity and other infrastructure in West Assam Bangladesh border district of Dhubri described in section II.3 indicates that despite the BADP there is a lot to be done to overcome the deficiencies in basic infrastructure.

Activities undertaken under MDP and CADP are geared towards skill formation through education and training, improving access to basic facilities like drinking water supply and enhancing livelihood earning capabilities of the target groups. Given the high incidence and intensity of human poverty in the district; it is clear that the impacts of these programmes have been marginal at best.

In contrast to these special programmes, the implementation of some other development programmes such as PMGSY seems to have been more effective (as the findings of the village survey reported in the next section show)

Panchayati Raj Institutions are beginning to take root in the area – a fact confirmed by findings of the village survey too. As of now the Panchayat functionaries are however constrained by inadequacy of administrative and technical bureaucracy to work with. But in the coming years PRI are likely to be increasingly effective in formulation and implementation of development programmes.

II.6. Additional Inputs and Insights from the Village Survey:

The data used in the foregoing sections relate mostly to the year 2001. To get a more up-to-date picture of the state of affairs, it was necessary to collect some primary data. Accordingly it was decided to conduct a village survey. Due to shortage of time and resources, the survey had to be confined to only one of the blocks adjacent to the border.

On considerations mentioned in the methodology section the Fekamari Development Block was selected for field survey. The block includes 78 villages from which 20 villages approximately 25% are covered in the village survey. Eight of the sample villages, namely, 1. Boraitari. 2. Molakhowa. 3. Fatapara Part-One. 4.

Bhutiadanga. 5. Berbhanga Part-Two. 6. Dewaneralga Part-One. 7. Dewaneralga Part-Two and 8. Dewaneralga Part-Three, are located in *char* islands. The remaining 12 villages, namely, 1.Boraikandi 2.Fekamari Part-One. 3. Kukurmara Part-One. 4. Phulerchar Part-Three. 5. Fekamari Part-Two. 6. Manullapara 7. Raghupara. 8. Kharuabandha Part-One 9. Moinabandha. 10. Bangtimari 11. Kathalbari and 12.Kaliralga Part-One, are on and off the river bank and form a part of the mainland mass of the block.

The status of basic facilities, such as, connectivity, access to education and health care, the pattern of livelihood of the villagers, the nature of agricultural operations and people's interest in participating development programmes as revealed from survey are reported below. The comparison between *char* Island villages and the others has also been made whenever such comparison has been felt relevant.

II.6.1 Living Conditions

The modest living condition of the population in border areas is reiterated by the fact that nearly 78% of households in sample villages live in *kuccha* dwellings



Being endowed with abundance of ground and surface water access to drinking water is not a serious problem, though tap water supply is not available. Most villages depend on well / tube well.

Table 11: Distribution of the Sample Villages by Source of Drinking Water

However a lot remains to be achieved in sanitation as only 6.33% of households in sample villages have sanitary toilets.

Though 45% of villages have electricity connection, only 16.63% of dwellings are electrified.

II.6.2 Connectivity

So far as connectivity is concerned, the villages in char islands are in distinct disadvantage. Seventy five percent of the other villages are all connected by *pucca* roads and the remaining 25% have *pucca* road heads within a distance of two kms. This indicates reasonably good implementation of rural roads programmes like PMGSY.

However the villagers in char islands have to first commute to river bank by boats (usually motorised) and then can access a *pucca* road. Three of the 8 villages in char islands covered in the field study are at a distance of 20 kilometres or more from the *pucca* road connection.



Photo-2. Transportation of People & Freight in the Riverine Border Region

II.6.3 Access to Health Care

Table 13 shows that access to primary health care is remote for most of the villages. For 65% of the villages the nearest Primary Health Centre is at a distance of beyond 5 kms. Indeed for 40% of villages the nearest PHC is located at a distance beyond 10 kms.

Table 13: Distribution of the Sample Villages as per Distance from Nearest Primary Health Centre

II.6.4 Access to Education

Ninety percent of sample villages have a primary school within the village and another 5% have within 1.5 kilometres. But the remaining 5% do not have primary school within 5 km distance.

Table 14: Distribution of the Sample Villages as per Distance from Nearest Primary School



The general complain that teacher often do not come to village schools have not been found to be generally true. Eighty one percent of the teachers were reported to be present during the week preceding the survey day.

Table 15: Distribution of Primary Schools in Sample Villages As per Number of Teachers



Though access to primary education does not appear to be a problem from the figures, in table 15, there are several deficiencies in the school infrastructure. Twenty percent of the schools have only single class room. In half of the schools there are no toilet facilities, an important requirement for retaining girl student. The average student-teacher ration in the schools is 120.54 which is abysmally high for effective teaching and learning.

Moreover one fourth of the primary schools in sample villages are single teacher schools. Apart from having to manage all the classes by the single teacher, such schools are facing other serious problems.

First of all, as the teacher has to visit district offices on for various official works including drawing his/her salary, the number of days of actual teaching suffers. Secondly, for implementing the well intended mid-day meal scheme for school children, the teacher has to devote considerable time and energy in preparing and distributing meals. Again imparting lessons in school suffer.

For 80% of villages the secondary school is within 2 kilometres. But for the remaining 20%, such a school is at a distance of 12 kilometres or more

Table 16: Distribution of the Sample Villages as per Distance from Nearest Secondary School



Enhancing access to educational facilities in villages in Char Island poses additional challenge. Due to very nature of these areas, permanent school buildings cannot be constructed. Schools are housed at best in semi-permanent structures which require relocating every three to four years. Moreover prolonged period of inundation of the islands reduces the actual days of teaching in schools. The few schools that are not inundated are generally used as flood relief camps for a considerable period of time, resulting in huge loss of working days.

For overcoming the backlogs in literacy and education in such areas some flexible mode of delivery need to be devised. Since there is limit to such flexibility for higher classes, alternative arrangements may be called for secondary schooling. Establishment of residential schools in the mainland off the river bank was suggested as a solution in one of the FGDs.



Photo-3. Primary School in the Char Island of Dewaneralga



Photo-4. Inside View of the Primary School of Dewaneralga

II.6.5 Livelihood and Agricultural Practices

Among the villagers in the sample villages, occupational diversity is rather limited. Cultivation is the most important source of livelihood in all the villages. Most of the households supplement agricultural income with daily wage earning. Petty business / trade and government service are the other occupations in practice, but number of persons with these occupations is rather limited.

Table 17: Sources of Livelihood in Sample Villages
Ranked as per importance.



As stated in section II.2, despite overall relative backwardness, the cultivators in the study have performed better than what is achieved in the state as a whole. Findings of the field study further support this fact.

Irrigation facility is available for 52.55% of the total cultivated area of the sample villages. However there is considerable variation in the extent of area irrigated across the sample villages. Three sample villages have no irrigation facility at all while two other villages have irrigation for the entire area under cultivation. The average irrigation ratio of the sample villages is 39.47%.

Farm mechanisation has set-in in a significant scale. Mechanized ploughing has become quite common in the sample villages. Altogether 72 power tillers and a tractor were found to be in used in 20 sample villages. Irrigation pump sets are being used in 85% of the villages. Total number of irrigation pump sets in the 20 sample villages is 787.

Table 18: Levels of Agricultural Practices and Attainments



As elsewhere in Assam, rice is the principal crop grown. Overall yield of rice achieved in sample villages is quite impressive. Other important crops grown in the sample villages are vegetables and jute. The area under vegetables comes to 12% of total cropped area while the area under jute constitute 10% of the same.

There is considerable difference in agricultural attainment between the char island villages and the other villages. As the char island villages are almost certainly inundated by rise of the water level of Brahmaputra in the monsoon season, the cultivation of winter rice³ in these villages is at a low scale. In the other villages as in the entire state of Assam winter rice is the main rice crop.

The irrigation ratio in the char island villages is also marked the lower than in the other villages.

Having to operate under such constraints, the farmers in char island villages lag behind in use of HYV. According the yield rates attained in such villages are considerably lower. But in rest of the villages, the cultivators have been able to attain yield rates which are phenomenal by Assam standards.

II.6.6 Grassroots Institutions and Development Programmes:

The village survey revealed that the grassroots level institutions set up as per the *Panchayati Raj* Institutions structure has taken root in the area. In 70% of villages the *Gram Sabha* met within the one month period prior to the survey date. Indeed in 95% of the sample villages the Gram Sabha had met at least within the last six months.

³ Winter rice refers to the rice crop that is sown in the middle of the rainy season in July-August and harvested in the winter. This is the most common rice crop in the state.

Table 19 Distribution of Sample Villages as per Time Since the Last Gram Sabha Meeting

A large black rectangular box redacting the content of Table 19.

However as the figures in table 20 shows, the attendance rate in these Sabhas is somewhat disappointing. Only in meagre 10% of sample villages the attendance in the last Gram Sabha meeting exceeded 50%

Table 20: Distribution of Sample Villages as per Attendance in the Last Gram Sabha Meeting

A large black rectangular box redacting the content of Table 20.

On the positive side, the issues discussed in the *Sabhas* are related to implementation of on going development programmes. The issue of Job Card for availing benefits under National Rural Employment Guarantee Programme received prominence.

Table 21: Distribution of Sample Villages as per Issues Discussed in the Last *Gram Sabha* Meeting

A large black rectangular box redacting the content of Table 21.

III. FINDINGS ABOUT THE BORDER AND BORDER RELATED ISSUES

III.1 Nature of the Border and the State of Border Protection:

The international border of Dhubri district with Bangladesh extends over 135.22 kms. This border is partly land and partly riverine. The district has a land border with Bangladesh that runs over 85.62 kms whereas its river border extends over 49.6 kms. The landscape on both sides of the border is identical and can be distinguished only by the presence of the border fence constructed on the Indian side. Data provided by the district police administration indicate that the border area is served by 35 border outposts, 36 police watch post and 3 river police outpost. Border fencing has been erected in some segments of the international land border and is guarded rigorously by the BSF. However in many stretches, fencing is incomplete and even non-existent.



Photo-5. Border Fencing in Golakganj Border Block

Protecting the riverine part of the border poses a special challenge. The border demarcation over the river is not entirely clear. What complicates guarding this border is that there are several *char* islands dotted along the border some of which falls in India and some in Bangladesh. Moreover these islands are not entirely stable. In the rainy season most of these get submerged and some of them are eroded. Once the water recedes an old char may partly or fully disappear and new ones may resurface. Moreover cultural continuity of the inhabitants of Indian and Bangladeshi chars complicates policing of these areas which are in any case loosely administered and thinly policed owing to the problem of poor accessibility.



Photo-6. Border Fencing yet to be completed in the Golakganj Sector



Photo-7. Unfenced Segment of the Border



Photo-8. Nearby Char Islands:
One falling in India and the other in Bangladesh



Photo-9. BSF River Post in Indo-Bangladesh Border in Dhubri District

III.2 Crime Profile and Policing

Though crimes by organised gangs are not known, as per informed sources incidence of crimes is frequent. Stealing, robbing and violence over land and other property disputes are the typical crimes. Crime against women is also common. Incursions by dacoits from across the border used to be common too, but their instances are dropping sharply in areas where the border is properly fenced. Policing is severely handicapped in the border areas due to poor transport & communication infrastructure. Inaccessibility of the remote border region means that the police have to be reactive instead of being proactive. Indeed the *char* islands are practically un-policed.

There is an urgent requirement to modernize the police force and equip it with the latest equipments including an adequate fleet of speedboats. This will enable the police to overcome the transportation & communication bottleneck and undertake more efficient and proactive policing in the border region and also at the international border.

II.3 Local Public Opinion about Border Fencing

Construction of border fencing is by and large hailed by the local population a positive development. Wherever the fencings have been put up, incursions by criminal elements from across the border has become difficult. Incidents of theft and dacoity by element from across the border have reportedly come down sharply due to the border fencing.



Photo-10. Cultivation in Indian Soil outside the Border Fence in Golakganj Border Blocks

It is however to be noted that the border fence needs to be located at some distance inside the Indian Territory. Consequently the fencing creates some difficulties for all such people who own land outside the fencing. Though gates are inserted in the fencing for them to go cross for cultivation and grazing, they are

required to abide by fixed timings. In situation of heightened border alerts they are subjected to additional restrictions

Nonetheless popular support for border fencing and protection seems to be widespread and the BSF is also now more inclined towards establishing better rapport with the local population.

III.3 Illegal Immigration:

Right from the beginning of the twentieth century, migration of mainly peasants from East Bengal across this border has been taking place to the Brahmaputra Valley. The population settled in the char areas is mostly of such immigrant origin. After partition of the country, similar immigration has become illegal and the inflow of illegal immigrants has been issue of concern in the state. Opinions regarding whether inflow of illegal immigration still continues at a significant scale are varied but none are based on concrete data. Recent police records reports a few detection of illegal immigrants in the last couple of years (refer table 22)

Table 22. Statistics of Detection and Deportation
Of Illegal Immigrants in Dhubri District



Several facts however point towards reduction in inflow of population to the district from across the border. As mentioned above the faster rate of population growth in Dhubri district, which is sometimes cited as an indicator of continued influx of illegal immigrants, is at least in part due to higher fertility rate. Secondly high density of population especially in border areas has made land increasingly scarce. Scramble for scarce land has surfaced in the form of increasing number of land related disputes and litigation. Under such circumstances, a large inflowing population is unlikely to find vacant land to settle down. Perhaps it is safe to conclude that even if illegal inflow of population continues to take place across the porous border, the immigrants move up further to interior places rather than settling in the border areas

III.4 Cross Border Movement of Man and Material

What used to be a busy waterway for trade and commerce down the widening Brahmaputra River from Dhubri and Mankachar before 1947 is now used as a smuggling route. The Mankachar border area now acts as a transit point for the illegal cattle traders. Huge numbers of cattle brought mostly from Bihar and Uttar Pradesh are illegally sent to Bangladesh across this border. The modus operendi followed here is the cattle are brought to the border by road. Under the cover of darkness they are lead into the river where they swim across the border to Bangladesh soil. There have been instances of fatality among cattle smugglers as they freeze and drown in the cold water, especially during winter. Although a

section of population have been benefiting from this trade however a significant section of the people are calling for a halt to this as they feel that such activities have caused several problems including a hike in the domestic price of cattle. Besides transfer of cattle over agricultural fields causes severe crop damage resulting in significant losses. There is also a concern regarding the emergence of this new rich class of people associated with cattle smuggling and their adverse influence in the society.

Besides cattle, salt and kerosene are also smuggled out to Bangladesh and counterfeit currency is smuggled into India.

However smuggling of arms, narcotics or electronic goods is negligible. As is the case in several other border points in the Northeast India, initiatives have been taken to encourage orderly and legal border trade across this border segment too. For promoting formal border trade, two locations, one in Mankachar (south bank) and the other in Sonarhat (north bank) have been selected for the establishment of border trade point. Construction on the Indian side is progressing well although work on the Bangladesh side is lagging behind.



Photo-11. The Proposed International Trading Post in Mankachar
Under Construction

The people here have great expectation from these two centres as they believe that their successful operation would usher in new prosperity to the region and provide relief to the impoverished population. It is also expected that such a development would provide extensive livelihood to the people besides acting as a deterrent to smuggling and other illegal activities.

It is however to be noted that bona-fide cross-border movement of people is easy and cross border social relations are not prohibited. Necessary travel documents are issued in Dhubri for bona fide travel across the border.

IV. SUMMARY OF FINDINGS WITH SUGGESTED POLICY INTERVENTION.

- Western Assam-Bangladesh border district of Dhubri is economically one of the most backward pockets of the state of Assam. By both per capita income and Human Development Index the district is ranked the lowest in the state. Incidence and intensity of poverty is high. People here are overwhelmingly dependent on agriculture. Industry is conspicuous by absence.
- Partition of the country in 1947 has hit the economy of this area severely. Before independence the area was a gateway for trade and commerce for the entire Brahmaputra valley and other parts of the Northeast as the head of rail, road and waterways to rest of India and the world for the region. The former thriving centres of commerce such as Dhubri and Mankachar on the two banks of the Brahmaputra have since lost their importance and the border area is reduced to a peripheral corner. In a way this area represents the story of the entire Northeast region in a more accentuated form.
- Population growth rate in the district continues to be high. The area has a history of immigrants, especially from East Bengal, coming in and settling down. The population density in the entire district is high and in most of the border blocks the density is even higher. In recent years high fertility rather than continued influx of population seems to have kept the population growth rate high. Poor literacy and educational attainment, lower work force participation of women and difficult access to health care have worked to keep the fertility level high.
- The indigenous population, cutting across religious categories, harbours a sense of being outnumbered and overwhelmed by the people of immigrant origin locally known as *Bhatias*. Careful cultural and social engineering may be necessary taken up for more cohesive integration of populations with different socio cultural background.
- Besides the usual development programmes the district is also entitled for benefits under Border Area Development Programme, Minority Development Programme and Char Area Development Programme. But the impact of all these programmes is not readily visible. Either such programmes are poorly implemented or they are grossly inadequate.
- The delivery of basic services is deficient in the district. But this is more so in *char* areas in which about 15% of the district population is located. Conventional mode of delivery will not serve the purpose because of the geographical peculiarities of the *char* lands. Out of the box thinking and designing of flexible delivery mechanism are required for effective delivery of basic services, especially health care and education, in such areas.
- The *Panchayati Raj* Institutions are beginning to take root in the district. But as on now the PRIs are neither adequately empowered nor equipped to have the desired impact.
- A redeeming feature of the people and the economy of Dhubri can be found in the state of agriculture in the district. Adoption of high yielding variety is much more extensive and accordingly the yield of rice achieved by farmers

here is also impressive. Cropping intensity is also high and the cropping pattern is fairly diversified.

- The international border is partly on land surface and partly on the river. For protecting the land border fencing and border road construction has been taken up. Wherever the fencing is in place the border is well protected but the fencing yet to be completed. Protecting the riverine border poses more difficult challenge and as of now the river protection is inadequate.
- Incursions from across the border for theft, dacoity and other crimes are common. In places where border fencing has been put up, incidence such incursions have sharply declined. Having seen the benefit of the border being sealed, the general public in border areas is now supportive of fencing being completed. However the fencing creates some disadvantage for those who own land outside the fencing. Though they are allowed to pass through the gates in the fencing for carrying out grazing and cultivation they have to follow timing stipulated by the Border Security Force. In times tension and unease over the border areas, their livelihood may be adversely affected.
- The police force in border areas as of now is not equipped to deal with the peculiar problems in such areas. Equipping the police force would require additional allotment of resources.
- Though incidence of smuggling of contraband items like arms and narcotics are not common, the thin protection of the riverine border allows use of the river as a route for smuggling of cattle, kerosene, salt and other basic consumer goods. Initiative toward legalising trading of such items should be given due consideration. Legalisation will de-criminalise such trading, which in any case has been going on. The proposal to open the two border trade points at Mankachar and Sonarhat has generated optimism among the common public. It is even expected that opening of border trade points may lead to revival of old trade and commerce routes through the area. But for activation of the trade points, infrastructure development and diplomatic initiatives with Bangladesh will have to be pursued side by side.
- Flood and erosion is a major problem in the area with not only economic cost but also adverse social repercussions. As erosion-displaced people move out to other parts of Assam and Meghalaya, they often face harassment due to mistaken identity as illegal Bangladeshi immigrants. To avoid such sufferings of people from border areas, it is urgently necessary to give identity documents. Indeed issue of such documents should be extended to other parts of the states as soon as possible. Giving identity documents will have the twin benefits of protecting bona-fide Indian citizens and detecting illegal immigrants.
- The problems of flood and erosion are not peculiar to only Dhubri. It afflicts the entire Brahmaputra valley of Assam. Nor can a piece-meal solution of the problem can be found for Dhubri alone. Indeed it is more or less accepted that floods and erosion can not be fully eliminated. However plans are now

available with the Brahmaputra Board which if implemented can mitigate the problem to a significant extent. This no doubt will require a heavy dose of investment. But the recurrent annual expenditure on relief and rehabilitation is by no means a small amount. (Such expenditures are also difficult to monitor). Investment on implementation of the flood and erosion mitigating plan can hence save a large part of this annual stream of expenditure besides bringing down sufferings of people and loss of public and private property.



**PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA:
IMPLICATIONS FOR THE 13TH FINANCE COMMISSION**

**ASSAM (PART II)
INDO-BHUTAN BORDER SEGMENT**

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Introduction:

The development of border areas is of immense importance for the overall development, especially to the district sharing an international border. There may be varied problems and prospects related to border area development and the magnitude of such problem will vary region-wise depending upon geographical condition, socio-cultural environment of the area and also relations with the neighbour etc. The districts of Assam with Bhutan border face the problem of terrorisms and occasional skirmish across border.

The main features of these border areas are inaccessibility and insecurity (both internal and external). Because of backwardness of the areas in terms of infrastructure, developments of border areas need special attention so as to provide an accelerated and sustainable development. Normal plan and schemes were less effective in transforming the economies of border areas. The Government also recognized these in the backdrop of overall backwardness of border areas and introduced the Border Area Development Programme (BADP) for the development of border areas since the Seventh Five Year Plan, which now encompasses all the border district of the region.

Still, even after the normal plans and schemes and BADP schemes, border areas are lagging behind mainly in infrastructure development. In order to bring the people living in the border areas into the mainstream and feel not neglected, special schemes may be necessary to narrow the gap in development by providing special incentives and implementing the schemes on a priority basis. This will not only help in the process of economic development but also help in providing efficient secured environment and accessibility to the fruits of development.

Objective:

The objective of the study is:

- To assess the existing status of development infrastructure and to find critical gap and requirements.

The Study Area:

For the present study, the border block Baska Development Block, Mushalpur in Baksa district has been selected. The block is situated on the Northern part of the District Baksa. It is about 18 km from the NH 31 linked by the road at Kadamtola. Although Mushalpur is 13 km below the Royal Bhutan Kingdom, the Block shares its border with the Kingdom.

Database and Methodology:

The study is based on both primary and secondary data. The secondary data were collected from various published sources like census of India, Statistical handbook of Assam, District

administration, Baksa, Block Development office, Baska Block. To get the feel of the present status of development, primary data were collected from 5 border villages in the Baska Development Block. The selection of the block was done in two stages. In the first stage, the district was selected purposively considering backwardness, better accessibility and a relatively better law and order situation in the area at the time of field survey. Then a border block-Baska block is selected considering its backwardness and accessibility. Baksa district shares 83 km of border with Bhutan, which constitute 31.68 percent of border with Assam. In addition focus group discussion were conducted with representatives of village communities where village head, block officials, teacher and some prominent citizens of the village were present. This is done in order to find their perception about development status and need of the villagers. Primary and secondary data collection from the district, block and border villages are carried out in the months of November and December 2008.

Limitations of data availability:

It is pertinent to mention here that as the Baksa district is carved out from existing districts of Assam in December 2003 with the formation of Bodoland Territorial Council, all the statistical information for the district is not readily available. As for example, Census data pertains to 2001 and is not comparable in all respect, although it becomes necessary to use the village level data for the study. Even, it is found that some of the activities of the district are still being performed by the old district agencies for which some of the required information was not available from the district offices that the team visited. But, it is tried to provide authentic information from the secondary data available and on the basis of primary data collected for the purpose in this study.

Layout of the Report:

The present study is an attempt to find the status of development in the border areas taking a Block as a sample. There are five sections in this study report. Section I deals with introduction, database, methodology and limitations of the study, section II provide a brief profile of Baksa district, section III provide the information on surveyed block which is followed by profile of surveyed villages in section IV. Finally, observation and recommendations are incorporated in section V. The report is attached with an appendix, providing information on FGD, photos and maps.

Section II

II.1 A Brief Profile of the District:

India shares a border of about 699 km. with the Kingdom of Bhutan through West Bengal, Arunachal Pradesh and Assam. Assam shares about 262 km. of border with Bhutan which is about 37.48% of the total length of India's border with that country. Four districts namely Udalguri, Baksa, Chirang and Kokrajhar share their northern boundaries with Bhutan. These districts were created in December 2003 with the formation of Bodoland Territorial Council. Many of these districts are not functioning independently in all respects till now and many administrative functions and services still continue to be controlled by the previous districts from which these districts are carved out. The district of Baksa shares a total of 83 km. border in length with Bhutan which is about 31.68% of the total length of border Assam shares with the country. Among all the districts sharing international boundary with Bhutan, Baksa shares the longest boundary on its north. The terrain is plain and flat with a river along the international boundary and on the foothills of Bhutan hills. There is practically no demarcation along the international boundary.

Although, at present there is no serious problem across the international border, the problem of underground militants is serious threat in the matter of good law and order situation. One faction of Bodo people came to the mainstream with the formation of Bodoland Territorial Council, but other group is in process of negotiation with the Government and under ceasefire agreement with government. There are occasional troubles which vitiate the atmosphere of the areas. Still, the research team could gauge the clear division between these two groups.

Baksa is a new district of Assam created in 2003 under the sixth schedule of India carved out of erstwhile districts of Kamrup, Nalbari, Barpeta and one village from Darrang. Headquarter of the district is situated at Mushalpur, which is about 115 km away from state capital of Assam. At present, the Deputy Commissioner's office is functioning from a temporary accommodation at Barama, which is approximately 22 km away from Mushalpur. Apart from district headquarter; administration of Baksa district is functioning through 3 subdivisions, 13 circle offices and 15 developmental blocks. The district has an approximate area of 2400 sq km, covering 583 revenue villages with a total population of 7,46,029. Population density of the district is about 311 person/sq. km. The number of scheduled tribe population in the district is 3,38,630 while scheduled caste population is 45,967. There are 12 border security posts in the districts and distance between two posts is about 4-5 km. In addition, the district has at present 4 police stations and 14 outposts to handle law and order situation. As per information available there is more than 50 percent vacancy in police personnel to manage the law and order problems in the district. The famous Manas Sanctuary, which is the centre of attraction for Indians as well as foreigners is situated in the district.

Road network is important for any developmental work in any area. The road network in the district of Baksa is not very good. Only a meagre 137.56 k.m. of the total road length in the district is surfaced. The details of road network in the district are provided in table 1.

Table 1: Road Network in Baksa District (in Km.)

Category	Surfaced	Un-surfaced
National Highway	10.00	0
State Highway	4.00	26.00
Major district Road	121.56	120.00
Rural Road	2.00	535.75
Total	137.56	681.75

Source: <http://www.bodoland.net>

The above table shows that majority of the roads in the district are un-surfaced. There are 245 semi permanent timber bridges in the district. On the whole, the Bodoland Territorial Area Districts (BTAD) consisting of four districts are comparatively backwards in comparison with rest of the country in terms of density of road per sq. km. and per lakh population. While density of road for India is 1.12 sq. km and for Assam 0.67sq.km, for the BTAD, it is only 0.385 sq. km. Similarly, while availability of roads in terms of population is 360-km/lakh population for the country, 196 km/ lakh population for Assam it is only 131.50km/ lakh population for BTAD areas.

Again looking into the provision of health facilities, it is clear from table 2 and table 3 that there is a need to augment the health facilities in the district in terms of both physical facilities and number of health personnel.

Table 2- Numbers of Health Institutions in Baksa District

Sl No.	Description of Health Institutions	Baksa		Assam	
		Nos	Health Institutions per 10000 Population	Nos.	Health Institutions per 10000 Population
1	Primary Health Centres	6	0.1	610	0.23
2	Community Health Centre	5	0.1	100	0.04
3	Primary Health Centre	18	0.3		NA
4	State Dispensary	13	0.2	331	0.12
5	Subsidiary Health Centre	3	0		NA
6	Sub centres	161	2.2	5109	1.92

Source: Joint Director, Health Services, Mushalpur, Baksa
Statistical Handbook of Assam, 2007

As of now, there is no district hospital and one 200 bedded hospital is under construction at Mushalpur.

Table 3- Numbers of Technical Personnel Engaged in Health Institutions in Baska District

Sl No.	Description of Item	Nos.	Health Technical personnel per 10000 Population
1	Contractual ANM	115	1.6
2	Regular ANM	140	2.0
Total ANM		255	3.6
3	Contractual GNM	66	0.9
4	Regular GNM	15	0.2
Total GNM		81	1.1
5	Regular Doctors	36	0.5
6	Contractual Doctors	29	0.4
Total Doctors		65	0.9

Source: Joint Director, Health Services, Mushalpur, Baksa

Regarding the availability of financial institutions, one branch of State Bank of India along with two branches of Assam Vikash Bank (RRB) is available at Baska block with 26 bank branches in the district. There is no General Post office and only one Sub post office is at present located in the district headquarter. For any reason, if the facility in GPO is required, it has to be referred to adjacent Nalbari district.

All the developmental activities in the district are looked after by line departments, which have started functioning under the Council. As about 80 percent of the people are living in rural areas, the role played by the Department of Panchayat and Rural Development is of immense importance and border villages are also situated in rural setting. Various schemes for rural development like SGRY, IAY, PMGY, SGSY and NREGA are being implemented in the district also.

II.2 Financial Utilization under Border Schemes in Baksa District:

The number of different border schemes received by the district increased from 21 in 2006-07 to 25 in 2007-08. However, there are variations in the number of schemes sanctioned for different blocks in the district. While Baska block received 4 border schemes each in the year 2006-07 and 2007-08, Jalah received 6 border schemes each in the two years. The details of block-wise distribution of different border schemes in the district are presented in table 4. It is clear from the table that a good proportion of the amount sanctioned for different schemes are released by the government. It is essential to note that for the year 2006-07, an amount of Rs.8, 40000 were to be released for Baska Development Block as per the information provided by the district administration. But as the financial year has already ended and with new financial year, new schemes were sanctioned, priority must be given to proper implementation of the schemes within a specific time frame, otherwise the purpose might be lost. As such scheme implementation should get priority with proper monitoring.

Table 4: Financial Utilization of Border Schemes under Baksa District during 2006- 08 (Amo

Blocks	FY	No. of Schemes	Sanctioned amount	Installment Received from Govt.		Installment Released	
				1st	2nd	1st	2nd
Baska	2006-07	4	4100000	2460000	800000	2460000	800000
	2007-08	4	3800000	2280000	0	1368000	912000
Dhamdhama	2006-07	3	2000000	1200000	400000	1200000	400000
	2007-08	4	2270000	1362000	0	817200	0
Gobardhana	2006-07	5	6750000	4050000	2700000	4050000	1700000
	2007-08	6	6855000	4113000	0	2467800	1285200
Jalah	2006-07	6	7000000	4200000	2800000	4200000	2840000
	2007-08	6	7200000	4320000	0	2988000	996000
Nagrijuli	2006-07	1	1000000	600000	0	600000	0
	2007-08	3	2900000	1740000	0	1044000	0
Tamulpur	2006-07	2	1500000	900000	0	900000	0
	2007-08	2	2300000	1380000	0	828000	0
District	2006-07	21	22350000	13410000	6700000	13410000	5740000
	2007-08	25	25325000	15195000	0	9513000	3193200

Source: District Administration, Baksa

Section III

Surveyed Blocks at a Glance

For a comprehensive study, Baska Development Block, which shares international border with Bhutan, is purposively selected. The block is situated on the Northern part of the Baksa District. It is about 18 km from the NH 31 linked by the major district road Kadamtali-Bhutankhuti Road (Namati-Mushalpur Road). The rationality behind selection of the block lies on its diverse socio economic characteristics and relatively backwardness in terms of socio economic indicators.

III.1 Physical Features of the block:

The total geographical area of the block is 737.18 sq. km., which constitutes about 30.72 per cent of the total area of the district. The population of the block as per Census of India 2001 is 92181, which is about 12.35 per cent population of the district. Thus population density of the block is relatively less (125 person per sq. km.) as compared to the district.

III.2 Demographic Characteristics of the block:

To get the demographic profile of the block, detailed demographic characteristics of the block are of utmost important, which are shown in table 5:

Table 5: Demographic Characteristics of Surveyed Block

Characteristics	Baska Block	District Average	State Average
Density of Population (persons per square Km)	125	311	340
Percentage of Scheduled Tribe Population	43.30	35.25	12.41
Percentage of Scheduled Caste	5.43	6.59	6.85
Sex-ratio	980	953	935

Source: As per Census of India, 2001

Table 5 shows that population density in the block (125) is much less as compared to both the district (311) and state (340). The block also has witnessed predominance of Scheduled Tribe (ST) population compared to district and state average. This is quite obvious as the area falls under the Bodoland Territorial Autonomous District (BTAD) area. However the percentage of Scheduled Caste (SC) population in the block is relatively less as compared to both district and state average. The block indicates a relatively better sex ratio at 980 as compared to 935 for the state.

III.3 Infrastructural facilities and services in the block:

For formulation of any policy measure for socio-economic development of a country or region, better understanding on the available infrastructural facilities of the region is indispensable. A number of infrastructure related characteristics is thus discussed in the subsequent sub-sections.

III.3.1 Educational infrastructure:

Educational infrastructure is considered as one of the significant infrastructure, which can help to create human capital and foster development of a region. Therefore, a better understanding of this infrastructure is considered as a background and also crucial in analyzing economic conditions of a region. Table 6 depicts some infrastructural characteristics related to education of the surveyed block as follows.

Table 6: Number of Educational Institutions in the Block and District

Item	Baska Block*	Baksa District ⁺
Primary Schools	175 (27.09)	646 (2.12)
Middle Schools	61 (20.54)	297 (3.06)
Secondary Schools	34 (30.36)	112 (2.35)
Senior Secondary Schools	5 (100.00)	5 (.81)
Colleges	3 (25.00)	12 (3.45)
Training School	2 (100.00)	2 (28.57)
Adult Literacy Centre	0 (0.00)	2 (1.04)

+ Figures in the parentheses indicates percentage to respective state totals

* Figures in the parentheses indicates percentage to respective district totals

Source: Statistical Handbook Assam 2007 and Census of India 2001

Table 6, it clearly shows that the block is well equipped with a number of educational institutions

Table 7: Educational Institutions (per 100 sq. km) in the Block and District

Item	Baska Block	Baksa District	Assam
Primary Schools	23.7	26.9	38.9
Middle Schools	8.3	12.4	12.4
Secondary Schools	4.6	4.7	6.1
Senior Secondary Schools	0.7	0.2	0.8
Colleges	0.4	0.5	0.4
Training School	0.3	0.1	0.09
Adult Literacy Centre	0	0.1	0.2

Source: Statistical Handbook Assam 2007

Census of India 2001 and Calculation part is done by the research team

at different levels. As compared to primary educational institutions, the block shares reasonably sound share both in secondary and senior secondary levels. In addition, colleges constitute 1/4th of the share of total colleges of the district. It is striking that both the district and the block is poorly endowed with adult literacy centre, which is important for enhancing literacy in the region.

Although the figure tells an impressive story, it is imperative to investigate the real need of educational institutions, analyzing it in terms of availability of institutions per sq. km. Spatial differences across the blocks stands as a sound rationality behind this justification and thus these are shown in table 7 as follows.

Table 7 depicts a clear picture on the requirement of educational infrastructure in the block. As against an average number of 38.9 per 100 sq. km for the state, the surveyed block is endowed with 23.7 numbers of primary schools per 100 sq. km. The block lacks in every levels of educational institutions except in terms of availability of college compared to the state average. But compared to the district, the block is better off in respect of senior Secondary schools and training schools. The table also shows that there is no adult literacy center, which is necessary to increase the literacy level.

III.3.2 Health infrastructure:

Health infrastructure of the surveyed block vis-à-vis district and state is shown as given in table 8 below:

Table 8: Number of Health Institutions per 10,000 populations

Particulars	Block	District	Assam
Primary Health Centre	0.11	0.08	0.06
CHC	0.11	0.07	0.03
Mini PHC	0.54	0.24	0.14
State Dispensary	0.54	0.17	0.09
Subsidiary Health Centre	0.11	0.04	0.03
Sub centre	2.93	2.16	1.72

Source: Joint Director of Health Services, Baksa District

It is observed from the table 8 that the block is better equipped with health institutions per 10,000 populations relative to both district and state.

III.3.3 Banking and financial Infrastructure:

Banking and other financial institutions are important financial infrastructure of a country and enhancement of these facilities is important from the point of view of financial inclusion. The available banking and financial infrastructure amenities in the block as well district and comparison vis-à-vis state is shown in table 9 below.

Table 9 clearly indicates dearth of scheduled commercial banks per 10000 populations both in the block and district as compared to state. It is also observed that the district is in better position in respect of availability of agricultural credit societies and non-agricultural credit societies compared to the block, where there is not a single agricultural credit society at village level. It is worth mentioning that for banking services, people of the border villages have to cover an average distance of 7.75 Km, which was highlighted during Focus Group discussion at the border villages.

Table 9: Banking and Other Financial Institutions in the Block

Particulars	Block	District	Assam
No. of Scheduled Commercial Banks	2 (.22)	26 (.35)	1273 (.48)
No. of agricultural credit societies at villages	0 (.00)	10 (.13)	114 (.04)
No. of non agricultural credit societies at villages	1 (.11)	10 (.13)	30 (.01)

Note: Figures in parentheses indicates institutions per 10,000 populations
Source: Census of India 2001 and Statistical Handbook of Assam, 2007

III.3.4 Post and Telecommunication:

Post and telecommunication facility is supplementary to banking and financial services and both should go hand in hand. It is important to note that for some government programmes, e.g. National Rural Employment Guarantee Act (NREGA); especially availability of post office along with banking facilities is considered to be important for smooth functioning of the program. Table 10 portrays a scenario on available post and telecommunication facility in the block.

Table 10: Post and Telecommunication Facilities in the Surveyed Block per 10000 population

Particulars	Baska Block	Baksa District	Assam
Post offices	2.82 (3.53)	2.28 (7.08)	1.50 (5.11)
Telegraph offices	0.00 (0.00)	0.12 (0.35)	0.02 (0.05)

Note: Compiled from Census of India 2001

Figures in parentheses indicate numbers per 100 sq. Km.

Source: Census of India 2001 and Statistical Handbook of Assam

Although data pertaining to post office indicates better position both for the block and district as compared to state, it is worth mentioning that there is no head post offices in Baksa district and the block has only one sub post office. In view of recent implementation of governmental program like NREGA, shortage of head and sub post offices is a serious constraint in opening of accounts for the beneficiaries.

III.3.5 Connectivity of Villages:

Communication and connectivity is also an important infrastructure for any region. Especially, physical connectivity in terms of roads, airway and navigable water way support haulage. A well-structured and organized connectivity may reduce cost per km of transportation. In a developing country, development of such kind of basic infrastructure is under priority consideration. Linking village road through district and or state road facilitate rural areas better accessibility with the urban centers and thus making an impetus in establishing both backward and forward linkages. In table 11 below, connectivity of villages is depicted.

Table 11: Connectivity of Villages by Type of Road in the Block

Particulars	Baska Block	Baksa District
No. of villages with approach paved road	32 (39.02)	304 (43.62)
No. of villages with approach mud road	66 (80.49)	545 (78.19)
No. of villages with footpath	42 (51.22)	184 (26.40)
No. of villages with navigable river	1 (1.22)	41 (5.88)

Note: Figures in parentheses indicates percentage to respective total number of villages
Source: Census of India 2001

It is clear that 39.02 percent of villages under the surveyed block are connected with approach paved road and 80.49 percent of villages are connected with approach mud road. It clearly indicates that an outsized portion of total rural road is under pathetic condition. The numbers are only for the 0 distances villages in terms of approach road facility and if we consider it in a range of 10 Km., the figure may inflate to a greater extent.

III.3.6 Availability of Electricity in the villages :

Electricity is another important infrastructure to support a number of industries or channels of production. Electrification in general and rural electrification in particular is remaining a challenge and Government of India proposes to provide *Power for All by 2012*. Rural electrification can trigger economic development and generate employment by providing electricity as input for productive uses in agriculture and rural industries. Moreover, it can allow large-scale industries to set up in the rural areas. A detail account of the rural electricity availability by types of uses in the surveyed block is shown in table 12 below.

Table 12: Numbers of Villages' Avail Electricity by Type of Uses

Particulars	Baska Block	Baksa District	Assam
No. of villages with power supply	65 (84.42)	488 (70.01)	3936 (14.96)
No. of villages using power for domestic purpose	21 (27.27)	411 (58.97)	3799 (14.44)
No. of villages using power for agricultural purpose	1 (1.30)	16 (2.30)	158 (0.60)
No. of villages using power for all purpose	0 (0.0)	2 (0.29)	101 (0.38)

Note: Figures in parentheses indicates percentage to respective total number of villages
Source: Calculated from Census of India 2001

Although the scenario is much better as compared to both state and district, numbers of households with electricity is not considered here. Villages with electricity albeit it provides only for one household are considered. The scenario can be imagined from the table A-2 in appendix that only 27.05 percent of total household have accessed electricity facility. It is also clear from the table 12 that agricultural use of power in the villages is meager and domestic uses share the major portion.

III.3.4 Availability of Water in the villages :

Water is not only vital for human being but also important from the point of view of industrial and agricultural use. Although rural areas are naturally abundant with more water sources as compared to urban areas, water for drinking purpose is a concern since quality matters. Availability of water by sources in the surveyed block is depicted in table 13 as follows.

Table 13: Availability of Water by sources

Particulars	Baska Block	Baska District	Assam
No. of village with water facility	68 (82.93)	578 (82.93)	7432 (28.25)
No. of village with tap water	8 (9.76)	78 (11.19)	1690 (6.42)
No. of village with well water	61 (74.39)	468 (67.14)	3732 (14.18)
No. of village with tank water	16 (19.51)	206 (29.50)	2908 (11.05)
No. of village with tube-well water	63 (76.83)	534 (76.51)	3421 (13.00)
No. of village with hand-pump water	8 (9.76)	173 (24.82)	863 (3.28)
No. of village with river water	15 (18.29)	143 (20.52)	1794 (6.82)
No. of village with canal water	4 (4.88)	91 (13.06)	412 (1.57)
No. of village with spring water	20 (24.39)	38 (5.45)	862 (3.28)

Note: Figures in parentheses indicates percentage to respective total number of villages

Source: Census of India 2001

Table 13 indicates that tube well and well are used by large number of villages. Although it tells about the availability, it fails to portray on all weather availability and number of existing sources, which is captured in section IV.

Section IV

Profile of the Surveyed Villages

IV.1 Physical and Demographic Features:

In this section, an endeavor is made to provide a brief profile of the villages surveyed. A total number of five villages namely, i) Bhutan Khuti ii) Nikashi iii) Dihira iv) Bhehbari v) Bhehguri under Baska block had been surveyed. Topographical nature of the surveyed villages is both plains and hilly terrain. The climatic condition of the villages is basically humid and becomes dry during January-March and type of soil is alluvial. Brief sketches on the geographic and demographic characteristics of the surveyed villages are depicted in table 14.

Table 14: Geographic and Demographic Details of the Border Villages of the Block

Particulars	Block	District
No. Of revenue villages	5	96
No. Of forest villages	0	7
Total no. Of border villages	5	103
Area (in sq. Km)	14.97 (.62)	273.6 (11.4)
Total population	7245 (.97)	114787 (15.39)
Sex Ratio for all age groups	973	968
Population Density	484	420
Sex ratio of 0-6 age group	991	845
0-6 total population	896	18099
Literacy (<i>in percent</i>)	43.19	41.14
ST Population (<i>in percent</i>)	11.53	40.93
SC population (<i>in percent</i>)	15.00	6.76

Note: Figures in parenthesis indicate percentage to district total

Source: District Administration, Baska

Population density of the surveyed villages under the block is 484, which is greater than the overall block and the state average. A majority (77%) of the population belongs to Hindu religion and rests belongs to Christianity. Average family size of the surveyed villages is about 6. On an average each household under the surveyed villages own more than 12 bighas of land or about 2 bighas per capita. Prime agricultural crop of the villages is rice. In addition they also grow mustard seeds, radish and *Kasu*. It is informed by the villagers that a large portion of the total production of *Kasu* is supplied to various parts of the state. The main source of livelihood is no doubt agriculture, but this sector alone cannot absorb labour for the

whole year. Hence, a number of villagers migrate to nearby towns and villages for daily wages or casual labour. In addition, it is worthwhile to mention that a beginning has been made in the implementation of National Rural Employment Guarantee Act, where women participate in a large amount

IV.2 Economic Features:

Occupational distribution in the surveyed village is shown in table 15 and table 16 as below.

Broadly, agriculture, agricultural and casual labour constitute the major share of occupation and they form the main occupation in the villages of the surveyed block. A petite share of the villagers engaged in the service, which constitute the secondary occupation category of the villages along with petty trade and forest dependent.

Table 16: Total and Marginal workers in the surveyed villages of the Block

Particulars	Baska Block	All Blocks
Work Force Participation Rate	30.89 (2238)	40.97 (47029)
% of marginal workers to total workers	21.76	30.57
% of marginal agricultural labourer to total workers	3.35	9.17

Note: *Figures in parenthesis indicates respective numbers of total workers*

Source: *District Administration, Baska*

It is clearly shown in the table 16 that work force participation in the surveyed villages of Baska block is less than both all border blocks and state (35.78%). Likewise percentage of marginal workers to total workers and percentage of marginal agriculture labourer to total workers are also less than all border blocks in the districts and state (25.41% and 13.24% respectively).

IV.3 Livelihood linkages:

Livelihood activities and their linkages in contribution towards the local economy and or country is a much researched question. More importantly it depends on a number of factors such as existing local resource base, occupational distribution, supporting industries in the locality for agricultural and allied products, well organized market infrastructure, marketing provision, banking and financial infrastructure, etc. It is observed from the village survey that as agriculture alone is unable to absorb the working age population of the villages, casual labour is the next based alternative for the villagers. Domini Tea Estate attracts a large portion of the population of the villages as a casual labourer. In addition a small portion of population depend on forest resource in the form of both timber and non-timber forest products. Thus, it is observed that the villagers in the border area had limited livelihood opportunities.

IV.4 Infrastructure and Basic Services: An analysis of infrastructural facilities like connectivity, health, education, market, post and communication, security centre, etc. in the surveyed villages, it is found that there is wide dispersion among the surveyed villages. The details are given in Table 17.

There is only one village among the surveyed villages where PWD road is available within 0 Km. distance. On an average distances to a PWD road among the surveyed villages is 4.31 Km. Moreover standard deviation indicates that differences of distances of villages from PWD road is more dispersed. Primary school and fair price shop are available at the all villages in our sample. Integrated Child Development Schemes are available approximately at all the villages as clearly indicated by standard deviation.

The surveyed villages have to cover an average distance of 2.13 Km. for Primary Health Center (PHC). Dispersion in this amenities is less as compared to Hospitals for which average distance from the villages is 7.13 Km.

Table 17: Distance of Amenities from the Surveyed Villages of Baska Block
(Distances are in Km.)

Infrastructure	Bhutan Khuti	Nikashi	Dihira	Arnibil	Madhupur	Average
Vet-nary Dispensary	1	7	5	13	15	5.13 (5.76)
PWD Road	22	0	5	1.5	6	4.31 (8.79)
Medical facility	0	3	0	6	8	2.13 (3.57)
Hospitals	7	7	15	13	15	7.13 (4.10)
ICDS	0	0	1	0	0	0.13 (.45)
Primary School	0	0	0	0	0	0.00 (.00)
Secondary School	0	0	5	3	8	2.00 (3.42)
H.S. School	7	0	6	6	8	3.38 (3.13)
Market	7	0	5	1.5	4	2.19 (2.78)
Post Office	5	0	4	1.5	6	2.06 (2.49)
Bank	12	7	15	13	15	7.75 (3.28)
Police Station/ Outpost	12	0	16	1.5	20	6.19 (8.83)
Fair price Shop	0	0	0	0	0	0.00 (0.00)
District Headquarter	12	7	15	13	15	7.75 (3.28)
Nearest Town	12	7	15	13	15	7.75 (3.28)
All	6.47 (6.57)	2.53 (3.36)	7.13 (6.24)	5.73 (5.62)	9.00 (6.49)	

Note: Figures in the parentheses in italic indicates standard deviation.

Source: Field Survey and FGD, 2008

IV.5 Problems Identified by Villagers and Felt Needs

On the basis of villages survey conducted in the block, the major problems of the surveyed blocks have been identified. The identification of problems is necessary to understand the felt needs of the people for future action plan (details given in Table A-1). On the basis of two rounds of focus group discussion held with government officials such as Deputy Commissioner of the district, District Super-in-ten-dent of Police, Block Development Officer and Junior Engineer of the surveyed Block; teachers posted in the villages as well as knowledgeable persons of the area and the fellow villagers, the felt needs of the people of the block have been identified. The identified felt needs of the block have been summarized as in table 17 below.

Table 17: Felt Needs of the People of Baska Block

S. No.	Sectors Need Intervention	Felt Needs of the People
1	Medical and Health	<ul style="list-style-type: none">i. Adequate numbers of medical persons especially doctors and nurse.ii. Medical persons should be residing in the village.iii. Ambulance services facility on a call.iv. Diagnosis centre at block level.v. Availability of free medicine.vi. Distribution of free medicated sleeping net in the block so as to encounter malaria problem.vii. Provision Chlorine tablet in all villages.
2	Education	<ul style="list-style-type: none">i. Provision of more provincialised Lower Primary and Higher Secondary Schools.ii. Free text books up to secondary education stage.iii. Appointment of more teachers.iv. Adult literacy centre at block level so as to enhance literacy.
3	Infrastructure	<p>Road and Connectivity:</p> <ul style="list-style-type: none">i. Provision of paved major district roads.ii. Provision of more all weather village road (preferably paved) so as to make faster approach to major district roads.iii. Construction of more number of RCC bridges and replaces existing wood bridges with RCC bridges.iv. Existing bamboo bridges in the villages should be replaced with wooden (preferably RCC culvert or bridges).

Power and Electricity:

- v. Provision of electricity in the villages where at present there is no electricity facility.
- vi. Increasing the supply of electricity capacity so as to cover more households with electricity facility.
- vii. In case of socially and economically weaker section of the population in villages, provision of subsidized electricity facility.

4 Agriculture and Irrigation

- i. Free supply of seeds for both rice and vegetables.
- ii. Provision of governmental irrigation so as to boost agricultural production.
- iii. Provision of free agricultural training for the villagers at block level.
- iv. Provision of fertilisers and micro nutrients at subsidized rate.
- v. Governmental provision in protecting crops from elephant.
- vi. Provision of extensive and compulsory agricultural extension services.
- vii. Suitable price for the agricultural produce.

5 Basic Amenities

- i. The villagers felt a great deal of intervention in provisioning water facilities by the government. Although provision of water is in the form of tube water is in existent, it is not properly designed and managed and number of installed water point is not sufficient. The problem always starts during the period January to April, when water level goes down. Tube well is not feasible due to inner soil structure.
- ii. Drinking water facility is prime concern for the villages since a few well is installed in the villages, which provides water to almost half of the households. Moreover during the dry months of the year water level goes down and exacerbates the problem. Hence villagers need a sustainable provision of drinking water.
- iii. Need governmental provisioning for defecation.

6 Social Security

- i. Villagers also need governmental support in providing employment generation activity.

- 7 **Credit and Banking**
- ii. Basically the villagers are engaged with agricultural and allied activities for income generation. Besides they also earned their livelihoods as seasonal labour, There is a need to enhance the implementation of schemes like NREGA, SGRY etc. in the border villages
 - i. Credit facility is also an obstacle for the villagers since banking facility is available only at District Headquarter. Agricultural credit facility such as Kishan Credit Card is also not available to villagers. Therefore villagers that actively engaged in the agricultural sector need credit facility to boost agricultural production and for a better livelihood.

Source: Focus Group Discussion, 2008

Section V

Observations and Recommendations

The above detailed analysis about the status of the Baska block with reference to the border villages in the block in the district of Baksa pointed out the facts that block is deficient in various physical and social amenities and border villages need special treatment in the process of overall development. Before drawing the final recommendation, it may be worthwhile to go over the major observations of the study. A summary of these observations is presented below.

V.I Major Observations:

- ❖ Four districts of Assam, namely Udalguri, Baksa, Chirang and Kokrajhar share about 262 km. with Bhutan. Baksa district alone shares about 32 percent of international boundary with Bhutan, which is considered as the longest international boundary of India toward its north.
- ❖ On the basis of the selected economic indicators, it is observed that most of the populations of the border block in the border district have a higher dependence on agriculture. But avenues of employment opportunity in the area are limited.
- ❖ The overall picture of road density for BTAD shows that road density is less (0.385 sq. km.) as compared to both state (0.67 sq. km.) and the country (1.12 sq. km.). Similarly, road availability population wise for India is 360-km/lakh population, for Assam 196 km/ lakh population; it is only 131.50km/ lakh population for BTAD areas. In addition,

data of surveyed border villages shows that all village roads are Kutcha and seasonal. Moreover, there is practically no proper bridges in the villages and it makes road communication difficult during the monsoon season. Even the study team find the road conditions are deplorable. The main road from Kadamtala to Mushalpur is in a bad shape and Road Bridge is broken and by-pass has been made through a Kutcha road. Even while interacting with villagers and officials in the district, all have pointed out the problem of all weather motor-able roads. This even impedes good administration in the area.

- ❖ As regards the other infrastructural facilities like the health and the education, the border villages in the district are by no means in a healthier condition. In the case of primary health centers, it is found that there is about five primary health center per 100 sq. km. Since the border block is under malaria and diarrhea endemic area, therefore there is need of well-equipped PHC. Besides both provincialised primary and secondary schools are inadequate.
- ❖ It is found that only about 16 percent of the households have electricity connection and that is solely for domestic purpose. There may be some schemes to provide electricity in all border areas and to all households.
- ❖ It is observed that the district has no General Post Office (GPO) and only Sub post office is at present located in the district headquarter. For any reason, if the facility in GPO is required, it has to be referred to adjacent Nalbari district.
- ❖ Villagers of the border villages informed that elephant usually damage their paddy crops and the administration has not taken any remedial measure in protecting the crops. The villagers envisage the problem may be due to deforestation and study team had also witnessed the massive deforestation of Dihira forest.
- ❖ Agriculture is the primary occupation but it cannot provide gainful employment to all and throughout a year and thus the next best alternative livelihood for the villagers is agricultural and contract labour. Since per capita availability of land for the villagers is about 2 bighas, in the absence of modern scientific agricultural practices along with agricultural extension services, it may causes in low realization of productivity. In addition it is also found that for irrigation purpose, villagers usually depend on indigenous *Dong* system, which is inadequate for the crucial period of cultivation and apparently indicates the dearth of governmental provision.
- ❖ It is also observed and informed by the villagers that they hardly get the justified price of agricultural produce. It may be attributed to the poor physical connectivity and absence of well provisioned marketing facility.
- ❖ It is informed by the villagers that only a smaller amount of agricultural credit provision

is availed in the villages. This may be due to the dearth of adequate banking and financial institutions, which is supported by the fact that on an average a scheduled commercial bank in the surveyed block serves about 46000 of population, which is less than state average of about 20939.

- ❖ Neither border trade nor external threat was experienced as informed by the villagers of bordering area. Basically the border is natural where Diring River demarcates between the countries and therefore passage is difficult.
- ❖ On the basis of the selected socio-demographic and economic indicators it is observed that most of the border villages in the district are worse off as when compared to the State average or even the respective district averages.
- ❖ Literacy rate in the border blocks is quite low as compare to state average. Moreover there is not a single Adult Literacy Center in the bordering villages.
- ❖ It is found that only 7 Self Help Groups are formed in two villages of the surveyed border villages under the block and still to be linked with Bank. Thus, it is apparent that Self Help Group Bank Linkage (SBLP) program of NABARD is still to be implemented in the border villages.
- ❖ Sanitation facility in the border villages is in poor condition as it is found that about 42 percent of the households are still using open space for defecation. It is worth mentioning that open and unhygienic defecation may cause numbers of health problem.
- ❖ It is found that income and employment generation programs such as, SGSY, SGRY, Hariyali, etc. in the border villages are inadequate. Although a few numbers of such programs had been implemented, it fails to provide adequate opportunities. In addition villagers informed that there is lack of transparency in implementation of such programs. However, it is also observed that in recent time NREGA has provided employment opportunities in few villages and need to be implemented in all border villages.
- ❖ It is found that an amount of Rs.8, 40000 for border schemes are yet to be released, which is provisioned for the financial year 2006-07 although it is non-lapsable fund. But it is pertinent to point out that schemes taken for development of border areas need proper implementation on a priority basis and monitoring is necessary so that benefits from such schemes reaches the target group.
- ❖ It is also found that the district administration to a great extent successfully implemented e-governance and created transparency in its administration. Still lot needs to be done but a beginning has been made at the initiative of the officials concerned, which has also been reflected in CICs white paper.

V.II Recommendations:

On the basis of the findings and observations, the following recommendations have been put forwarded to prepare an action plan for the development of the border blocks in general, and surveyed block in particular.

- A. Although a number of employment and income generation programs have been implemented, yet it is not sufficient to provide gainful employment opportunity for the vast majority of the villagers. It is found that income and employment generation programs such as, SGSY, SGRY, Hariyali, etc. in the border villages are inadequate. Although a few numbers of such programs had been implemented, it fails to provide adequate opportunities. In addition villagers informed that there is lack of transparency in implementation of such programs. However, it is also observed that in recent time NREGA has provided employment opportunities in few villages and need to be implemented in all border villages.
- B. Road network needs prioritized investment to improve physical connectivity in the district. There is a need to provide all weather motorable roads with proper *Pucca* culverts/bridges, which would not only improve connectivity but also would bring better administration.
- C. Health facilities available in the district need to be strengthened in terms of skilled personal like doctors, laboratory technician, nurses, etc. Moreover, administration is required to monitor the availability of health personals in the villages. Also these health centers should be equipped with necessary equipment like X-Ray machines, pathological laboratory. Free medicine should be made available to the eligible villagers along with medicated sleeping net.
- D. There is a need to provide better primary and secondary education in the border areas. This may be done through provincialisation of existing institutions and providing sufficient teachers and infrastructural facilities. Both state government and Sarva Siksha Abhijan can take the necessary initiative to improve the situation.
- E. There is a need to provide Adult Literacy Centre at the block level so as to increase literacy in the border areas.
- F. The border area is under banked area. As such proper banking facility should be provided in the villages. This will be able to create an environment of banking habits in terms of deposits and advances, which will surely help the area to develop. Further expansion of the banking facility could improve the SHG Bank Linkage Program, which may have a positive impact on the livelihood scenario of the villagers.

- G. There is urgent need of establishment of a GPO and sub post offices in the district, which would not only supplement the banking habits but would also help in the implementation of government programs like NREGA.
- H. As agriculture is the major sector in the economy of the border villages and as agricultural productivity is found to be low, there is a necessity to have a proper plan for agricultural development. Besides providing necessary agricultural inputs like, seeds, fertilizers, pesticide etc., irrigation facilities need to be strengthened as it is found that the age-old *Dong* system of irrigation is not sufficient to improve agricultural productivity.
- I. There is a lack of agricultural credit provision in the border areas, which reflected in inadequate availability of banking and credit facility. This is also a major constraint to get the facilities like *Kisan Credit Card*. As such there is a necessity to create such banking and credit institution, which can cater to the needs of the villagers. This will help in adoption of modern agricultural practice thereby increasing productivity.
- J. As is found during the FGD, marketing of agricultural produce is a serious concern of the villagers. To improve upon the scenario the facilities of regulated market could be expanded to the district. Improvement in the road connectivity would also help to overcome some marketing problems of the border areas.
- K. To maintain a better health in terms of hygiene, Total Sanitation Campaign Program should be fully implemented in the border villages, as open defecation is a serious problem in the surveyed villages.
- L. Availability of drinking water always should get priority. But there is a lack of availability of drinking water in the border villages. Although a few water supply schemes were implemented, it is not sufficient and supply is not regular. As in the area ground water level is very deep, villagers have to depend mainly on pond, which usually dries up during the winter season. As such there is a need to provide sustainable drinking water facilities and this should be scientifically installed.

APPENDIX

Table A-1: Problems Identified and Felt needs of the villagers of surveyed villages under Surveyed Block

Name of the villages	Persons contacted	Problem Details
Bhutankhuti	Gaon Bura, villagers and two village school teachers	<ul style="list-style-type: none"> a. Basically the village economy is agrarian in nature where rice is major production. Majority of the household depends on mono cropping due to the dearth of irrigation facility. Usually irrigation facility for agricultural purpose is made through Dong system, which depends on the water level of Dirraang River, which flows from Bhutan. They felt that for enhancement of production, multi cropping is important and for that purpose, they need government assistance for irrigation. They also informed that Shallow Tube well is not feasible for them since it entails a huge cost of installation in water extraction. b. The villagers reported that there was occurrence of Human-Elephant conflict in the village. The conflict usually causes a huge loss in the form of damage to the paddy crops. Therefore they felt that government should do the needful in providing some necessary action plan to tackle this problem. c. Road communication is the biggest problem of the village as they have either to walk to Nikashi, which is 7 km away from the village's public or private heavy vehicle. Moreover, the road condition of the village is not for all weather. Therefore they felt improving the road quality will enhance there village economy. d. One of the prominent problems of the village is health facility. The major impediment in this connection comes in the way of unavailability of doctors, pharmacist and diagnosis in the sub-centre. For emergency they usually go to Mushalpur, which is 14 Km. away from the village. As said earlier, in the absence of proper road communication along with pathetic transportation facilities, only fate can play a role of doctor. Therefore they urge for better health facility ion terms of availability of medical persons in the village and available free medicine.

- e. The villagers felt a great deal of intervention in provisioning water facilities by the government. Although provision of water is in the form of tape water, it is not properly designed and managed and number of installed water point is not sufficient. The problem always starts during the period January to April, when water level goes down. Tube well is not feasible due to inner soil structure.
- a. Only as small portion of the village households is electrified and thus the villagers need complete electrification of the villages.

Nikashi Gaon_Bura, Village
school teacher,
villagers and one college teacher

- a. The basic problem they face in the form of drinking water facility. A majority of the household depends on dong and well, but it creates problem during the months of January to March when water level goes down. At present the village is not availed with government water supply facility and thus they felt the need of government intervention in this front.
- b. As reported by them 90% of the households are engaged with agriculture as primary source of occupation. The cropping pattern is basically mono cropping except few exceptional cases where in the down part of the village they use irrigation for Rabi crops. Besides dryness is a major problem in maintaining water in the field for Rabi crops. As of now since there is no provision in this front by the government they urge for government irrigation facility.
- c. Malaria is treated by the villagers as one of the fatal diseases in the villages. The outbreak of malaria as they envisaged is due to dearth of pure drinking water (Basically they use water of Dong for drinking purpose) and lack of sleeping net. In addition the problem cannot be contained by the local Mini PHC, since diagnosis is poor. Therefore they felt the need qualitative intervention in this matter by the respective health department. Moreover they felt the need of medicated sleeping net for the villagers.
- d. It is informed that still a sizeable section of household uses open space for defecation and need public provisioning of such facility.
- e. As informed by the villagers' literacy rate is not satisfactory in the village. Approximately

60 % of the villagers are literate. Therefore they felt the need of enhancing literacy.

- f. Road is also a basic concern for the villages. Though a MDR, namely, Kadamtol-Bhutankhuti road touches a part of the village, the portion of road from headquarter, which is 7 km away to Bhutankhuti is only sand graveled. In addition the village roads are not proper and all of them are kutcha and seasonal. Therefore they urge for all weather road in the villages and proper pucca PWD road.

Dihira Gaon Bura and villagers

- a. Road is the basic need in terms of physical connectivity for the village. It is informed and observed that the village has no proper road. Villagers walk about 5 km. (to Nikashi) for nearest connecting point due to dearth of proper road.
- b. Drinking water facility is also a major concern for the village since a few well is installed in the village and thus they need better provision in this front.
- g. It is also pointed out that a large part of household uses open space for defecation and need public provisioning of such facility.
- c. The concerned persons, whom we met, informed that no doctor visit the village and it is difficult to villagers to mitigate health problem without proper treatment. Moreover free governmental medicine facility is not enough throughout the month.
- d. The village is yet to be electrified and villagers urge for electricity.
- e. Villagers also need governmental support in providing employment generation activity. Although 30 households are benefited by the Sampoorna Grameen Rozgar Yojana in the financial year 2006-07, it is not adequate and thereafter no developmental program is implemented in the village.

Bhehbari Gaon Bura, Mauzadar and villagers

- a. Drinking water facility is prime concern for the village since a few well is installed in the village, which provides water to almost half of the households. Moreover during the dry months of the year water level goes down and exacerbates the problem. Hence villagers need a sustainable provision of drinking water.
- b. Malaria is the endemic disease in the village. It is informed that hardly any medical person visits the village. Usually they walk around 2 km for medical treatment and in case of severity they cover a distance of 8

km. for PHC, which is located at the District Headquarter. Therefore they urge for compulsory visit of medical persons to their village along with free medicine.

- h. A large part of household uses open space for defecation and need public provisioning of such facility.
- c. The village has no proper road and nearest connecting point is 2 km away from the village. Moreover nature of the available village road is seasonal. Therefore proper all weather road is a great demand of the villagers.
- d. Basically the villagers are engaged with agricultural and allied activities for income generation. Besides they also earned their livelihoods as seasonal labour, for which they depend on Doomni Tea Estate. As of now, as reported by them, no government program of income and employment generation is implemented and thus the villagers seek government assistance in this front.
- e. Moreover credit facility is also an obstacle for the villagers since banking facility is available at a distance of 8 km. Agricultural credit facility such as Kishan Credit Card is also not available to village. Therefore villagers that actively engaged in the agricultural sector need credit facility to boost agricultural production and for a better livelihood.
- f. Electricity is also an important need as felt by the villagers. As of now the village is not electrified.

Bhehguri Gaon Bura and villagers

- a. Drinking Water facility is inadequate. Usually uses pond water. Only two wells are installed in the village with government aid but problem arises during the dry months and water level goes down to 70-80 feet. Once an installed water project eases the problem, but it is ineffective now.
- b. It is also informed that a large part of household uses open space for defecation and need public provisioning of such facility.
- c. The village has no proper road and nearest connecting point is 5 km away from the village. Moreover nature of the available village road is seasonal. Therefore proper all weather road is a great demand of the villagers.
- d. Although doctors are officially posted, they are not available for 24 hours. Moreover

there is also short supply of free medicine. Since the village is a malaria and diarrhea endemic, villagers urge for better health facility in terms of diagnosis and free medicine.

- e. Illiteracy is also a major problem of the village. Therefore villagers demand for governmental intervention in promoting literacy.
- f. Electricity is also an important need as felt by the villagers. As of now the village is not electrified.

Source: Focus Group Discussion, 2008

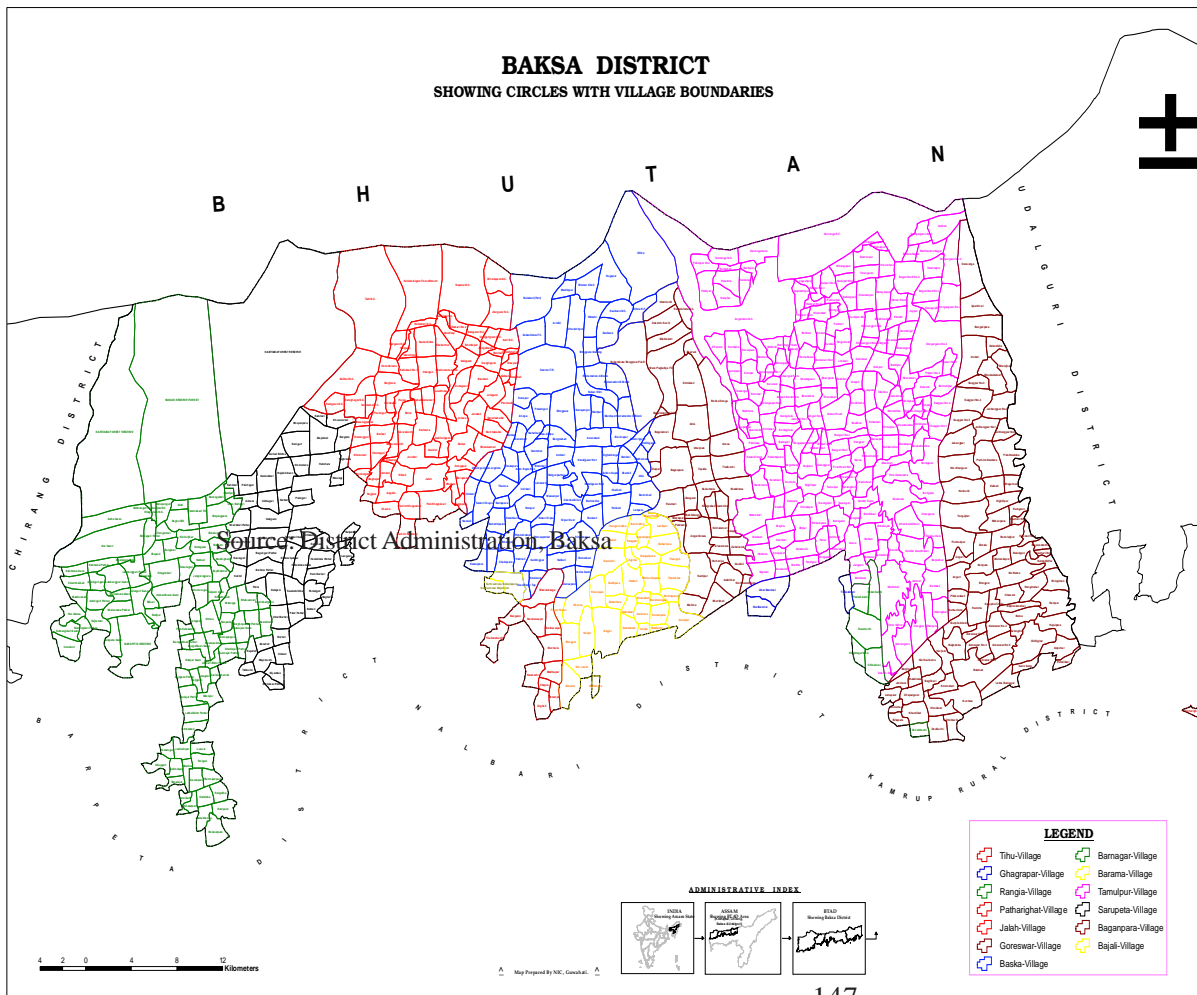
Table A-2: Electricity and Water Availability in the Surveyed Villages

Particulars	Numbers
Number of Households	1993 (399)
Percent of village electrified	40
No. of households Electrified	326
Percent of households electrified	16.36
Sources of drinking water for household	
Tape	748 (37.53)
Well	175 (8.78)
Tube Well	0 (0.00)
Spring	46 (2.31)
Pond	236 (11.84)

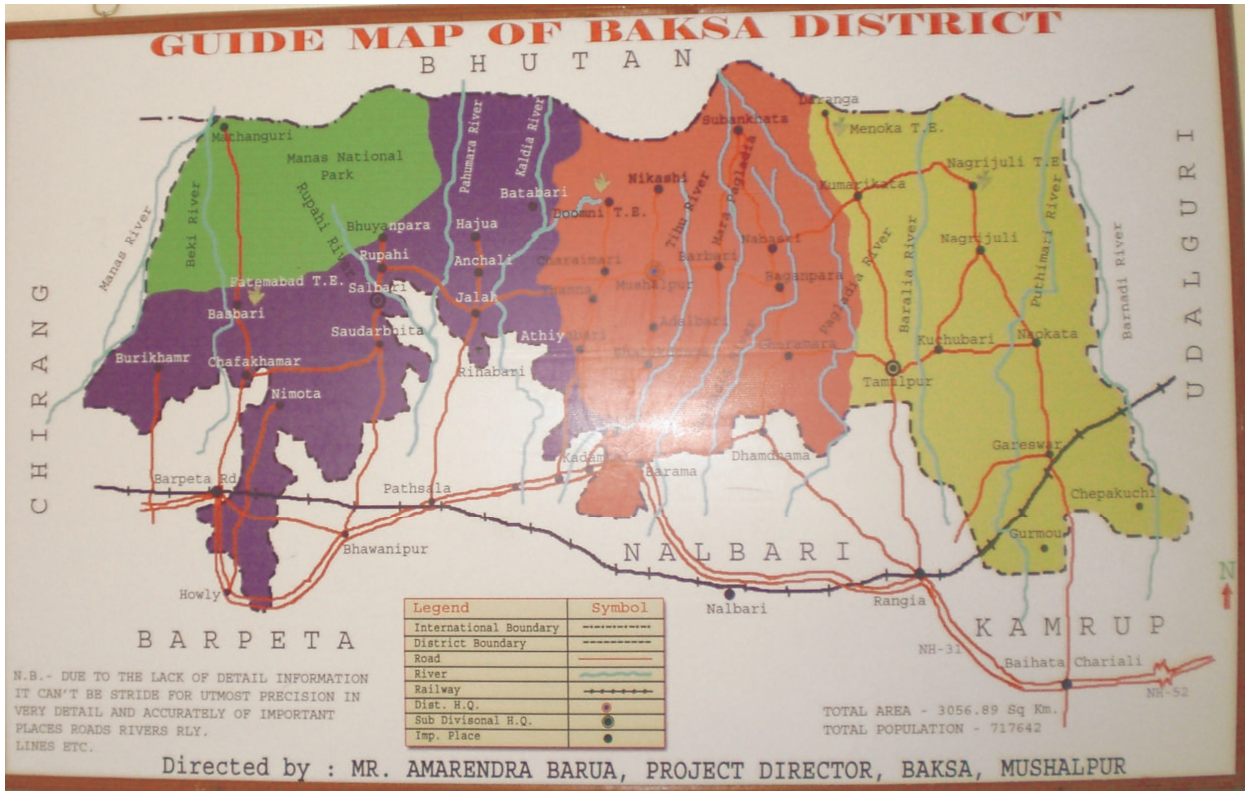
Note: Figures in parentheses indicates percent to total number of households

Source: Field Survey, 2008

Map 1: District Map of Baksa District



Map 2: Guide Map of Baksa District



Map 3: Administrative Map of Baska Development Block

Map 4: Indo-Bhutan Border in the Surveyed Block



**PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA:
IMPLICATIONS FOR 13TH FINANCE COMMISSION**

**ASSAM (PART III)
SOUTHERN ASSAM - BANGLADESH
SEGMENT**

by

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2009

Introduction :

Barak Valley is situated in the southern part of Assam and comprises of three districts namely- Cachar, Karimganj and Hailakandhi, with a total area of 6922 sq km. constituting 8.9 pc of the geographical area of the state . The Valley has a population of 11.22 p.c. Prior to independence the valley was known as Surma Valley, a part of which went to East Pakistan at the time of partition, and later to Bangladesh, while the remaining part came to India. Partition of the country had an extremely adverse affect on the economy and development prospects of the region. Firstly, vital communication links, like roadways, railways and waterways with the rest of India was cut off The region therefore directly lost its link with greater part of the country. Commuhication not only became difficult, but the costs of goods and commodities too became exorbitant, because they had to be brought via the northern route of the region through Assam. This discouraged all forms of investment activities, which has seriously hampered the development of the region .Added to that the region also suffers from poor mineral or other natural resources. Agriculture is therefore the only main occupation of the majority with limited scope of any other form of remunerative employment opportunities, the district per capita income therefore is one of the lowest in the country and much below that of Assam.

Added to this is also the heavy influx of population into the Valley after partition, followed by the Bangaldesh war of independence in 1971. Thereafter though the massive migration has been checked, yet the problem continues till today. This tendency has been putting heavy pressure on the economy of the Valley, which already suffers from limited economic opportunities. The result of all this is that, it is not only that the development of the economy is hampered ,but declining per capita income and limited employment opportunities along with low income and high degree of poverty perpetuates illegal activities and crimes which becomes seri-ous problems for especially the border areas. These border areas therefore are characterised with special problems and special situations which cannot be compared with the rest of the country nessitating special studies for such regions.

Out of the three districts of Barak Valley, it is the Karimganj district which has the longest borderline with Bangladesh, with greater accentuation of the types of problems that we have mentioned above. The district has a borderline of 92 km .The blocks bordering Bangladesh are Patharkandi, North Karimganj block, South Karimganj block and Badarpur block. Out of these four blocks, North Karimganj block covers the maximum length of 50.36 km. We have therefore selected this block for the purpose of our study. The block consists of 126 villages and 120 wards. Out of these villages we have selected those villages which are closest to the border. These villages are Latu, Maizgram, Ranibari and Mahishashan.

In an attempt to examine the condition of living and the problems related to the development of these villages we have divided the discussion below into several sections. The first section deals with analysis of the secondary data at the block, district and the state level so as to acquaint ourselves with the situation prevailing in the block. The second section deals with primary data that we have collected in an attempt to verify the information collected through secondary sources The third section reports the discussion which we had with the cross section of the people of the village.

Analysis of the Secondary data

Examining the secondary data for the block, which we have obtained from the various government departments of the district, it is revealed that North Karimganj block though has the longest border with Bangladesh is one of the smallest blocks of the district with only 137.61 sq km. Like the rest of the state and the district as a whole, nature of the border is both natural and artificial. Out of the total borderline, 28.6 km consists of river border and 21.76 km is land border. There are 16 border security posts at a distance of 1.6 km to 4 km and one police station with four out posts in the entire block.

It has mixed topography like the state as a whole. The block has a total population of 119555(2001 Census) with 61256 males and 58299 females. The block therefore has 44 p.C. and 11.86 p.C. of the district and the state population respectively. The sex ratio in the block is much better than that of the district as a whole and also better than the figure for the state. It stands at 952 as against 944 and 935 for the district and the state respectively. The percentage of population between the age group of 0 - 6 years is 49 p.c. as against that of the state and 12.59 p.c. as against that of the district, which is roughly in keeping with the proportion of the total population of the block. However, division of the population according to different social groups, reveal that the block has only 9 people belonging to the ST group. This constitutes less than 1 p.c. of the population being as low as .31 p.c. of the population of the district and .02 p.c. of the state population. The proportion of SC population is much higher in the block. There are 8110 SC people, which stand at 6.19 p.c. of the state and 44 p.c. of the district's SC population respectively. Literacy rate of the block is much lower than that of the state as well as the district. The block records only 56.52 p.C. of literacy rate as against 63.25 p.c. of the state record and 67.21 p.c. of the district. The literacy rate is therefore much lower than that of the state record, as well as that of the country as a whole.

Poverty appears to be extremely widespread in the block. This is evident from the fact that only 8.64 p.c. of the population of the district are the main workers which stands at 0.36 p.c. as against the state. Though agriculture is the main occupation, yet only 34.23 p.C. of the population is engaged in the sector, implying that a significant percentage of the population are unemployed, since only 22.2 p.c. of the population is constituted by the marginal workers.

As far as infrastructure is concerned, data for most of the variables were either not available and in other cases officials were reluctant to cooperate. Information for the condition of road was not at all available, perhaps because on actual visit it was found that there are practically no roads in existence. There are hardly any pucca roads in existence. Wherever roads are in existence they are only the kuccha type of roads. As for posts and telegraph offices there are 19 of them in total with 1.58 per 10,000 population which is at par with the state's average.

As far as electricity is concerned, the block appears to be in very good condition since 97.7 p.c. of the villages are electrified. Number of schools too is better than the state and the district record since there are 23 schools per 10,000 population. The corresponding figure for the district is 16.79 and for the state are 17.19 per thousand population. For the number of schools per 100sq lan it is therefore also in a better condition. It is 200 schools per 100sq lan whereas it is 98.58 schools for the district and only 58.34 schools for the state. Though the number of schools is high, the number of teachers is highly inadequate. With relatively good demand for education, the student teacher ratio is only 39:1 for primary schools, 61:1 for middle elementary and 31: 1 for venture LP. The entire block has only two higher secondary schools and no colleges.

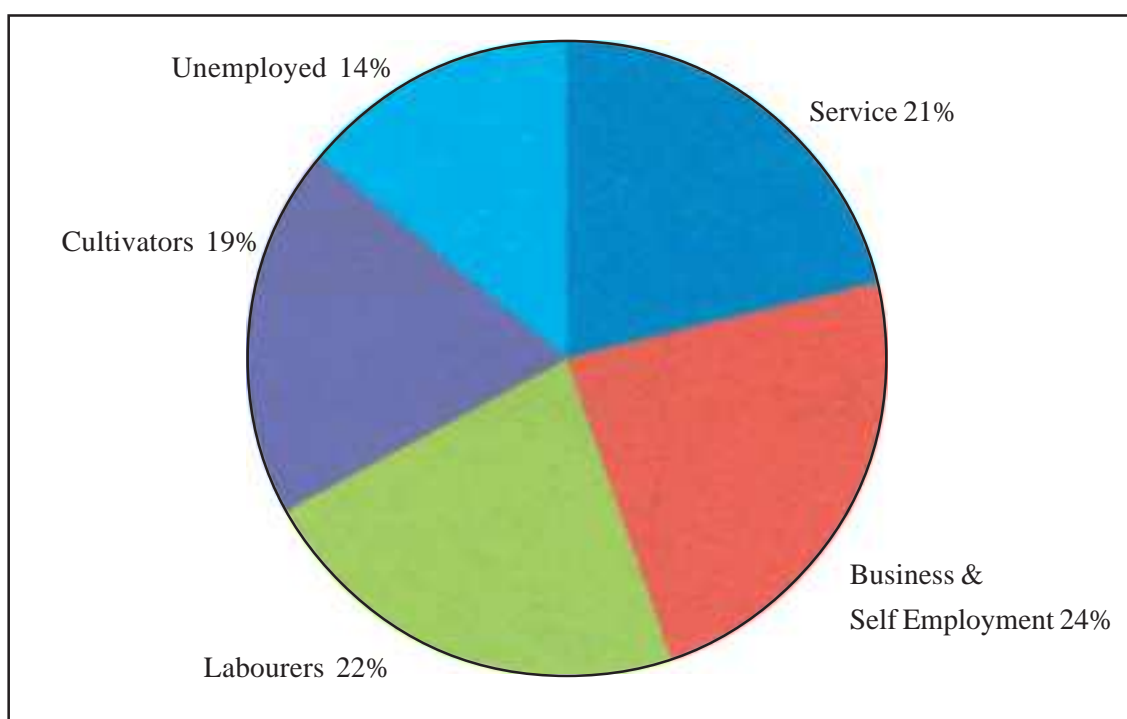
Health infrastructure is however, the poorest in the block. The block has no hospitals. It has only 1 PHC, 3 CHC and 3 dispensaries. There are only 6 doctors in the entire block, whereas there are 56 doctors in the entire district. The condition of the supply of safe drinking water is extremely poor. Only 0.41 p.c. of the villages have tubewells or handpumps. Out of these, only 1001 are functioning and 181 are non functional. The rest have to resort to pond water for the purpose of drinking water.

Findings of the Primary Data

In an attempt to examine in greater depth the problems of the villages at a micro level we have collected primary data from the four villages mentioned above and also organised a Focussed Group Discussion (FGD) The analysis of the primary data reveal the condition of the villages as reported below

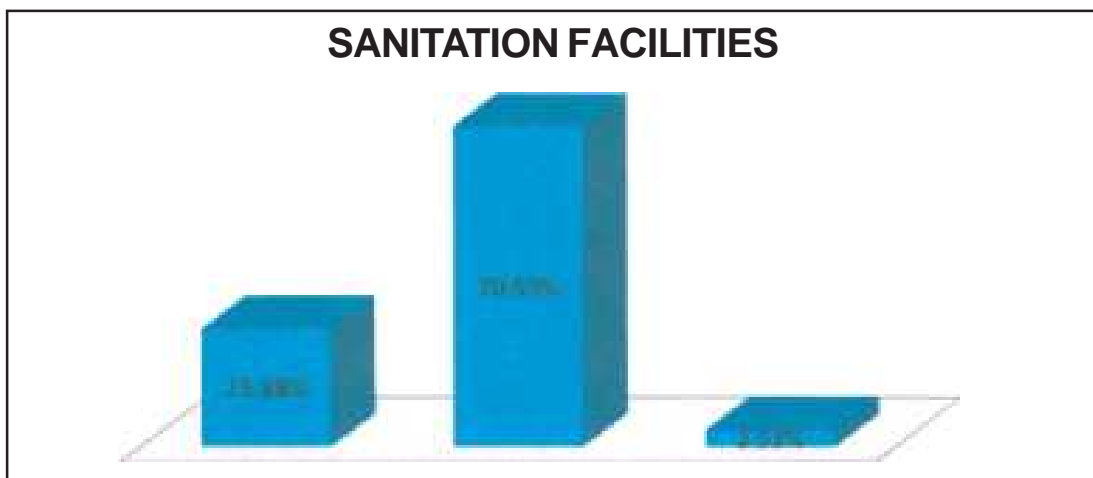
For the purpose of collecting primary data we have selected IOp.c. of the households from each of the four villages. Our sample size was 85. The requisite information was collected from each of these villages with the help of a well-structured schedule. As far as the break-up of the group according to religion is concerned ,it was revealed that 56.47 per cent of the sample households are Hindus and 43.53 per cent are Muslims whereas the corresponding figures for the total members of the household was 54.08 per cent and 45.91 per cent respectively. The total population of the four villages under consideration was 4520 of which 2307 are males and 2147 are females. The sex ratio at 930 was found to be much lower as compared to 952 for North Karimganj block, though it is more in keeping with the state trend. The occupational structure in the villages (Depicted below in the diagram) under consideration reveals that 24 per cent of the people are engaged in business and self employed. The second position of 22% is constituted by labour class, followed by service holders 21 %, cultivators 19% and unemployed 14%.

Although as high as 97.7 per cent of the villages in the block was found to be electrified its outreach at the household level depicts a very gloomy picture as only 42. 35 per cent of the sample households have access to electricity. This reveals the extreme poverty since almost 58p.c. of the households are not able to get electric connection till today. Existence of poverty according to the analysis of our secondary data is thereby substantiated by this finding.



As far as the education sector is concerned it is revealed that the teacher-student ratio of 41: 1 is slightly higher than the corresponding figure of the block (39: 1). The average number of students per class room for the villages covered is 64.63. Around 46.51 per cent of the teachers do not stay in the villages where the schools are situated. However, a positive aspect of educational infrastructure is that most of the schools have toilet facilities.

Although all the four villages have Primary Health Centre (PHC) medical facilities in the villages is quite deplorable. Altogether three doctors have been posted only in two villages, but two out of the three doctors are currently available in one particular village only, as a result of which as meagre as 0.49 doctors are available per 1000 population. The corresponding figures for hospital beds, nurses/ ANM/GNM and pharmacists were found to be 0.24, 1.47 and 0.49 respectively. Medicines are available in one village only.



Regarding sanitation facilities (depicted in the diagram above) 25.88% households have sanitary latrine, 70.59% have pit latrine and 3.53% households have no sanitation facility as such and use open space/jungle for the purpose.

As far as the consumption of consumer durables such as TV, Radio or telephone connectivity is concerned, it is revealed that 18.82% of the sample households have landline telephone connectivity and 43.53% have mobiles. On the other hand proportion of households owning radio and television stands at 34.11%. DDI and DD2 are the national TV channels and BTV is the only foreign channel available in the village, although only 3.5 % of the households have access to channels other than these through Dish TV and Tata Sky. It was found that DD 1 is the most popular channel among the villages whereas BTV (Bangladesh) is the popular channel for 4 . 71 % of the households .The figure for the use of bicycles, motorbikes, cars and freeze stands at 29.41%, 7.05%, 1.18% and 2.35% respectively.

Focussed Group Discussion (FGD)

The Focussed Group Discussion was organised in Latu village mainly because out of the four villages it had the maximum number of households . This facilitated conducting the discussion for cross section of the population in the village which would not have been possible in case of the other villages. Secondly communication to the village though was extremely bad and difficult, yet it was better in comparison to the other villages.

The FGD was organised at four levels. The first group was for villagers across cross section of the society. Second group consisted of the school principals, school teachers,

health officials and govt. officials like the extension officer and others in charge of various govt. schemes. The third group consisted of the members of the voluntary organisations and gram sevaks. The fourth group was constituted by the security personnel.

First Group: The Villagers.

This group consisted of the cultivators, petty traders, tailors and some prominent citizens of the village. They were all unanimous about the problems which they have been encountering. The most serious complaint was related to the extremely poor communication system, particularly the bad road condition with precarious wooden bridge constructed since the British time. According to them the govt. officials have said that roads and bridges cannot be constructed because the condition of the village was such that their construction does not suit the govt specifications. The villagers however feel that such specifications, rules and regulations should change according to local needs.

Another serious complaint of all the villagers was that there are no employment opportunities in the village. As a result of that, they either have to settle down with petty jobs or work as cultivators or they have to go out of the village in search of jobs. The second option is highly detested by the villagers because according to them outside the region they are all treated as "Bangladeshis" irrespective of their religion. They therefore strongly feel that industries should be set up in their villages. In fact, in Latu village there are some extremely well off people who can afford to establish their own industries. However, whenever they approach the Dle officials for such purposes they are told that since the villages are in the border areas no industries will be set up. Their complaint is that they are not even given the application forms. The villagers appeared to be highly agitated over this issue.

As far as schooling is concerned, almost all the boys and girls in the village want to go to school but most schools have only one or two teachers, due to which teaching suffers terribly. Post of teachers is lying vacant, either they are not filled or there are absentee teachers. The govt according to them is just not interested and nobody comes to find out about their problems. Similar complaint was voiced by the villagers of some neighbouring villages who had also come to attend the discussion.

Another serious problem confronting the villagers about whom they are all highly upset is the condition of the drinking water. There is no supply water and they use the pond water for the purpose of drinking, findings which have been substantiated by primary data. Tulu pumps are not set up due to arsenic problem according to the govt officials. However, the villagers feel that such a conclusion was derived without conducting any proper survey and the same is not at all true according to them.

The PDS system too is highly unsatisfactory. There is hardly ever any item available in the fair price shops. Even if they are, the quality is not fit for human consumption. Besides, more people need to be covered by BPL cards. The price of all available commodities is extremely high. It is much higher than the price level in Karimganj town, where prices are already much higher than the rest of the state. The main reason according to the villagers is the poor road condition.

Almost every year they are affected by floods, but they do not get any relief nor do anyone even bother to find out about their condition. They are consequently left to fend for themselves.

Though in Latu village there is electricity connection in most households, the households in the interior villages still have no electricity reflecting the extreme poverty of the population. Telephone connectivity is very poor in most of the villages and landlines too often do not work and mobile connectivity is almost always absent according to the villagers. All these problems confronted by the villagers have also come up during the course of our primary survey.

The villagers are not aware of the various schemes in existence, meant for their benefit. In fact for every work for which they approach the govt officials, they are asked to pay money or are ill-treated by the govt officials. Govt. officials are also very slow in their duty according to them or are mostly absent from their duties.

An interesting point observed by us is that one group of villagers feel that there is considerable amount of smuggling of goods from India regularly across the border. There is also theft of livestock. They always face a sense of insecurity for being in the border areas. In contrast however, another group opine that they face no insecurity and there is also total absence of smuggling of goods across the border.

International barbed wire seems to have created problems for those people whose land and property and houses have fallen on the other side of the fence. Since govt has not yet declared such land as no man's land, they are not getting any compensation for such land either. As a result, they have to keep contact, for attending schools/colleges for marketing and medical help and other work with India. However, they are not able to cross the barbed fence legally.

On the whole, all villagers have vented out their anger in a common voice for the poor quality of life, their daily hardships, apathy of the govt all of which they feel is due to the fact that they are in border areas. Nobody ever bothers to find out about their problems or sympathises with them. In fact our team was the first to visit them and listen to their problems. The most disturbing view was that a good number of them opine that they would have been better off in the erstwhile Pakistan and the independence of the country has been a curse for them.

Second Group: School Teachers, health officials, government officials and Gram Sevaks

Like the first group the members of this group too opined that poor road condition was the main reason for most of the problems that are being faced by the villagers. According to the principal and teachers of the school, the schools need to have more teachers. The government do not bother to find out that there are just one or two teachers for about a hundred students in most of the villages. Only name of the teachers are there in the pay roll for most schools. Good number of posts is in existence in some schools but they are never filled up. There are no toilets in any of the schools and girl students face considerable amount of problem. This point of view however, is in contradiction with the information that we have derived from primary data. Most villages are in need of high schools, since travelling to Karimganj town for attending schools too becomes expensive and difficult especially for girl students. According to the teachers there are some very bright students in those villages but they have to go outside the village for higher studies. Once they leave the village they never come back. Though they want to come back to their own villages they do not get any employ-

ment opportunities. They unanimously maintain that the system of mid day meals under Sarba Siksha Abijan should continue but that should not be the responsibility of the teachers since the schools already suffer from inadequate teachers for teaching the students. The responsibility of the mid day meals should be assigned to some other group.

The village has one health centre with only one doctor. However the doctor does not stay in the village though he has a quarter .He visits the village only once a week for just a few hours. On enquiry the doctor said that he is not bothered because his own interests are of greater concern to him. If he stays in the village his children's education will suffer therefore he is compelled to stay in the town. Staying in town he is unable to come to the village everyday because of the bad road condition. He wants a transfer and has also been given transfer but since he is not replaced by any other doctor he has to continue in this village inspite of his unwillingness. He however, does admit that the villagers have to suffer because of that. There is no civil hospital in any of the villages and serious patients have to travel to hospital at Karimganj with the bad road condition. Though there is one health centre with 3 or 4 rooms and two beds there are no other equipments that ought to be in health centre. However, surprisingly the villagers seemed to quite satisfied with this minimum infrastructure.

According to the government officials they do admit that they are unable to deliver the goods satisfactorily. This is firstly because of inadequate manpower and secondly because they are not very interested in the work since for months they have not been given their salaries.

Third Group: members of the NGOs and Voluntary Organisations

This group agreed to most of the issues shared by the villagers. Poverty according to them is also the cause of a lot of the family disputes which are quite common in most of the villages. The grievances of the villagers against the govt officials are often reported to them. As an evidence of some specific cases, it is reported that some villagers sell their cattle and other meagre property to get about Rs 2500 - 3000 or borrow money just to be able to pay to the govt officials to include their names in the list of beneficiaries under Jowahar Abash bikash Yojona. However, their names are never included, but those who have benefited once are given the benefit several times. It is because of this that the poor villagers loose their money and are driven to greater extent of poverty. The genuine needy villagers are also deprived from the benefit of govt schemes.

The members of the voluntary organisations have also expressed grave concern about the acute poverty of the people and lack of any kind of development of the villages. In worst condition is the situation of the roads, which are practically absent in most of the villages. Added to this is also the absence of health facilities and poor quality of education, where infrastructure is practically absent. Condition of drinking water too adds to the problem of the villagers. These problems raised by the villagers have been confirmed by the members of the voluntary organisations also.

Fourth Group: Security Personnel

Interaction with the security and the BSF personnel revealed that there is very good relationship between the villagers and the security people and cooperation from the villagers is not a problem .. However, language often becomes a problem when security officers are from the other parts of the country. .

One of the greatest problems faced by them is from the villagers whose houses and property has fallen on the other side of the barbed fence on the international border. They want to come to this side of India for their day to day business, to attend schools and colleges for medical purposes and for marketing. Due to very good understanding and sympathy and understanding on the part of the security officer for the entry and exit of such people to this side of the country gates are opened once in the morning and once in the evening. This according to the security personnel poses a threat to security since unwanted people may also enter through the gates in disguise.

The security people further opined that govt should make arrangements for enough and strong lights on the fence because taking advantage of insufficient lighting arrangement there is possibility of unwanted elements sneaking into this side of the border. Watch Towers also need to be constructed and the incomplete barbed wire should be completed immediately otherwise the whole arrangement becomes a farce. Smuggling of medicines, and other consumer items as well as cattle to the other side of the border is a common practice and often the security personnel encounter such activities.

Significant Findings

The villagers have never heard about the special funds for the development of the border areas. In fact they strongly feel that they are deprived particularly because they are in the border areas. Benefits of development are enjoyed according to them by the people of the rest of the country. They are also not aware of various other govt schemes for alleviation of poverty. Partition according to them has been a curse for them because they are always the alienated and deprived lot. They think that the govt do not spend money for their uplift because they are in the border areas and nobody ever bothers to find out and listen to their appalling condition

**PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA:
IMPLICATIONS FOR 13TH FINANCE COMMISSION**

MANIPUR

by
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2009

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Section I

Introduction :

Why the Study?

Before we proceed on anything, we need to articulate the rationale for selecting out international border areas and examining their developmental issues, given the contextual realities of Manipur. The primary concerns relate to the following issues as they impinge on development:

- i. National integration;
- ii. Presence of governance;
- iii. Inter-ethnic relationships;
- iv. Livelihood;
- v. Issues of children; and
- vi. Issues of women.

I. National Integration

In the present context of India, the issue of national integration is one of the major concerns. In fact, when it comes to it, the national integration dynamics being unfolded in Manipur over the years are of unique concern. But addressing these issue calls of us to be alive to the problems being encountered by the people and places far away from the centres of power and least able to articulate their problems of existence. This is because national integration cannot be ensured only by the people living in the metropolises and State capitals, but by making the entire population and land-space of the country inclusive in development. The borders are in need of intervention for development for there are our people and these are our places. Borders can be and are safe only because our people are there. This requirement of attention to the border areas are all the more immediate because besides the threat to national integration, we also need to prevent from any new unfounded attachment to people and places from across the border being developed. If this attachment to across the border gets evolved and accentuated because of negligence by our national government and absence of a growth environment within our boundaries, nothing can be more unfortunate. A permanent security to our national boundaries and insurance for national integration can be provided only when the border people and places are made a part of national development trajectory. In fact, and blunderously at that, all along the national policy has been guided more by the principle of national security rather than by the more positive approach of national integration based upon development-sharing. This pre-eminence of national security perspective doggedly refuses to go despite repeated attempts by the national policy makers to replace it by a more development oriented approach. This perhaps reflects the presence of a vested interest long benefitted by the security oriented interventions. While no number of security forces would be enough to permanently ensure national security, a democratically and developmentally integrated, both in ethnic and geographic sense, nation can achieve this objective in a sustainable way. Nation building has to be real and encompassing; it cannot be casual and exclusive.

II. Presence of Governance

The absence of governance in the far flung, far from the centres of administration but close to the borders of the neighbouring countries, has long been a reality in this country, and particularly so in Manipur. But of late there has arisen an increasing awareness of this at least

among the intelligentsia and the necessity of addressing this issue sooner than later. There is an urgent need of making the people in the border areas feel the existence of the nation and thereby the presence of a government alive to their problems. This can happen only when we see to it that governance and at least semblances of it to begin with reach the boundary areas of the land. This would establish a channel of communication between the administration and the people living in these areas, and generate under right circumstances a kind of symbiosis between the local social capital and the government. This would serve two purposes. First it would make the people in these places feel that they are cared for; the present scenario of absentee democracy has to be replaced sooner than later by one of developmental democracy. Secondly, it would serve the purpose of any anti-nation and pro-foreign country feeling getting accentuated if it were earlier; it would also stall the emergence of any such feeling. In fact, the very visits for surveys for the Commission have already had such positive effects, given the fact that there are many villages which are yet to see any government official on their local soil whether in the form of survey visits or execution of development programmes.

III. Inter-Ethnic Relationships

India is a country rich in ethnic diversity. Within this country, Manipur happens to be one of the provinces having the highest density of ethnic diversity with almost thirty-three Scheduled Tribes and seven Scheduled Castes communities in addition to the general population being present on the soil. One feature of this ethnic diversity in the State is the fairly clear demarcation of settlement of the different ethnic groups both in terms distinctive villages and the geographic features of the terrains. Development and development intervention in such a context naturally has the potency to be volatile unless it ensures developmental inclusion of different ethnic groups and spatial coverage of the diverse areas. Such a danger gets aggravated in a context of slow rate of socio-economic transformation as has been the case in Manipur. Unfortunately due to the absence of such ethnic and wider spatial coverage of development, increasing polarisation along ethnic lines has been one of the most intractable and charged socio-political realities in the State; while ethnic heterogeneity and fractionalisation are given datum, these becoming factors for polarisation are ominous. In such circumstances, it is fundamental that efforts are made in right earnest to have a reassessment of the pattern and spatial coverage of the development interventions and development experiences so far in the border villages with a view to evolve accurate as well as appropriate pressing developmental interventions.

IV. Livelihood:

Livelihood struggles impinge on every aspect of our life, particularly so in the context of Manipur where the ethnic boundaries are geographically distinct. Differences in livelihood standards and access to livelihood supports are important inputs in explaining the stability or otherwise of inter-ethnic relationships. There is necessity of ensuring that the livelihood pattern anywhere is non-privileging. Whereas, many livelihood support and access systems in the central areas of the State are easily visible, there is very little appreciation and understanding of the way people survive in the geographically difficult terrain border areas. The time has now come to remedy this lacuna and look for ensuring Rawlsian justice in development. In other words and to quote John Rawls, we need to ensure "that each person benefit[s] from permissible inequalities in the basic structure". While absolute equality would be utopian, the development interventions and outcomes should be such as to lead each person "to prefer his prospects with the inequality to his prospects without it". This involves making the individuals in the border areas meaningful economic agents. This necessitates an assessment of the

assets and the activities being involved by the people for their living. This would, in turn, throw light on the environmental (includes wild-life) implications of the livelihood patterns of today. Further, this would also enable us in situating the appropriate role of the state, either as a facilitator or as the provider of services.

But devising interventions designed for such a socio-economic outcome would not be possible unless we initiate steps ab initio for incorporating the knowledge of livelihood struggles in the areas far removed from the centre of administration into the domain of policy making.

V. Issues of Children:

If the country has to enjoy a sustained and peaceful democratic transformation, certain conditions are to be fulfilled. First, there should be geographic-wide and all ethnic-encompassing enhancements of basic capabilities of health, education and ultimately employment. Secondly, unreasonable geographic and ethnic inequalities (rather deprivations) in these capabilities - particularly education and health - should be bridged before the present generation children become adults. Thirdly, there should be ensured larger and wider accessibility to higher order capabilities like higher education and sports; the potential of sports and higher education as forces for social mobilisation and upward social mobility are already well established in the context of Manipur. The urgency of addressing these issues in the context of Manipur would become more evident later in the Report.

Further, global research has established that child poverty is more prevalent in disadvantageous environments - like low educational achievements, single parent female headed households, and greater health disability of both children and adults. In addition to these, the border areas of Manipur suffer from all the conceivable geographic and other disadvantages. We would be coming to these issues later in the Report.

Still further, addressing today the needs for democratic and equitable development of children in the border areas of the land has strong implications for a sustainable resolution of the various social movements now prevalent in Manipur. If successfully addressed, the various turmoil now occurring consequent upon social and economic failure of adults would be fairly, if not completely, taken care of by the time these children attain adulthood. In other words, a move towards equalisation of opportunities for children across geography and ethnicity, and thereby eliminate the accident of birth being a determinant of adult success, is paramount today in Manipur.

VI. Issues of Women

The necessity for examining the developmental issues confronting women in the border villages of Manipur is rather pressing. First, there is the visible lack of access to modern amenities. Globally, it has been established that in such contexts of lack of access, women generally bear the brunt of making up for the lack of access. Secondly, in a context where there is fear of exclusion from many of the modern opportunities for advancement, the exclusion would be even more adverse for women. Thirdly, in such circumstances, women suffer from hindrances caused by spatial limitations and differences in returns from efforts much more than the men folk do. Above all, there is the turmoil of conflict between state and non-state agents in these areas over the years. Economics of conflict, both theoretically and empirically, tells us the non-normal hardships women and children are made to bear with. Any sustainable development intervention would naturally involve addressing such issues of women.

Section II

THE NUMBERS: KNOWN AND OFFICIAL

Introduction:

This chapter provides a nutshell description of the various social and economic features of Manipur as reflected in the official statistics. While this amounts to repeating the statistics readily available in many official reports and other documents, the presentation is done to enable us a better appreciation of the situation prevailing in the border areas as found during the focus group surveys for the Commission. There are lots of realities to be reflected upon and which necessitate a drastic revision of data collection and presentation exercises being followed by the various national and provincial level official organs. We would have more to say on this later in the Report.

Geographical Setting:

Manipur is a land-locked, isolated and mountain-girt State having a geographically distinct identity. It is situated in the easternmost part of North- Eastern Mountain Region of India. The use of the term mountain here follows the new international norm adopted in the Year of Mountains in 2002. According to elevation, mountains are now internationally divided into seven classes as tabulated below (UNEP World Conservation Monitoring Centre, 2002, Mountain Watch: environmental change and sustainable development in mountains, p. 74):



The mountains of Manipur are to be placed within categories 7 to 4, while there are no mountains of the categories of 1, 2 and 3. The regions surrounding Manipur are too mountainous. The State shares 352 kilometres long international border with Myanmar in the south-east; in the east there are the Suma Tract and Upper Chindwin region of Myanmar, and in the south the Chin Mountains of Myanmar.

The 22,327 sq. km. area of the State is divided into two distinct spaces. In the middle we have a valley of 2,238 sq. km. (10 per cent of the total) surrounded by mountains stretching from the northern to the southern direction. The mountains constitute 20089 sq. km. (90 per cent of the total). The average height of the mountains surrounding the valley ranges from 1,500 to 1,800 metres above the mean sea level. The mountains on the northern portion are higher and measure around 3,000 metres above the mean sea level. The mountains enjoy sub-temperate to temperate climate, while the valley has sub-tropical to sub-temperate climate.

The climate in the State has distinct winter, warm humid and rainy seasons. The average rainfall during the 1990s averaged about 1482 mm. But it has now declined around 1467 mm. The Mizoram-Manipur-Kachin Rain Forests has been identified as area with the highest bird species richness of all ecoregions that are completely within the Indo-Pacific region. According to the World Wildlife Fund, the only eco-regions that have more birds are the Northern Indochina Subtropical Forests and South China-Vietnam Subtropical Evergreen Forests that extend into China.

Manipur has two important river basins, the Imphal River (Manipur River) Basin and the Barak River Basin with many small rivers serving these two basins. The annual yield of water resources of these two has been estimated to be 18.487 cubic kilometers. The Imphal River Basin is served by eight major rivers such as Imphal, Iril, Nambul, Sekmai, Chakpi, Thoubal and Khuga. The Barak is the largest river of the State and it originates from the northern mountains. The Irang, Maku and the Tuivai are important tributaries of this river. All the rivers of Manipur originate from the surrounding mountains. The Loktak Lake in the southern part of the valley area of Manipur is the biggest fresh water lake in the North Eastern Region of India. During rainy season the lake covers an area of about 260 sq. km. while during the dry season it reduces to 60 sq.km. There are also a number of smaller lakes in the southern portion of the valley. The rivers in the valley, being in the mature stage, deposit their load in the Loktak. The rivers draining the mountains are comparatively young due to the terrain through which they flow. They are very corrosive in nature and assume turbulent form in rainy season. Important rivers draining the western area are Maku, Barak, Jiri, Irang and Leimatak, while the eastern side is drained mainly by Chamu and Khunou.

Population Growth:

The population of Manipur was much below three hundred thousand in 1901 census sharing only 0.12 percent of the total population of India. But it kept on increasing and crossed the one million mark in 1971. In 2001 it has crossed two million by maintaining the proportion in the national total at 0.22 percent. In other words, the proportion in the national total has remained stable since 1970s. Table 2.1 gives a picture of the population scenario of Manipur.

Source : Census of India

A relative picture of the growth of population can be had better from the comparison of the decennial growth rates. In table 2.2, such information is provided. As is evident from the table, since the 1970s we observe a trend towards convergence with the national growth rate. During the decade of 1971-1981, the population growth rate of the State was 7.8 percentage points higher than the national average, but it declined to 5.44 points during 1981-91 and 3.32 during 1991-2001. In other words, the exponential growth rate of population declined by 0.59 points during 1971 - 2001 in Manipur while this decline was 0.27 for the nation during the same period. The sex-ratio of the State at 978 as per 2001 census is not only higher than the national average, but the highest in the entire North East.

Source : Census of India

A more recent picture of the population can be had from recent data on vital statistics. Table 2.3 provides a comparative picture of the birth and death rates. Not only are the rates in Manipur far better than those at the national level, the Manipur rural pictures throw interesting light though needing detailed examination. Contrary to scenario prevailing in other areas, the rural Manipur rates are better than those of the urban ones.

Table 2.3
Birth Rate, Death Rate and Natural growth Rate, 2005

Sl. No.	State/ Country	Birth Rate			Death Rate			Natural Growth Rate		
		Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
1	Manipur	14.5	15.5	14.7	4.0	4.4	4.1	10.5	11.1	10.6
2	All India	25.6	19.1	23.8	8.1	6.0	7.6	17.5	13.1	16.3

Source: Office of the Registrar General of India, *Sample Registration System*, Volume 41 No.1, October 2006.

Population and Districts

In 1991 the valley share was about 65 per cent of the total population out of which Imphal district shared about 39 per cent, Thoubal 16 per cent and Bishnupur 10 per cent. In 2001 the valley share has declined to about 62 per cent with the relative shares of all the valley districts declining. Among the mountain districts, Senapati district shared the highest with 11 per cent followed by Churachandpur district with 10 per cent and Ukhrul district 4 per cent in 1991, which relative position remained more or less the same in 2001. In other words, a vast majority of the population resides in the three valley areas of Imphal, Thoubal and Bishnupur. In these three areas, the density of population is about double of the national average (313 persons per sq. km.) in Thoubal (708 persons) and Imphal (683 persons), and about one and a half in Bishnupur (420 persons). All these details are given in Table (2.4).

Table 2.4
Area and Population by Districts, 1991 and 2001.

Region/District	Area		Population				Population Density	
	In Sq. Km.	% of total	In '000		% of total		(persons per sq.km.)	
			1991	2001	1991	2001		
Imphal (East + West)	1,228	5.5	711	839	38.7	36.58	576	683
Bishnupur	496	2.2	181	208	9.8	9.08	363	420
Thoubal	514	2.3	294	364	16.0	15.87	565	708
Valleys total	2,238	10.0	1,186	1,412	64.5	61.54	530	631
Senapati	3,271	14.7	209	284	11.3	12.36	63	87
Ukhrul	4,544	20.3	109	141	6.0	6.14	24	31
Chandel	3,313	14.8	71	118	3.9	5.16	21	36
Churachandpur	4,570	20.5	176	228	9.6	9.93	39	50
Tamenglong	4,391	19.7	86	111	4.7	4.86	20	25
Mountains Total	20,089	90.0	651	882	35.5	38.45	32	44
Manipur	22,327	100.0	1,837	2,294	100.0		82	103

Source: Census of India, 1991

Village Populations :

A Picture of the village size distribution of the population is given in Table 2.5. In order to avoid the controversy surrounding the 2001 population figures of the State, we are providing the 1991 census figures here. It is clear from the table that, as at the national level, the maximum concentration of population is found in the villages of populations ranging from 2,001 to 5,000 persons. It is also clear that as high as 36.49 percent of the State's total population live in villages of less than 1,000 persons, which is a proportion higher than the national average by 10.66 percentage of points. In a similar comparison it can be seen that about 58 percent of the State's total population reside in villages of less than 2,000 persons as compared to the national average of 52 per cent.

Table 2.5

Distribution of Population by Village Size Categories, 1991.

Region\Size Category	<=500	501-1000	1001-2000	2001-5000	>=5001
India	5,13,58,103 (9.52)	9,06,63,035 (16.81)	13,99,04,991 (25.94)	15,83,61,739 (29.73)	9,89,40,345 (18.35)
Manipur	2,22,242 (20.33)	1,76,674 (16.16)	2,30,598 (21.1)	3,65,534 (33.44)	98,050 (8.97)

Source: Census of India

- Notes: 1. This information is given only of 1991 as the populations of three sub-divisions were estimated ones in 2001.
2. Figures within parenthesis indicate percentages of the relevant totals.

Scheduled Castes and Tribes

As the 2001 population figures of some mountain districts are highly controversial and as the figures for the concerned sub-divisions are only estimated ones, we provide the figures of the 1991 census. Out of the total population, Scheduled Castes constituted 1.25 per cent of the total population in 1981 and increased to 2.02 percent in 1991. This rise in the proportion is to be explained mainly by the reclassification of certain groups as Scheduled Castes in time for the 1991 census. Maximum number of Scheduled Castes population is concentrated in the two districts of Imphal and Thoubal. Regarding the total Scheduled Tribes population, it is increased from 27.37 per cent in 1981 to 34.41 per cent in 1991 mainly due to the greater coverage and higher growth rate. Senapati district shared the highest tribal population in the State followed by Churachandpur and Ukhrul districts. A picture of the district-wise distribution of the Scheduled Castes and Scheduled Tribes population is given in Table (3.4.8). It is clear from the table that the maximum concentration of Scheduled Caste population is found in the Imphal East (13,152 persons), followed by Thoubal (11,044 persons) and Imphal West (9,611) in that order. As regards the Scheduled Tribes, the maximum concentration is in the Churachandpur district (1,64,709 persons), followed by Ukhrul (1,01,8778 persons). It is also evident from the table that in all the mountain districts the composition of the population is almost tribal.

Table 2.6

Distribution of Scheduled Castes and Scheduled Tribes Population, 1991.

State/District	Scheduled Castes		Scheduled Tribes	
	Persons	Percentage of Total Population	Persons	Percentage of total Population
Valley Region				
Imphal West	9,611	2.52	14,709	3.86
Imphal East	13,153	3.98	19,191	5.81
Thoubal	11,044	3.76	2,844	0.97
Bishnupur	2,333	1.29	9,575	5.30
Mountain Region				
Senapati	172	0.08	1,75,206	84.07
Ukhrul	221	0.20	1,01,878	93.23
Chandel	237	0.33	60,279	85.52
Churachandpur	301	0.17	1,64,709	93.49
Tamenglong	33	0.04	83,332	96.59
Manipur	37,105	2.02	6,32,173	34.41

Source: Census of India

Note Percentages are of the relevant district and State totals.

Social Profile

Literacy rate

The literacy rate of Manipur stood at 68.87 percent in 2001 as against 59.89 percent in 1991. It is above the all India average figure of 64.8 percent and is only next to Mizoram and Tripura among the north eastern States. The three States in the north east whose literacy rate is lower than the all India average are Arunachal Pradesh, Assam and Meghalaya.

Table 2.7

Literacy Rate in the North East India

States	1991			2001		
	Male	Female	Total	Male	Female	Total
1 Arunachal Pradesh	52.68	35.85	44.71	63.8	43.5	60.5
2 Assam	60.37	46.72	53.79	71.3	54.6	63.3
3 Manipur*	67.58	51.95	59.85	80.3	60.5	70.5
4 Meghalaya	53.03	48.42	50.75	65.4	59.6	62.6
5 Mizoram	76.53	72.21	74.44	90.7	86.7	88.8
6 Nagaland	62	52.88	57.65	71.2	61.5	66.6
7 Tripura	70.70	56.55	63.81	81.0	64.9	73.2
All India	63.98	45.75	55.18	75.3	53.7	64.8

Source: Statistical Handbook of Manipur 2002; Statistical Abstract of Manipur 2004.

*Excludes Mao- Maram, Purul and Paomata sub-divisions of Senapati district

Among the districts in the State, Imphal West has the highest literacy rate followed by that of Imphal East and Churachandpur districts. However, almost half of the population of Senapati district aged above 5 years are illiterate. Literacy rates of Chandel and Tamenglong districts are also low. Both the male and female literacy rates were the lowest in Chandel district in 1991 but were substituted by those of Senapati district in 2001.

Table 2.8
Literacy Rate by Sex

		1991			2001		
		Male	Female	Person	Male	Female	Person
1	Bishnupur	68.59	41.13	54.94	82.25	61.09	71.59
2	Imphal East	80.65	54.99	68.05	86.44	66.30	76.38
3	Imphal West	84.63	61.12	73.01	89.40	72.24	80.61
4	Thoubal	68.33	36.31	52.47	80.50	55.34	67.90
5	Churachandpur	66.38	49.30	58.17	84.98	64.40	74.67
6	Chandel	57.39	34.80	46.68	66.12	48.57	57.38
7	Senapati	65.26	36.13	46.04	56.39	44.04	50.47
8	Tamenglong	59.92	39.68	50.16	67.04	49.11	58.46
9	Ukhrul	72.11	51.57	62.54	75.40	61.91	68.96
	All Manipur	71.63	47.60	59.89	77.87	59.70	68.87

Source: GOM, Statistical Handbook of Manipur, 2002.

The gap between male and female literacy rates has narrowed down in 2001 census. This is because there was substantial improvement in the female literacy rate from 47.60 percent in 1991 to 59.70 percent in 2001. Literacy rate of the State can be further enhanced if female education is given more priority specially in Chandel, Senapati and Tamenglong districts where a large proportion of females are still illiterate.

Education

The achievement of high literacy rate depends on a number of factors among which educational infrastructure provided by the government is also important. There are at the moment 4,183 educational institutions in the State out of which 3,370 are in the primary to middle school level while 659 are high and higher secondary schools. There are at the moment two universities in the State.

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Table 2.9

Educational Institutions in Manipur

	Primary to middle schools	High and Higher Sec schools	School for professional and other education	Colleges for generation education	Colleges for professional Education	Universities	All Institutions
1 Bishnupur	274	54	13	7	2	0	350
2 Imphal East	501	129	9	12	3	0	654
3 Imphal West	514	143	15	14	7	2	695
4 Thoubal	414	105	12	9	0	0	540
Valley districts	1703	431	49	42	12	2	2239
5 Churachandpur	372	79	6	6	1	0	464
6 Chandel	259	23	7	3	0	0	292
7 Senapati	486	61	10	7	0	0	564
8 Tamenglong	263	23	3	1	0	0	290
9 Ukhrul	287	42	3	2	0	0	334
Mountain districts	1667	228	29	19	1	0	1944
All Manipur	3370	659	78	61	13	2	4183

Source: Statistical Abstract of Manipur 2004

The proportion of female students attending educational institutions has slightly increased in recent years. About 45.79 percent of the student enrolments in 1995-96 were females which have slowly increased to 47.41 percent in 2001-02. This perhaps is an important reason for the increase in the female literacy rate in the State.

Healthcare Facilities

Among the North Eastern States, the number of persons served by a doctor is the least in Manipur. It stood at 2,930 as against 10,360 and 11,980 for Mizoram and Assam respectively. On the other hand, the number of persons per hospital bed is found to be 1,450 in Manipur as against 367 for Arunachal Pradesh, 872 for Mizoram and 1,247 for Meghalaya.

A contrasting situation is observed when we compare the healthcare facilities between the plain and mountain districts and even within the valley districts as well. The number of persons served by a doctor in the mountains was 3,948 while it was 2192 in the valley districts and the number of persons per bed was 2,192 in the valley districts as against 3,948 in the mountain districts. Healthcare facilities in the valley districts also vary widely. Thoubal district has both the highest number of persons served by a doctor as well as the highest number of persons per bed among all the districts in Manipur. Imphal East and Imphal West can be said to be the two most developed districts in the State in terms of the availability of doctors and hospital beds.

Table 2.10

Healthcare Facilities in Manipur

	Hospitals	CHC & PHC	Dispensaries & PHSC	No. of beds	No. of doctors	No. of persons per bed	No. of persons per doctor
Imphal (E+W)	5	23	112	1433	565	581.52	1474.89
Bishnupur	1	7	36	102	36	2018.7	5719.64
Thoubal	1	16	57	132	40	2775.31	9158.53
Valley districts	7	46	205	1667	641	843.17	2192.76
Senapati	1	14	68	143	46	2651.85	8243.78
Tamenglong	1	7	31	110	21	1013.57	5309.19
Ccur	1	10	68	182	62	1256.63	3688.82
Chandel	2	4	26	124	19	989.63	6458.63
Ukhrul	1	7	42	134	26	1051.84	5421
Mountain Districts	6	42	235	693	249	1,418.58	3,948.09
All Manipur	13	88	440	2,360	815	1,012.13	2,930.84

Source: Statistical abstract of Manipur 2004

Agriculture

Agricultural production

Agriculture occupies an important place in the economy of the State. It is not only a major contributor to the State income but is also a major source of employment. Rice is the most important crop of the State and is cultivated in about 80 percent of the total agricultural area of the State. Maize, oilseeds, potato, etc. are also some important crops of the State.

Agriculture in terms of rice production can be fairly said to be developed in the State. In terms of the per capita consumption of fertiliser or in terms of yield, the achievement in the State has been all above the national average. Rice production in the State has increased from 274.17 thousand tonnes in 1990-91 to 389.17 thousand tonnes in 2006-07 while the yield per hectare has increased from 1,741.76 kg/hectare in 1991 to 2,353.33 kg/hectare in 2006-07 which is higher than the all-India average by about 300 kgs. The increase in yield was observed in other crops as well. Production and yield can be further enhanced in the State if irrigation facilities are adequately provided.

Table 2.11

Area, Production and Yield of Rice (2006-07) (area in ' 000 hectares)

	Area	Production (‘000 tonnes)	Yield (kg/hectare)	Area under HYV/Improved varieties
Bishnupur	15.21	40.82	2,683.76	14.66 (96.38)
Imphal East	24.29	70.81	2,915.19	10.28 (43.32)
Imphal West	18.89	57.53	3,045.53	7.43 (33.33)
Thoubal	27.15	63.11	2,324.49	21.73 (80.04)
Valley districts	85.54	232.27	2,715.34	54.10 (63.24)
Churachandpur	23.19	43.74	1,886.16	-
Chandel	8.52	15.88	1,886.16	6.84 (80.28)
Senapati	25.20	53.69	2,130.56	5.72 (22.70)
Tamenglong	9.52	12.56	1319.33	-
Ukhrul	13.40	31.03	2,315.67	-
Mountain districts	79.83	156.90	1,965.43	12.56 (15.73)
All Manipur	165.37	389.17	2,353.33	66.66 (40.31)

Figures within parentheses are percentages of the relevant total.

Source: GOM, Statistical Abstract of Manipur 2007

There is wide gap in terms of development of agriculture between the mountains and the plains. The valley areas though constituting only about 10 percent of the total geographical area of the State produces bulk of total agricultural produce of the State. Agriculture in the mountain districts is characterised by primitive methods of cultivation, low productivity and subsistence farming.

The underdevelopment of agriculture in the mountain areas can be attributed to three factors. Firstly, private ownership of land is absent in the mountains and this discourages investment in the agricultural sector. Secondly, widespread jhum cultivation and reduction in jhum cycle due to increasing population pressure on land, in an atmosphere of absolute absence of new opportunities for growth, has not only reduced the quality of agriculture in the mountains but has also led to degradation in the soil quality and environment conditions. Thirdly, the nature of the terrain is not easy for agriculture and requires large investments for conversion into terrace farming.

Jhum cultivation

A major cause of concern in the mountains of the State has been slash and burn or jhum technique of cultivation. In fact Manipur has the largest area under jhum in the entire north east though of late there are signs that it is decreasing. Further, it is also found that the proportion of jhum area coverage has also increased in Churachandpur and Ukhrul districts. Jhum area in Senapati district has now shrunken to zero. Until and unless there is institutional and technological changes of agriculture in the other mountain districts, further deterioration of agriculture in these areas cannot be ruled out.

Power Position in Manipur

Power supply in the State is poor and continues to be a major obstacle to economic development of the region. The gap between demand and supply has widened over the years and as a result load shedding is a common phenomenon in the State. The per capita consumption of electricity in the State stood at 194.48 kwh in 2006-07 which is less than half the national average. Financial performance of the State power department is also very poor and has been a cause of drain to State's exchequer.

Road network

Road transport plays an important role in the transportation of goods and people in the State. The road mileage in the State has gradually increased from 3922.1 kms in 1980-81 to 7172 kms in 2001-02 and as a result road density (road length per 1000 sq. kms) in the State has increased from 175 to 321. The density of roads in the mountain districts is still very low and stands at 225 kms per 1000 sq. kms as against 1,180 kms per 1000 sq. kms in the valley districts. Chandel district has the least road density while Imphal District has the highest road density.

Table 2.12

Road density in Manipur(2001-02)

	Area (sq. kms)	Population	Road length	Road density (kms/1000sq.kms)	Road availability (kms /1000 persons)
Bishnupur	496	205907	420	846.77	2.04
Imphal	1228	833312	1481	1206.03	1.78
Thoubal	514	366341	740	1439.69	2.02
Valley districts	2238	1405560	2641	1180.07	1.88
Churachandpur	4570	228707	970	212.25	4.24
Chandel	3313	122714	640	193.18	5.22
Senapati	3271	379214	809	247.32	2.13
Tamenglong	4391	111493	1000	227.74	8.97
Ukhrul	4544	140946	1112	244.72	7.89
Mountain districts	20089	983074	4531	225.55	4.61
All Manipur	22327	2388634	7172	321.22	3.00

Source: Statistical abstract of Manipur 2004

Broadly, roads can be classified as

- " National Highways
- " State Highways
- " Major District Roads (MDR)
- " Other District Roads (ODR)
- " Inter Village Roads (IVR)
- " Others

The various types of roads in Manipur are given in the 2.13.

Table 2.13

Types of road in Manipur (kms)

	National highway	State highways	MDR	ODR	IVR	Total
Bishnupur	39	0	54	66	261	420
Imphal	109	183	185	253	751	1481
Thoubal	35	49	15	168	473	740
Valley districts	183	232	254	487	1485	2641
Churachandpur	272	60	222	17	399	970
Chandel	64	31	187	100	258	640
Senapati	106	107	20	54	522	809
Tamenglong	167	108	251	167	307	1000
Ukhrul	165	137	30	188	592	1112
Mountain districts	774	443	710	526	2078	4531
All Manipur	957	675	964	1013	3563	7172

Source: Statistical Handbook of Manipur 2004

Employment

Main, marginal and non - workers

Employment can be broadly divided into three categories based on the nature of their employment, viz., main workers, marginal workers and non- workers. Main workers are usually defined as those workers who had worked in any economically productive activity for a major part of the year (183 days or more) while marginal workers are those workers who had worked at least for some time in a year but have not worked for a major part of the year, i.e., less than six months in a year. Non - workers, on the other hand, are those who have not worked at all and this include persons engaged in household activities, children, students, retired persons, etc.

As per the 2001 Census the proportion of main workers was found to be 33.99 percent of the total population in the mountain districts as against 28.52 percent of the valley districts. Tamenglong district had 38.88 percent main workers which is the highest in Manipur. The proportion of non- workers is also more in the valley than in the mountains while the proportion of marginal workers is more in the valley districts. The picture is provided in Table 2.14.

Table 2.14

Workers and Non-workers of Manipur

	Main workers	Marginal workers	Non - workers	Total
Bishnupur	55557 (26.66)	34146 (16.39)	118665 (56.95)	208368 (100)
Imphal East	106562 (26.99)	50320 (12.74)	237994 (60.27)	394876 (100)
Imphal West	129101 (29.05)	49010 (11.03)	266271 (59.92)	444382 (100)
Thoubal	111486 (30.62)	65857 (18.09)	186797 (51.30)	364140 (100)
Valley districts total	402706 (28.52)	199333 (14.12)	809727 (57.36)	1411766 (100)
Churachandpur	71933 (31.56)	27430 (12.04)	128542 (56.40)	227905 (100)
Chandel	39935 (33.75)	14610 (12.35)	63782 (53.90)	227905 (100)
Senapati	49873 (31.87)	22015 (14.07)	84625 (54.07)	156513 (100)
Tamenglong	43353 (38.88)	7510 (6.74)	60636 (54.38)	111499 (100)
Ukhrol	51564 (36.63)	14951 (10.62)	74263 (56.40)	140778 (100)
Mountain districts total	256658 (33.99)	86516 (11.46)	411848 (54.55)	755022 (100)
All Manipur	659364(30.43)	285849(13.19)	1221575(56.38)	2166788(100)

* Figures in the bracket are percentages

Source: Census of India

Occupational break-up of the main workers

If an occupational break-up of the main workers is made, it is found that 72.21 percent of the main workers in the mountain districts are engaged in the agricultural sector as against just 25.3 percent in the plains. On the other hand, only 2.92 percent of the main workers in the mountains are engaged in the secondary sector as against 30.94 percent in the plains. Similarly, employment in the tertiary sectors is also low in the mountains. These data reveals the lack employment opportunities in the secondary and tertiary sectors in the mountain districts which also show that the mountain economy is primarily an agricultural economy. Tamenglong has the largest proportion of the population engaged in the primary sector as well the least in the secondary sector. Imphal East has a fairly large population engaged in the secondary sector while Imphal west has the largest proportion of the population in the tertiary sector. This picture is provided in Table 2.15.

Table 2.15

Distribution of main workers of Manipur by main industrial categories

	Primary sector	Secondary sector	Tertiary sector
Bishnupur	38.77	7.33	53.9
Imphal East	15.98	47.81	36.21
Imphal West	15.91	34.01	50.08
Thoubal	55.62	7.87	36.51
Valley districts total	25.3	30.94	43.76
Churachandpur	66.39	3.63	29.98
Chandel	70.78	3.74	25.49
Senapati	76.02	2.85	21.13
Tamenglong	79.38	1.64	18.99
Ukhrol	71.72	2.46	25.83
Mountain districts total	72.21	2.92	24.87
All Manipur	39.22	22.63	38.15

Source : Census of India.

Economic Profile

The net State domestic product (NSDP) of the State at current prices increased from Rs 2,95,411 lakhs in 1999-2000 to Rs 4,54,062 lakhs in 2004-05 and the index number stood at 153.74 with 1999-2000 as the base year. During the same period, the per capita NSDP rose from Rs 13,260 to Rs 18,386 and the index number was 138.66. There has been a transformation in the composition of the State domestic product also with the shares of agriculture falling while that of the tertiary sector rising most faster with the secondary sector recording marginal increase.

One important point to be of concern is that the per capita income of the State is not only lower than the all India average but the gap is also increasing. This means that the growth of the economy has not been able to catch up with the national trend.

Plan Outlay

Five Year Plans began in 1951 and during the 1st Five Year Plan the outlay of Manipur was rather low at Rs 154.89 lakhs only with an actual expenditure of Rs 102.56 lakhs. There was a quantum jump in the outlay for the State during the 6th Five Year Plan with the increase to Rs 24,665 lakhs from Rs 59.26 lakhs during the previous plan period. The outlay witnessed a further jump during the 9th plan when the outlay rose from Rs 979 crores in the previous Five Year Plan to Rs 2,426.69 crores. The increase in the plan outlay from the Five Year Plan plan to the ninth plan was by 1800 times. This can be seen from Table 2.16.

Table 2.16

Plan Outlays of Manipur

Plan	Period	Outlay	Expenditure
1 st Five Year Plan	1951-56	154.89	102.56
2 nd Five Year Plan	1956-61	625.11	596.93
3 rd Five Year Plan	1961-66	1287.56	1281.28
Annual Plans	1966-69	1012.82	719.89
4 th Five Year Plan	1969-74	3025.00	3100.00
5 th Five Year Plan	1974-78	9286.00	6661.91
Annual plans	1978-80	5926.30	6113.39
6 th Five Year Plan	1980-85	24665.00	24,312.32
7 th Five Year Plan	1985-90	43000.00	50486.19
Plan Holiday	1990-92	-	-
8 th Five Year Plan	1992-97	97900.00	122450.97
9 th Five Year Plan	1997-02	242669.00	165783.01
10 th Five Year Plan	2002-07	280400.00	-

Source: Government of Manipur.

Households by Monthly Per Capita Consumption Expenditure

Tables 2.17A and 2.17B provide a picture of the percentage distribution of households and persons according to monthly per capita expenditure (MPCE) categories. Table 2.17A gives the picture for the urban areas while Table 2.17B does so for the rural areas.

It is clear from Table 2.17A that, in the case of urban areas, the highest concentration of households and persons in Manipur is found in the range of Rs. 485 - Rs. 1,100 MPCE categories (82.4%) as compared to national scenario of highest concentration of households in the Rs. 790 - Rs. 1,880 (44%). The distribution in the national level is more skewed as the proportion of persons in the higher categories is less than the proportion of households, while these two proportions are more or less similar in the case of Manipur.

We have the picture of the rural areas in Table 2.17B. In Manipur rural areas the highest concentration of households is in the range of Rs. 455 - Rs. 890 categories while it is more evenly distributed at the national level.

Table 2.17A

Percentage Distribution of Households by Monthly Per Capita Consumption Expenditure: Urban, 2004-05

MPCE classes	Percentage of households		Percentage of persons	
	Manipur	All India	Manipur	All India
0-395	1.3	7.5	1.3	10.1
395-485	8.2	7.7	9.9	9.8
485-580	18.9	8.7	19.3	10.3
580-675	18.6	8.5	19.7	9.7
675-790	18.2	9.2	19.0	9.9
790-930	15.0	10.0	14.0	10.3
930-1100	11.7	10.2	10.5	9.7
1100-1380	4.2	11.6	3.6	10.2
1380-1880	3.5	12.2	2.2	9.9
1880-2540	0.4	6.8	0.3	5.1
2450 and more	0	7.4	0.1	4.9

Source: NSSO, Level and Pattern of Consumer Expenditure, 2004-05, NSS 61st Round (July 2004 - June 2005), December 2006.

Table 2.17B

Percentage Distribution of Households by Monthly Per Capita Consumption Expenditure: Rural, 2004-05

<i>MPCE classes</i>	<i>Percentage of households</i>		<i>Percentage of persons</i>	
	Manipur	All India	Manipur	All India
0-235	0.0	4.2	0	4.8
235-270	0.0	4.2	0	5.1
270-320	0.2	8.6	0.2	9.9
320-365	2.6	9.4	2.7	10.5
365-410	3.6	9.5	4.1	10.2
410-455	7.4	9.0	7.9	9.4
455-510	13.1	9.7	14.7	9.9
510-580	22.7	10.5	24.1	10.2
580-690	23.8	11.2	23.1	10.4
690-890	17.3	11.1	15.5	9.8
890-1155	6.5	6.0	5.4	5.0
1155 and more	2.7	6.7	2.1	5.0

Source: NSSO, Level and Pattern of Consumer Expenditure, 2004-05, NSS 61st Round (July 2004 - June 2005), December 2006.

Age at First Marriage

Table 18 provides a picture of the age at marriage of both men and women in Manipur as well as the national level. The scenario is better in Manipur than at the national level in both rural and urban areas and for both the sexes.

Table 2.18

Percentage Distribution of Age at first marriage by Manipur and All India (Percentage of women age 18-29 who were first married by exact age 18 and percentage of men age 21-29 who were first married by exact age 21, Manipur and India, 2005-06)

State	Women			Men		
	Urban	Rural	Total	Urban	Rural	Total
Manipur	10.9	15.5	14.0	7.8	13.9	11.7
India	29.7	53.4	45.6	14.6	33.9	26.6

Source: National Family Health Survey (NFHS-3), Volume-I, 2005-06

Infant and Child Mortality Rates

Table 2.19 gives a comparative picture of the mortality rates in Manipur and the national level. In all the mortality indicators, the Manipur scenario is far better than the national level scenario.

Table 2.19

Percentage Distribution of Early Childhood Mortality Rates, Manipur and India (for the five year period preceding the survey, 2005-06.)

State	Neonatal mortality	Post neonatal Mortality¹	Infant mortality	Child mortality	Under-five mortality
Manipur	18.7	11.1	29.7	12.6	41.9
India	39.0	18.0	57.0	18.4	74.3

Notes: 1 Computed as the difference between the infant and neonatal mortality rates.

Neonatal mortality: the probability of dying in the first month of life.

Postneonatal mortality: the probability of dying after the first month of life but before the first birthday.

Infant mortality: the probability of dying before the first birthday.

Child mortality: the probability of dying between the first and fifth birthdays.

Under-five mortality: the probability of dying before the fifth birthday.

Source: National Family Health Survey (NFHS-3), Volume-I, 2005-06

Property Rights

The State has a peculiar mixture of property rights regimes. The valley has the modern private ownership system where two different regimes prevail in the mountains, one for the Nagas and another for the Kukis.

Naga Tribes

Among the Naga group of tribes, the community ownership of land is stressed. The entire village land belongs either to the chief or to the community as a whole. But there are certain cultivable lands where the individuals/clans enjoy certain inalienable rights so long as the ownerships of these are not transferred to people from outside the village. If any transfer of these lands is to be affected, prior approval of the village administration is called for.

The land use pattern of the Nagas has some clear-cut divisions. First, they have the house-site where the villagers settle and construct their houses. Secondly, surrounding this house-site, there is a protected forest area where no felling of trees, etc., is allowed. This protective area serves as a defensive wall for the village against fire and other attacks to the village. Beyond this defensive area, they have cultivable areas where individuals/clans are given ownership. The plotless farmers can hire these plots for cultivation and on payment of rent per cultivating year.

Kuki Tribes

Unlike among Nagas, the prerogative of the chief is accepted to a great extent among the Kukis. The chief has overriding power the use of the village land; in fact, he is the owner of the village land. But every villager is ensured a cultivable plot of land. This

applies even in the case of the immigrant who has been accepted by the village chief as a co-villager.

All the villagers will have to pay tributes in paddy to the chief out of the total annual harvests and in accordance with the terms of the oral lease between the chief and the villager entered into the beginning of the season. But all these arrangements do not constitute a transfer of property rights to the villager from the chief. Once the jhum cycle is over, the ownership and possession of the land necessarily reverts back to the chief. The same process is replicated even in cases where the chief acquires a new land, establishes a village there and invites his near and dear ones for settlement therein. To put in short, communal land ownership system prevails among the Kukis but with the chief serving as the guardian and benefactor of the village and as the person responsible for the maintenance of the customs, laws and traditions of the community.

From the above brief picture, we can discern certain common features of land ownership system in both the communities. These are:

- a. Among the Nagas, the community exercises overall control over the village land but the individuals are given certain inalienable rights in so far as the ownership of cultivable areas is concerned; and
- b. Among the Kukis, the chief has inalienable rights of ownership over the land and exercises control over it, but he at the same time sees to it that the villagers get proper plots of land for cultivation and are ensured of their livelihood.

So in both the communities the property rights system is governed by traditional unwritten laws and conventions. In both, the system boils down to more or less a community ownership system where the individuals enjoy higher rights among the Nagas while the chief exercises greater power among the Kukis.

What should be of grave concern to all is the recent phenomenon of emergence of landless individuals and families in both the communities despite the prevalence of more or less communal land ownership system. This implies the collapse of the traditional system without a commensurate emergence of an alternative one. This is particularly pathetic and unfortunate for the poor and the forests.

The land property rights system in both the communities has a tragedy of the commons aspect inherent in them. Among the Nagas, the individuals do not have the incentive to invest in land for the land belongs to the community. Among the Kukis too the land suffers from the same fate because it belongs ultimately to the chief.

This unfortunate feature is accentuated by the fact that the elites among the tribals do not feel the necessity nor do they have the willingness to invest in the mountains for two reasons. Firstly, in the prevailing system, they have unlimited access to the resources in the mountains and secondly, it serves their interests better if they invest their

resources in the valley where a strong foundation for private property rights system has been established.

Issues in Agrarian Sector

There are three major issues that the State's agrarian sector is facing today. The first issue is how to achieve self sufficiency in food grain production. The second issue is how to create sufficient amount of employment for the rising labour force in the rural sector which is expected to accelerate on further intensification of commercial farming. Related to this is the third issue of planning for non-farm allied activities in the rural sector. These three issues need to be simultaneously addressed within the framework of the emerging changes in the structure of the State's agrarian economy.

Mountain Regions

The issue of raising production and productivity in the valley is an immediate problem. However, the long term food problem of the State can be ameliorated only by planning of modernization in the mountains. Control and substitution of jhuming, use of modern inputs, etc., are areas which have not received sufficient attention and investment. The issue lies in how extension works can be reached to the door steps of the peasants in difficult terrains, and how the tightly structured tribal social systems and institutions can be conveniently dovetailed to a realistic agricultural strategy in the mountains and establishing good road networks there for agricultural and overall development of the area. In any case, this will serve the purpose of raising the accessibility of these areas for social and economic purposes.

Particular Aspects of the Mountain Districts

Whereas information on the mountain areas have been given throughout the Report, some additional points on the mountains and issues close to the problems faced there may be in place.

Peculiar Development Problem

By any development indicator, the mountain districts are below the State average. More than 80 per cent of the total population are tribal population in all these districts. The road density in the mountains is also far below the State average. Even the modern property rights system is not yet established there as seen earlier. Yield of rice is very low and, of the total number of enterprises in the State, only about 18 per cent are in the mountains.

All these conditions point to the absolute lack of modern development activities in the mountains where the people face a kind of development problem peculiar to the region.

Transport Costs and Development

Long term sustainable development of the State requires similar advancement in the mountains; in the senses of both people and place prosperity. It has been long agreed among development experts that there are certain social overheads which should pre-exist before other developmental activities are undertaken, i.e. their development should

be supply-induced and not demand-led. Transport facilities are the most important social overhead capital emphasized by the experts.

High Transport Costs in the Mountains

One can easily deduce from the district-wise road-density figures the kind of transport bottlenecks being faced in the mountain areas. Superimpose this on the difficult terrain of the mountains and the problem is really enormous. This makes the mountain economy a much more costlier one as compared to the valley economy and, in turn, serves as a double constraint on development. Firstly, because of the low level of economic activity in the mountains, real wages are low there and secondly, due to higher transport costs, prices are higher in the mountains.

Growth Theory

Economic theory indicates that growth has a positive relationship with the saving rate and level of technology, and an inverse one with the price of investment and rate of depreciation. But given the level of economic activity in the mountains and the double constraint mentioned above, the saving rate in the mountains is not likely to rise substantially. Since the level of economic activity is low, the level of technology shall also be necessarily low in the mountains.

Import of Investment Goods

The combinations of the above realities imply that if there is to be investment in the mountains, most, if not all, the investment goods are to be imported. But the price of the investment good too will be necessarily higher in the mountains, thereby making the investment there uneconomic in the absence of a good transport network.

An additional factor making the investment in the mountains absolutely uneconomic as yet is the necessity of importing intermediate goods, the import itself will be costlier due to the existing transport problems. Even if locally available intermediate inputs are to be used, the production will still suffer from two disadvantages. Firstly, the cost of initial investment will be higher for reasons discussed above and secondly, exporting the finished product will be a relatively costlier exercise due again to the transport restrictions.

Section III

The Survey

Background

Officially the following blocks in the three districts bordering Myanmar have been classified as border blocks to be covered under the Border Area Development Programme:

- A. Churachndpur District
 - i. Singhat
 - ii. Thanlon

- B. Chandel
 - i. Tengnoupal
 - ii. Chakpikarong

- C. Ukhrul
 - i. Chingai
 - ii. Kamjong
 - iii. Ukhrul
 - iv. Kasom Khullen



BADP Strategy and The Survey Villages

Not all the villages in these border blocks are border villages. The Border Area Development Programme (BADP) in Manipur identifies villages within twenty kilometres of the international border as border villages. The interventions are made for these villages.

On the visit on the very second village for the current survey, it became fully established that the BADP authorities did not visit any of the villages covered under the programme. The strategy adopted by them has been to invite the Village Chiefs or the Chairman of Village Authorities to the District headquarters or the State Capital (Imphal) and make allocations accordingly. The absurdity of this intervention without actual knowledge of the villages is clearly visible in the construction of so many Community

Halls in the villages where the churches already exist. Naturally the Community Halls are either unutilised or misutilised. Such examples are galore and visible in every village.

Our Approach

In the light of the above, the approach adopted for the survey for this Report has been to go to the border blocks and straight lead for the bordermost villages. The rationales behind this approach are two-fold. First, the villages farthest from the administrative centres of the State and close to the other side of the country should be having conditions relatively worse off from the ones being faced by the villages close to the administrative centres. Secondly, development interventions made for these villages would have the natural externality of positively covering and impacting upon the villages lying on the way to the bordermost village. Since it has been discovered quite early in the villages that the officials never visited any of the villages for consultations, the strategy has been to do away with whatever official data we have accessed. In fact, this could be the reason for the hard-core official reluctance to share information and data on BADP programmes. Besides, the following features marked all the border villages.

First, there was not a single all-weather road connecting any of the border villages in all the blocks in all the districts. These villages were connected only by the all-terrain truck, viz., Shaktiman. In this context, the usual measure of road density per 100 sq. km. has no meaning. These villages communicate with the rest of the country only during the dry season. When the rainy season arrives, the villagers are made to confine within the bounds of their villages. By the way rainy season extends longest in the region. One interesting fall-out of this absence of access to roads is the purchase of Indian-made salt packet costing only Rs. 9 in the Indian market at a cost of Rs. 14.50 from the nearby market across the border in Myanmar by the villagers in Molcham in Chandel District. The villagers here pay between Rs. 24 and Rs. 32 per kilogram of rice, and Rs. 50 per 750 ml of kerosene.

Second, none of the border villages has access to electricity. The "best" scenario was in Wakshu village in Tengenoupal sub-division where the transformer has not been repaired for the last four years or so despite the villagers having paid the rent. This makes the per capita consumption of electricity an absolutely irrelevant indicator of development for the border villages.

Third, none of the border villages has water supply system, except of course Wakshu here again. All the villages are dependent on well, rivulet or river sources. In the case of Wakshu, the problem is of making pipes available for connecting to the source made available by the security forces.

This makes the access to safe drinking water an inapplicable indicator of development for the border villages while endeavouring to make any comparison with the overall State or national scenario.

Fourth, while every village reported coverage by the Polio Vaccine thanks mainly

through the involvement of the villagers themselves, the other vaccines for children have not yet reached the border villages except in two. In these two villages too, the coverage has been only for the last two years. This makes tuberculosis prevalent among children in these villages for which the minimum distance to a nearby health centre is 25 kilometres in an atmosphere of non-existent roads.

Fifth, none of the border villages, except in Behiang in Singhat Sub-Division, has easy access to primary healthcare facilities. But even in Behiang, while the health centre exists, it has been non-functional for quite a few years.

Sixth, none of the border villages enjoy the benefit of subsidised items made available through the Public Distribution System. In fact, they do buy these items at a much higher price from the nearby market centres, or at even a higher price from across the border.

Seventh, almost all the border villages are mountainous. Not only are they located in mountain areas, we have also to cross many mountain ranges to reach these villages. All these conditions make any official data of the border villages suspect.

Villages Surveyed

The villages right on the border with the international boundaries serving as village boundaries are given in Table 3.2. Since the survey was based on focus group discussions, it was fundamentally a qualitative one. So while the accuracy of the numbers might have a range of limited errors, the issues which came up were absolutely significant. The elevation of the villages gets higher as we move towards the north from the south.

Table 3.2

Villages Right On the International Border

District	Block	Village	Number of Households	Number of Population including Children	Main Occupation	Secondary Occupation	Elevation (Metres)
Churachandpur	Singhat	Suanphu	50	470	Jhum Cultivation	Charcoal preparation	875
		Lumzang	20	100	Jhum Cultivation	Charcoal preparation	943
Chandel	Chakpikarong	Molcham	89	520	Jhum and Settled Cultivation	-	130
		Khengjang	55	473	Jhum and Settled Cultivation	-	135
		Yangoulen	54	486	Jhum and Settled Cultivation	-	210
	Tengnoupal	Wakshu	9 + (12 Houseless)	132	Jhum Cultivation	Bamboo crafts, like baskets, tables, etc.	500
		Moirangthel	10	55	Jhum Cultivation	-	573
Ukhrul	Kasom Khullen	Wanglee	20	177	Jhum Cultivation	Timber	689
		Kamang Ashang Khullen	23	162	Jhum Cultivation	Timber	755
	Kamjong	Skipe	14	107	Settled cultivation	Timber	216

Table 3.3 provides a list of the villages which though not exactly at the border points like the ones listed in Table 3.2, but which can be treated as border villages being near to the border and which would necessarily benefit from the externalities of developmental interventions meant for the bordermost villages.

Table 3.3

List of Villages With Potential Externality Benefits

<i>Bordermost Village</i>	<i>Village with Potential Externality Benefits</i>
Molcham And Khengjang	Tuileng
	Khumkot
	Khangtaing
	T Nampao
	C Gamnom
	New Changpol
	Old Changpol
	Joldam
	Gamphajol
	Thingphai
	T S Laiyang
	Jangngoubung
Wakshu, Ashang Khullen And Moirangthel	Lamlong Khunou
	Chaktang
	Kharou Khullen
	Shaishin
	Yongkhun
	Narum
	RRC
	Kampang Khunou
	Satang
	Leibi
	Kambang Khullen
	Maringthel
Skip	Huinin Thana
	Bhikoh
	Movailup
	Chatric Khullen
	Chatric Khunou
	Chamu Khayang
	Hangou Kaplung
	Rony
	Sahomphung
	Chahong Khullen

The survey for the Report could not cover certain areas due to security risks involving mines and the villages being far inside Indian borders rather than being near the international borders. For security risks, the villages of Old and New Somtāl were not visited as there were reports of mines on the roadsides. The Thanlon area in Churachandpur was not covered for the other reason.

The Critical Issues

While discussing the critical issues being faced by the border villages in Manipur, we would put the problem in the Singhat region of Churachandpur separately for the problem here is basically one of reviving the facilities which are there already in Behiang. This area has a long and close interrelationship in terms of trade and social ties with the other side of the border. Picture 9A and 9B depict the Myanmarese crossing into the Indian border in Behiang.

Critical Issue I

The non-existence of all weather roads connecting the border villages is a critical factor adversely impacting on them in many fronts. The adverse impact on education is rather unfortunate. None of the villages has any functional primary school. Besides the existing ones have classes upto V (five) at the most. This being so, the parents have to put their children in boarding houses at district or sub-divisional headquarters at a distance of at least 35 kilometres. But this entails transporting the entire year's ration for the child during the dry season immediately after harvest as rest of the year are disconnected by wet conditions. Very few parents can afford this as their own production is not only insufficient, but also incapable of affording the fees. This leads to drop-out of students at the minimum rate of 30 per cent in all the border villages before completing primary school, while going upto as high as 50 per cent in some villages.

The immediate intervention needed for this is institution of ration and fee coverage schemes for children in the border villages during their stay at boarding houses away from home. The long term intervention is to make schools in the nearest junctions functional. The other long term approach could be to adopt a cluster approach for these villages and make at least a school fully functional. This becomes paramount for the children population size of the villages is rather small.

Critical Issue II

The other critical issue is the prevalence of tuberculosis among children and the non-availability of drugs for the treatment. This issue needs to be addressed without any delay.

Critical Issue III

The third critical issue and still relating to children is the presence of orphans and single parent (particularly women) children in alarmingly large proportions, sometimes reaching almost 50 per cent of the number of children in the villages. The main causes happen to be death of parents due to malaria, HIV infection and typhoid.

There is an urgent need of evolving schemes for addressing the survival and educational needs of such children.

Critical Issue IV

The non-availability of water supply system affects particularly women very adversely. This being the case, almost all the women in the villages, except Challou where a nice river flows, water supply was put as primary need.

In fact, addressing this issue effectively would be meaningful for addressing the common diseases in these places, like malaria and typhoid.

Critical Issue V

Desire of the womenfolk in these villages is establishment of rice mills.

This would entail addressing the lack of access to power problem in these border villages. Since connecting these villages through the routine grid system would be taking time while the requirement is immediate, programmes should be evolved for covering these villages through non-conventional sources of energy.

Critical Issue VI

As the common deadly diseases are already identified, specific measures need to be taken up without delay for permanently addressing this problem. The state can in no case take the excuse of lack of funds or manpower.

Critical Issue VII

There are villages in these border areas which have proven their proficiency in certain fields. The villages around Wakshu are adept in bamboo crafts. Challou villagers earn well through salt manufacturing. A scheme should be evolved for making these villages thriving industrial villages.

Critical Issue VIII

Villages in the Molcham and surrounding areas live in very critical environments. There are many cases of households having not returned after fleeing to avoid the cross-fire between insurgents and the state security forces, and sometimes even among antagonistic insurgent groups. Many kutchha houses in these villages have dilapidated due to the absence of owners and non maintenance. Besides, the households remaining in the villages have a space dug up below their houses meant for hiding in case of cross-fire between insurgents and the state security forces.

The interventions required in such context are two-fold. First, the villagers should be helped out in their rehabilitation for they turn out to be relatively poorer households in that non-developed context. Secondly, special schemes should be evolved for addressing the health and educational needs of children in these villages.

Critical Issue IX

There is an urgency of building up a data base for all these border villages. As stated earlier, all the official statistics relating to these villages are suspect. This exercise should be taken up in right earnest and through independent agencies. While the focus group discussions in situ have enabled us to appreciate the pressing livelihood and developmental problems being faced by the border villages, these definitely are not adequate for construction of a strong database. While sitting in the powers of centre, it is easy to be concerned about environmental issues and saving the rare species of animals. But the people living in these villages have very little alternative, if any, except cutting down the trees for business and household use, and also kill the rare animals whenever they come across for food. (We have not intentionally provided pictures of these in this Report in honour of the hard lives with very little alternatives being led by the villagers here). The villagers are aware of the increasing hardships they face for water due to the depletion of forest coverage, but they have no alternative in the absence of any developmental intervention being felt. The evolution of a strong data base is also important for there exists a strong element of rent seeking in the current approach of inviting village chiefs or village authority members to the district and State headquarters for development framing development interventions. The villagers themselves are not aware of the schemes, or even if they are aware, they are helpless. The National Rural Employment Guarantee Scheme scores in its presence across the villages, but there is no way of the villagers enjoying the benefit of employment for one hundred days. In other words, while the scheme is wide in coverage, the administration of the scheme is dubious. Still further the evolution for a strong data base on livelihood patterns for development planning is all the paramount today for there now is emerging a strong trend of poppy plantation in the mountain areas of Manipur in the absence of any fruitful employment and earning opportunities. The implications of this on health, governance and future livelihood patterns are tremendous on the negative side.



**PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA:
IMPLICATIONS FOR THE 13TH FINANCE COMMISSION**

MEGHALAYA

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Introduction

The present study is a humble attempt to highlight the problems and challenges of development along the border regions of the state of Meghalaya. The study covers all the border districts and blocks. The analysis of the state of development in the border areas is based on district and block level information and the information collected from 24 villages in two border blocks of the state¹.

The study is organized in four chapters. Chapter one provides a brief profile of the north-east and Meghalaya. Chapter two and three describes in details the socio-demographic, economic features as well as the status of infrastructural and basic facilities of the border districts and blocks. Chapter four discusses the findings upon the information collected from field and also from other sources. Finally, chapter five summarises the main findings of the study. Suggestions that emerge from this study are also provided in this chapter.

1. The Northeastern Region of India and Meghalaya

1. The Northeastern Region of India (NER) is the eastern most region of India consisting of the contiguous seven sister states and Sikkim. This landmass of 2.62 lakh sq. km covers about eight per cent of country's land mass and accounts for about 3.8 per cent of the country's population. Majority of the states in the NER comprising Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, and Sikkim are hilly and mountainous except for the plain areas in the Brahmaputra and Barak valleys in Assam, the Imphal valley in Manipur, and the piedmont strip skirting the entire length of western Tripura. Overall, 98 per cent of its borders are with other countries - Bhutan and China in the North, Myanmar in the East and Bangladesh in the South and West. As shown in the map below, all the states of the region share their boundary with one of the four foreign countries surrounding the region.



2 Figure 1: Map of Northeast region.

¹ Our effort in collecting information from border villages and from the block was many times hampered by the electioneering process for the District Council. Elections to the Khasi Hills Autonomous District Council (KHADC) was held on the 9th of February 2009.

NER is renowned for its rich bio-diversity and it is one of the two areas in the Indian sub-continent classified as an ecological hot spot, denoting ecosystems, which are rich in biodiversity and possess rare and/or endangered and endemic species. The region is one of the most biologically diverse areas of the world due to the dramatic changes in elevation coupled with heavy rainfall. The NER is also home to a wide diversity of close relatives of common food crops including rice, brinjal, yams, ginger, turmeric, chillies, cotton, jute, sugarcane, amaranth, mandarin oranges and other citrus fruits. The genetic variability of tropical, sub-tropical and temperate fruits and of many other crops and plants including ornamental, medicinal and aromatic plants, canes, bamboos etc. is also large in the region.

1 The economy of the region reflects its backwardness with 56 per cent of workers engaged in agriculture as per census 2001. The region is industrially very backward with the contribution of this sector being less than 3 per cent in all the states, except for Assam and Manipur where it is 12 per cent and 8 per cent respectively. The poverty level in the region is among the highest in the country with the percentage of population below poverty line in the states ranging from 36 to 29 per cent, compared to the all India average of 26 per cent. As per the 2001 census, the scheduled tribes form about 27 per cent of the Northeast population. The socio-economic characteristics of the region are provided in table 1.

Meghalaya:

The state of Meghalaya is a land locked territory lying between the latitudes of 25°47'N and 26°10'N and longitudes of 89°45'E and 92°47'E. It is a small state with an area of 22,429 sq kms. The state is predominantly inhabited by tribal people who account for 86 per cent of the population (as per the 2001 census). Meghalaya attained Statehood on the 21st of January 1972. Before this it was sub state with the state of Assam with two districts namely United Khasi and Jaintia Hills and Garo Hills. In course of time there has been many more reorganisation of the state into districts and blocks. Today the state is divided into seven administrative districts and 39 Community and Rural Development Blocks.

The Khasi, Jaintia, Bhoi and War, collectively known as the Hynniew trep people predominantly inhabit the districts of eastern Meghalaya. These people are known to be one of the earliest ethnic groups of settlers in the Indian sub-continent, belonging to Monkhmer of the Proto Australoid race. The western part of Meghalaya constitutes of East Garo Hills, West Garo Hills and South Garo Hills districts which are predominantly inhabited by the Garos, belonging to the Mongoloid race of Bodo group. The Garos are known as Achiks and they prefer to call the land, which they inhabit, as Achik land (Sarma, 2003).

Relief Features:

Meghalaya is essentially a plateau region and is dissected into ridges and valleys, which lie at different altitudes. Except the narrow belts in the northern and the western parts, the whole of Meghalaya is a plateau, which is known as the Meghalaya Plateau, or the Shillong Plateau. The height of this plateau varies from 150 meters to 2000 meters from the sea level. The plateau is characterised by great diversities in relief. It is marked by highly dissected and irregular terrain on the northern and western side and steep and regular slopes in the southern side. The middle portion of Meghalaya, i.e. the plateau proper, resembles an imposing table land or plateau with steep escarpments and deep valleys bordering the Sylhet Plains. In the north, the boundary of the

plateau is not well defined because of the presence of broken hill ranges in that part. On the basis of physiographic characteristics we may divide it into three distinct units:

- (a) The northern undulating Hills,
- (b) The central upland zones, and
- (c) The southern plateau.

The northern Hills with their peaks varying in height between 170 - 820 meters, gradually slope towards the Brahmaputra valley from the sub-mountain region of the Central Plateau, called Ri Bhoi by the local inhabitants. In this portion there are two peneplained surfaces - one stretches from Nongpoh to Byrnihat and the other from Jorhat to Khanapara. Above the altitude of 190 meters most of the Hills are flat topped in character.

The central upland zone running from west to east is the most important physiographic unit of the plateau and occupies more than one-third of the central and eastern Meghalaya. Its outer boundary is formed by the contour of 1500 meters. This portion of the plateau consists mostly of rolling uplands intersected by rivers and dotted with rounded hills made of softer rocks. The highest point of the central upland zone is the Shillong Peak (1961 meters) which is located to the south of Shillong town, towards the west of Shillong there is a hill range called Deingiri which rises up to the height of 1823 meters.

The southern face of the plateau includes the steepest parts of the region. The local inhabitants know it as war country. Its northern fringe area has typical granite topography with rounded hills and shallow valleys. In the southern part there lies a vast structural platform which is built of gently dipping sandstones of cretaceous age and on the edge of which is located the magnificent Mawmai waterfalls (near Cheerapunji). This structural platform stands as an escarpment and its surface has been deeply eroded by the agents and processes of fluvial erosion resulting from heavy rainfall. The deep valleys have divided it into three platforms, namely the Cherrapunji, the Langkyrdem and Mawsynram.

The terrain of Meghalaya plays an important role in determining the character of the soil. In general, the soils are thin, immature, light in colour, less clayey and less fertile on the hilltops and are thick; mature, deep in colour, more clayey and more fertile in the valleys and the alluvial low lands.

General Climatic Conditions:

The climate of Meghalaya is not comparable with any other parts of India due to its peculiar physiographic character. Its physiographic, the alternating pressure cells of northwest India and the Bay of Bengal and the maritime air masses coming from the south or the southwest, control the climate of Meghalaya. The cold season begins in December and continues till the end of February. During this season the mean minimum temperature falls as low as 3.6 degrees centigrade. March and April are the hot months. The rainy season includes the months from May to September. The period of October and November is treated as cool season.

The average annual rainfall in Western Meghalaya is 330 cm, which occurs during May to August. Winter is practically dry with a little more than 2 cm in three months, i.e. December to February. The average annual rainfall in south-east is about 400 cm, in central part between 300-400 cm and in the north between 250-300 cm. In central and eastern Meghalaya, the central

upland has a moderate climate due to higher altitude. But due to the foot hills and the sub-montane areas, the southern slopes and the north and eastern areas are slightly humid and warm. The Shillong area in the Central uplands experience very cold nights in winter when temperature falls to 1.7 degrees centigrade. The maximum temperature in this part does not exceed 24 degrees centigrade in any part of the year. To the extreme south, in the Cherrapunji-Mawsynram area the maximum temperature of 23 degrees centigrade is recorded in June and the minimum of 7.6 degrees centigrade in January.

In Central and Eastern Meghalaya the average annual rainfall is 770 cm of which more than 75 per cent falls during the months of May to September. Winter is almost dry with 6 cm rainfall in three months, December to February. The rainfall in Cherrapunji, which is located in the extreme south, is as high as 1142 cm. While Shillong, located only 50 Km north receives only 242 cm due to rain shadow effect. Mawsynram, a village located about 16 km west of Cherrapunji records the highest rainfall in the world, the amount being 1392 cm. Jowai (Jaintia Hills) located on a ridge in the eastern part of the Central uplands, receives an average annual rainfall of 308 cm. The rainfall decreases further north due to greater rain shadow effect and as such the northern hills receive less than 200 cm of rainfall.

2. Border Districts in Meghalaya

The state of Meghalaya is bounded by Bangladesh on the south and southwest and the state of Assam on the north and east. The state shares a 443 long international boundary with Bangladesh⁴. The state is divided into seven districts and 39 community blocks. Except for the districts of East Garo Hills and Ri Bhoi, the other five districts of the state have international border with Bangladesh. These border districts of Meghalaya are West Garo Hills, South Garo Hills, West Khasi Hills, East Khasi Hills and Jaintia Hills.

The position regarding the border blocks is slightly different. Up to 2001, there were 32 blocks of which 10 blocks have international border (table 2). Since then 7 new blocks have been created, one in each district as a result we now have 39 blocks. One of the new blocks in South Garo Hills have an international border and hence is a border block (see table A2 in annexure). However, since we are using 2001 census data for many block level information we are using the classification of blocks as existing in 2001.

⁴ The Indo-Bangladesh Border extends to a length of 4095 kms with more than half falling within the NER states. Of the total international border with Bangladesh, West Bengal has a border length of 2216 kms, Tripura 856 kms., Meghalaya 443 kms., Mizoram 318 kms. and Assam 262 kms.

Table 1: Socio-Economic Characteristics of States in NER

States	Popula- tion density per Sq. Km	Literacy rate	ST popul- ation (in percent age)	Urban popul- ation (in percentage)	Rural workers engaged in agricul- ture (in percentage)	Shifting cultivation (SC)		Forest land under community* control		Economic Infra		
						Total forest Area*	Area under SC	Total forest area	Under comm- unity control	Transportation		Power
										Road density per 100 Sq. km	Percen- tage of unconn- ected habit- ations	Per Capita Consum- ption of electri- city (in KwH)
						2001	2001	2000				
Arunacha	13	54.34	64.2	20.8	72.9	51500	2600	82	16.54	21.93	NA	68.6
Assam	340	64.28	12.4	12.9	59.1	27000	3100	30	52.53	111.14	40.21	95.5
Manipur	103	68.87	34.2	26.6	61.3	17400	3600	78	30.26	51.21	47.80	69.5
Meghalay	103	63.31	85.9	19.6	76.0	9500	2600	70	44.14	42.34	51.99	160.3
Mizoram	42	88.49	94.5	49.9	84.7	15900	3800	87	56.88	23.58	NA	120.7
Nagaland	120	67.11	89.1	17.2	77.4	8600	3900	85	31.75	126.8	9.63	84.7
Tripura	305	69.68	31.1	17.1	59.4	7000	1000	55	41	133.81	38.91	95.5
India	313	64.80	8.1	27.8	53.4	-	-	-	-	74.31	39.32	354.8

1 Notes: * Total forest area is as per administrative classification of forest

2

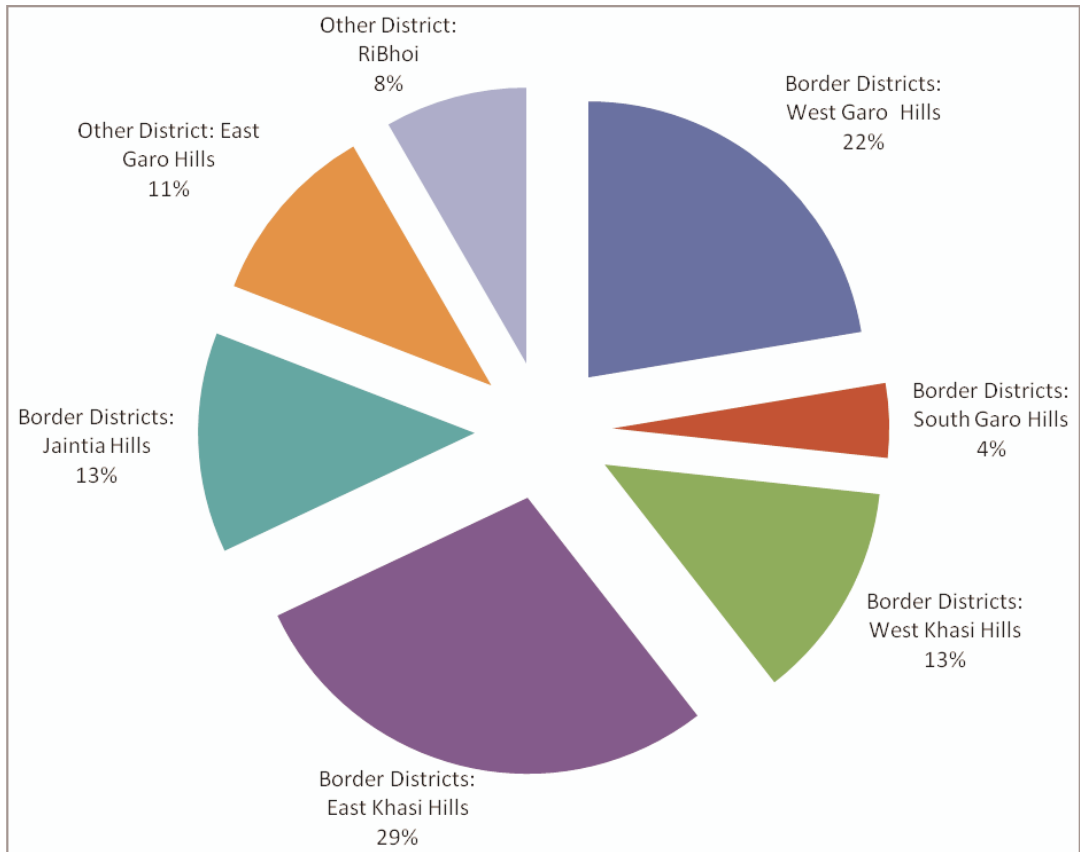
Sources: Adapted from Umdor (2008)

Table 2: Border District and Blocks of Meghalaya (2001)

Districts	No. of Blocks	No. of border blocks	Name of border blocks
Border Districts:			
West Garo Hills	7	2	Zikzak & Dalu
South Garo Hills	3	2	Baghmara & Rongara
West Khasi Hills	5	1	Ranikor
East Khasi Hills	7	3	Mawsynram, Shella-Bholaganj & Pynursla
Jaintia Hills	4	2	Amlarem & Khliehriat
	26	10	-
Other Districts:			
Ribhoi	2	-	-
East Garo Hills	4	-	-
Meghalaya	32	10	-

West Khasi Hills with an area of 5427 Sq. km (23.4 of the total area of the state) is the largest district while South Garo Hills is the smallest of the seven districts. In terms of population, the border district of East Khasi Hills has the largest population (28.5 per cent of the state's population), followed by West Garo Hills (22.36 per cent). The five border districts account for 77.8 per cent of the total geographical area of the state and as much as 91 per cent of the population.

Figure 2: Distribution of Geographical Area of the State among the Seven Districts



Socio-demographic Features:

As per 2001 census, rural population accounts for 80 per cent of the population of the total population of the state. All the seven districts have a rural population of well over 85 per cent, except for East Khasi Hills where it is 58 per cent. East Khasi Hills is also the most urbanized district followed by West Garo Hills. The two main towns of the state namely, Shillong (which is the state capital) and Tura, are in these two districts. The density of population in the five districts shows wide variation with the East Khasi Hills and West Garo Hills having high density of population compared to the state average, while West Khasi Hills and South Garo Hills have low density of population.

Table 3: Demographic features of Border Districts of Meghalaya

	Area		Population		House hold size	Density of population	Per centage of rural population	Per Cent tage of ST popula -tion	Sex Ratio	Literacy		
	Total Area in Sq. Km	As per ce ntage of total area	Total	As per ce ntage of total Popula -tion						Total	Male	Fe
Border Districts												
West Garo Hills	3715	16.6	518.4	22.36	5.4	140	88.62	76.6	968	50.7	57.0	4
South Garo Hills	1849	8.2	101.0	4.36	5.6	55	91.44	95.7	942	55.0	61.5	4
West Khasi Hills	5247	23.4	296.0	12.77	5.9	56	88.31	98.0	968	65.1	66.5	6
East Khasi Hills	2820	12.6	660.9	28.50	5.3	234	57.98	77.5	981	76.1	77.3	7
Jaintia Hills	3819	17.0	299.1	12.90	6.0	78	91.62	96.0	996	51.9	50.1	5
Other Districts												
East Garo Hills	2603	11.6	250.6	10.81	5.6	96	85.67	96.5	966	60.6	60.1	5
RiBhoi	2376	10.6	192.8	8.31	5.5	81	93.16	87.0	941	65.7	68.8	6
Meghalaya	22429		2318.8	100	5.5	103	80.42	85.94	972	62.6	65.4	6

Sources: Census (2001) & Statistical Handbook, Meghalaya, 2007.

Meghalaya is one of the states in the country with a high Scheduled Tribe (ST) population. Nearly 86 per cent of the state population is tribals, except in West Garo Hills and East Khasi Hills where the ST population at 76.6 per cent and 77.5 per cent respectively is below the state average. However, even in these two border districts the tribal population is well over three fourth of their respectively population.

The literacy rate of the state at 62.6 is much lower to the national literacy rate of 64.8 per cent. The two border districts of West Khasi Hills and East Khasi Hills have a comparably high literacy rates compared to the other districts as well as the state and national average. However, the literacy rates of the two border districts in Garo Hills and also Jaintia Hills is much lower to that of state. While the female literacy rate is lower to the male literacy rate in all the districts (except for Jaintia Hills), the gender gap is more severe in the two border districts in Garo Hills. The gender gap in the border districts of West Khasi Hills and East Khasi Hills is of a very small percentage point (less than 3 per cent). The demographic profile of the border districts of the state is given in table 3.

Infrastructure :

To evaluate the status of infrastructure in the border districts, we have look at some of the economic and social infrastructure facilities in order to bring out the different dimension of the facility under consideration.

Roads: In the last 35 years the road infrastructure in the state has steadily improved with the road mileage increasing as shown in table 4.

Table 4: Development of Road Network in Meghalaya

Road infrastructure in Meghalaya			Road density Per 100 sq. km	Per lakh persons
Year	Total length Kms	Percentage of surfaced roads		
1971	6668	12.85	29.65	658.89
1981	5211	52.95	23.17	329.39
1991	6481	42.35	28.9	360.1
2006	8165	60.10	36.40	-
Decadal change in the road length:			1980s	1990s
Percentage increase			24.4	40.8

Source: Umdor and Panda (2009) State of Infrastructure In Meghalaya, Meghalaya Human Development Report, 2009 (final draft)

With about 80 per cent of the population residing in the villages in the region, connecting these villages to one another and to the nearest district roads, state roads, national highways is a priority for developing the rural areas. For the districts in Meghalaya, the percentage of unconnected habitations in 2008 is much higher in the two border districts of West Garo Hills and South Garo Hills compared to the state average. The other three border districts are fairly well connected with Jaintia Hills having the least number of habitations unconnected by roads. However, as per the 1991 data, the status of connectivity of villages by all weather roads in West Khasi Hills, West Garo Hills and South Garo Hills ranged from 10 per cent to around 13 percent clearly showing the poor status of rural road infrastructure of some of border districts of the state (table 5).

An important point that needs to be highlighted here is that majority of the villages that have not been connected by pucca roads are the small villages with population of less than 1000. With 56 per cent of the villages in the state having less than 500 population, connecting all these villages that are located in the interior with all weather roads will need much resources.

Power: Power is a prime mover of economic development. The availability of cheap, abundant and regular power supply is an essential condition for development and also one of the important determinants of the quality of life. In terms of accessibility of power, we find that at the districts there is wide variation in the percentage of villages electrified. In East Khasi Hills and Jaintia Hills 74 per cent and 62 per cent of the villages in these two border districts are electrified while in South Garo Hill the percentage of villages electrified is only about 20 per cent (table 6).

Banking: The existence of a well-developed banking infrastructure is essential for the growth of all sector of the economy. Accessibility to finance is key to the growth of any economic activity, especially in the region where savings and thrift culture has not traditionally been strong. In Meghalaya the total number of bank offices has increased from 145 in 1989 to 186 in 2006. Accessibility of banking facilities measured in terms of population served per bank office shows the border districts of West Garo Hills, South Garo Hills and West Khasi Hills are worst off compared to the situation at the state level.

Table 6: Percentage of Villages Electrified in Districts of Meghalaya

Districts	Villages electrified 1981	Villages electrified 1991	Villages electrified 2001
Border Districts:			
West Garo Hills	0.2	9.6	19.66
South Garo Hills	4.2	21.7	35.28
West Khasi Hills	20.0	60.8	74.13
East Khasi Hills	17.1	58.9	62.31
Jaintia Hills	NA	3	NA
Other Districts:			
East Garo Hills	7.2	18.0	20.33.22
Ri bhoi	18.7	53.00	76.83.66.11
Meghalaya	30.9	22	23.44.93
Other Districts:			
East Garo Hills	11	15	15
Ribhoi	NA	14	14
Meghalaya	145	180	186

Sources: same as table 4 & District Level Statistics, 2007, Government of Meghalaya

Social Infrastructure:

Health: Although there has been an increased in the number of health infrastructure such as hospitals and Primary Health Centers (PHC), the access to such facilities remains a challenge in the border district of Meghalaya. The situation is more acute in the border districts of West Garo Hills, South Garo Hills, West Khasi and Jaintia Hills. This is indicated in table 8 which show the population serves per Govt. hospital & Dispensary in these three districts being higher than the state average (table 8).

The other social infrastructure such as health has not been included because of non-availability of comparable district data. Literacy rate is used as proxy to show the achievements in this area and this has been discussed in earlier section.

Table 8: Growth of Hospitals and other Health Centers in Meghalaya

Districts	Hospitals*			PHC		Hospital Beds		Population serves per Govt. Hospital & Dispensary
	1989	1998	2005-06	1989	2005-06	1989	2005-06	2005-06
Border Districts :								
West Garo Hills	1	6	7	10	18	243	460	130
South Garo Hills	-	1	1		7		100	101
West Khasi Hills	1	3	4	5	17	88	300	296
East Khasi Hills	4	6	9	14	21	1889	1536	73
Jaintia Hills	1	3	6	10	16	135	390	150
Other Districts:								
East Garo Hills	1	2	2	6	17	116	180	251
Ri Bhoi	-	1	4		8		200	64
Meghalaya	8	22	33	45	104	1771	3166	110

Sources: same as table 7.

Income and Livelihoods:

The net domestic product and per-capita income is an important development indicator of economic well being and is frequently used for inter-state and intra district development comparison. The net district domestic product and per capita income is given in table 9. In 2007-08, the share of border district of East Khasi Hills is the largest in the net state domestic product (NSDP) at 39.5 per cent, followed by West Garo Hills (17.7 per cent), and Jaintia Hills (15.1 per cent). The share of West Khasi Hills and South Garo Hills is however small at 7.2 per cent and 5.7 per cent respectively. The growth in the district domestic product during the period 1993-08 is highest in South Garo Hills (13.6 per cent) and Jaintia (11.5 per cent) which is above the state average growth of

around 10 per cent. The other border districts recorded an average of 8 to 9 per cent growth in their domestic product (see table 9).

The estimates of real per capita income in 2007-08 shows the district of West Khasi Hills as having the lowest real per capita income of rupees 11399. The border district of West Garo Hills also has a per capita income below the state average. The per capita income of the other border districts of East Khasi Hills, South Garo Hills and Jaintia Hills is well above that of the state (table 9). The per capita of the state in real terms grew at the average annual growth rate of 5.9 per cent between 1993-94 and 2007-08. During the same period, South Garo Hills, Jaintia Hills and East Khasi Hills recorded a higher growth in their per capita income compared to the average growth achieved by the state. The two border districts of West Khasi Hills and West Garo Hills however did not fare well and recorded a much lower growth in their per capita income when compared to the other border districts and that of the state.

**Table 9: Domestic Product and Per Capita Income of Districts
(At Constant 1999-2000 Prices)**

State/ districts	Net Domestic Product		Average Annual Growth	As percenta ge share in NSDP	Per capita income		Average Annual Growth
	1993-94	2007-08	1993-08	2007-08	1993-94	2007-08	1993-08
Border Districts							
West Garo Hills	40462	89598	8.67	17.7	9372	15920	4.99
South Garo Hills	9956	28992	13.66	5.7	11894	26283	8.64
West Khasi Hills	16780	36567	8.42	7.2	7030	11399	4.44
East Khasi Hills	83558	199822	9.94	39.5	14829	27825	6.26
Jaintia Hills	29276	76563	11.54	15.1	12087	23618	6.81
Other districts							
East Garo Hills	16743	37821	8.99	7.5	8112	13885	5.08
Ri Bhoi	13569	36595	12.12	7.2	9350	17479	6.21
NSDP of Meghalaya	210151	505959	10.05	100.0	10993	20094	5.91

Source: Directorate of Economics and Statistics, Government of Meghalaya

Figure 4: Percentage Share of Districts in NSDP

As percentage share in NSDP 2007-08

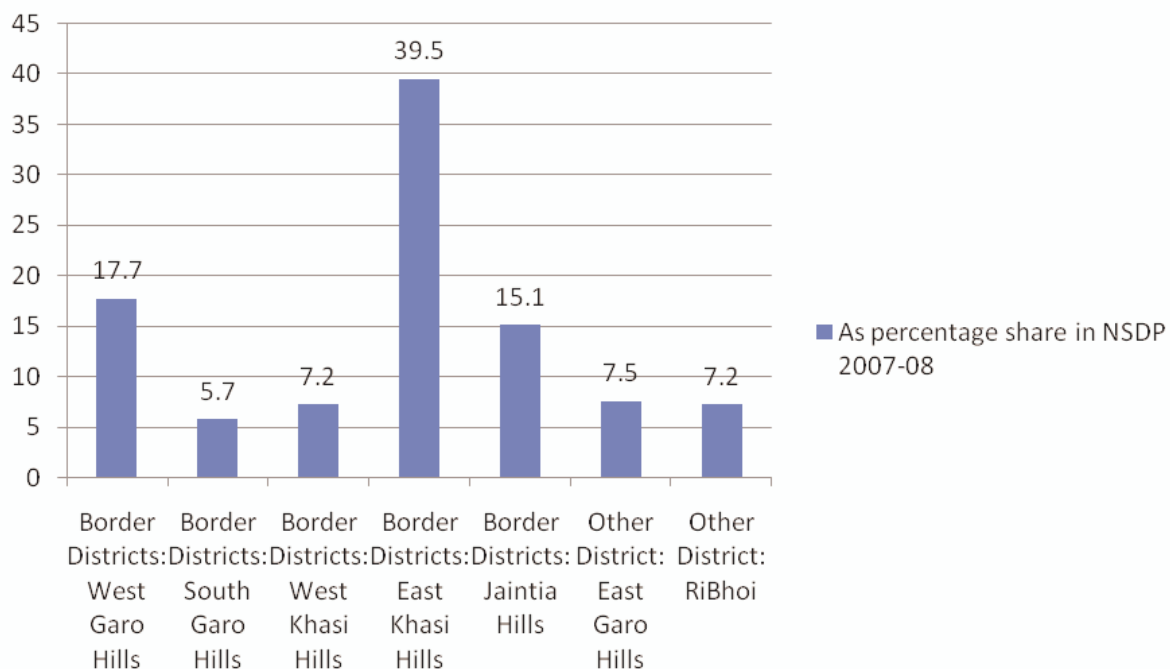
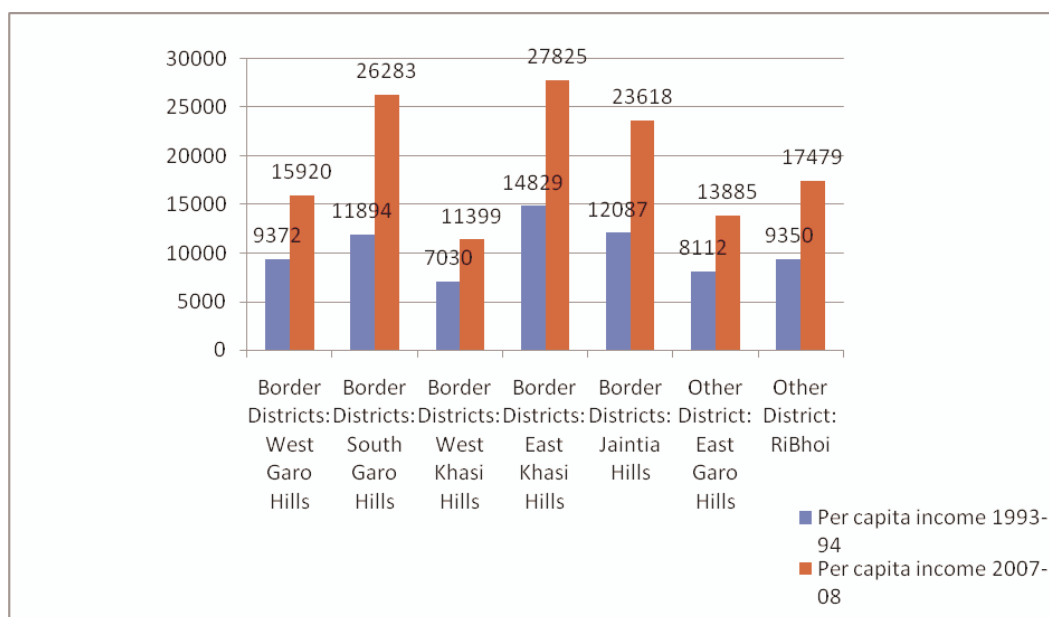


Figure 5: Per Capita Income of Districts in 1993-94 and 2007-08



The state economy shows that, like the rest of the country, the tertiary sector dominates the sectoral contribution of the state and district domestic product except for the border district of South Garo Hills and Jaintia Hills where the primary sector is the largest contributor and accounts for around 64 per cent and 53 per cent respectively of the NSDP (table 10). A study of the temporal changes in the sectoral contribution to NSDP during the period 1993- 94 to 2002-03 shows that in the three border districts of South Garo Hills, West Khasi Hills and Jaintia Hills there has been an increase in the contribution of the primary sector to the Net District Domestic Product, a trend which goes against what is observed in the state and national level where the contribution of this sector is declining. In West Garo Hills and East Khasi Hills the tertiary sector contributes more than half of the district domestic product.

Table 10: Percentage Sectoral Contribution to Net District Domestic Product

Districts	Pri- mary	Secon- dary	Ter- tiary	Pri- mary	Secon- dary	Ter- tiary
	1993-94			2007-08		
Border Districts:						
West Garo Hills	38.12	12.41	49.47	31.19	16.47	52.34
South Garo Hills	55.26	10.24	34.50	64.06	9.32	26.62
West Khasi Hills	33.18	17.42	49.41	35.41	19.70	44.89
East Khasi Hills	17.04	14.11	68.85	15.98	17.05	66.97
Jaintia Hills	49.44	10.17	40.39	53.04	14.64	32.32
Other Districts:						
East Garo Hills	36.33	15.29	48.39	29.83	22.56	47.62
Ri Bhoi	31.64	27.39	40.97	27.11	25.43	47.46
Meghalaya	31.60	14.27	54.13	30.28	17.35	52.37

Source: same as table 9.

The size of workforce affects the level of activity in the economy. In 2001 the workforce participation rate of the state was 41.8 per cent with 48.4 male workers and 35.2 female workers. The work force participation rate in South Garo Hills at 47.4 per cent was the highest among the districts. The female participation rate of East Khasi Hills at 28.9 was the lowest. In all the districts the rural work force participation was higher than urban work force participation. However, this disparity is sharper in the two border districts of West Garo Hill and Jaintia Hills. Again, the participation of female in the work force in rural areas was much higher to that in the urban areas. It is to be noted that the female work force participation of in Meghalaya is higher than that the all India level. The work force participation rate cross the districts of Meghalaya is given in table 11.

The importance of the agriculture sector in the state economy can be seen when we examine the percentage of the working population engaged in this sector. In rural areas of Meghalaya in 2001, 62.7 per cent of the population was engaged in this sector. In West Khasi Hills an overwhelming 83 per cent of the workers in rural areas were engaged in agriculture sector (cultivators and labourers). Similarly the other three border districts (except for East Khasi Hills)

had high proportion of main workers engaged in this sector. In the border district of East Khasi Hills the situation is different as overall only 34 per cent of the main workers were engaged in this sector with other activities (64.2 per cent) absorbing most of the workers. The workers engaged in agriculture sector are mainly as cultivators. The proportion of workers engaged as agriculture labourers at 12.5 is very low compared to the all India level. This situation prevails in all the districts Meghalaya. The industrial classification of the main workers in to the four categories is reported in table 12.

Table 11: Work Force Participation in Border Districts of Meghalaya in 2001

Districts	Total			Rural			Urban		
	Person	Male	Female	Person	Male	Female	Persons	Male	Fem
Border Districts:									
West Garo Hills	40.19	47.80	32.34	41.78	48.77	34.57	27.86	40.27	14
South Garo Hills	47.38	50.94	43.61	48.27	51.07	45.32	37.90	49.57	24
West Khasi Hills	43.61	46.36	40.76	44.96	47.33	42.50	33.39	38.96	27
East Khasi Hills	38.82	48.54	28.92	43.15	50.56	35.53	32.85	45.71	19
Jaintia Hills	42.42	47.95	36.86	43.56	49.01	38.06	29.95	36.00	24
Other Districts:									
East Garo Hills	44.49	47.97	41.30	46.19	48.74	43.55	35.77	43.44	27
RiBhoi	46.38	51.79	40.62	47.12	52.31	41.60	36.21	44.63	27
Meghalaya	41.84	48.34	35.15	44.11	49.43	38.62	32.51	43.82	20

Source: Census of India, 2001. Government of India

Table 12: Percentage Distribution of Main Workers Engaged in Different Sectors in Meghalaya

Districts	Cultivators		Agriculture labourers		Household industries	
	Total	Rural	Total	Rural	Total	Rural
Border Districts:						
West Garo Hills	56.5	61.9	12.2	13.3	2.8	2.9
South Garo Hills	63.1	67.9	9.2	9.8	1.8	1.8
West Khasi Hills	67.1	71.8	15.5	15.7	1.4	1.4
East Khasi Hills	24.1	39.4	10.2	16.5	1.4	1.4
Jaintia Hills	54.6	59.0	17.8	19.3	2.0	2.1
Other Districts:						
East Garo Hills	70.7	77.3	8.8	8.7	1.9	1.8
RiBhoi	59.2	61.2	14.8	14.4	1.4	1.4

Poverty:

The Planning Commission, Government of India, has been estimating the incidence of poverty at national and state level using the methodology contained in the report of the Expert Group on Estimation of Proportion and Number of Poor and applying it to consumption expenditure data from the large sample surveys on consumer expenditure, conducted periodically by the NSS. For Meghalaya, poverty estimates for the years 1973-74, 1977-78, 1983, 1987-88, 1993-94 and 1999-00 made on this basis are given in table 13.

According to these estimates, there has hardly been any decline in rural poverty in Meghalaya in the last two decades; though for the country as a whole rural poverty has declined from 45.7 to 27.1 per cent in between 1983 and 1999-00. It may however be pointed out that states in north east have been assigned the same poverty level as that in Assam.

Table 13: Percentage of Population below the Poverty Line

Years	Meghalaya			India		
	Rural	Urban	Combined	Rural	Urban	Combined
1973-74	52.7	36.9	50.2	56.4	49.0	54.9
1977-78	59.8	32.7	55.2	53.1	45.2	51.3
1983	42.6	21.7	38.8	45.7	40.8	44.9
1987-88	39.4	9.9	33.9	39.1	38.2	38.9
1993-94	45.0	7.7	37.9	37.3	32.4	36.0
1999-00	40.0	7.5	33.9	27.1	23.6	26.1

Source: Saxena (2002)

In addition to the NSS consumption data, which was the basis of the above estimates, government of Meghalaya conducted three censuses of the people living below (BPL) poverty line in 1991-92, 1998 and 2002. However, due to the used of different methodologies in measuring poverty in the three censuses, it is not possible to compare the poverty figures of the three periods.

According to the latest estimates, in 2002 the percentage of BPL families in the state was 48.90 with the border district of West Khasi Hills having the second highest percentage of families below poverty line (53.71 per cent), while Jaintia Hills district the lowest percentage of BPL families in the state (39.51 per cent).

Table 14: Percentage of Below Poverty Line Families in Border Districts of Meghalaya

Districts	Percentage of Rural BPL families in 1991	Percentage of Rural BPL families in 1998	Percentage of BPL families in 2002
Border Districts:			
West Garo Hills	66.2	63.0	53.71
South Garo Hills	Na	70.6	45.33
West Khasi Hills	29.2	64.9	47.66
East Khasi Hills	33.2	55.2	46.74
Jaintia Hills	56.1	44.2	39.51
Other Districts:			
East Garo Hills	68.5	34.2	55.94
Ri-Bhoi	Na	41.8	49.94
Meghalaya	48.9	54.5	48.90

Source: Saxena (2002) and Community & Rural Development Department, Government of Meghalaya.

Human Development

As per the State Human Development Report 2009,⁶ the level of human development measured in terms of Human Development Index (HDI) is the highest in the border district of East Khasi Hills followed by West Garo Hills. The other three border districts show HDIs that are lower than the state average.

The study of individual component of the HDI shows that border district of South Garo Hills has the highest Infant Mortality Rate (IMR) among all the districts, while the IMR of West Garo Hills and East Khasi Hills is lower to that of the state and All India rate (IMR at the all India level was 58 in 2005). The combined enrollment rate of all the border districts, except for Jaintia Hills was higher than the state average (see table 15). The discussion on other components namely the literacy rate and the NSDP per capita have already been covered in other section and is not included here.

⁶ Final draft Report, has not yet been published

Table 15: Human Development Indices of Districts of Meghalaya

District	Infant Mortality Rate	Literacy	Combined Gross Enrolment Ratio	NSDP Per Capita at current prices (Rs.)	HDI	HDI Rank
Border districts						
West Garo Hills	18.13	51.03	65.99	13782	0.571	2
South Garo Hills	102.01	55.82	85.52	23321	0.484	4
West Khasi Hills	86.17	65.64	79.13	9926	0.405	6
East Khasi Hills	34.51	76.98	63.10	24793	0.676	1
Jaintia Hills	77.34	53.00	43.31	20405	0.469	5
Other Districts						
East Garo Hills	90.60	61.70	60.91	12047	0.396	7
Ri Bhoi	60.63	66.07	50.47	14752	0.496	3
Meghalaya	52.28	63.31	62.87	17595	0.550	

Sources: Final Draft Report of Meghalaya Human Development Report (2009)

The other information on household ownership and access to amenities is provided in table A3 and A4. It shows that except for East Khasi hills, households in the other border districts have low access to banking facilities and also in ownership of common assets such as Telephone, etc.,. This situation is similar when it comes to household access to common amenities such as tap water, electricity and other amenities.

3. Border Blocks in Meghalaya

Meghalaya has 10 border blocks. All these border blocks share an international border with Bangladesh. The details of border blocks and the administrative units at the block level are provided in Table A5 in annexure. In terms of number of villages within the block, Dalu has the highest number of villages (264) followed by Zikzak(202), both of which are in West Khasi Hills. Amlarem in Jaintia Hills with 87 villages reports the least number of villages.

Socio-demographic Features:

Of the ten border blocks, Khliehriat with an area of 2115 Sq.km is the largest border block while Amlarem is the smallest of the ten border blocks. Both these blocks are in Jaintia Hills district. In terms of population, Khliehriat has the largest population followed by Zikzak. Rongara in South Garo Hills with 0.76 percent of the state's population reports the smallest population among all the border blocks. The density of population in the ten border blocks shows wide variation with Zikzak

and Pynursla (in East Khasi Hills) having high density of population compared to the State average, while Rongara with population density of 30 persons per Sq. km has the least density of population among all the border blocks. The ten border blocks accounts for 31.73 per cent of the geographical area of the state and 22 percent of the population. All the 10 border blocks have a rural population of 100 per cent, except for Baghmara and Shella Bholaganj where it is 81 and 81.5 percent (see table 16).

All the border blocks have high percentage of tribal population (above the state average of 85.9 per cent of the population) except for Zikzak where the ST population (69.8 per cent) is well below the state average. The literacy rate in all the border blocks of the state varies from around 46 per cent to 68 per cent. Shella Bholaganj (68.4 per cent), Pynursla and Amlarem (66.1 per cent each) have a comparably high literacy rate compared to the other border blocks as well as the state and national average. Literacy rate of border blocks of Zikzak and Khliehriat is much lower to that of the state. The female literacy rate is lower to the male literacy rate in all the border blocks, except for Amlarem. The gender gap in the border blocks of Shella Bholaganj, Pynursla, Amlarem and Mawsynram is of a very small percentage point (less than 6 percent). Rongara with 15.9 percentage point reports the largest gender gap among all the border blocks.

Employment:

The workforce participation in Pynursla at 47 per cent was the highest among the border blocks. The female participation rate of Shella Bholaganj at 28.9 per cent was the lowest. All the border blocks except for Baghmara and Shella has 100 percent rural population, hence urban work force participation is negligible. In case of Baghmara and Shella Bholaganj blocks the rural work force participation is much higher than the urban work force participation. In all the border blocks the male workforce participation is much higher than the female workforce participation. The work participation rate of the border blocks is given in table 17.

When examining the percentage distribution of main workers engaged in different sectors, the importance of agriculture in the economy of the border blocks can be seen. Mawsynram, Pynursla and Shella Bholaganj are the only border blocks with less than 50 per cent of its main workers engaged as cultivators. Khliehriat (87.6 per cent), Zikzak (69 per cent), Rongara (71 per cent) shows a larger percentage of its main workers engaged in the agricultural sector. The workers engaged in agricultural sector are mainly as cultivators. Less than five per cent of the main workers in almost all the border blocks are engaged in household industries. Shella Bholaganj with 55.6 per cent shows the highest proportion of its main workers engaged in other activities.

Poverty :

The poverty situation in the border blocks as brought forward by the state poverty census of 2002 shows that poverty level in the border blocks of West Khasi Hills , East Khasi hills and Jaintia Hills are more pronounced and a higher percentage of the blocks population constituted of BPL families compared to the district average. In West Garo Hills there is not much difference between the percentage of BPL families of the border blocks and the district. It is only in South Garo Hills that we see a lower percentage of BPL families in the two border blocks compared to the district and state average (see table 19).

**Table 19: Percentage of Below Poverty Line Families
in Border Blocks of Meghalaya**

Districts/Blocks	Percentage of rural BPL families in 1998	Percentage of BPL families in 2002
Border Districts/Blocks		
West Garo Hills	62.97	53.17
Zikzak	61.32	51.17
Dalu	73.01	50.04
South Garo Hills	70.57	45.33
Baghmara	67.54	35.57
Rongara	73.25	31.41
West Khasi Hills	64.91	47.66
Ranikor	75.11	51.91
East Khasi Hills	55.16	46.74
Mawsynram	71.63	55.40
Shella Bholaganj	54.05	47.75
Pynursla	67.99	56.90
Jaintia Hills	44.19	39.51
Amlarem	54.95	51.98
Khliehriat	41.57	31.51
Other Districts:		
East Garo Hills	34.15	55.94
Ri Bhoi	41.81	49.94
Meghalaya	54.50	48.90

Sources: Saxena (2002) and Community & Rural Development Department, Government of Meghalaya.

⁷ As explained earlier, due to the used of different methodologies in measuring poverty in the state poverty censuses it is not possible to compare the poverty figures of the three periods.

Village and household access to amenities and household ownership of assets are shown in table A6 and A7. Mawsynram block with 100 percent shows the maximum number of villages electrified, whereas Ranikor reports the least number of villages electrified (table A6). Even though the percentage of villages electrified has improved over the years and the number of households electrified still remain low. Pynursla reports the maximum number of households electrified at 57 per cent whereas Rongara reports the least number of household electrified at 8 per cent only.

In the border blocks less than 50 percent of the households have access to tap water, except for Khliehriat and Pynursla which shows 59 per cent and 56 per cent of its households having access to tap water. However less than 10 per cent of the households in all the border blocks have tap water within their premises. Further, less than 50 percent of the households, in all the border blocks except for Baghmara has proper sanitation facilities.

Availability of banking services and assets by the households in the border block shows the economic status of the people. In almost all the border blocks, except Amlarem (24 per cent), less than 20 percent of the households have access to banking services. The number of households with access to banking facilities in the border areas ranges from 11 per cent to 18 per cent, with Amlarem reporting the highest number of households with access to banking services.

Radio/Transistor can be said to be the most important asset in the border block. A higher percentage of the households in the border blocks report to have a radio/transistor. Only a small percentage of the households possess other assets like television, telephone, bicycles, scooter, car etc.

4. A Study of Two Clusters of Border Villages in Shella Bholaganj and Pynursla Border Blocks

In this section we analyse the information collected from two clusters of border villages located in border blocks of Shella Bholaganj and Pynursla in East Khasi Hills. The cluster in Pynursla consist of ten villages while that in Shella Bholaganj of fourteen villages.

East Khasi Hills District of Meghalaya comprises of seven blocks namely, Mawphlang, Myllem, Mawryngkneng, Mawkynrew, Mawsynram, Shella Bholaganj and Pynursla out of which Mawsynram, Shella Bholaganj and Pynursla are the border blocks of the district where they share a common border with Bangladesh.

Of the three border blocks, Mawsynram is the largest followed by Pynursla and Shella Bholaganj. The three border blocks have a low density of population compared to the district average. All these border blocks have at least one police station. Shella Bholaganj has three police outpost followed by Mawsynram with two and Pynursla with one police outpost. Mawsynram block has the maximum number of colleges, secondary schools, middle elementary schools, lower primary schools and hence can be said to have a much better educational infrastructure than the other blocks. However Shella Bholaganj block shows a much better health infrastructure by the number of PHCs, CHCs, paramedical workers, aganwadi workers etc., compared to the other two border blocks. Table 20 some provides general information on the three border blocks.

The ten villages surveyed in Pynursla block are (i) Lumwahnai (ii) Lympungshyrngan (iii) Mawlynnong (iv) Nohwet (v) Nongeitniang (vi) Nongsohphan (vii) Nongthymmai (viii) Rimasar (ix)

Riwai and (x) Thiepshkai. In Shella Bholaganj fourteen villages were surveyed. These are 1) Bholaganj 2) Ichamati 3) Lad Sohbar 4) Laitkynsew 5) Laittyra 6) Mawbang 7) Mawlong 8) Mawmluh 9) Nayabasti 10) Nongwar 11) Ryngud 12) Sohbar 13) Shnong ka War and 14) Thangkarang.

All the villages are located very near within an average distance of 2 Km from the international border. In Shella block, except for Mawmluh which is about 15 km from the international border, the other villages are on the average of 5 km from the international border with Bangladesh.

In Pynursla we find a wide variation in the number of households in villages surveyed. There are villages like Thiepshkai, Nongthymmai and Rimasar which have few households (17 to 25) while at the other end Nohwet village has 361 households. In the remaining villages, the average number of households is around 60. In Shella Bholaganj Blocks most of the villages surveyed reports the number of households to be within 150 except for Sohbar with 350 households.

Status and Access to Infrastructure and Amenities:

Five of the ten villages in Pynursla Block are connected with pucca or all weather roads. In the other villages, there is an approach road from the village leading to the main pucca roads. The distance of these five villages from the main pucca roads is on the average 1.6 km. In Shella Bholaganj Block eight villages are connected by pucca roads and in two the opucca road is within 2 km distance from the village. Four other villages -Bholaganj, Mawbang, Nayabasti and Ryngud- are not well connected and situated on an average distance of 24 km from the pucca road.

All the villages surveyed in both the blocks have electricity connection. The villages also have access to tap water besides water from spring and river. Except for Nohwet and Nongsohphan, the other eight villages in Pynursla are not connected by land line phone. The villages have no mobile phone coverage although in some areas the villages are able to use their mobile phones. In case of Shella Bholaganj most of the villages do report to have mobile phone coverage.

For villages surveyed in Pynursla block, the nearest Public Health Centre (PHC) is situated in Pungtong which is an average distance of about 17 km from the villages, with another PHC located in the block headquarters about 33 kms away. In ten of the villages in Shella Bholaganj block the PHC is located within a short distance. However villages like Bholaganj, Lad Sohbar, Mawbang and Nayabasti are situated at an average distance of 14 kms from the nearest PHC.

The villages in Pynursla have better access to educational facilities. All the ten villages have access to school within the village up to primary level. Five villages have schools which are up to upper primary level and one village -Nohwet- has a secondary school in the village. In Shella Bholaganj block, two of the 14 villages do not have a primary school. In 10 of the 12 villages the school is up to upper primary level. Four of the villages are having schools up to secondary level.

Economy of the villages:

Majority of people in both the clusters of villages are farmers. Some of the common crops grown by people in both the areas are areca nuts, betel leaves, bay leaves and oranges. Rearing of poultry and piggery by households is also another common activity in these villages. An important feature of the ten villages in Pynursla block is the growing of broomstick in large track of land. Broomstick is not a traditional crop grown in these areas, however, the cultivation of broomstick has become very popular and is being extensively cultivate because of the good price it fetches and the low amount of labour and investment needed to cultivate it.

Some households in Pynursla cluster have also started coffee plantation. In Shella Bholaganj cluster bee keeping is another important economic activity which is practice by many households. Vegetables are also grown particularly during the winter months. In recent years the production of betel nuts, betel leaves and oranges has reduced significantly due to the insects and diseases that affect these crops. This has affected the income of the households as a result of which farmers are now looking and exploring new crops and avenues of new livelihood. The area in Pynursla is more prone to natural calamities such as cyclone which destroys the crops and brings extreme hardship to the people.

In both the areas there is immense potential for development of tourism. Shela Bholaganj block already draws huge number of tourist and people in some of the villages such as Thangkarang are already benefiting from this flow of tourist to the sites. Similarly, Mawlynnong village⁸ is also attracting a lot of tourist and this has created new livelihood opportunities for the people. Tourism can therefore boost the income of people in these villages.

An important feature of the economy of both these areas is the informal trade relation that these people maintain with the people of Bangladesh. Many of the products grown in these areas particularly bay leaves and oranges are sold to people across the border. Before the partition of India, the people living in village near the border had a prosperous economy as their products found ready markets in areas presently in Bangladesh. Similarly, essential commodities were imported to the bordering areas of the state. However, after the partition of the country in 1947, abrupt stoppage of trade resulted in tremendous economic hardship to the people living in the bordering areas of the state. The people of this region were deprived of the traditional markets to sell their products and the traditional supply lines for supply of essential commodities were cut off. However even today there is a flourishing informal trade between in the border areas⁹.

The information on two groups of villages surveyed is provided in table 20 and table 21. Additional information on the access to banking infrastructure, post office, fair price shop and markets is provided in table 22.

⁸ It came into prominence when in 2003 Discover India magazine declared the village as the cleanest in Asia. Since then, it has become a popular tourist destination in the state on account of its scenic beauty and its status as the cleanest village in Asia. Today Mawlynnong and its adjoining areas are being promoted as eco-community tourism

⁹ See Gurudas (2000) for more on border trade between Bangladesh and Meghalaya and also www.ide.go.jp/English/Publish/Download/Jrp/pdf/133_7.pdf.

Problems and challenges of the border villages:

During the field trips to the two clusters of villages in Pynursla and Shella Bholaganj blocks the research team interacted with community leaders, and ordinary villagers level to understand and be able to identify the problems and challenges that people in these border villages faced particularly with regards to the infrastructure and their livelihoods. The information collected during the field survey was further supported by information gather from government officials and key persons for the areas. From these exercises we were able to identify some of the problems facing the people in these blocks and also the actions which the people felt are needed to address them. Both the problems and actions are discussed in below:

1. Infrastructure:

- A. Lack of road connectivity of villages and poor road conditions
 - 1. Linking of all the villages by all weather motorable roads to the block headquarters and main markets.
 - 2. Regular maintenance of existing pucca (tarred) roads.
 - 3. Widening of existing roads connecting the villages to the block headquarters (in Shora) and main markets.
 - 4. Construction of internal village roads
- B. Poor power supply
 - 5. Providing regular and reliable power supply throughout the year particularly during the monsoon when the power supply at times remains unavailable for days and weeks on end.
- C. Need to augment piped water supply facilities
 - 6. To provide tap (community tap) water supply connection to villages that have are not yet connected.
 - 7. To augment the existing PHE water supply in the villages and provide more tap connections so that more households can be benefitted.
- D. No cellular phone service
 - 8. To provide cellular/mobile phone coverage to all the villages (the demand for cellular service is more than for landline telephone)

2. Health: Lack of access to health services and poor quality of available health services.

- 1. PHCs in the block headquarters needs to be strengthened and the human and material resources needs to be augmented.
- 2. Present of medical specialists at the block headquarters.
- 3. Training to be provided to traditional birth attendants.
- 4. Each village or cluster of villages to be service by a village health worker who should be given basic training and also stock with medicines for common ailments.
- 5. Good diagnostic centre to be available at the PHCs.
- 6. Emergency medical transportation services to be available in the PHCs.

3. Education: Poor quality of education.

1. Establishment of Primary School in villages not having one.
2. Upgrade existing primary schools to upper primary level.
3. Appoint more teachers particularly in one teacher school.
4. Take steps to check school dropout rates.
5. Ensure regularity of teachers.
6. Provide for kitchen and storeroom for implementing the cooked mid day meal scheme in the schools.
7. Improve the standard of high schools and the college.
8. Set up vocational training centre at the block headquarters.

4. Livelihoods: Limited income generation activities and fall of production of traditional crops grown by the farmers.

1. Prevention and control measures to check the insects and diseases that have affected the production of areca nuts, betel leaves and oranges.
2. Training and support for value addition of some of the products of the areca nuts such bamboo and honey.
3. Provide support to the farmers affected by natural calamities such insurance of crops and livestock.
4. Create tourism infrastructure in border villages and create more awareness about these areas to boost the flow of tourists.
5. Reopening of traditional border haats (markets) along the border with Bangladesh which has been a traditional and natural market for the people in the border villages.

Table 20: Profile of Border Blocks under East Khasi Hills District of Meghalaya (2007)

Particulars	Shella Bholaganj	Mawsynra m	Pynursla	East Khasi Hills
Geographical Area	417.10	523	450.23	2820
Total Population	43,339	45,262	47,521	6,60,923
Male Population	22,012	22,974	23,643	3,33,553
Female Population	21,327	22,288	23,878	3,27,370
Density of Population	75	86	94	234
No. of Sub Division	1	0	0	1
No. of Towns	0	0	0	8
No. of Villages in the Block	152	160	128	1005
No. of Households	8,503	8,276	10,847	1,30,242
Police Station				
(i) No. of Police Stations	1	1	1	10
(ii) No of Police Outposts	3	2	1	11
Total No .of banks	7	6	4	83
Education				
(i) No. of colleges (Govt & Private)	1	2	1	54
(ii) No of Secondary Schools	8	12	8	655
(iii) No. of M.E Schools	20	26	69	1759
(iv) No. of L. P Schools	90	155	89	5,851
Health				
(i) No of hospitals	0	0	0	4
(ii) No of Sub Centres	11	4	0	70
(iii) No of PHC	7	6	2	23
(iv) No of CHC	2	0	1	11
(v) Para Medical Workers		N.A	38	705
(vi) Aganwadi Workers	75	77	86	608
(vii) Trained Dais		N.A	0	88
(viii) No of Rehabilitation Centres		-		1
(a)No of Dispensary		-	-	5
(b) No of Aganwadi Centres		-	-	11
No. of Post Office & Sub Post	5	15	1	132
No. of Fair Price Shops	60	95	20	589

Source: Office of the District Statistical Officer, East Khasi Hills, 2007

Table 21: Characteristics of Villages Surveyed in Pynursla

	Name of Villages	Distance from International border (in kms)	Number of households	Distance for Pucca Roads	Availability of Electricity	Sources of water for households	Availability of Telephone connection
A	Pynursla Block						
1.	Lumwahnai	2	70	0	Village Electrified	Tap & Spring	No connection
2.	Lympungshyrngan	2	40	0	Village Electrified	Tap & Spring	No connection
3.	Mawlynnong	1.3	76	0	Village Electrified	Tap & Spring	No connection
4.	Nohwet	2	361	0.5	Village Electrified	Tap, Spring & River	Landline connection
5.	Nongeitniang	1.1	60	1	Village Electrified	Tap & Spring	No connection
6.	Nongsohphan	1.5	78	1.5	Village Electrified	Tap	Landline connection
7.	Nongthymmai	3.5	21	3	Village Electrified	Tap & Spring	No connection
8.	Rimasar	2.4	25	0	Village Electrified	Tap & Spring	No connection
9.	Riwai	1.8	80	0	Village Electrified	Tap & Spring	No connection
10.	Thiepshkai	2.3	17	2	Village Electrified	Tap & Spring	No connection
B.	Shella Bholaganj Block						
1.	Bholaganj	1	125	25	Village Electrified	Tap, Spring & River	No
2.	Ichamati	4	127	0	Village Electrified	Tap & river	No
3.	Lad Sohbar	3	20	0	Village Electrified	Tap & Spring	Yes
4.	Laitkynew	9	115	0	Village Electrified	Tap & Spring	Yes
5.	Laittyra	9	120	2	Village Electrified	Tap & river	Yes
6.	Mawbang	2	90	20	Village Electrified	Tap & river	No
7.	Mawlong	5	80	0	Village Electrified	Tap & river	Yes
8.	Mawmluh	15	190	0	Village Electrified	Tap & river	Yes
9.	Nayabasti	2	107	35	Village Electrified	Tap & river	No
10.	Nongwar	6	135	0	Village Electrified	Tap & Spring	Yes
11.	Ryngud	4	130	17	Village Electrified	Tap & river	No
12.	Sohbar	4	350	0	Village Electrified	Tap & river	No
13.	Shnong-ka-War	6	42	1	Village Electrified	Tap & river	No
14.	Thangkarang	9	35	0	Village Electrified	Tap & river	Yes

Source: Field data

Table 22: Status of linfrastructure (distance in kms)

Name of Villages		Health		Education		
		PHC	Hospital	Primary school	Middle	Secondary
A. Pynursla Block						
1.	Lumwahnai	15	30	0	0	1
2.	Lympungshyrngan	16	34	0	0	3
3.	Mawlynnong	22	32	0	0	4
4.	Nohwet	20	36	0	0	0
5.	Nongeitniang	18	34	0	0	3
6.	Nongsohphan	18	34	0	1	1
7.	Nongthymmai	15	36	0	2	3
8.	Rimasar	14	28	0	1	1
9.	Riwai	20	32	0	1	1
10.	Thiepshkai	15	33	0	2	3
B. Shella Bholaganj Block						
1.	Bholaganj	25	35	0	0	35
2.	Ichamati	0	16	0	0	16
3.	Lad Sohbar	10	12	2	2	1
4.	Laitkynsew	0	12	0	0	0
5.	Laittyra	1	12	12	12	12
6.	Mawbang	12	20	0	0	20
7.	Mawlong	0	16	0	0	0
8.	Mawmluh	3	2	0	2	2
9.	Nayabasti	10	40	0	0	40
10.	Nongwar	2	15	0	0	0
11.	Ryngud	4	17	0	0	17
12.	Sohbar	0	12	0	0	0
13.	Shnong-ka-War	0	12	0	2	2
14.	Thangkarang	3	12	0	0	12

Source: Field data

Table 23: Status of infrastructure (distance in kms)

	Name of Villages	Post office	Bank	Fair Price Shop	Markets
A. Pynursla Block					
1.	Lumwahnai	30	30	0	16
2.	Lympungshyrnga	34	34	3	20
3.	Mawlynnong	32	32	0	5
4.	Nohwet	36	36	0	22
5.	Nongeitniang	34	34	0	4
6.	Nongsohphan	34	34	1	6
7.	Nongthymmai	36	36	0	25
8.	Rimasar	28	28	0	5
9.	Riwai	32	32	0	7
10.	Thiepshkai	33	33	0	4
B. Shella Bholaganj Block					
1.	Bholaganj	35	35	25	0
2.	Ichamati	16	30	0	16
3.	Lad Sohbar	1	12	0	12
4.	Laitkynsew	12	12	0	12
5.	Laittyra	0	12	1	12
6.	Mawbang	24	20	0	20
7.	Mawlong	2	16	0	16
8.	Mawmluh	1	2	0	2
9.	Nayabasti	15	30	0	30
10.	Nongwar	15	15	0	15
11.	Ryngud	17	18	18	18
12.	Sohbar	0	12	0	12
13.	Shnong-ka-War	2	12	1	12
14.	Thangkarang	1	12	1	12

Source: Field data

5. Summary and Suggestions

The state of Meghalaya is a land locked territory lying between the latitudes of 25°47'N and 26°10'N and longitudes of 89°45'E and 92°47'E. It is small state with an area of 22,429 sq kms. The state is predominantly inhabited by tribal people who account for 86 per cent of the population. It is bounded by Bangladesh on the south and southwest and the state of Assam on the north and east. The state shares a 443 long international boundary with Bangladesh.

Except for the districts of East Garo Hills and Ri Bhoi, the other five districts namely West Garo Hills, South Garo Hills, West Khasi Hills, East Khasi Hills and Jaintia Hills have international border with Bangladesh. As in 2001 census, there are 10 blocks which have international border. The five border districts account for 77.8 per cent of the geographical area of the state and as much as 91 per cent of the population.

The analysis of indicators on infrastructure, poverty level, educational attainment and livelihoods at the district and block level show that the border areas of the state lying in West Garo Hills, South Garo Hills and West Khasi Hills are more disadvantaged and underdeveloped compared to other border districts and other districts of the state. Information collected from the villages shows that even in East Khasi Hills which is considered the most developed of all the districts the border villages are not well connected and do not enjoy access to quality health and educational facilities. This observation is supported by a field study conducted in 2001 to find out the condition of infrastructural facilities in rural area of Meghalaya. For this purpose 81 villages were selected for the field study from East Khasi Hills and Jaintia Hills. The study used PRA methods to get the people's participation in rating the conditions of the roads, telephone, electricity, and water and sanitation facilities and in suggesting measures for improvement. Summary of the results of the field study are given below.

¹⁰ The study was funded by NCAER and included data from villages in border block of Shella Bholaganj and Khliehriat.

The study showed the poor quality of infrastructure of these areas. In many of the villages with tarred external roads, the conditions of these roads are found to be very bad¹¹. While the percentage of villages with telephone is only 20 per cent, in most cases the telephones at the villages are generally out of function for a long period of time. While the percentage of villages electrified is 74 per cent, in most cases the villagers have reported of not getting quality and regular power supply, especially during the monsoon. The provision of safe drinking water facility and sanitations are also grossly inadequate in the villages in the state

Recommendations:

The suggestions for improving the living conditions and economic status of the people of the border areas have been discussed in the section on border villages. These points are reiterated here.

1. Linking of all the villages by all weather motorable roads to the block headquarters and main markets.

Rural infrastructure in Meghalaya – Results from Field survey

Infrastructure		Percentage
	2. Regular maintenance of existing pucca (tarred) roads.	11 %
Villages with tarred internal roads	3. Widening of existing roads connecting the villages to the block headquarters (in Shora) and main markets.	17 %
Villages with tarred external roads	4. Construction of internal village roads	20 %
Villages with telephone connection	5. Providing regular and reliable power supply throughout the year particularly during the monsoon when the power supply at times remains unavailable for days and weeks on stretch	74 %
Villages with electricity connection	6. Provide tap (community tap) water supply connection to villages that have are not yet connected.	59 %
Villages with piped water supply	7. Augment the existing PHE water supply in the villages and provide more tap connections so that more households can be benefitted.	
Villages with drainage systems	8. Provide cellular/mobile phone coverage to all the villages (the demand for cellular service is more than for landline telephone)	
Villages with latrines	9. PHCs in the block headquarters needs to be strengthened and the human and material resources needs to be augmented. Good diagnostic centre to be available at the PHCs	

¹¹ The high percentage of villages having tarred external roads is because 16 of the 81 surveyed villages are from myllem block, which because of its proximity with the state capital Shillong, have excellent roads. If we exclude this block, then the percentage of village shaving tarred external roads comes down to 17 per cent only.

10. Organizing Training and capacity building programme for village health worker.
11. Provision of Emergency medical transportation services at the PHCs.
12. Establishment of Primary School in villages not having one.
13. Upgrade existing primary schools to upper primary level.
14. Appoint more teachers particularly in one teacher school.
15. Take steps to check school dropout rates.
16. Ensure regularity of teachers.
17. Provide for kitchen and storeroom for implementing the cooked mid day meal scheme in the schools.
18. Improve the standard of high schools and the college.
19. Setting up vocational training centre at the block headquarters.
20. Providing training and support to farmers.
21. Training and support for value addition of some of the products of the areca nuts such bamboo and honey.
22. Provide support to the farmers affected by natural calamities such insurance of crops and livestock.
23. Creation new avenues of livelihood for people in the border areas such as in tourism.
24. Providing financial and training support for income generation activities.
25. Reopening of traditional border haats (markets) along the border with Bangladesh which has been a traditional and natural market for the people in the border villages

Annexure:

Table A1: Administrative Blocks in Border Districts of Meghalaya

Districts	Name of districts	No. of subdivisions	No. of Blocks	No. of Border blocks	No. of towns created after 2001	No. of New villages	Name of new blocks	No. of police stations	Border Block	No. of Police outpost
Border districts:-										
Border Districts:										
West Garo Hills	West Garo Hills	2	8	2	1	1537	Gambegre	4	No	12
South Garo Hills		-	4	2	1	627		1		3
West Khasi Hills	South Garo Hills	2	6	4 ¹	2	1 943	Gasupara	3	Yes	7
East Khasi Hills		1	8	3	8	962		10		11
Jaintia Hills	West Khasi Hills	2	5	6 ²	1	1 499	Mawthadraishan	3	No	8
Other Districts:-										
East Garo Hills	East Khasi Hills			8		1	Khadarshong-Laitkroh		No	
Ribhoi	Jaintia Hills	1	5	5	2	888	Saipung	3	No	6
		-	3		1	570		3		9
Total Meghalaya	5-Districts	8	39	31	16	5 6026	-	27	-	56
Other districts:										
Source: District Level Statistics, Directorate of Economics and Statistics, Government of Meghalaya										
6.	Ribhoi			3		1	Jirang		-	
7.	East Garo Hills			5		1	Kharkutta		-	
	Meghalaya			39		7	-			

Table: A3: Households Ownership of Assets in Border Districts

Districts	No. of Households	Household Access to Banking services	Household Ownership of					
			Radio, Transistor	Television	Telephone	Bicycle	Scooter, Motor Cycle, Moped	Car, Jeep Van
Border Districts:								
West Garo Hills	94200	18.15	32.10	14.24	3.35	20.55	3.80	1.53
South Garo Hills	17469	11.90	36.69	9.54	0.99	10.44	2.88	1.07
West Khasi Hills	49980	11.77	24.88	9.37	0.79	3.36	0.72	1.60
East Khasi Hills	127813	33.16	36.18	39.90	14.38	2.97	3.95	4.96
Jaintia Hills	50781	17.19	22.38	13.30	2.81	2.25	1.01	3.01
Other Districts:								
East Garo Hills	45010	13.86	38.10	10.04	1.31	33.74	3.26	0.94
Ri Bhoi	34993	14.60	29.98	16.45	2.78	8.78	1.93	1.67
Meghalaya	420246	20.82	31.96	20.89	5.97	10.96	2.89	2.69

Sources: Census of India 2001, Government of India.

Table A4: Households Access to Amenities in Border Districts

Districts	No. of Administrative Units in Border Blocks of Meghalaya		Household with				No. of police stations	No. of Police outpost
	No. of House hold	Tap	Tap Within	Electricity	Sanitary			
Border Districts:		No of Premises	Blocks	No. of towns	No. of village	As % of Total village		
West Garo Hills	94200	17.66	7.38	22.19	47.46			
South Garo Hills	17469	29.64	8.17	18.60	49.85			
	West Garo Hills	2	8	1	1537	25.51	4	12
West Khasi Hills	49980	28.72	3.91	36.04	30.10		1	3
	West Khasi Hills	2	6	2	943	15.65	3	7
Ri Bhoi	34993	35.68	8.31	39.80	57.93		10	11
East Khasi Hills	127813	61.50	27.75	73.67	59.68		3	8
Jaintia Hills	50781	16.26	6.04	39.76	34.24			
Other District	East Garo Hills	1	5	2	888	17.74	3	6
East Garo Hills	45010	24.23	6.69	20.32	19.32		3	9
Ri Bhoi	34993	35.68	8.31	39.80	57.93		27	56
Meghalaya	420246	34.58	13.01	42.74	51.19			

Sources: Census of India 2001, Government of India.

Table A7: Households Ownership of Assets in Border Blocks

State/Districts/ Blocks	No. of Households	Banking services	Assets					
			Radio, Transistor	Television	Telephone	Bicycle	Scooter , Motor Cycle, Moped	Car, Jeep, Van
Border Districts:								
West Garo Hills	94200	18.15	32.10	14.24	3.35	20.55	3.80	1.53
Zikzak	12801	14.75	26.96	8.44	1.24	28.11	2.24	0.55
Dalu	10418	17.88	30.74	10.91	1.43	20.86	2.70	0.83
South Garo	17469	11.90	36.69	9.54	0.99	10.44	2.88	1.07
Baghmara	7913	17.46	39.28	14.42	1.79	13.95	4.49	1.67
Rongara	3162	13.09	32.38	5.06	0.35	2.62	1.71	0.63
West Khasi Hills	49980	11.77	24.88	9.37	0.79	3.36	0.72	1.60
Ranikor	5736	13.60	24.81	7.43	0.52	6.54	0.87	0.99
East Khasi Hills	127813	33.16	36.18	39.90	14.38	2.97	3.95	4.96
Mawsynram	8279	11.95	29.79	14.87	1.03	3.99	0.76	1.11
Shella-	10973	17.70	26.65	18.60	1.39	1.50	0.71	1.50
Pynursla	10974	18.15	31.05	14.32	2.73	1.02	0.89	1.47
Jaintia Hills	50781	17.19	22.38	13.30	2.81	2.25	1.01	3.01
Amlarem	5964	24.03	21.53	13.58	1.51	1.09	0.79	1.71
Khliehriat	16094	13.02	27.43	11.54	1.58	1.75	0.77	3.86
Other Districts								
East Garo Hills	45010	13.86	38.10	10.04	1.31	33.74	3.26	0.94
Ri Bhoi	34993	14.60	29.98	16.45	2.78	8.78	1.93	1.67

The Border Area Development Department in Meghalaya

The Border Area Development Programme (BADP) was started during the Seventh Plan with the twin objectives of balanced development of sensitive border areas in the Western Region through adequate provision of infrastructural facilities and promotion of a sense of security amongst the local population. The programme was revamped in the Eighth and Ninth Plan and extended to States seventeen States namely Arunachal Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Tripura, Uttar Pradesh, Uttaranchal and West Bengal. The nature of the Programme was changed from a schematic programme with emphasis on education to a State level Programme with emphasis on balanced development of border areas.

The main objective of the Programme was ensure balanced development of remote of inaccessible areas situated near the border and to meet the special needs of the people living along the international border . For the purpose, the border areas have defined and demarcated as a territory to the distance of 10 kms crow fly distance inside the state from the international border with Bangladesh. While demarcating the border areas of the state contiguous to the international border with Bangladesh, the following criteria were taken into account:-

- a) Distance from the international boundary with Bangladesh (approx. 10 kms crow fly Distance)
- b) Degree of economics backwardness and
- c) Dependence upon the traditional trade relations with areas that now fall into the present day Bangladesh.

Border villages: for the implementation of schemes under the Border Areas Development Programme (BADP), the state Government has prepared a master list of border villages in 1947 and which was revised in 1982 and 1992. Presently there are 1523 villages falling in the border areas, covering an areas of 4,890 sq. kms, running laterally from Dona - Malidor areas in Jaintia Hills to Mahendraganj in West Garo Hills. For administrative convenience and for the purpose of easy and proper implementation of schemes, the 1523 border villages were divided into 12 border areas / blocks, each under the charge of the Asst. Director / Border Areas Development Officer (BADO). The state government established the department of Border Area Development to oversee the implementation of various integrated schemes and developmental activities under the Border Areas Development Programme.

Sources of funding: The Border Areas Development is implementing the following schemes:-

1. The Special Central Assistance (SCA) under Border Area Development Programme (BADP) funded by the Government of India.
2. The Schemes under Article 275 (i) of the constitution of India funded by the Government of India.
3. The Land Acquisition and construction of the department buildings, etc funded by the State Government.
4. Providing border scholarships to the border students funded by the State Government.
5. Construction of Rural Roads in the border areas by the State Government.

Method followed in the selection and approved of schemes:- The most important and the only

major scheme which the Department is implementing for providing infrastructures and to improve the economy of the border people is the Special Central Assistance under BADP . For selection and approval of the schemes under BADP, the State Government has constituted two committees, viz; (i) the District Level Co Ordination and Selection Committee and (ii) the State Level Screening Committee. The District Level Co-Ordination and Selection Committee is headed by the Deputy Commissioner as the Chairman, the MLAs / MPs and the District Level Officers of the line Department as members and the assistant Director or the District Level Officers of the line Departments as Members and the Assistant Director or the BADO of the district head quarter concerned as the Member Secretary.

The State Level Screening Committee is headed by the Chief Secretary as the Chairman, representatives of the Home Ministry, DONER and the Border Security Force, Govt. of India, representative of the State Home (Police) Department, Finance Department and Planning Department as Members and the commissioner and Secretary, Border Area Development Department as Member Secretary. The District Level Co - Ordination and Selection Committee examine/ scrutinize and recommend to the Government the Schemes / Proposals submitted by the district Officers as per allocation of fund for the District concerned submission to the Commissioner and Secretary, Border Area Development for onward submission to the commissioner and Secretary, Border Area Development. The Commissioner and Secretary, BAD placed the same at the state level Screening Committee for approval, The State Level Screening Committee examine / scrutinize and approve the schemes submitted by the Deputy Commissioner of the border districts. After the schemes are approved, the same are submitted to the Government of India for approval and sanction.

Agency implementing the schemes: The Schemes under the special Central Assistance (BADP) are being implemented by the local committees form by the concerned villages, with technical supervision from the Department, for (i) generating employment amongst the local people of the area and (ii) better quality and early completion of the schemes, except those schemes which are highly technical in nature where implementation has to be done through the technical department only.

Moreover, in connection with the schemes (a) under Article 275 (I) of the constitution of India funded by the Govt. of India (b) Land Acquisition and Construction of building of Offices of Border Area Development Offices (c) Providing border scholarships to border students (d) Construction of Rural roads in the border areas funded by the State Government the Department Committee of Border Areas Development Department consisting Principal Secretary as Chairman, Commissioner and Secretary, Officer on Special Duty, Financial Adviser, Under Secretary and Researched Officer of Border Areas Development Department as Members scrutinize and approve the schemes.

Implementation of Schemes during the tenth plan period:- The Department is implemented mainly the Special Central Assistance (SCA) under the Border Areas Development Programme (BABP) fully funded by the Government of India from the Ministry of Home Affairs besides State Plan schemes such as scholarship to the border areas students, construction of rural roads in the border areas by the P.W.D. out of the fund channelized by the Border Areas Development Department , construction and maintenance of Department buildings, roads, etc . The Department is also implementing the Tribal Affairs Development schemes under Articles 275 (I) of the constitution of India funded by the Ministry of Tribal Affairs, Govt. of India.

The organisation set up and coverage of BADP is provided in table A8. Table A9 provides the list of state and district project implemented under the Special Central Assistance in 2007-08. The different schemes have been categorized (wherever possible) in to different activities such as livelihoods, infrastructure, etc as per nature of scheme.

Table A8: Organisation for implementation of BADP in Meghalaya

Name of the Border District	Name of the BADO / Asst. Director	Area (in sq km)	No. of villages	Population	International boundary length (in km)
Jaintia Hills	Khliehriat	540	59	20881	54
	Dawki	310	80	32130	31
E.K. Hills	Shillong	210	37	14186	-
	Pynursla	290	120	46793	29
	Sohra	450	129	28366	450
	Mawsynram	370	141	37187	37
W.K. Hills	Ranikor	590	218	50088	59
S.G. Hills	Baghmara	760	205	44367	76
	Gasuapara	340	159	29137	34
W.G. Hills	Dalu	400	167	47242	40
	Ampati	250	86	29610	-
	Kalaichar	380	122	48363	38
	Total	4890	1523	428350	443

Table A9: List of Schemes under SCA for the Year 2007-2008

STATES

Type of scheme	Number	Total Amount	Average expenditure
Livelihood	4	30.20	7.55
Infrastructure-roads	57	436.64	7.66
Construction/maintenance of School	4	16.34	4.08
Construction of Washing Places	2	3.00	1.5
Purchase of ambulance	1	2.95	2.95
Construction of Market stall	1	6.00	6.00
Computers of schools	1	2.50	2.50
Construction of Playground	1	1.66	1.66
Tourist facility	1	7.00	7.00
Multipurpose conservation Pond	1	2.00	2.00
Total	73	508.29	7.0 (appox)

DISTRICT: KHLIEHRIAT

Type of scheme	Numbers	Total Amount	Average Expenditure
Construction/maintenance of School	7	7.50	1.07
Water supply	1	1.00	1.00
Dams	1	1.00	1.00
Infrastructure projects	6	6.00	1.00
Club	3	2.80	0.93
Construction of play Ground	15	12.13	0.80
Construction of Community hall	9	10.25	1.13
Garbage/Waste Dumping	1	1.00	1.00
Toilets	1	1.00	1.00

DISTRICT : DAWKI

Type of scheme	Numbers	Total Amount	Average Expenditure
School	12	13.63	1.13
Drain	3	3.82	1.27
Livelihood	1	1.50	1.50
Infrastructure projects	3	3.50	1.16
Construction of play Ground	2	2.00	1.00
Courtyard	1	1.00	1.00
Community	1	1.00	1.00
Public Latrine	1	2.40	2.40

DISTRICT : SHILLONG

Type of scheme	Numbers	Total Amount	Average Expenditure
Livelihood	3	3.00	1.00
Irrigation	1	1.56	1.56
Infrastructure projects	1	2.00	2.00
Construction of play Ground	1	0.50	0.50

DISTRICT : PYNURSLA

Type of scheme	Numbers	Total Amount	Average Expenditure
School	10	13.29	1.32
Infrastructure	8	10.36	1.29
Drain	1	2.50	2.50
Community	6	7.45	1.24
Construction of play Ground	6	7.43	1.23

DISTRICT : SOHRA

Type of scheme	Numbers	Total Amount	Average Expenditure
School	5	14.59	2.91
Livelihood	6	8.50	1.41
Infrastructure projects	7	5.65	0.80
Construction of play Ground	2	4.00	2.00
Godown	1	1.50	1.50
Toilet	5	2.75	0.55
Water	1	1.00	1.00
Improvement of WSS	1	2.50	2.50

DISTRICT : MAWSYNRAM

Type of scheme	Number	Total Amount	Average Expenditure
School	5	11.00	2.20
Livelihood	3	3.07	1.02
Infrastructure projects	5	9.00	1.80
Drain	2	3.00	1.50
Tourist	1	1.00	1.00
Community	3	3.00	1.00
Construction of play Ground	5	6.00	1.20

DISTRICT : RANIKOR

Type of scheme	Number	Total Amount	Average Expenditure
School	14	14.00	1.00
Construction of play Ground	4	4.10	1.02
Public Latrine	4	3.30	0.82
Community	2	2.40	1.20
Livelihood	10	6.67	0.66
Infrastructure projects	30	22.33	0.74
Viewpoint	2	1.40	0.70
Waiting Shed	2	1.00	0.5
Hostel	1	0.70	0.70
Club	1	1.50	1.50
Washing Places	1	0.54	0.54

DISTRICT : BAGHMARA

Type of scheme	Number	Total Amount	Average Expenditure
Infrastructure-roads	31	32.85	1.05
School	8	12.50	1.56
Livelihood	2	2.00	1.00
Water	7	7.00	1.00
Waiting Shed	3	3.00	1.00
Park	1	1.85	1.85
Training	1	1.50	1.50

DISTRICT : GASUAPARA

Type of scheme	Number	Total Amount	Average Expenditure
Infrastructure-raods	13	13.79	1.06
School	5	7.00	0.03
Livelihood	3	3.00	1.00
Water Tank	4	4.00	1.00
Sports	1	0.90	0.90

DISTRICT : DALU

Type of scheme	Number	Total Amount	Average Expenditure
Dams	1	3.00	3.00
Livelihood	8	11.90	1.48
Pumps	1	3.07212	3.07
School	4	7.50	1.87
Infrastructure projects	11	14.40788	1.30
Construction of play Ground	1	1.00	1.00

DISTRICT : AMPATI

Type of scheme	Number	Total Amount	Average Expenditure
Construction/maintenance of School	2	3.00	1.50
Anti-erosion	1	2.12	2.12
Construction of play Ground	1	1.00	1.00
Infrastructure projects	4	4.00	1.00
Livelihood	2	1.75	0.87
Water supply	1	2.00	2.00

DISTRICT : KALAICHAR

Type of scheme	Number	Total Amount	Average Expenditure
Construction/maintenance of School	3	6.00	2.00
Infrastructure projects	6	11.59	1.93
Check Dam	1	1.70	1.70
Water supply	1	3.30	3.30
Livelihoods	5	7.00	1.14
Construction of Park	1	2.00	2.00

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**PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA:
IMPLICATIONS FOR 13TH FINANCE COMMISSION**

MIZORAM

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2009

Introduction:

India's recent engagement in regional trading agreements especially with ASEAN countries and sub-regional initiatives like BIMSTEC, South Asian Growth Quadrangles (SAGQ) etc suggested that India's North East, once the most isolated region of the country, could become a bridging link between mainland India and Southeast Asian economies. The region, with its huge resources, could attract investors from within the country and abroad if the right economic incentives are instituted. The opening of border trade between India and Myanmar and the opening of Nathula Pass in Sikkim that facilitates border trade between India and China are positive indications that the states in North East India as Border States and people in border areas could generate growth dynamics at the regional and local level as well. This paper is an attempt to present the potential of Mizoram as a border state and identification of the problems face at the state, district, bloc and village level. The study is divided as follows: Section 1 gives the data base and methodology while a broad overview of Mizoram and its infrastructure facilities is given in section 2. Section 3 gives the analytics of border districts and the fourth section outlines the broad profile of border blocs.

Section 1: Data Base and Methodology

The study is based on secondary as well as primary data. Various published sources from central government and its agencies and state government are used to generate secondary data while official documents and field survey are used to generate primary data. Questionnaires are used to collect data from the field level. Only four villages from one border bloc had been selected to assess the problems at the village level. Districts are categorized into border districts and non-border districts. In like manner, blocs have been classified border blocs and non-border blocs. All the border districts and one bloc in each district have been studied.

Section 2: Profile of Mizoram as a border State:

Sandwiched between Myanmar in the east and the south, and Bangladesh in the west, Mizoram occupies an area of great strategic importance in the north-eastern corner of India. With total geographical area of 21081sq.km, Mizoram has 404 km. long international border with Myanmar and 318 km long with Bangladesh. The total population of the state was 8.9 lakh in 2001. The state is divided into 8 administrative units with 3 autonomous districts, 26 development blocks and 739 village councils (table 1). Under the colonial regime, the Scheduled District Acts of 1874 and the Frontier Tract Regulation Act of 1880 excluded the hill areas of the north eastern region of India including Mizoram from the operation of the codes of civil and criminal procedures, property and transfer rules etc. Another law, the Bengal Eastern Frontier Regulation of 1873 introduced 'Inner Line' by which the minority indigenous ethnic groups living in the hills were protected against infiltration by the plain tribes/outside. Outsiders were not allowed entry, business activities, land transactions and settlement. In 1935, Mizoram was administered as an Excluded Area under Government of India Act 1935.

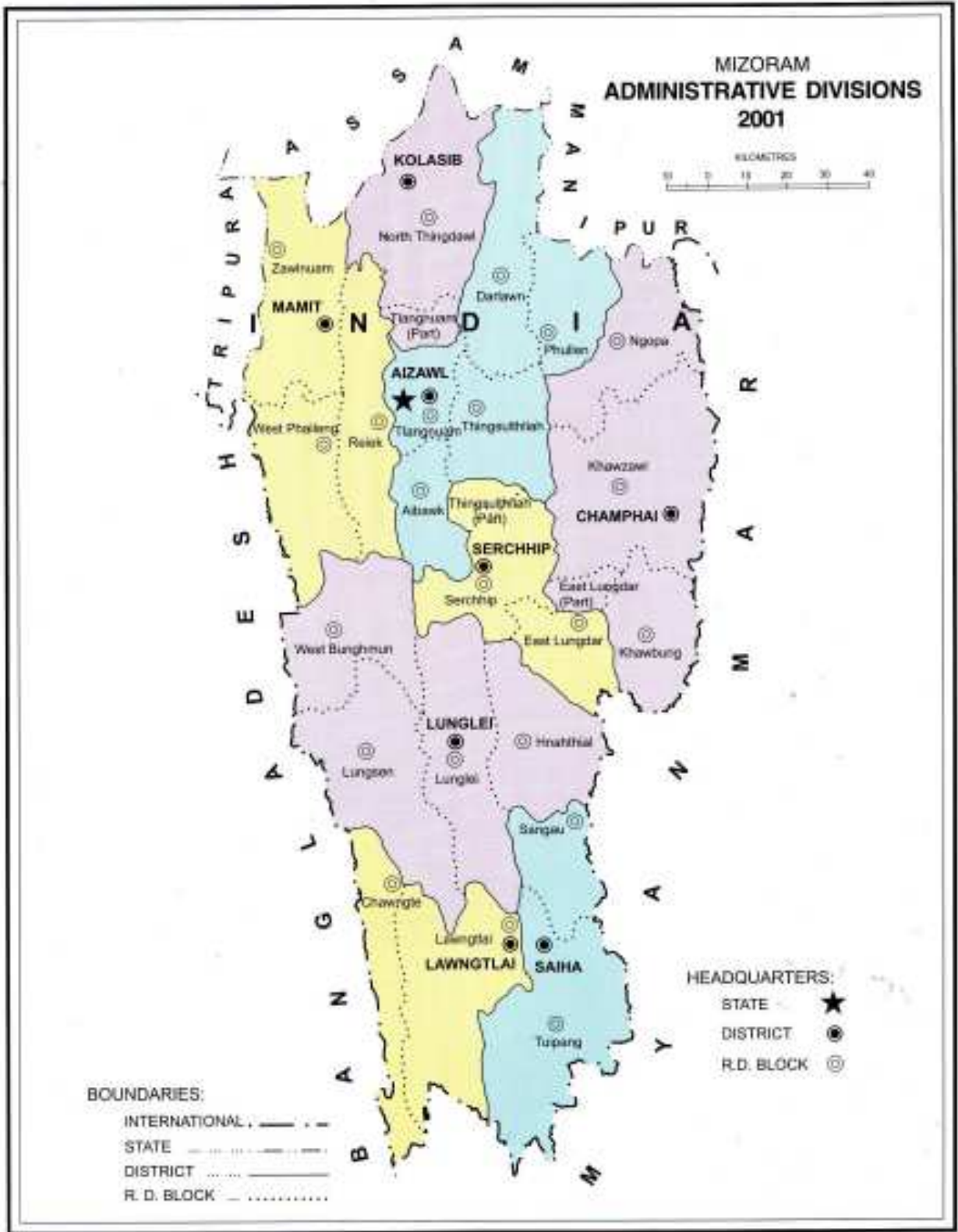
Significant transformation in administrative set up took place after India's independence. Mizoram then known as the Lushai Hills, was made an Autonomous District under the Sixth Schedule and District Council was formed in 1952. Chieftainship was abolished by the Assam

Lushai Hills (Acquisition of Chiefs Right) Act of 1954 and Village Councils were constituted on the basis of universal suffrage. In 1972, Mizo District was made into a Union Territory under the North East Areas Reorganisation Act 1971. The Mizo District Council was dissolved and the Mizo Autonomous District ceased to exist. In 1987, Mizoram became the 23rd state of India according to the provisions of the 53rd Constitution Amendment Bill, 1986 and the state of Mizoram Bill, 1986 passed by the Union Parliament. The present administrative structure consists of eight administrative units, three autonomous districts and village councils which operate both in urban and rural areas

Table 2:1 Administrative Structure of the State

Sl.No	Particulars	Unit	Total
1	Geographical Area	Sq.km	21081
2	International Border		-
	(i) With Myanmar	Km	404
	(ii) With Bangladesh	Km	318
	Total	Km	822
4	Administrative Districts	Nos	8
5	Autonomous Districts	Nos	3
7	Development Blocks	Nos	26
8	Village Councils	Nos	739

Sources: (i) Government of Mizoram Statistical Handbook Mizoram, 2004, Department of Economics & Statistics. (ii) Government of Mizoram Economic Survey 2006-07 Department Planning and Programme Implementation.



Status of Infrastructure Sector Development in Mizoram

Table 2 summarizes the important indicators of infrastructure development in Mizoram. The total road length of the state is 5948 km which came to 28 km per 100 sq. km of the state area. The state's road network could be categorised into national highway, state highway, major district road, other district roads and village road. Surfaced road totalled to 3527 km in 2006, accounting 59 percent of the total road length of the state. The state has six national highways-NH-44A, 54, 54A, 54B, 150 and 154-totalling 1500 km constituting 25 percent of the total road length of the state. National Highway 54, 54A, 54B connects Assam (Silchar), Aizawl, Lunglei, Tuipang and Saiha- running in the north-south direction within Mizoram. This is the main highway of the state. National Highway 150 connects Manipur while another National Highway runs towards the western part of Mizoram. Construction and maintenance of roads and highways have been entrusted to state PWD and Border Road Organisation (BRO), a central government agency. The funding sources of road construction include Ministry of Road Transport & Highway, PMGSY, NEC, NABARD, NLCPR, Central Road Fund and state plan allocation. National Highways are developed and maintained by the Department of Transport and Highway (GOI) whereas state roads are developed with fund received from Central Road Fund, NABARD, NEC and Externally Aided Project sponsored by World Bank.

Table 2:2: Indicators of Infrastructure Development, Mizoram

Sl.No	Indicators	Unit	Total
1.	Road length per 100 sq.km as on 2006	Kms	28
2	Villages electrified	Nos	691
3	Villages fully covered with water supply	Nos	521
4	Beds in Hospital per thousand population (2006)	Nos	2.15
5	Population per Doctor (RHS2006)	Nos	2623
6	Per capita consumption of Electric Power (2005-06)	Kwh	151.64
7	Per Capita Bank Deposits 2006	Rs	10950
8	Per Capita Bank advances 2006	Rs	6461
9	Credit Deposit Ratio	%	59.0
9	Per capita Budgeted expenditure on education 2004-05	Rs	2474
10	Per capita expenditure on health 2004-05	Rs	750
11	Per capita Development Expenditure	Rs	9175
12	Per capita Plan Outlay 2007	Rs	8182

Note: Calculations, wherever necessary, are done by the author

Source: Statistical Handbook, Mizoram (various years), State Domestic Product of Mizoram (1993-94 to 2001-02 (new series, Economic Survey 2006-07

Since 1991, Mizoram has been connected by railway with a metre gauge line at Bairabi in the northern fringe of Mizoram along Mizoram-Cachar (Assam) border, which is an extended line from Katakal Junction (Assam) under NF Railway. The state has one airport at 45 km away from Aizawl. There is regular flight between Aizawl and Kolkotta, Guwahati and Imphal. In the field of communications, the state has 76 telephone exchanges across the state as on 2006 with 55222 landline subscribers and 33955 mobile phone users under BSNL

Mizoram is fortunate to have endowed with vast power potential. According to Central Electricity Authority of India, the exploitable hydropower potential of the State is estimated at 2725 MW. Out of this potential power developed so far is only 13.8 MW (0.5%). Presently, 75.5 MW is being under development which include Tuirial (60 MW) undertaken by NEEPCO Ltd. Mizoram has an installed capacity of 43.2 MW consisting of 28.94 MW HFO Plant and 14.26 MW Small Hydel Projects. The State has a share of 50 MW from regional power projects and availability of power is 41 MW against a demand of 60 MW leaving a shortfall of 19 MW. The average per capita consumption in the state is less than half of the national average. The peak demand is increasing at 9.6% per annum and power consumption double every 8 years. Since the state does not have other natural resources like fossil fuels and minerals and agricultural land is limited due to its topography, power generation should be regarded as one of the essential components of development. After meeting demand within the state, surplus power could be sold to other state or exported to neighbouring countries.

The State Government signed Memorandum of Understanding (MoU) with Ministry of Power, Government of Mizoram. A joint Electricity Regulatory Commission (JERC) is to be set up for Mizoram and Manipur. Administrative Staff College of India, Hyderabad (ASCI) have been engaged as consultant for suggesting a suitable restructuring model for power sector in Mizoram.

Mizoram has a high human development index as compared with other states in the region. The human development index, prepared by the Planning Commission in 1991, has ranked Mizoram at 7th position out of 32 states and union territories. Amongst the north-eastern states, it has the highest human development index in 1991. As per the Educational Development Index (EDI), prepared by Planning Commission, Mizoram scored the highest point (1.599). Mizoram enjoys the second highest literacy rate in the country after Kerala. Though Mizoram has made rapid progress in developing infrastructure facilities, particularly power, roads, education and health during the last three decades, the levels of these facilities are still inadequate and remain to be low as compare to other states. Centre for Monitoring Indian Economy (CMIE) Infrastructure Index (1992-93) gave Mizoram 63 points as against national average of 100. The Index of Social and Economic Infrastructure, prepared by the Eleventh Finance Commission, accorded 82 points.

The state has one central university, 26 colleges, 76 higher secondary schools, 484 high schools, 1121 middle schools and 1688 primary schools. The state is still lagging behind other states in higher technical and professional education. The State has one teacher training college, two teacher training schools, two polytechnics and one Industrial Training Institute. The Mizoram Polytechnic, established in 1981, provides diploma courses mainly in Civil, Mechanical and Electrical engineering. The Women Polytechnic, set up in 1998, offers two diploma courses in Modern Office Practice and Electronics and Telecommunications. The Industrial Training Institute provides training facilities for lower level technical manpower like carpenters, fitters, welders, electricians, radio mechanics etc. Veterinary Science College under Central Agriculture University has been recently established in the state which offers degree-level studies in veterinary sciences.

In health sector, the state has made notable achievement especially in respect of reducing infant mortality rate and health indicators like birth rate, death rate etc.. Based on Rapid Household Survey (RHS 2006), birth rate in Mizoram is 21.90 as against 25 for all-India, death rate 5.10 against 9 for all India, infant mortality rate 14 against 64 for all-India, maternal-mortality rate 163 against 407 for all-India. The state has 10 hospitals, 10 community health centers, 56 primary health centers and 366 sub-centres. Various intervention schemes introduced by central government have been implemented in state which include National Rural Health Mission, Reproductive Child Health Programme, Immunisation Programme, Urban Health Programme, Revised National TB Control Programme, National Vector Borne Disease Control Programme etc.

Banking facilities have been expanded over the years. Both public sector, cooperative and private banks are operating in the state. State Bank of India, with 26 branches spreading across the state, is the biggest banking organisation operating in the state. Other bank include Mizoram Rural Bank with 49 branches, Mizoram Cooperative Apex Bank (MCAB) Ltd, UCO Bank, Vijaya Bank, IDBI, UBI, Axis Bank, Syndicate Bank, Central Bank of India and Bank of Baroda. State Bank of India, at its main branch at Aizawl, is permitted to deal in foreign exchanges. The available data suggested that per capita bank deposits during 2006 amounted to Rs 10950, per capita advance Rs 6461 with credit-deposit ratio 59 percent. The per capita state budgeted expenditure on education during 2004-05 was Rs 2474, per capita health expenditure Rs 750, per capita development expenditure Rs 9175 and per capita outlay (2007) Rs 8182.

Public expenditure is the main driving force of the state economy. Government is regarded as one of the most critical agency for development. The state government, with more than 40 departments and 50,000 employees, has been actively involved in the socio-economic development of the state besides performing general administration. About 23 percent of the total work force is employed in public administration, generating 16 percent of state income in 1991. Since the revenue sources were weak and inadequate, the state is heavily dependent on fiscal transfers from central government. Fiscal transfers as a proportion to total disbursement of the state, have declined gradually. State's plan outlay has been financed mainly from central assistance as state's own resources are negligible and sometimes even less than zero. The state government failed desperately to increase the rate of investment in social and economic services and also to check the growth of unproductive expenditure. Since the state government resorted to large public borrowings to meet its shortfall in plan and non-plan expenditure, the total debt liability of the state increased significantly. In fact, Mizoram is now one of the highest indebted states in India. The total outstanding liabilities of the state is well above 80 percent of Gross State Domestic Product. The debt profile also reflects a significant growth in the share of internal debt and provident fund and a reduction in loans and advances from central government. Interest payment has grown rapidly over the years. Since the state suffers persistent shortfall of budgetary receipts over expenditure, it frequently resorted to short term borrowings from Reserve Bank of India. The broad trend of the state fiscal condition after statehood may be highlighted as follows:

- (a) The state is highly depended on resource transfers from central government effected through Finance Commission and Planning Commission and other channels like Centrally Sponsored Scheme, NEC, Central Sector Schemes etc;
- (b) State's own revenue contributed less than 10 percent of its resources;
- (c) State's borrowing increased tremendously over the years. Mizoram is now one of the highly indebted states in the country;
- (d) Non-plan expenditure increased faster than plan expenditure; revenue expenditure outpaced capital expenditure;

- (e) Non-development expenditure also increased faster than development expenditure. Health and educational expenditure falls tremendously over the years.

The state government introduced fiscal reform measures to improve the health of the state's fiscal economy. These include enactment of Mizoram Fiscal Management and Responsibility Act, introduction of resource mobilisation like collection of VAT, raising of water and power tariff and other various economy measures curtailing government expenditure.

Section 3: Profiles of Border Districts

Mizoram has eight administrative districts. The three autonomous districts of Lai, Mara and Chakma which are set up under the provision of Sixth Schedule to the Constitution of India are administered under two administrative districts under state government. Out of the eight districts, six districts have international border whose total area is 16,123 sq.km. ie, .76.5 percent of the total area of the state (Table 3:1). Border districts lying along Myanmar are Champhai, Serchhip, Lunglei and Saiha while Mamit, Lawngtlai and Lunglei districts have border with Bangladesh. Zokhawthar in Champhai District has been designated as the border trading points between India and Myanmar under India-Myanmar Border Trade Agreement signed in the early 1990s. The Government of India has already set up Land Custom Station (LCS) to provide facilitation facilities for border trade between the two countries. The border areas along India and Myanmar are occupied by ethnic groups who have close affinity in culture, tradition and languages with each other.

Table 3:1. District-wise Area Border and Non-Border Districts

Sl. No	Districts	Area in Sq.km	Bordering Countries	Length of international Border	Border Trading Points
A	Non-Border Districts	4958			
1	Aizawl	3,576	Nil		
2	Kolasib	1,382	Nil		
B	Border Districts	16,123			
3	Mamit	3,025	Bangladesh	-	
4	Champhai	3,185	Myanmar	-	Zokhawthar
5	Serchhip	1,421	Myanmar	-	-
6	Lunglei	4,536	Myanmar & Bangladesh	-	Tlabung*
7	Lawngtlai	2,557	Bangladesh	-	
8	Saiha	1,399	Myanmar	-	
	TOTAL	21,081		-	

**Proposed by state government*

Source: Directorate of Census Operation, Mizoram, **Primary Census Abstract**, Mizoram Census of India 2001, Series 16, 2004.

Demographic Profile of the Border Districts

The demographic profile of the border districts, given in table 3:2 revealed that (i) percentage of rural population is very high in all the border districts; (ii) only two districts Champhai and Serchhip have literacy rate higher than the state average while four districts have significantly lower rate than the state average; (iii) work participation rate is higher in the three districts of Champhai, Serchhip and Mamit but lower in Lunglei, Lawngtlai and Saiha districts; (iv) percentage of cultivators is much higher than the state average in all border districts while other workers constituted by workers in tertiary sector is lower in all border districts. In Serchhip and Lawngtlai, percentage of household industry workers to total workers is higher than the state average.

Table 3:2 : Demographic Profile of Border Districts

Sl. No	Districts	Total Population	% of rural population	Literacy Rate	Work Participation Rate	% of cultivators to total workers	% of household industry workers to total workers	% of other workers to total workers
1	Mamit	62,785	83.0	79.1	56.0	76.1	0.9	16.6
2	Champhai	108,392	61.2	91.2	62.9	69.1	1.2	19.9
3	Serchhip	53,861	52.0	95.1	60.4	72.9	2.7	20.0
4	Lunglei	137,223	57.8	84.2	52.3	63.8	0.8	31.5
5	Lawngtlai	73,720	100.0	74.7	46.3	70.1	2.4	20.6
6	Saiha	61,056	67.5	82.2	44.2	67.5	0.9	26.4
	State average	888,573	50.4	88.8	52.6	54.9	1.5	37.9

Source: Directorate of Census Operation, Mizoram, **Primary Census Abstract**, Mizoram Census of India 2001, Series 16 , 2004.

Socio-Economic Profile of Border Districts

Based on the secondary data available with the state government, socio-economic condition in the border district has been assessed in terms of the following parameters: (i) number of Below Poverty Line (BPL) family as per defined by the state government; (ii) number of household having electricity connection; (iii) others like number of community hall, playground, waterpoints etc. (iv) road density in kms, and (v) Number of villages electrified

Table 3:3: Socio-Economic Profile of Border Districts as on 2003

Sl.No	Particulars	Mamit	Champhai	Serchhip	Lunglei	Lawngtlai	Saiha
1	Number of BPL Family	7681	10256	6517	16796	10116	6667
2	Percentage of BPL Family to Total Household	62.9	51.0	62.9	65.0	71.0	59.6
3	No. of electrified House	8615	15,091	8659	19737	4625	6266
4	Percentage of electrified house to total Household	70.5	75.0	83.7	76.4	32.5	56.0
5	No. of Community Hall	60	56	35	65	21	21
6	No. of Community Hall per 100 sq.km	2.0	1.8	2.5	1.4	0.8	1.5
7	No. of Playground	79	86	38	127	116	46
8	No. of Playground per 100 sq.km	2.6	2.7	2.7	2.8	4.5	3.4
9	No.of Public Water Points	398	813	204	586	289	245
10	No.of Public Water Points per 1000 persons	6.3	7.5	3.8	4.3	3.9	4.0
11	No. of Water Connection	22	621	819	4380	876	1102
12	Percentage of water connection to total household	0.2	3.1	7.9	16.9	6.1	9.8
13	Road density in kms	5.83	3.71	4.86	7.15	9.57	5.45
14	Number of Villages electrified (in per cent)	91	89	100	86	51	78
15	Numbers of Bank	10	9	9	13	4	5
16	Credit-Deposit Ratio	56.27	73.25	76.97	88.08	125.58	132.90

Source: (1). Government of Mizoram (Rural Development Block) *Village Level Statistics of Mizoram: 2003*, Economics and Statistics Department, 2004. (2) Government of Mizoram *Statistical Abstract of Mizoram 2007*, Directorate of Economics & Statistics, 2008

Table 3: 3 revealed the followings: (i) The percentage of BPL family to total family in the district is the smallest in Champhai district with 51 per cent and highest in Lawngtlai district with 71 per cent; (ii) Champhai, Mamit, Serchhip and Lunglei have more than 70 per cent of household with electric connections while the figure for Lawngtlai and Saiha are 32.5 percent (the lowest) and 56 percent respectively; (iii) Numbers of community hall per 100 sq.km varies between 0.8 to in Lawngtlai district to 2.5 in Serchhip; (iv) Playground availability as measured by per 100 sq.km indicates that the number between varies between 2.6 in Mamit district to 4.3 in Lunglei district; (iv) the number of public water points per 1000 persons varies between 3.8 in Lunglei district to 7.5 in Champhai district; (v) District-wise water connection availability shows that the availability is the lowest in Mamit district (0.2 per cent) and highest in Lunglei district. (vi) Road density is the highest in Lawngtlai and lowest in Champhai; (vii) Credit-Deposit ratio is the highest in Saiha district and lowest in Mamit district.

Profile of Health and Educational Infrastructure of Border Districts:

Table 3:4 gives the absolute availability of health and educational facilities in each district. Lunglei district has 2 hospitals where Champhai, Serchhip, and Serchhip has one hospital each while Mamit and Lawngtlai have none. There are two Community Health Centres (CHC) in Champhai and one each in Mamit, Lunglei and Lawngtlai and none in Serchhip and Saiha.. The number of Primary Health Centres (PHCs) varies between 2 in Lawngtlai district and 12 in Champhai district. There is a wide variation in district-wise availability of Sub-Centres, number of doctors and beds.

Table 3:4: Profile of Health Facilities in Border Districts 2006

Sl.No	Particulars	Mamit	Champhai	Serchhip	Lunglei	Lawngtlai	Saiha
1	Number of Hospital	-	1	1	2	-	1
2	No of CHC	1	2	-	1	1	-
3	No of PHC	6	12	5	9	2	7
4	No of Sub-Centre	27	59	26	70	27	34
5	Number of Doctors	8	15	11	20	7	3
6	Nos. of hospital bed	140	210	130	360	110	132

Source: Government of Mizoram *Statistical Abstract of Mizoram 2007*, Directorate of Economics & Statistics, 2008.

Table 3:5 examines the availability of educational institution in the border districts. The number of primary schools available varies between 89 in Mamit district to 333 in Lunglei district whereas the variation in pupil-teacher ratio is 14 students per teacher in Lunglei district to 18 in Champhai district. While there are only 45 middle schools in Mamit, the number for Champhai district is as high as 135. Pupil-teacher ratio varies between 6 in Saiha to 9 in Champhai, Serchhip and Lawngtlai respectively. In the high school level, the variation ranges between 30 in Mamit and Saiha to 88 in Lunglei district. The number of higher secondary school varies between 3 in Mamit to 14 in Lunglei. The high variation between pupil-teacher ratio at the higher secondary schools shows that there are very few students in some of these institutions. There are one to three colleges in each district with a very low pupil-teacher ratio.

Table 3:5: Profile of Educational Infrastructure of Border Districts 2006

Sl.No	Particulars	Mamit	Champhai	Serchhip	Lunglei	Lawngtlai	Saiha
1	Primary School	89	176	99	333	228	124
	Pupil-teacher Ratio	17	18	15	14	16	16
2	Middle school	45	135	72	177	99	92
	Pupil-teacher Ratio	8	9	9	7	9	6
3	High School	30	70	31	88	39	30
	Pupil-teacher Ratio	10	11	14	10	10	13
4	Higher Secondary School	3	5	7	14	2	3
	Pupil-teacher Ratio	4	10	10	13	14	17
5	Colleges	2	2	1	3	2	1
	Pupil-teacher Ratio	2.6	4.2	5.5	5.2	2.3	4.1

Source: Government of Mizoram *Statistical Abstract of Mizoram 2007*, Directorate of Economics & Statistics, 2008

Table 3.5 gives indicators of health and educational facilities. The number of health facilities per 100 sq.km varies between 1.1 in Mamit district to 3 in Saiha. However, Saiha which has comparatively better in terms of geographical spread find itself in high doctor-population ratio. Bed population ratio is the lowest in Lunglei district with one bed per 381 population. The number of school per 100 sq km is the highest in Saiha district and lowest in Mamit with 5.6 and the number of school per 1000 per population is the highest in Lawngtlai district.

Table 3:6: Indicators of health and educational facilities

Sl. No	Particulars	Mamit	Cham-phai	Serchhip	Lunglei	Lawngtlai	Saiha
1	Number of Health Facilities per 100 sq km	1.1	2.3	2.2	1.8	1.2	3.0
2	Number of Health Facilities per 1000 persons	0.5	0.7	0.6	0.6	0.4	0.7
3	Doctor-population ratio	7848	7226	4896	6861	10531	20352
4	Bed- population ratio	448	516	414	381	670	462
5	Birth Rate	20.43	17.71	18.7	21.94	21.26	17.83
6	Death Rate	4.84	4.03	4.43	5.17	3.95	5.4
7	Number of school per 100 sq km	5.6	12.2	14.8	13.5	14.5	17.9
8	Number of schools per 1000 persons	2.7	3.6	3.9	4.5	5.0	4.1

Note: Calculation done by the investigators.

Source: Government of Mizoram *Statistical Abstract of Mizoram 2007*, Directorate of Economics & Statistics, 2008

Section 5: Profiles of Selected Border Blocks

Four blocks have been selected for detail analysis out of 26 blocks. Census 2001 gives information on 22 blocks only, the then total existing blocks in Mizoram. The present analysis is based on the information given in the Census and other documents available under 22 blocks. Out of 26 blocks, 16 blocks have been identified as border blocks by the state government for the implementation of Border Areas Development Programme (BADP) - a central scheme for border areas development. The blocks that have been selected for intensive study are West Phaileng Block (Mamit district), Khawzawl Block (Champhai District), Chawngte Block (Lawngtlai District) and Tuipang Block (Saiha District). The district-wise distribution of rural development block as on 2001 are given in table 4:1

Table 4:1: District-wise distribution of rural development bloc 2001

Sl. No	Districts	No. of Blocks 2001	No. of Block in 2009	International Border
1	MAMIT	Zawlnuam	Zawlnuam	Bangladesh
		Reiek	Reiek	
		West Phaileng	West Phaileng	Bangladesh
2	KOLASIB	North Thinhdawl	North Thingdawl	
		Tlangnuam (Part)	Bilkhawthlir	
			Tlangnuam (Part)	
3	AIZAWL	Tlangnuam	Tlangnuam	
		Aibawk	Aibawk	
		Thingsulthliah	Thingsulthliah	
		Darlawn	Darlawn	
		Phullen	Phullen	
4	CHAMPHAI	Ngopa	Ngopa	Myanmar
		Khawzawl	Khawzawl	Myanmar
		Khawbung	Khawbung	Myanmar
		East Lungdar (Part)	Champhai	Myanmar
			East Lungdar (Part)	
5	SERCHHIP	Thingsulthliah (Part)	Thingsulthliah (Part)	
		Serchhip	Serchhip	
		East Lungdar	East Lungdar	Myanmar
6	LUNGLEI	West Bunghmun	West Bunghmun	Bangladesh
		Lungsen	Lungsen	Bangladesh
		Lunglei	Lunglei	
		Hnahthial	Hnahthial	Myanmar
7	LAWNGTLAI	Lawngtlai	Lawngtlai	Myanmar
		Chawngte	Chawngte	Bangladesh
			South Bungtlang	Myanmar
8	SAIHA	Sangau	Sangau	Myanmar
		Tuipang	Tuipang	Myanmar
			Saiha	Myanmar

Source: Government of Mizoram

Demographic Profiles of Selected Blocks

West Phaileng Block in Mamit District covers 1016 Sq.km, having 43 villages with a total population of 21177 and population density being 21 per sq.km. The number of household is 4229. Khawzawl block, located in Champhai district with an area of 1602 sq.km, is lying along Myanmar border. The total population of the block is 655779 with a population density of 16 per Sq.km and 13943 household. Chawngte block, lying in the southwestern part of Mizoram in Lawntlai District has international border with Bangladesh. Chawngte is the headquarters of Chakma Autonomous District Council (CADC). It has 89 villages with 34529 population and the population density being 89 per sq.km. Tuipang, lying within Saiha District and belongin to Mara Autonomous District Council (MADC), has a total area of 1399 sq.km with 47084 population Table 4.2). As given in table 4.2, population density is the highest in Chawngte block and lowest in Khawzawl block. Urban population constitutes 60.5 percent in Khawzawl block and 42.1 per cent in Tuipang whereas the entire block under West Phaileng and Chawngte block are inhabited by rural population. Literacy rate in Khawzawl block (91%) is higher than

state average (88.8 %) whereas the literacy rate in West Phaileng, Chawngte and Tuipang block are much lower than the state average. West Phaileng block has a sizeable proportion of Bru and Chakma ethnic groups whereas Chawngte block is predominately inhabited by Chakma ethnic groups. Tuipang block is dominated by Mara ethnic group. Work participation rate (WPR) is the highest in Khawzawl block but lowest in Tuipang block. The proportion of cultivators varies between 56 percent in Chawngte block to 43 percent in Khawzawl block. Proportion of household industry worker constitutes less than 1 per cent in all selected blocks. The number of 'other workers' dominated by government servants constitutes 13.6% in West Phaileng, 21% in Khawzawl, 10% in Chawngte and 27% in Tuipang block.

Socio-economic development in the Selected Blocks:

Table 4.3 reflects the level of socio-economic condition in the selected blocks. The percentage of Below Poverty Line (BPL) Family is the highest in Chawngte block with 72.3 percent and lowest in Khawzawl block with only 41.3 percent. The number of electrified house varies between 19.4 percent in Chawngte block to 81.9 percent Khawzawl district. The absolute availability of postal services in terms of Sub-Post Offices/Branch Post Office shows that the number varies between 5 units in Chawngte block to 78 units in Tuipang block. The number of Sub-Post Offices/Branch Post Office shows that the number varies between less than 1 in Chawngte block to more than 5 in Tuipang block.

The availability of health facilities has been measured by the number of Community Health Centres (CHCs), Primary Health Centres (PHC) along with their availability in terms or per 100 sq.km and per 1000 population. Whereas the absolute availability varies between 9 in Chawngte block to 32 in Tuipang block, the variation in terms of 100 per sq.km has been found to be 1.3 to 2.9 between the two blocks. The variability has been much reduced when we measure the availability of health facilities in terms of 1000 per population. There are two colleges in Khawzawl block and one each in Chawngte and Tuipang blocks and none in West Phaileng block. The availability of educational facilities per 100 sq.km suggested that the variation ranges between 7.2 in West Phaileng block to 14.6 in Tuipang block whereas the variability in term of per 1000 population is more or less uniform.

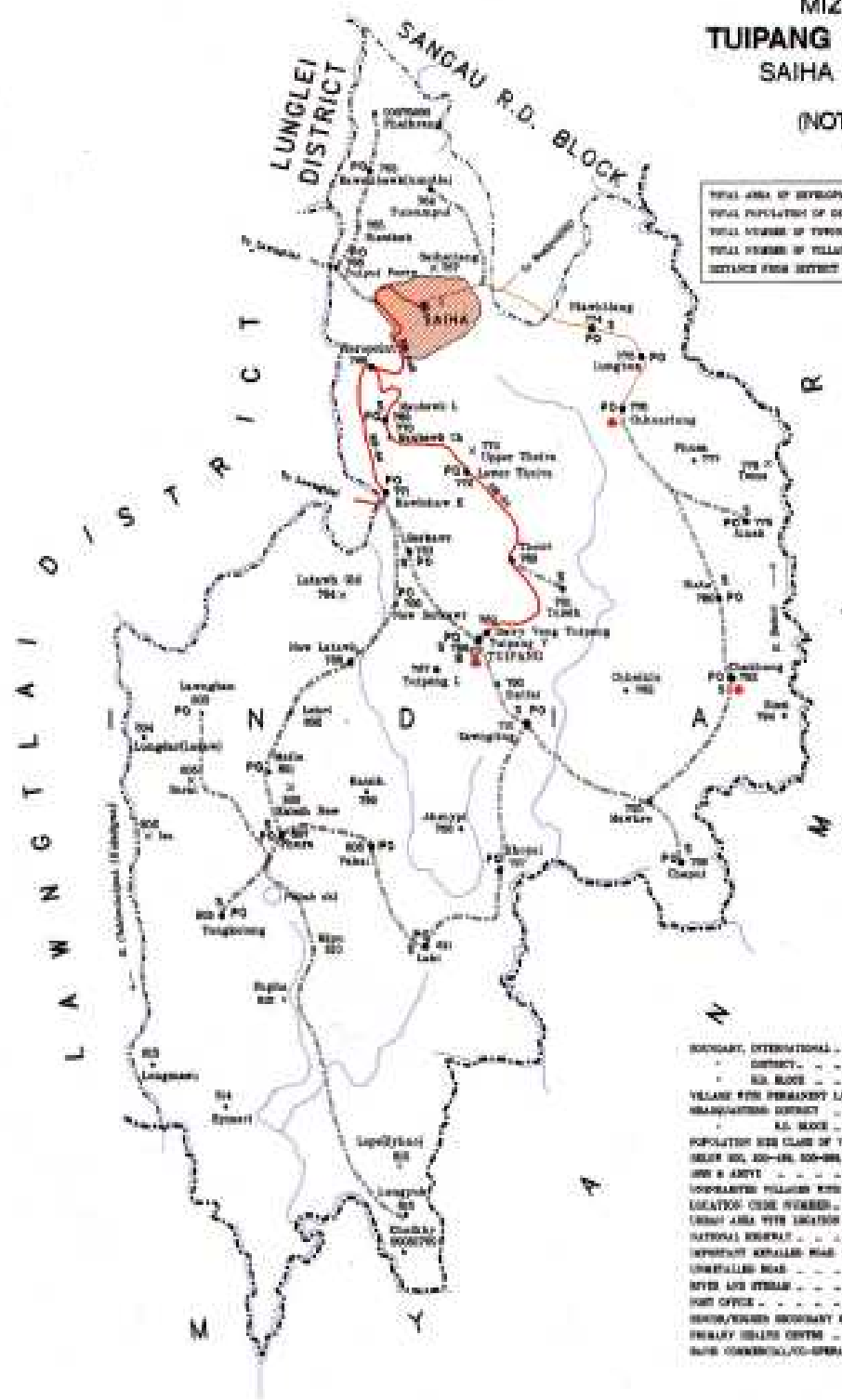
Table 4:3: Development Indicators of Selected Block as on 2003

Sl.No	Indicators	West Phaileng	Khawzawl	Chawngte	Tuipang
1	Total Number of Household	3982	13043	6517	8552
2	Number of BPL Family	2659	5392	4710	4888
3	Percentage of BPL Family to total household	66.8	41.3	72.3	57.2
4	Number of Electrified house	1407	10678	1263	5032
5	Percentage of electrified house to total household	35.3	81.9	19.4	58.8
6	PO/SPO/BPO	12	32	5	78
	Number of PO/SPO/BPO Per 100 sq.km	1.2	2.0	0.7	5.6
7	Health Facilities (CHC/ PHC/ SC)	14	31	9	32
	Health Facilities per 100 Sq Km	1.4	1.9	1.3	2.3
	Health Facilities per 1000 population	0.7	0.5	0.3	0.7
8	College	Na	2	1	1
9	Higher Secondary	Na	2	1	1
10	High School	9	27	5	15
11	Middle School	22	70	19	55
12	Primary School	42	95	74	72
	Educational facilities per 100 sq km.	7.2	12.2	14.6	10.3
	Educational facilities per 1000 population.	3.4	3.0	2.9	3.1

Source : Government of Mizoram (Rural Development Block) *Village Level Statistics of Mizoram: 2003*, Economics and Statistics Department, 2004.

MIZORAM
TUIPANG R.D. BLOCK
 SAIHA DISTRICT
 (NOTIONAL)

TOTAL AREA OF DEVELOPMENT BLOCK (IN SQ. KM) - 22600
 TOTAL POPULATION OF DEVELOPMENT BLOCK - 47684
 TOTAL NUMBER OF VILLAGES IN DEVELOPMENT BLOCK - 1
 TOTAL NUMBER OF VILLAGES IN DEVELOPMENT BLOCK 00
 DISTANCE FROM DISTRICT HEADQUARTERS - 15



- BOUNDARY, INTERNATIONAL - - - - -
- DISTRICT - - - - -
- R.D. BLOCK - - - - -
- VILLAGE WITH PERMANENT L.C. FORMER
HEADQUARTERS DISTRICT - - - - -
- R.D. BLOCK - - - - -
- POPULATION SIZE CLASS OF VILLAGES
 BELOW 500 - - - - -
 500 & ABOVE - - - - -
- POPULATED VILLAGES WITH PERMANENT
LOCATION CODE NUMBER - - - - -
- UNPOPULATED VILLAGES WITH LOCATION CODE NUMBER - - - - -
- NATIONAL HIGHWAY - - - - -
- DEVELOPMENT CONTROL ROAD - - - - -
- UNCONTROLLED ROAD - - - - -
- RYDS AND STRALS - - - - -
- POST OFFICE - - - - -
- HEALTH/HEALTH SUBCENTRE BUILDING - - - - -
- PRIMARY HEALTH CENTRE - - - - -
- STATE COMMERCIAL CO-OPERATIVE - - - - -

Section 6: Socio-Economic Conditions of Border Villages

Four villages along India-Myanmar border in Khawzawl block under Champhai district have been purposively selected to assess the socio-economic condition at the village level. These villages are Zote, Zokhawthar, Vapar and Hnahlan. The total households in these four villages ranges between 157 in Vapar to 543 in Hnahlan and household size between 3.7 in Zote to 6.4 in Hnahlan. They are all Christian by faith. The primary occupation is cultivation in Zote village, daily labourer in Zokhawthar village, farming in Vapar and grape cultivation in Hnahlan village. Secondary occupations are animal husbandry in Zote, petty business in Zokhawthar, manual labour in Vapar and shifting cultivation in Hnahlan village (table 6.1).

Economic facilities available in the surveyed villages are given in table 6.2 while table 6.3, 6.4 and 6.5 presents infrastructure facilities available at the village level. It may be inferred from the tables that (i) these villages have been well connected by road; (ii) schooling facilities are also adequate; (iii) health facilities are inadequate; (iv) a large number of household owned TV sets, etc.

Table 6:2: Economic facilities available at the Surveyed Villages 2009

Sl. No	Indicators	Zote		Zokhaw-thar		Vapar		Hnahlan	
		Total	%	Total	%	Total	%	Total	%
1	No. of Household Electrified	276	72.2	250	69.1	100	63.7	520	95.8
2	No. of household using Septic Tank	233	64.4	162	44.7	70	44.6	10	1.8
3	No. of Household using Pit Latrine	58	16	200	55.3	87	55.4	533	98.1
4	No. of Household having Radio Set	5	1.3	40	11.0	50	31.8	30	5.5
5	No. of Household having TV Set	170	43.5	130	39.9	15	9.5	250	46.0
6	No. of Household having Landline Telephone	Nil	-1	Nil	-	Nil	-	Nil	-
7	No. of Household having mobile phone	244	62.4	Nil	-	Nil	-	350	64.4
8	No. of Household having Bicycle	Nil	-	Nil	-	5	3.2	Nil	-
9	No. of Household having Motorbike	8	2.0	10	2.8	3	1.9	25	4.6
10	No. of Household having Motor Car	11	2.8	6	1.6	Nil	-	2	0.4
11	No. of Household having Bullock Cart	Nil	-	1	0.3	Nil	-	Nil	-
12	No. of Household having Pony	10	2.5	Nil	-	5	3.2	30	5.5
13	No. of Household having	30	7.7	100	27.6	20	12.7	100	18.4

Table 6:3: Infrastructure Facilities in the Surveyed Villages 2009

Sl.No	Particulars	Zote	Zokhaw-thar	Vapar	Hnahlan
1	Veterinary Dispensary	0	0	30	0
2	Veterinary Hospital	8	30	30	50
3	PWD Road	0	0	0	0
4	Hospital/Primary Health Centre/Sub-Centre	0	30	15	0
5	Hospital	8	0	30	50
6	ICDS Centre	0	0	0	0
7	Primary School	0	0	0	0
8	Middle School	0	0	0	0
9	High School	0	0	15	0
10	Higher Secondary School	8	30	30	0
11	Market	0	0	0	0
12	Post Office	8	9	30	50
13	Bank	8	30	30	50
14	Police Station	8	30	30	50
15	Police Outpost	8	0	30	50
16	Fair PriceShop/ Coopertive schop	0	0	0	0
17	District Hqrs	8	30	30	50

B: Middle School

Sl.No	Items		Zote	Zokhawthar	Vapar	Hnahlan
1	No of Students	Male	31	39	21	84
		Female	30	46	17	82
		Total	61	85	38	166
2	No. of Classroom		3	3	3	2
3	No of Teachers		7	6	6	6
4	No of Teachers staying in the village		3	6	6	9
5	Toilet Facilities		Yes	Yes	Yes	Yes
6	Regularity of Classes		Frequent	Frequent	Frequent	Frequent

C: High School

Sl.No	Items		Zote	Zokhawthar	Vapar	Hnahlan
1	No of Students	Male	11	20	Nil	32
		Female	12	30	Nil	42
		Total	23	50	Nil	74
2	No. of Classroom		3	3	Nil	1
3	No of Teachers		6	5	Nil	3
4	No of Teachers staying in the village		3	5	Nil	6
5	Toilet Facilities		Yes	Yes	Nil	Yes
6	Regularity of Classes		Frequent	Frequent	Nil	Frequent

Table 6.6 outlines development programme operated during the past five years. National Rural Employment Guarantee Scheme (NREGS) are operative in all the surveyed villages whereas Border Area Development Operative only in one village. Sarva Siksha Abhiyan (SSA) and Mid-day meal schemes also operative in all the surveyed villages. Intergrated Wasteland Development Programme has also been implemented in three villages.

Table 6.6: Development Programme Operated in the Surveyed Villages 2009

Sl No	Items	Zote	Zokhawthar	Vapar	Hnahlan
1	NREGS				
	Year of Inception	2007	2008		2007
	Name of Department	Rural Development	Rural Development	Rural Development	Rural Development
	No. of Beneficiaries	1450	390		
2	BADP				
	Year of Inception	2000	Nil	Nil	Nil
	Name of Department	Rural Development	Nil		
	No. of Beneficiaries	350	Nil		
3	IWDP				
	Year of Inception	2000	Nil	2007	2007
	Name of Department				
	No. of Beneficiaries	Whole village	Nil	Whole village	Whole village
4	SSA	Whole village	Whole village	Whole village	Whole village
4	12th FC grants	Whole village	Nil	Nil	Nil
5	Land Custom Building	Nil	2006	Nil	Nil
6	Community Hall	Nil	2008	Nil	Nil
7	Toursit Lodges	Nil	2008	Nil	Nil
	Grape/Passion Fruit Cultivation	Agriculture/Horticulture			
1	Road connectivity within the	Black topped/Kutcha	Black topped/Kutcha	Black topped/Kutcha	Kutcha Road

Section 7: Focal Group Discussion-Issues highlighted

Focal Group discussions had been held in all the surveyed villages. These include members of village councils and leaders of Young Mizo Association. These summaries are given in the boxes. These focal groups are all aware of their problems and the dynamics of local politics. So far as implementation of central schemes are concerned, these group are satisfied whereas implementation of state schemes have been found to be highly unsatisfactory.

BOX 1: ZOTE VILLAGE:

On Central and State Government Schemes and their performance and causes of success or failure.

Central Schemes: Satisfactory. The NREGS has proved beneficial to the community and has been praised. The SSA programme has been highly lauded for its implementation of the Mid-day Meal Programme and particularly the free distribution of school textbooks. The programme has been credited for increasing the enrollment rate of children in schools and reducing the drop-out rate.

State Schemes: Satisfactory.

Cross border migration, inter-border relation and their socio-economic impact.

Migration from across the border (Myanmar) is negligible. Inter-border tension is non-existent. Hence there is little impact of migration on the issues of society, economy and security.

Predominant diseases and their causes.

Kidney related problems.

Conflict of interest between local population and State Security Forces relating to extortion, rape, resources, etc.

None.

Consumption pattern: Local Goods and Outside Goods.

Food consumption. Mostly those produced in India and items imported from Myanmar are not consumed in any notable amount. *Furniture.* Mostly those produced in India. *Clothing.* Mostly those produced in India.

Effect of Mautam famine.

Relatively unaffected by Mautam rats but yield has been low nonetheless. Precautionary measures such as distribution of rat poison have been effective.

BOX 2:ZOKHAWTHAR VILLAGE

On Central and State Government Schemes and their performance and causes of success or failure.

Central Schemes: Satisfactory. The NREGS has proved beneficial to the community and has been praised. The SSA programme has been highly lauded for its implementation of the Mid-day Meal Programme and particularly the free distribution of school textbooks. The programme has been credited for increasing the enrollment rate of children in schools and reducing the drop-out rate.

State Schemes: Not satisfactory.

Apart from the incompetency of the state machinery, strong political one-upmanship and power-play motivated opposition to the Village Council's (VC's) activities has hindered development work. A strong Village Panchayat System has been recommended.

Cross border migration, inter-border relation and their socio-economic impact.

Migration from across the border (Myanmar) is negligible. Inter-border tension is as good as non-existent. Hence there is little impact of migration on the issues of society, economy and security.

Predominant diseases and their causes.

Malaria. Despite the distribution of mosquito nets and spraying of DDT, cases of malaria and deaths on account of it is highest compared to other diseases owing mainly due to the poor sanitation and cleanliness condition of the village and the absence of PHC/ Sub Centers there.

Conflict of interest between local population and State Security Forces relating to extortion, rape, resources, etc.

None.

Consumption pattern: Local Goods and Outside Goods.

Food consumption. Mostly those produced in India and items imported from Myanmar are not consumed in any notable amount. Rather, food grains and vegetables are being exported to Myanmar. *Furniture.* Mostly those produced in India.

Clothing. Mostly those produced in India.

Effect of Mautam famine.

Unaffected by Mautam since the village economy is not dependent on agriculture and Mautam-sensitive activities.

Other miscellaneous issues.

There is an inadequacy of Primary School teachers. The Mizoram State Transport bus service is not operational although the required infrastructure is in place. There is an urgent need for establishing communication facilities (landline telephone, mobile). It has been observed that adequate infrastructure for accountable trade is not in place.

BOX 3: VAPAR VILLAGE

On Central and State Government Schemes and their performance and causes of success or failure.

Central Schemes: Satisfactory. The NREGS has proved beneficial to the community and has been praised. The SSA programme has been highly lauded for its implementation of the Mid-day Meal Programme and particularly the free distribution of school textbooks. The programme has been credited for increasing the enrollment rate of children in schools and reducing the drop-out rate.

State Schemes: Not satisfactory. This is predominantly due to poor implementation of programmes. There is a need for village-specific schemes.

Cross border migration, inter-border relation and their socio-economic impact.

Migration from across the border (Myanmar) is negligible. Inter-border tension is non-existent. Hence there is little impact of migration on the issues of society, economy and security.

Predominant diseases and their causes.

None in particular.

Conflict of interest between local population and State Security Forces relating to extortion, rape, resources, etc.

None.

Consumption pattern: Local Goods and Outside Goods.

Food consumption. Mostly those produced in India and items imported from Myanmar are not consumed in any notable amount. *Furniture.* Mostly those produced in India. *Clothing.* Mostly those produced in India.

Effect of Mautam famine.

Relatively unaffected by Mautam rats but yield has been low because of low amount of rainfall. Precautionary measures such as distribution of rat poison have been effective.

BOX 4: HNAHLAN VILLAGE

On Central and State Government Schemes and their performance and causes of success or failure.

Central Schemes: Satisfactory. The NREGS has proved beneficial to the community and has been praised. The SSA programme has been highly lauded for its implementation of the Mid-day Meal Programme and particularly the free distribution of school textbooks. The programme has been credited for increasing the enrollment rate of children in schools and reducing the drop-out rate.

State Schemes: Not satisfactory. This is predominantly due to poor implementation of programmes. There is a need for village-specific schemes.

Cross border migration, inter-border relation and their socio-economic impact.

Migration from across the border (Myanmar) is negligible. Inter-border tension is non-existent. Hence there is little impact of migration on the issues of society, economy and security.

Predominant diseases and their causes.

None in particular.

Conflict of interest between local population and State Security Forces relating to extortion, rape, resources, etc.

None.

Consumption pattern: Local Goods and Outside Goods.

Food consumption. Mostly those produced in India and items imported from Myanmar are not consumed in any notable amount. *Furniture.* Mostly those produced in India.

Clothing. Mostly those produced in India.

Effect of Mautam famine.

Relatively unaffected by Mautam rats but yield has been low because of low amount of rainfall. Precautionary measures such as distribution of rat poison have been effective.

Section 7 : Performance of the Border Areas Development Programme (BADP)

The Border Areas Development Programme (BADP), started in the Seventh Plan, has the twin objectives of balanced development of sensitive areas in the western region through adequate provision of infrastructure and promotion of a sense of security amongst the local population. Revamped in the Eight Plan, the programme has been extended to states which have international border with Bangladesh. During the Ninth Plan, the programme has been further extended to states which border Myanmar, China, Bhutan and Nepal. The programme now covers all the seventeen states which share international border with the neighbouring countries. BADP is now handled by Department of Border Management, Ministry of Home Affairs. In Mizoram, Rural Development Department is entrusted to implement the programme. The BADP is a 100% centrally funded programme. Funds are provided to the states s Special Central Assistance for execution of approved schemes on a 100 grant basis of (i) length of international border; (ii) population of border blocks; and (iii) area of border blocks. Each of these criteria are given equal weightage in fund allocation. The border blocks are the potential unit for the programme and all schemes are to be implemented within the border blocks only. In Mizoram, the programme has been implemented in 16 blocks during 2008-09. However data could be obtained during 2004 & 2005. The performance of the programme may be shown as follows:

Table 7.1 Performance of BADP in 2005-06

Sl.No	Districts/Blocks	Expenditure (Rs in lakh)
1	Saiha District	223.27
	Sangau Block	88.83
	Tuipang Block	134.44
2	Lawngtlai District	231.50
	Lawngtlai Block	132.00
	Chawngte Block	99.50
3	Lunglei District	293.00
	West Bunglei Block	103.50
	Lungsen Block	93.50
	Hnahthial Block	96.00
4	Champhai	354.00
	Ngopa	97.00
	Khawzawl	160.30
	Khawbung	97.00
	Grand Total	1101.77

Source : Government of Mizoram
Achievement Report (2004-05 & 2005-06),
Rural Development Department, Aizawl, Mizoram.

During 2005-05, the Programme had been implemented in four districts, covering 10 rural development blocks. The total expenditure amounted to Rs 11.02 Crores with average district allotment being Rs 275.44 lakh. Per block expenditure was Rs 110.18 lakh and the total expenditure varies between Rs 88.83 lakh in Sangau block to Rs 160 lakh in Khawzawl block.

Section 8: Summary and Conclusion

The present study has attempted to study the problems of Mizoram as a border state. After giving a brief review of the status of development of the state as a whole, it examines development at the border block levels as well as village level. Four blocks have been selected for block level analysis while four villages have been selected from one of these blocks to assess the problems at the village level. The main findings are:

- 1 Mizoram occupies an area of great strategic importance in the north-eastern corner of India. With total geographical area of 21081sq.km, Mizoram has 404 km. long international border with Myanmar and 318 km long with Bangladesh. The total population of the state was 8.9 lakh in 2001. The state is divided into 8 administrative units with 3 autonomous districts, 26 development blocks and 739 village councils.
- 2 Under the colonial regime, the Scheduled District Acts of 1874 and the Frontier Tract Regulation Act of 1880 excluded Mizoram from the operation of the codes of civil and criminal procedures, property and transfer rules etc. The Bengal Eastern Frontier Regulation of 1873 introduced 'Inner Line' by which the minority indigenous ethnic groups living in the hills were protected against infiltration by the plain tribes/outside. Outsiders were not allowed entry, business activities, land transactions and settlement. In 1935, Mizoram was administered as Excluded Area under Government of India Act 1935.
- 3 Significant transformation in administrative set up took place after India's independence. Mizoram was made an Autonomous District under the Sixth Schedule. Chieftainship was abolished by the Assam Lushai Hills (Acquisition of Chiefs Right) Act of 1954 and Village Councils were constituted on the basis of universal suffrage. In 1972, Mizoram was made into a Union Territory under the North East Areas Reorganisation Act 1971. In 1987, Mizoram became the 23rd state India Union according to the provisions of the 53rd Constitution Amendment Bill, 1986 and the state of Mizoram Bill, 1986 passed by the Union Parliament. The present administrative structure consists of eight administrative units, three autonomous districts and village councils which operate both in urban and rural areas.
- 4 The total road length of the state is 5948 km which came to 28 km per 100 sq. km of the state area. The state's road network consists of national highway, state highway, major district road, other district roads and village road. Surfaced road totalled to 3527 km in 2006, accounting 59 percent of the total road length of the state. The state has six national highways-NH-44A, 54, 54A, 54B, 150 and 154-totalling 1500 km constituting 25 percent of the total road length of the state. National Highway 54, 54A, 54B connects Assam (Silchar), Aizawl, Lunglei, Tuipang and Saiha- running in the north-south direction within Mizoram. This is the main highway of the state. National Highway 150 connects Manipur while another National Highway runs towards the western part of Mizoram.
- 5 Construction and maintenance of roads and highways have been entrusted to state PWD and Border Road Organisation (BRO), a central government agency. The funding sources of road construction include Ministry of Road Transport & Highway, PMGSY,

NEC, NABARD, NLCPR, Central Road Fund and state plan allocation. National Highways are developed and maintained by the Department of Transport and Highway (GOI) whereas state roads are developed with fund received from Central Road Fund, NABARD, NEC and Externally Aided Project sponsored by World Bank.

6. Since 1991, Mizoram has been connected by railway with a metre gauge line at Bairabi in the northern fringe of Mizoram along Mizoram-Cachar (Assam) border, which is an extended line from Katakai Junction (Assam) under NF Railway.
7. The state has one airport at 45 km away from Aizawl. There is regular flight between Aizawl and Kolkotta, Guwahati and Imphal. In the field of communications, the state has 76 telephone exchanges across the state as on 2006 with 55222 landline subscribers and 33955 mobile phone users under BSNL
8. Mizoram is fortunate to have endowed with vast power potential. The exploitable hydropower potential of the State is estimated at 2725 MW. Out of this potential power developed so far is only 13.8 MW (0.5%). Presently, 75.5 MW is being under development which include Tuirial (60 MW) undertaken by NEEPCO Ltd.
9. Mizoram has an installed capacity of 43.2 MW consisting of 28.94 MW HFO Plant and 14.26 MW Small Hydel Projects. The State has a share of 50 MW from regional power projects and availability of power is 41 MW against a demand of 60 MW leaving a shortfall of 19 MW.
10. The average per capita consumption in the state is less than half of the national average. The peak demand is increasing at 9.6% per annum and power consumption double every 8 years. Since the state does not have other natural resources like fossil fuels and minerals and agricultural land is limited due to its topography, power generation should be regarded as one of the essential components of development. After meeting demand within the state, surplus power could be sold to other state or exported to neighbouring countries.
11. The State Government signed Memorandum of Understanding (MoU) with Ministry of Power, Government of Mizoram. A joint Electricity Regulatory Commission (JERC) is to be set up for Mizoram and Manipur. Administrative Staff College of India, Hyderabad (ASCI) have been engaged as consultant for suggesting a suitable restructuring model for power sector in Mizoram.
12. Mizoram has a high human development index as compared with other states in the region. The human development index, prepared by the Planning Commission in 1991, has ranked Mizoram at 7th position out of 32 states and union territories. Amongst the north-eastern states, it has the highest human development index in 1991. As per the Educational Development Index (EDI), prepared by Planning Commission, Mizoram scored the highest point (1.599).
13. Mizoram enjoys the second highest literacy rate in the country after Kerala. Though Mizoram has made rapid progress in developing infrastructure facilities, particularly power, roads, education and health during the last three decades, the levels of these facilities are still inadequate and remain to be low as compare to other states.
14. Centre for Monitoring Indian Economy (CMIE) Infrastructure Index (1992-93) gave Mizoram 63 points as against national average of 100. The Index of Social and Economic Infrastructure, prepared by the Eleventh Finance Commission, accorded 82 points.

- 15 The state has one central university, 26 colleges, 76 higher secondary schools, 484 high schools, 1121 middle schools and 1688 primary schools. The state is still lagging behind other states in higher technical and professional education. The State has one teacher training college, two teacher training schools, two polytechnics and one Industrial Training Institute. The Mizoram Polytechnic, established in 1981, provides diploma courses mainly in Civil, Mechanical and Electrical engineering. The Women Polytechnic, set up in 1998, offers two diploma courses in Modern Office Practice and Electronics and Telecommunications. The Industrial Training Institute provides training facilities for lower level technical manpower like carpenters, fitters, welders, electricians, radio mechanics etc. Veterinary Science College under Central Agriculture University has been recently established in the state which offers degree-level studies in veterinary sciences.
- 16 In health sector, the state has made notable achievement especially in respect of reducing infant mortality rate and health indicators like birth rate, death rate etc.. Based on Rapid Household Survey (RHS 2006), birth rate in Mizoram is 21.90 as against 25 for all-India, death rate 5.10 against 9 for all India, infant mortality rate 14 against 64 for all-India, maternal-mortality rate 163 against 407 for all-India. The state has 10 hospitals, 10 community health centers, 56 primary health centers and 366 sub-centres. Various intervention schemes introduced by central government have been implemented in state which include National Rural Health Mission, Reproductive Child Health Programme, Immunisation Programme, Urban Health Programme, Revised National TB Control Programme, National Vector Borne Disease Control Programme etc.
- 17 Banking facilities have been expanded over the years. Both public sector, cooperative and private banks are operating in the state. State Bank of India, with 26 branches spreading across the state, is the biggest banking organisation operating in the state. Other bank include Mizoram Rural Bank with 49 branches, Mizoram Cooperative Apex Bank (MCAB) Ltd, UCO Bank, Vijaya Bank, IDBI, UBI, Axis Bank, Syndicate Bank, Central Bank of India and Bank of Baroda. State Bank of India, at its main branch at Aizawl, is permitted to deal in foreign exchanges. The available data suggested that per capita bank deposits during 2006 amounted to Rs 10950, per capita advance Rs 6461 with credit-deposit ratio 59 percent. The per capita state budgeted expenditure on education during 2004-05 was Rs 2474, per capita health expenditure Rs 750, per capita development expenditure Rs 9175 and per capita outlay (2007) Rs 8182.
- 18 Public expenditure is the main driving force of the state economy. Government is regarded as one of the most critical agency for development. Since the revenue sources were weak and inadequate, the state is heavily dependent on fiscal transfers from central government. Fiscal transfers as a proportion to total disbursement of the state, have declined gradually. State's plan outlay has been financed mainly from central assistance as state's own resources are negligible and sometimes even less than zero. The state government failed desperately to increase the rate of investment in social and economic services and also to check the growth of unproductive expenditure. Since the state government resorted to large public borrowings to meet its shortfall in plan and non-plan expenditure, the total debt liability of the state increased significantly. In fact, Mizoram is now one of the highest indebted states in India. The total outstanding liabilities of the state is well above 80 percent of Gross State Domestic Product. The

debt profile also reflects a significant growth in the share of internal debt and provident fund and a reduction in loans and advances from central government. Interest payment has grown rapidly over the years. Since the state suffers persistent shortfall of budgetary receipts over expenditure, it frequently resorted to short term borrowings from Reserve Bank of India.

PROFILES OF THE BORDER BLOCKS

Demographic Profiles of Selected Blocks

- 19 Population density is the highest in Chawngte block and lowest in Khawzawl block. Urban population constitutes 60.5 percent in Khawzawl block and 42.1 per cent in Tuipang whereas the entire block under West Phaileng and Chawngte block are inhabited by rural population.
- 20 Literacy rate in Khawzawl block (91%) is higher than state average (88.8 %) whereas the literacy rate in West Phaileng, Chawngte and Tuipang block are much lower than the state average.
- 21 West Phaileng block has a sizeable proportion of Bru and Chakma ethnic groups whereas Chawngte block is predominately inhabited by Chakma ethnic groups. Tuipang block is dominated by Mara ethnic group. Work participation rate (WPR) is the highest in Khawzawl block but lowest in Tuipang block.
- 22 The proportion of cultivators varies between 56 percent in Chawngte block to 43 percent in Khawzawl block. Proportion of household industry worker constitutes less than 1 per cent in all selected blocks. The number of 'other workers' dominated by government servants constitutes 13.6% in West Phaileng, 21% in Khawzawl, 10% in Chawngte and 27% in Tuipang block.

Socio-economic development in the Selected Blocks:

- 24 The percentage of Below Poverty Line (BPL) Family is the highest in Chawngte block with 72.3 percent and lowest in Khawzawl block with only 41.3 percent.
- 25 The number of electrified house varies between 19.4 percent in Chawngte block to 81.9 percent Khawzawl district.
- 26 The absolute availability of postal services in terms of Sub-Post Offices/Branch Post Office shows that the number varies between 5 units in Chawngte block to 78 units in Tuipang block. The number of Sub-Post Offices/Branch Post Office shows that the number varies between less than 1 in Chawngte block to more than 5 in Tuipang block.

Profile of Surveyed Villages

- 27 The total households in the selected four villages ranges between 157 to 543 and household size between 3.7 to 6.4. They are all Christian by faith. The primary occupation is cultivation in Zote village, daily labourer in Zokhawthar village, farming in Vapar and grape cultivation in Hnahlan village. Secondary occupations are animal husbandry in Zote, petty business in Zokhawthar, manual labour in Vapar and shifting cultivation in Hnahlan village.
- 28 The availability of health facilities as measured by their availability in terms or per 100 sq.km and per 1000 population. Whereas the absolute availability varies between 9 in Chawngte block to 32 in Tuipang block, the variation in terms of 100 per sq.km has been found to be 1.3 to 2.9 between the two blocks. The variability has been much reduced when we measure the availability of health facilities in terms of 1000 per population.

- 29 There are two colleges in Khawzawl block and one each in Chawngte and Tuipang blocks and none in West Phaileng block. The availability of educational facilities per 100 sq.km suggested that the variation ranges between 7.2 in West Phaileng block to 14.6 in Tuipang block whereas the variability in term of per 1000 population is more or less uniform.
- 30 Economic and infrastructure facilities available at the village level suggested that (i) these villages have been well connected by road; (ii) schooling facilities are also adequate; (iii) health facilities are inadequate; (iv) a large number of household owned TV sets, etc.
- 31 National Rural Employment Guarantee Scheme (NREGS) are operative in all the surveyed villages whereas Border Area Development Operative only in one village. Sarva Siksha Abhiyan (SSA) and Mid-day meal schemes also operative in all the surveyed villages. Intergrated Wasteland Development Programme has also been implemented in three villages.
- 32 Focal Group discussions had been held in all the surveyed villages. These include members of village councils and leaders of Young Mizo Association. These summaries are given in the boxes. These focal groups are all aware of their problems and the dynamics of local politics. So far as implementation of central schemes are concerned, these group are satisfied whereas implementation of state schemes have been found to be highly unsatisfactory.
- 33 During 2005-05, the BADP had been implemented in four districts, covering 10 rural development blocks. The total expenditure amounted to Rs 11.02 Crores with average district allotment being Rs 275.44 lakh. Per block expenditure was Rs 110.18 lakh and the total expenditure varies between Rs 88.83 lakh in Sangau block to Rs 160 lakh in Khawzawl block.

RECOMMENDATIONS:

- 1 Strengthening of existing Border-Trade route along Myanmar and exploring some more such trade points in the southern region;
- 2 Indo-Bangladesh Border trade agreement to cover Mizoram may be taken up;
- 3 Quality of the entire infrastructure networks be strengthened to make Mizoram a friendly investor states both for national and foreigners;
- 4 Skill formation is a must. More ITIs may be established in Mizoram;
- 5 Health facilities and services need to be strengthened to cater the needs of the people.

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**PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA:
IMPLICATIONS FOR 13TH FINANCE COMMISSION**

NAGALAND

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Section: I

Introduction

The present study deals with the problems and challenges of development along the border areas which have a unique place and significance in the process of national planning due to the specific needs of the people living in the stressful environmental conditions. However, the magnitude of the problem differs from region to region depending upon the physiographical condition, socio-cultural set-up etc. In this chapter an attempt is made to study the problems of the border areas of Nagaland. The present chapter deals with all the border blocks of Nagaland in general, and more particularly the border districts of the State with Myanmar. There are five sections in the present chapter. The first section concentrates on the data base and methodology. The second section deals with the background of Nagaland as a border State. The third section describes in details the socio-demographic, economic features as well as the status of infrastructural and basic facilities of the border districts. The fourth section deals with physical, socio-demographic, and economic features of the border blocks. Finally the section V deals with the recommendations and conclusions.

Data Base and Methodology

The present study is based on secondary data. The secondary data regarding demographic and economic characteristics of the district and block level were collected from the various Census Report 2001, Statistical Handbook of Nagaland, 2007, website of Nagaland government, Census of India, Ministry of Home Affairs, and Human Development Report of Nagaland, 2004. The different stages under the technique were as follows:

Out of eleven districts of Nagaland, four districts touch 215 km of international border with Myanmar. These four districts are: (1) Mon, (2) Tuensang, (3) Phek and (4) Kiphire. On the other hand, there are seven border Blocks in the State. These Blocks are: Phomching, Chen and Tobu in Mon District; Noklak and Thonyakshu in Tuensang District; Meluri Block in Phek and Pungro Block in Kiphire District. Here an attempt has been made to analyze the socio-economic-demographic features of the border districts and the border blocks.

Section II

Background of Nagaland as a Border State

The Nagaland, one of the constituent states of the North East India is bordering with the Myanmar. The State is basically the home land of the Nagas. The Nagas are one of the important tribes among the various tribes of the North-east India; inhabiting the hills covered with dense evergreen forest. They belong to the Mongoloid stock of human race and occupy the hills between upper Assam and North Burma (presently Myanmar). The Nagas belong to multi ethnic group and subgroups with varied dialects. The Nagas belong to different tribes and each tribe speaks its own dialect; follows its own culture and customs

Physiography

The State is surrounded by Assam in the west and the north, Tirap district of Arunachal Pradesh in the northeast, Manipur in the south and Myanmar in the east. The total area of the state of Nagaland is of 16,488 sq. km. The State lies between 25°6' and 27°4' north of the

equator and between longitudinal lines 93°20' E and 93°15' E. The tract of Nagaland is hilly, rugged and mountainous. Saramati is the highest peak of the state with a height of 3840 meters above the sea level. The following is the map of Nagaland:



Map: 1



Map: 2

Economy of Nagaland

Agriculture is the main occupation of the 68.03 per cent of the population of the State. The other subsidiary occupations among the Nagas are weaving, fishing, hunting and basketry. Now a day under the government initiatives, the cane and bamboo works among several Naga tribes has become popular. However the process of industrialization is very slow. Another occupation very common among the Nagas is black-smithy. Rice is the staple food and occupies about 70 per cent of the total area under cultivation. Jhum cultivation is very much popular and consist of 1,01,400 hectare land. However, the Angami and the Chakhesang tribe have traditionally practiced wet terrace cultivation. There are no absentee landlords and no landless individuals among the Nagas. Domestic animals such as pigs, cows, fowls, goats, mithun (*Bos frontalis*) and dogs occupy important places in the economy of the Nagas. Each Naga household keeps all these domesticated animals. These domesticated animals are used as food items and as important means of exchange. Mithun, which had a great religious significance, has become a very rare species. They also cultivate chilies, oranges, pine-apples, lemon, banana, papaya vegetables such as cucumber and bean, cotton, ginger, pan leaves, and etc

Demographic, Socio-economic and Health Profile of Nagaland:

In this section an attempt has been made to trace the demographic, socio-economic and the health profile of the Nagaland as compared to India. Table-1 gives a brief picture about the same:

Table 1:

A comparison of Demographic, Socio-Economic and Health Profile of Nagaland State as compared and India

S. No.	Item	Nagaland	India
1	Total population (Census 2001) (in million)	1.99	1028.61
2	Density of Population	120	325
3	Urban Population	17.2	27.8
4	Decadal Growth (Census 2001) (%)	64.53	21.54
5	Crude Birth Rate (SRS 2007)	17.4	23.1
6	Crude Death Rate (SRS 2007)	5.0	7.4
7	Total Fertility Rate (NFHS-III)	3.7	2.7
8	Infant Mortality Rate (SRS 2007)	21	55
9	Maternal Mortality Ratio (SRS 2001 - 2003)	NA	301
10	Sex Ratio (Census 2001)	909	933
11	Population below Poverty line (%)	32.67	26.10
12	Schedule Caste population (in million)	0 (0)	166.64(16.2)
13	Schedule Tribe population (in million)	1.77(88.9)	84.33(8.2)
14	Male Literacy Rate (Census 2001) (%)	71.77	75.88
15	Female Literacy Rate (Census 2001) (%)	61.5	53.7
16	Literacy Rate (Census 2001) (%)	67.11	63.38
17	Per-Capita Income at Current price (2004-05)	20998	23308

Source : Statistical Handbook of Nagaland, 2007 & Census of India Provisional Totals :2001

It has been observed from Table: 1 that the density of population per sq. km. of Nagaland(120) is lower than the National average(325). Similarly, urban population of the State (17.2 per cent) is lower than the National average (23.1).

The decadal growth rate of population of the State is 64.53 per cent and is highest in the country (21.54). On the other hand, the Crude Birth Rate and the Crude Death Rate are lower than the national average. It further reflects that the Natural Growth of Population of the State (17.71) is slightly higher than the National average (17.4). The Total Fertility Rate 3.7 per cent is higher than the national average of 2.7 per cent. The Infant Mortality Rate (21) is lower than the national average (55). The Sex Ratio in the State is 909 as compared to 933 for the country. It is also to be noted here that the Scheduled Tribe population of the State (88.9 per cent) is much higher than the National average (8.2 per cent).

The overall literacy rate (67.11per cent) of the State is higher than the National average (63.38 per cent). Similarly, the female literacy rate of the State is also higher than the all India average. The percentage of people living below poverty line (32.67 per cent) is higher than the National average (26.10 per cent). The Per-Capita income of the State at current price (Rs. 20998) is lower than the National average (Rs. 23308) in 2004-05. In table: 2, a comparison has been made on the major health infrastructure of the state:

Table 2

Health Infrastructure of Nagaland

Item	Required	In Position	Shortfall
Sub-centre	535	397	-138
Primary Health Centre	80	84	+4
Community Health Centre	20	21	+1
Multipurpose Worker (Female)/ANM	481	342	-139
Health Worker (Male)/MPW(M)	397	300	-97
Health Assistants(Female)/LHV	84	15	-69
Health Assistants(Male)	84	15	-69
Doctor at PHCs	84	53	-31
Surgeons	21	0	-21
Obstetricians & Gynaecologists	21	0	-21
Physicians	21	0	-21
Pediatricians	21	0	-21
Total specialists at CHCs	84	0	-84
Radiographers	21	11	-10
Pharmacist	105	85	-20
Laboratory Technicians	105	45	-60
Nurse Midwife	231	520	+289

Source: RHS Bulletin, March 2007, M/O Health & F.W., GOI

It has been observed from Table: 2 that the health infrastructure of the State is not satisfactory, except in a very few areas, viz., Primary Health Centre, Community Health Centre and Nurse Midwife, otherwise in, viz., doctors, surgeons, physicians, etc. there is a shortfall in the requirements.

Section: III

Border Districts of Nagaland:

Nagaland is one of the constituents of the eight north eastern states of the country. The State is bordering with Myanmar. The length of the border is 215 km. Out of the 11 districts of the State, four districts have international border with Myanmar. Table-3 gives an idea about the area and the populations of the Border Districts of Nagaland

Table: 3
Area and Population of Border Districts of Nagaland, 2001

Sl. No.	Districts/State	Area (in sq. km)	Population
1	Mon	1786	260652
2	Phek	2026	148246
3	Tuensang	4228	414801
4	Kiphire [#]	N.A.	N.A.
5	Total	8040 (48.50%)	823699 (41.39%)
6	Nagaland	16,579	1990036

Statistics for Kiphire District is included in Tuensang, as before 2004, Kiphire was a part of the Tuensang District.

Source: Census of India, 2001.

It is observed that 46.50 per cent of the total area of the State is fallen under the border districts. On the other hand, 41.39 per cent of total population of the State lives in the Border Districts of Nagaland.

Physiography of the Border Districts of Nagaland:

Here an attempt has been made to sketch the topographic feature of the border districts of the Nagaland. The Mon district, with the exception of the foothills, is hilly with steep slopes. The District can be divided into two regions topographically, namely the Upper Region comprising Longching, Chen, Mopong and Tobu areas and the Lower Region comprises Mon, Tizit and Naginimora area. It covers an area of 1,786 sq. km. Physiographically, Tuensang district is covered with hills, high ridges deep gorges and narrow valleys. It covers an area of 4228 square kilometers which is about 25 % of the total area of the State of Nagaland. However, after 2004, the geographical area of the district has reduced as it is divided in to two districts, viz., Kiphire and Longleng. It is to be mentioned here that Kiphire is a border district that has international border with Myanmar.

Phek is also a hilly district. It covers an area of 2026 sq. km. The altitude of the district lies between 1524 (Phek) to 2,134 meter (Pfutsero).

Resource Base of the Border Districts of Nagaland:

Phek is blessed with evergreen sub-tropical and temperate coniferous forests which support myriads of flora and fauna. Moreover, the district is endowed with crystalline Limestone, Iron, Chromium, Nickel, Cobalt, Copper, Molybdenum, Chromite, Magnesite, asbestos, talc, marble, brine (a locally backed salt) etc. The State's only Cement factory is at Weziho (Meluri). Presently, Meluri area falls under Kiphire district. The Kiphire district is also rich in bio-diversity. Pakim national park is also situated in the Kiphire district.

Tuensang is also rich in natural resources. A number of natural resources such as Asbestos, Coal, Limestone, Marble, Magnesite, Chromite, Pyrite, and Oil are found in the district. But lack of communication and poor accessibility are the main constraints that stand against a systematic search for minerals in the district.

Mon, on the other hand is rich in terms of bio-diversity and water resources.

Economy of the Border Districts of Nagaland:

Agriculture is the main occupation of the people of the Mon district. Both the jhum and the permanent methods of cultivation are prevalent. Still the jhum is the most common form of cultivation in the district. A few people in some areas do permanent cultivation near the riverbanks. The main occupation of the people of this district is agriculture with nearly 90 per cent of the work force engaged in it. The economic condition of the people lags behind as compared to the other districts in Nagaland. As it is located in the remotest part of Nagaland, its economic development has not been satisfactory.

Like the Mon district, Agriculture is also the main occupation of the people of Phek with 80.84 % of the population engaged in agriculture. Terrace Rice Cultivation (TRC) is predominant. Besides agriculture people engage in salt making (in Meluri area) weaving, bamboo and wood carving, and in making fruit juice.

The people of Tuensang District are also mostly agriculturists. The entire district is hilly and it does not adjoin any plain area except in the extreme and narrow north. What plain areas could be found in the district are narrow valleys. Jhum, the shifting cultivation is extensively practiced while terrace is practiced in a limited way, because the land is not suitable for terrace. Moreover, the facilities for irrigating the terrace are not available.

Socio-demographic Features of the Border Districts of Nagaland.

In this section we made an attempt to examine the socio-demographic features of the border districts of Nagaland in comparison with the State figures. Here some indicators, viz., life expectancy, literacy rate and the percentage of S.T. population, etc., have been considered to make the socio-demographic comparison of the Border Districts of the State. The life expectancy is a summary measure of the health conditions of a particular

area. Higher the life expectancy the better is the health status and vice-versa. It provides basis for comparison of health status of different communities. Similarly, lower infant mortality rate also reveal the same thing. The literacy rate simply suggests the educational attainment. Thus, in this section an attempt has been made to discuss the socio-demographic features of the State with the help of the following selected indicators.

Table: 4
Socio Demographic Features of the Border Districts

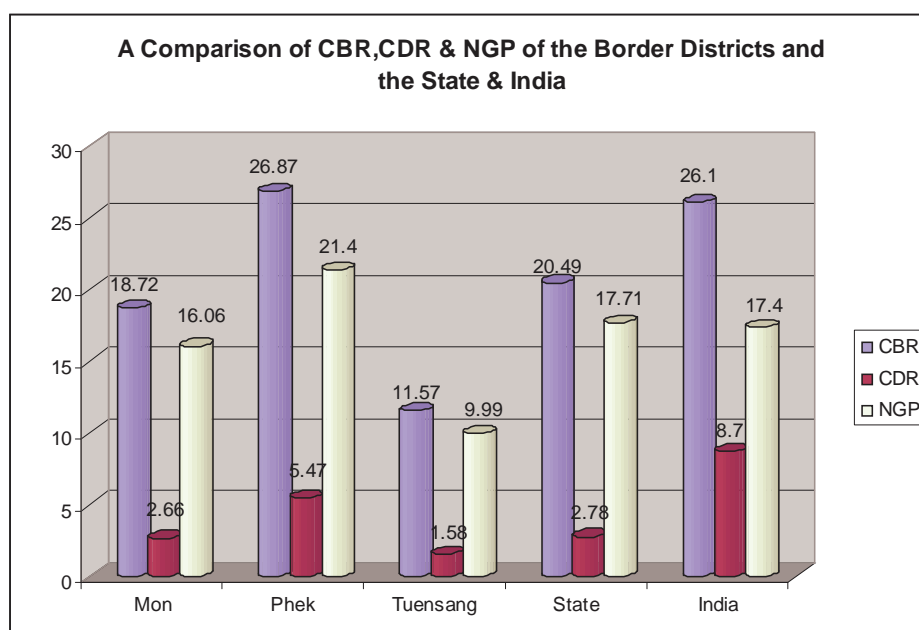
Sl. No.	Item	Phek	Mon	Tuensang	Kiphire#	State/ Average
	Area (Sq. km)	2026	1786	4228	N.A	16579
1	Total Population	148195	260652	385046	N.A	1988636
2	Growth rate of Population	45.12	73.42	78.10	N.A.	64.41
3	Density	73	146	98	N.A	120
4	Sex Ratio	923	881	913	N.A.	909
5	Literacy Rate (%)	71.35	42.25	51.30	N.A.	67.11
5.1	Male Literacy	78.97	46.70	55.97	N.A.	71.77
5.2	Female Literacy	63.08	37.12	46.12	N.A.	61.92
6	Percentage of ST populations	94.08	92.15	95.10	N.A.	89.14
7	0 – 6 year Sex ratio	934	975	978	N.A	975
8	Infant Mortality Rate	29.22	27.10	41.30	N.A.	40
9	Life expectancy	74.20	75	70.8	N.A.	73.4
10	Height Level	1524	898	1372	896	N.A.
11	Total No. of inhabited villages	111	178	251	N.A.	1050

Data for Kiphire are not available as before 2004, Kiphire is a part of Tuensang district.

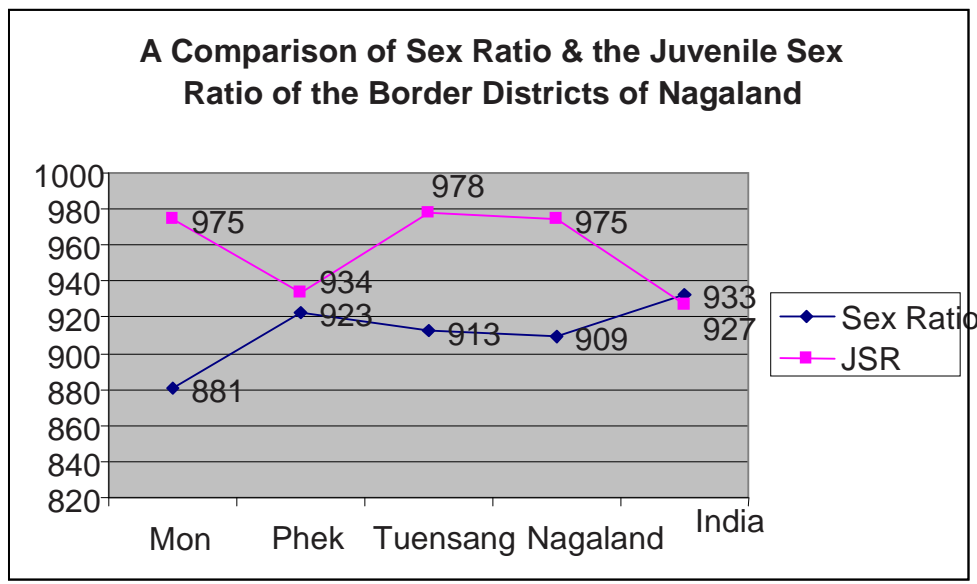
Source: Census of India, 2001, Statistical Handbook of Nagaland, 2007 & Nagaland Human Development Report, 2004.

From the Table: 4, it is clear that there are four Bordering Districts of Nagaland. However, data regarding Kiphire is not available as before 2004, it was not a district but was a sub-division of Tuensang district. Therefore, data for Tuensang on the present analysis also contains the facts and figures of Kiphire.

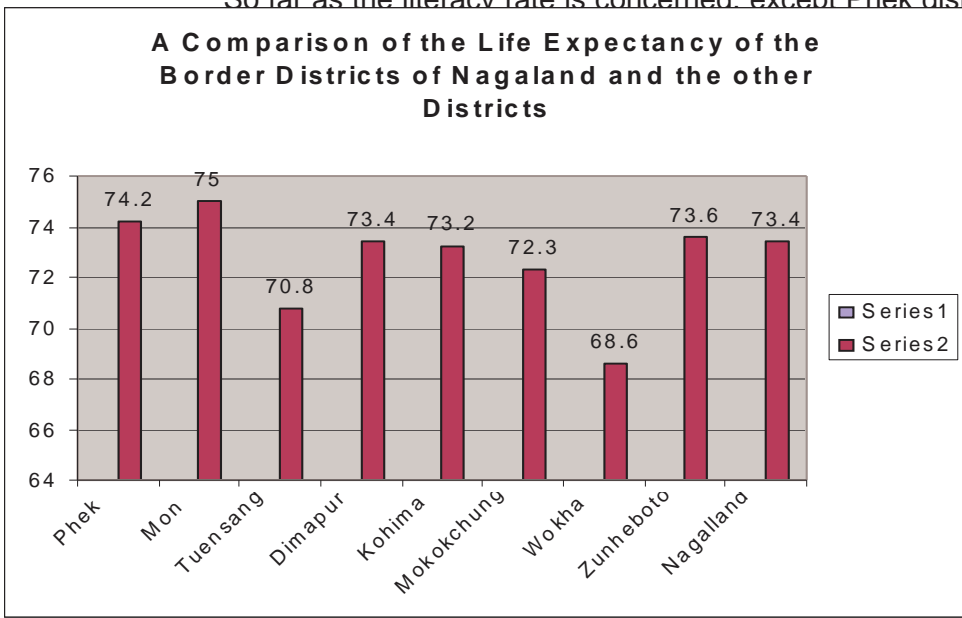
It is observed from Table: 4 as well from the above diagram that the population growth of the Nagaland is much higher than the National average (21.34 per cent). It has also been observed that in two of the three Border Districts of Nagaland the population growth rate is much higher than the State average 64.41 per cent. In Tuensang, it is as high as 78.1 per cent, while in Mon, it is 73.42 per cent. However, in Phek, it is much lower than the State average with 45.12 per cent, still higher than the National average. This higher growth rate of population in the State as well in the Border Districts of Nagaland could not be explained by taking account of natural growth of population only because natural growth of population for the State and for the Border Districts are much lower than the actual growth of population for the same. The natural growth rate of population for Nagaland is 17.71 in 2001 as against India's 17.4 (SRS, 1999), which is slightly higher than the National average. Thus, if we consider the natural growth of population for Nagaland to explain the exceptional and higher growth of population of the State, then it is impossible to draw any logical conclusion behind the rapid growth of population of Nagaland. Under such circumstances, we will have to highlight to another factor of population growth, viz., the migration. And this can be attributed to the migration from both inside and the outside India and particularly from Bangladesh. The diagram below shows a comparison of the Crude Birth Rate and Crude Death Rate and Natural growth of population of the Border Districts and State.



More over, it has been observed from Table: 4, that except the Mon district, for other two districts, the density of population is lower than the State average (120). Regarding the sex ratio, for Mon (881) it is much lower than the State average 909, while for Phek and Tuensang, it is respectively, 923 and 913, higher than the state average but lower than the national average 933. Moreover, it is to be mentioned that the sex ratio in the age group 0-6 is much higher than the actual sex ratio for not only to the Border Districts but also to the state as a whole and can be considered as a positive sign from the demographic point of view. In the following diagram, the difference between the actual sex ratio and the juvenile sex ratio is shown:

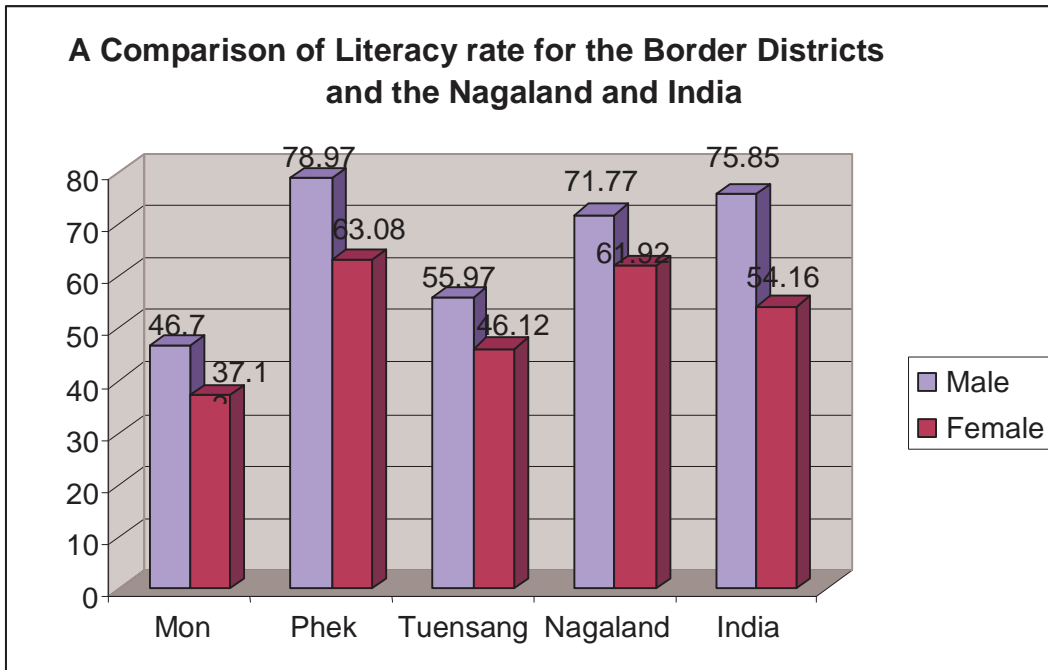


So far as the literacy rate is concerned, except Phek district, for the remaining two districts it is

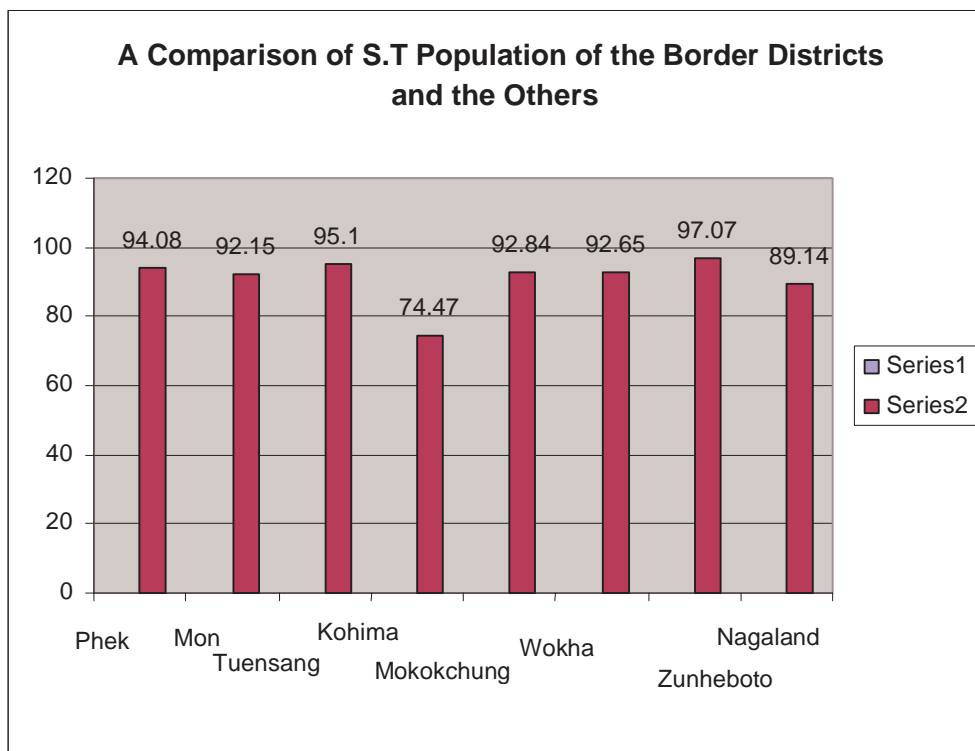


basically to the fact that Phek is nearby
 ima is observed in case of Phek district
 other hand, for Mon district, the literacy
 his might be attributed to the geographi-
 etc. of the district. A comparison of the
 the State average and the other districts

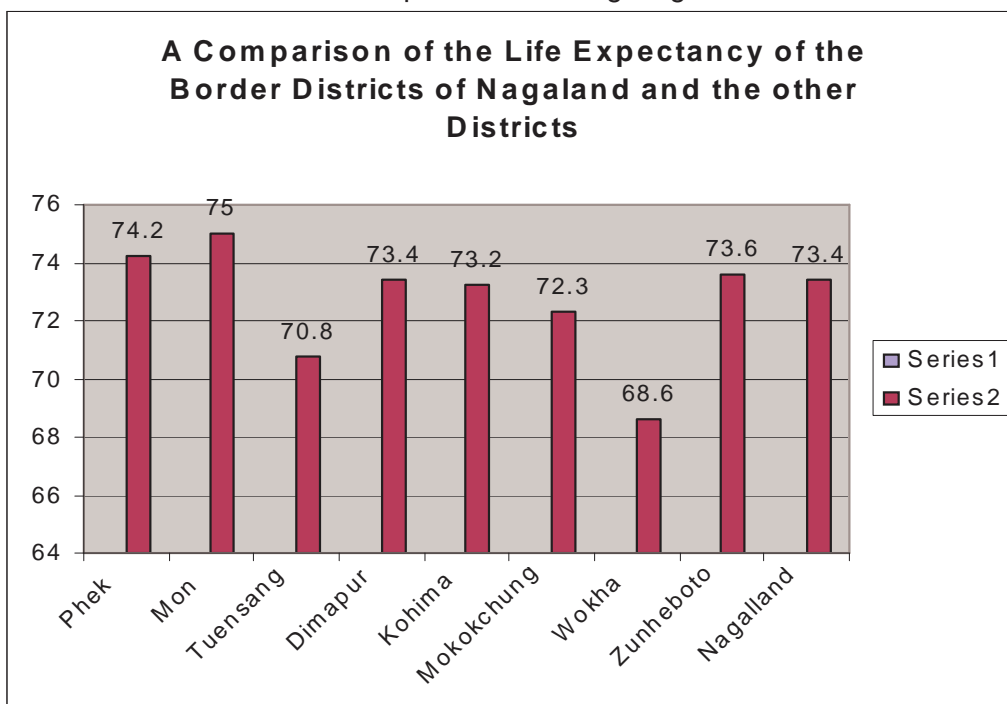
Again, if we compare the male and female literacy of the Border Districts with that of the State and the national average, then it is observed that male and female literacy of Phek district is higher than the State average and also to the national average 75.85 per cent and 54.16 per cent respectively. On the other hand, both the male and female literacy for Mon and Tuensang are lower than the State average and the national average. This comparison is also being shown with the help of the following diagram:



Regarding the ST populations, it is observed that the percentage of the ST populations in the border districts of Nagaland is higher than the State average 89.14 per cent.



Among the four Border Districts, only one district, viz., Tuensang has life expectancy less than that of the State average 73.4. The life expectancy of Wokha is 68.6 which are much lower than State average 73.4; while for the Tuensang, it is 70.8. At the same time, the infant mortality rate for Phek (29.22) and Mon (27.10) are lower than the State average, 40 (and had further lowered to 20, SRS, Oct. 2007) and national average 57(SRS, Oct. 2007). On the other hand, for Tuensang district (41.30) it higher than the State average but still lower than the national average. The higher life expectancy and lower infant mortality of the State and the Border Districts might be due to the use of traditional food and medicine. A comparison of the life expectancy of the border districts vis-à-vis the State has done with the help of the following diagram:



Economic Features of the Border Districts

Let us now look into the economic features of the Border districts by taking four variables viz, i) real per-capita net district domestic product ii) work participation rate iii) percentage of main workers, engaged in the agricultural sector and iv) human poverty index.

Table 5:

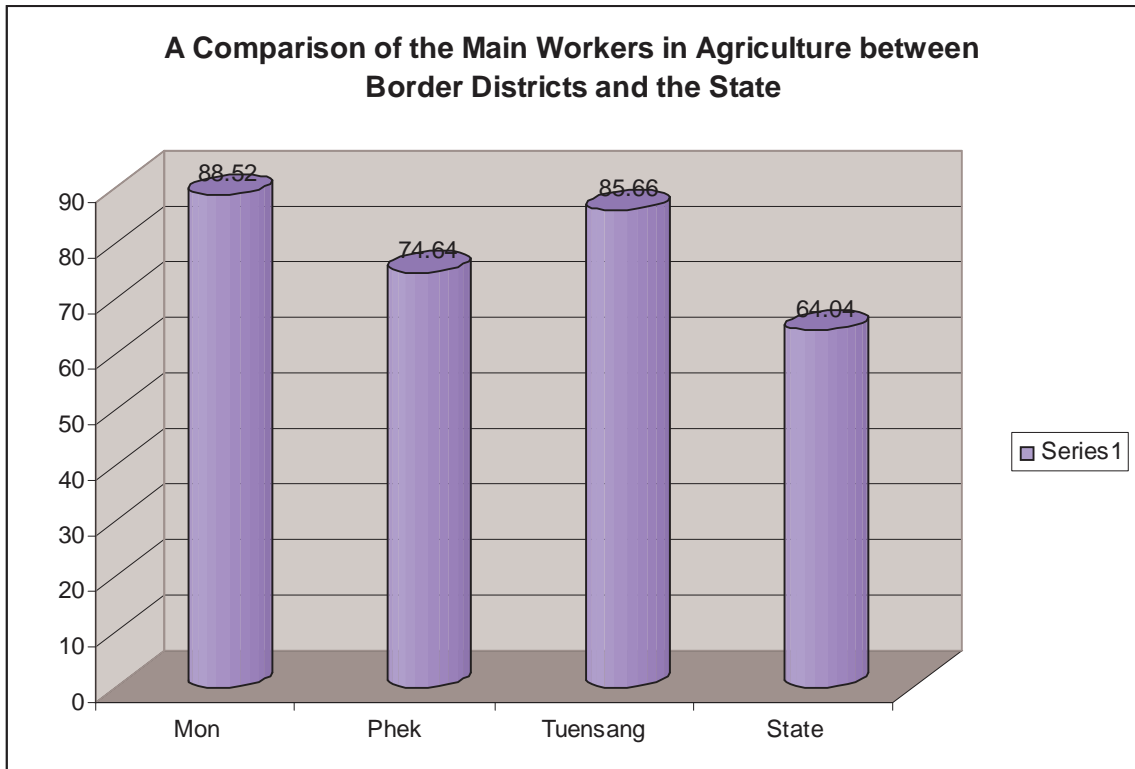
	Item	Phek	Mon	Tuensang	Kiphire	State/ Average
1	Area (Sq. km)	2026	1786	4228	N.A	16579
2	Per capita Net DDP (Rs.) in 2003	9880	4500	8149	N.A	11119
3	Work participatory rate	48.31	49.66	44.65	N.A.	42.60
3.1	Male WPR	48.50	52.20	46.14	N.A	46.70
3.2	Female WPR	48.11	46.77	43.01	N.A.	38.10
4	Main workers in agriculture	74.64	88.52	85.66	N.A.	64.05
5	HPI	40.80	49.092	48.979	N.A	35.583

Source: Adapted from the Nagaland State Human Development Report 2004.

It has been observed from the table that the per capita income of the Border districts is much lower than the state average Rs. 11119. The per capita income of Mon district is Rs. 4500 which about 2.5 times lower than the State average; while for Tuensang, it is Rs. 8149 and for Phek Rs. 9880. Now for the lower per capita income of the Border districts of Nagaland, many factors can be attributed. Among such factors, some important factors are: geographical location, lack of proper infrastructure, heavy dependence on jhum cultivation, etc. A comparison of the per capita income of the Border districts and the State is shown with the help of the following diagram:

Regarding the work participation rate, it is observed that the work participation rate in the Border districts of the Nagaland is higher than the State average 42.60 per cent and the national average 39.1 per cent. It has been observed that, in Phek, the WPR of both male and female are almost same, where as in Mon district, male WPR is 52.20 and female 46.77 per cent and for Tuensang district, it is respectively 46.14 and 43.01 per cent. It is also to be noted that the female WPR for all the border districts is higher than the State average 42.60 percent and the national average 25.6 per cent. However, male WPR is lower than the national average (51.7 per cent) for the state as well for the Border districts except Mon. The higher female participation rate may be due to the fact that in tribal society's women always plays a dominant role in household activities.

Further, it has been observed that the main workers engaged in agriculture is much higher than the State average in all the Border districts, which suggests that the people are mostly engage in agriculture. This can also be illustrated with the help of the following diagram:

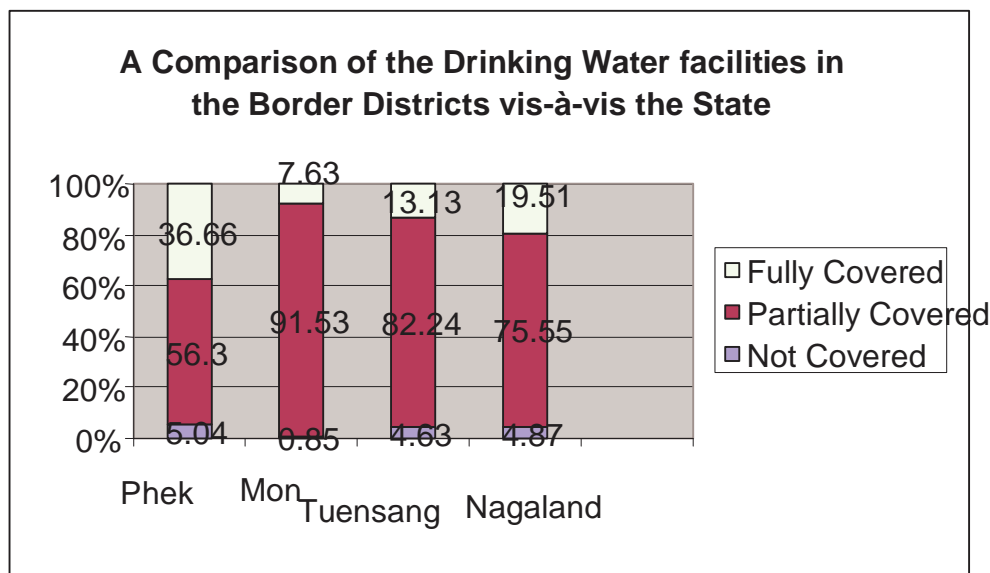


So far as the poverty level is concerned, the district level poverty data is not available and therefore, as a proxy the Human Poverty Index (HPI) is adapted to study about the state of poverty in the Border districts of Nagaland. It is to mention here that even if we consider about State poverty rate (32.67 per cent) with that of the National average (26.1 per cent), the poverty rate of the State is much higher than India. On the other hand, in terms of the HPI, the poverty level of all the Border districts is higher than the State average 35.583. In Mon district, the HPI value is as high as 49.092 per cent; while in Phek and Tuensang, it respectively, 40.80 per cent and 48.989 per cent respectively. Thus poverty level in all the Border districts of Nagaland is quite high.

Infrastructural Indicators of the Border Districts of Nagaland:

Lack of infrastructure is one of the important reasons for the backwardness of an economy. Infrastructure is the backbone of the economy. Without a developed infrastructure, an economy can not be on the track of economic development. Hence, an attempt has been made to capture the availability of the infrastructural facilities of the Border region of the State. The table -6 given below provides us an outlook at the infrastructural facilities available in the Border districts of Nagaland.

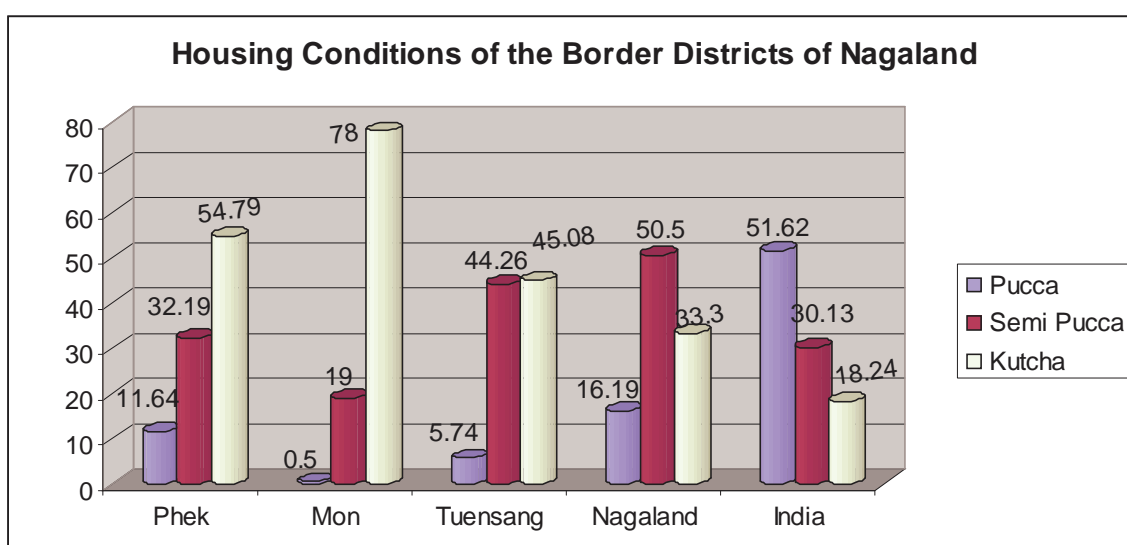
Roads constitute the principal mode of transportation in the hilly and difficult terrains of the State. It has generally been observed that the road density of the hilly States is low. However, it has been observed that road length per 100 sq. km in Nagaland is higher than the all India average of 74.31 percent in 2001. Despite this, two Border districts have a lower road density than that of the State average. However, an indicator like road density may not capture the poor communication network in the Border districts of Nagaland because many villages are scattered and continue to remain unconnected. Therefore, the road connectivity status of the villages in the State needs to be considered. Many of the villages of Bordering districts of Nagaland are still unconnected with road. For these villages, the only way of communication is the foot road. For example, four out of five villages with only foot road in Mon district is under the Border blocks; while in Phek district it is three out of four and in Tuensang district, it is 18 out of 23 villages with only foot connection. Thus, it can be worth mentioning that the most of the unconnected villages are in the Border blocks of Border Districts of Nagaland. As far as the electrification of villages is concerned, all the Border districts are lower than that of the State average. However, with a very high rate villages connected with electricity does not itself suggest that in a poverty stricken State like Nagaland, the percentage of household connected with electricity is also high. Similarly, so far as educational and health infrastructure is concerned, the required infrastructure not only for the State but also of the Border districts are not up to the mark, which is not only clear from the Table-6 but also from Table: 2. In fact, in most cases the Border districts are lagging behind as compared to the State. A very important infrastructure necessary for sound health of the human beings is the provision of Safe Drinking Water. It has been observed from Table: 6 that percentage of villages with fully covered drinking water facility is low in not only in the Border Districts but also in the State. As a whole 46.5 per cent of the households in Nagaland have the access to safe drinking water as against the National average 77.9 per cent.



Regarding the Fair price shops, it is observed that the fair price shops are not readily available to the people of the Nagaland. For example, in Mon, 0.27 number of shop against 10000 people.

Housing Condition of the Border Districts:

Housing is another important requirement to maintain a better quality of life. But it has been observed that the housing condition of the Border Districts of Nagaland is not encouraging. In Mon, the poorest district of the state, only 0.5 per cent of the houses are pucca which is lower than the state average 16.19 per cent and much lower than the national average 51.62 per cent. In Tuensang, 5.74 per cent and in Phek, 11.64 per cent people have pucca houses, which is also much lower than the state average and national average. In fact, in terms of the pucca houses, Nagaland's position itself is much lower than the national average. The housing conditions of the Border Districts of Nagaland are shown in the following Diagram



Land Use Pattern of the Border Districts of Nagaland:

As it has been mentioned that the Nagaland is a hilly and mountainous state, and therefore it is pertinent that the land use pattern of the state is different from that of the plain areas. The land use pattern of the Border Districts of Nagaland is shown with the help of the following Table: 7

It has been observed from the above table that jhum cultivation is the predominant mode of cultivation in the State. Jhum cultivation is more prominent in the border districts of Nagaland. In Phek, the area under Jhum is lower than the State average 58.96 per cent. But in other two districts, Mon (86.24 per cent) and Tuensang (83.74 per cent), the rate is much higher than the State average. In fact, the rate is highest in the district Mon. This is basically due to the fact the geography of the Border Districts and some other districts like Wokha are not suitable for other form of cultivation like terrace. At the same time infrastructural facilities such as irrigation is either underdeveloped or impossible to develop.

Section: IV

Physical Features of the Border Blocks

Nagaland has 7 Border Blocks. All the Blocks are bordering with Myanmar. The names of the Border Blocks are given below in Table: 8. Chen, Tobu and Phomching in Mon district; Meluri in Phek, Pungro in Kiphire district and Noklak and Thonoknyu in Tuensang district. All the blocks are hilly and mountainous.

Table: 8

Border District and Blocks of Nagaland (2001)

Districts	No. of Blocks	No. of border blocks	Name of border blocks
Phek	5	1	Meluri
Mon	6	3	Chen, Tobu, Phomching
Tuensang	13	3	Pungro [#] , Noklak, Thoncknyu
Nagaland	52	7	

Pungro is now under Kiphire district.

Source: *Statistical Hand Book of Nagaland, 2007.*

Demographic Features of the Border Blocks:

Here an attempt has been made to analyze the demographic features of the Border Blocks of the Nagaland. The demographic features of the Border Blocks are explained with the help of the Table: 9

Table: 9

Demographic Features of the Border Blocks:

Sl. No.	Item	Block			District	Block	District	Block	District	Block			District
		Chen	Tobu	Phomching	Mon	Meluri	Phek	Pungro	Kiphire	Noklak	Thoncknyu	Tuensang	
1	Area (sq. km.)	258.78	136.33	83.61	1786	300.1	2026	501.76	N.A.	321.44	282.24	4228	
2	Total Population	58880	49772	37025	2,59,604	18413	148246	24075	N.A.	28692	13631	414801	
2..2	Male	30974	26291	19836	138005	9773	77082	12682	N.A.	14918	7380	216888	
2..3	Female	27907	23481	17189	121599	8640	71164	11393	N.A.	13774	6251	197193	
3	Density of Population	228	365	443	145	61	73	48	N.A.	89	48	98	
4	Sex Ratio	901	893	867	881	884	923	898	N.A.	923	847	913	
5	ST Population	97.75	97.26	98.53	92.15	94.53	94.08	98.20	N.A.	95.34	99.14	95.1	
6	SC Population	0	0	0	0	0	0	0	0	0	0	0	

Source: Census of India, 2001 and Report of the Working Group on BADP for the Formulation of the Tenth Five Year Plan.

Table: 9 clearly reveal that Phomching is the smallest Border Blocks with an area only 83.81 sq. km; while the density of population in the Block is highest (443). Similarly, for the other Blocks of the Phek, viz., Chen and Tobu also density of population is higher than both the District average (145) and State average (120). On the other hand, for other Blocks of the Border areas, the density of population is much lower than the State average.

Regarding Sex Ratio, it is observed from the Table:9 that except Noklak (923), for all the other Border Blocks the sex ratio is lower than the State average. However, in some Blocks it is higher than the district average. On the other hand, composition of population in terms of the caste we have seen that the people are mostly Scheduled Tribe. In a Block like Thoncknyu, it is as high as 99.14 per cent. No Scheduled Caste population is found in the respective Blocks.

Infrastructural Facilities of the Border Blocks:

A well-developed infrastructure has always played a conducive role for rapid economic development of an economy. It is, therefore, an attempt has been made to analyze the infrastructural facilities of the Border Blocks of the Nagaland.

Table: 10

Infrastructure Facilities of the Border Blocks

Sl. No.	Item	Block			District	Block	District	Block	District	Block		District
		Chen	Tobu	Phomching	Mon	Meluri	Phek	Pungro	Kiphire	Noklak	Thoncknyu	Tuensang
1	No. of Primary School	42	29	20	143	34	131	22	N.A.	31	16	304
1.2	Primary Scholl per 100 sq. km	16.23	21.27	23.92	8	11.33	6.47	4.38	N.A.	9.64	5.67	7.19
1.3	Primary School per 10000 population	7.13	5.83	5.40	5.51	18.47	8.84	9.14	N.A.	10.80	11.74	7.33
2	No. of M.E	19	14	9	53	14	64	7	N.A.	14	7	91
2.1	M.E. Scholl per 100 sq. km	7.34	10.27	10.76	2.97	4.66	3.16	1.4	N.A.	4.35	2.48	2.15
3	No. of Secondary School	7	5	0	21	2	31	2	N.A.	5	2	39
3.1	S.School per 100 sq. km	2.71	3.67	0	2.13	.67	1.53	.40	N.A.	1.56	.71	2
4	No. of Senior secondary School (2006)	0	0	0	1	0	2	0	N.A.	0	0	1
4.1	S.S School per 100 sq. km	0	0	0	.06	0	.10	0	N.A.	0	0	0.12
5	College (2006)	0	0	0	1	0	2	0	1	0	0	4
5.1	College per 100 sq. km	0	0	0	.06	0	.05	0	N.A.	0	0	.09
6	Teachers Student ratio	N.A.	N.A.	N.A.	1:26	N.A.	1:27	N.A.	N.A.	N.A.	N.A.	1:17
7	Health Centre	2	5	1	N.A.	1	N.A.	0	N.A.	0	N.A.	N.A.
8	Nos. of PHC	3	3	1	6	4	10	3		3	2	11
9	No. of PHC Sub Centre	0	4	1	49	2	34	0	19	0	3	61
10	No. of Doctors per 10000 pop	N.A.	N.A.	N.A.	1.12	N.A.	1.75	N.A.	N.A.	0	0	1
11	No. of Hospital Beds per 10,000 pop	N.A.	N.A.	N.A.	7.86	N.A.	19.49	N.A.	N.A.	N.A.	N.A.	6.41
12	% of Villages with Electricity	95.65	77.78	100	91.89	93.75	98.08	100	N.A.	100	100	94.82
13	No. of Police Station	N.A.	1	N.A.	5	1	6	N.A.	3	N.A.	N.A.	6
14	No. of inhabited Villages	23	18	13	110	32	104	26	N.A.	22	14	251
15	Post Office(2001)	9	4	4	29	3	20	3	N.A.	7	3	56
15.1	Post office per 10000 population	1.53	.80	1.08	1.12	1.63	1.35	1.25	N.A.	2.44	2.20	1.35
16	Bank (2006)	0	1	0	4	1	9	0	1	2	0	7

Source: Census of India, 2001, Statistical Handbook of Nagaland, 2007 & Nagaland Human Development Report, 2004.

The Table: 10 provide us an idea about different infrastructural facilities of the border blocks as well to the border districts. In respect of the educational infrastructure, it is observed that education infrastructure of the border areas are not well-developed. For example, except primary schools, the M.E. Schools, Secondary Schools, Senior Secondary Schools are not up to the requirement. It is to be noted here that the Primary School infrastructure for Mon district is comparatively better than the other Border Districts; still the literacy rate for the District is much lower than the other. It may be due to geographical isolation, difficult terrain and widespread poverty. There is not a single Senior Secondary School and College found in the Border Blocks of the Nagaland. The teacher-student ratio is also high in all the Border Districts.

Health infrastructure of the Border Districts and the Border Blocks are also not up to the mark. In many Blocks such as Chen, Pungro, Noklak, there is no Primary Health Sub-Centre.

Similarly, availability of doctors and hospital beds for the Districts against 10000 populations is also not satisfactory.

Electricity facility in terms of percentage of villages with electricity connectivity is satisfactory except for Tobu. However, this high rate of connectivity does not mean a high percentage of household connectivity in a poverty-stricken State like Nagaland. About 64 per cent of the total households are connected with electricity facility, which is higher than the all India average 55.9 per cent.

There is a shortfall in number of police stations. Similarly, banking and postal infrastructure of the State and the Border areas are not adequate. In many Blocks like Chen, Phomching, Pungro and Thoncknyu, there is no Banking infrastructure. Lack of adequate banking infrastructure is one important reason behind the low Credit-Deposit ratio of the State (23) as compared to the National average 66 (RBI Bulletin, June 2006). Similarly, the Post Office available against 10000 populations for the Border Districts as well as for the Border Blocks is also inadequate.

Section: V

Special Problems of the Border Areas of Nagaland:

1. Although the health indicators like the Life Expectancy and Infant Mortality Rate are better than the all India average, still the health infrastructure of not only the Border Districts of Nagaland but also the state as a whole is poor than the country as a whole. There is inadequate number of Doctors, Surgeons, Obstetricians & Gynaecologists, Physicians, Radiologists, and Laboratory Technicians etc. The lower infant mortality and higher life expectancy at birth of the State as well to the Border Districts of the State might be due to the use of indigenous medicines and traditional foods.
2. Another important problem faced by the people of the Border Districts of Nagaland is lack of adequate road infrastructure. Many of the villages of the areas are still unconnected with road. For these villages, the only way of connectivity is foot road. Similarly most of the roads of the Border areas are unsurfaced roads.
3. The most of the villages of Nagaland as well to the Border Districts are partially connected with full drinking water facilities. At the same time, housing and toilet facilities are not adequate. For example, only 0.5 per cent of the household have pucca houses and only 29 per cent have toilet facilities in Mon district. Thus, housing, toilet and safe drinking water facilities are the major concern for the Border Areas of the Nagaland.
4. Educational facilities of the Border areas are also not adequate. There is lack of adequate number of Primary Schools, M.E. Schools, Secondary and Senior Secondary Schools, Colleges and the Technical Education Institute.
5. Banking facility of the Border Districts as well Blocks are not adequate. The banking facility is available only in three Bordering Blocks. These are: Tobu, Meluri and Noklak. There is no banking facility in the other four Blocks, viz., Chen, Phomching, Pungro and Thoncknyu. More over, it is to be mentioned here that the Credit-deposit ratio of the state is 22.9 per cent as against National average 66 per cent in 2005. Similarly, the post office facility of the Border Blocks is also inadequate. Most of the villages of not only the Border Blocks but also the State are unconnected with postal network.

The only difference is that the intensity of deprivation in respect of the postal services in Border Blocks is high.

6. Wide spread poverty is another problem of the border districts of Nagaland. Mon is the most poverty stricken District of the State. The prevalence of high level of poverty in the Border Districts is basically due to lack of alternative occupation besides agriculture, lack of adequate infrastructure, etc. Despite of this, the distribution of fair price shop in Nagaland is very poor.
7. High rate of population growth is another problem of the Border Districts of the Nagaland. The heavy growth of population creates pressure on land and this is one of the important reasons behind the decline of the jhum cycle.
8. AIDS is also widespread in Nagaland. It is another grave concern for the State. The basic reasons for this are: proximity to golden triangle, high unemployment, resource constraint, high migrant population, psycho-social instability of the youth, inadequate health infrastructure, etc.

Recommendations:

1. Health infrastructure should be developed. More number of PHCs and Sub Centers are to develop immediately to cater the need of the villagers of the Border areas. Since drug abuse is also very common, therefore Rehabilitation Centre for the drug addict must be created. At the same time, AIDS creates havoc in the State and hence awareness campaign must be undertaken to stop the spread of AIDS.
2. Availability of Safe Drinking Water should get special attention. But it has been observed that there is a lack of availability of safe drinking water in the Border Villages. Therefore, immediate steps must be taken to provide Safe Drinking Water facilities to all the Villagers.
3. Another very important indicator to maintain a sound health is the availability of proper sanitation facility. But it has been observed that the sanitation facility of the border areas is poor. Hence, proper implementation of the TSC (Total Sanitary Campaign) is urgently required.
4. Connectivity must be improved. More and more villages must be brought under PMGSY scheme. Attention is also to be given on the setting up of Post Offices, Telegraph Offices and the Telephone Offices.
5. Rapid growth of population must be checked by taking appropriate population policy, which must also include special policy to stop migration. Proper implementation of the family planning programme is also needed.
6. Banking system must be improved. This will not only create an environment of banking habits among the villagers but also the expansion of the banking facility could improve the SHG Bank Linkage Program, that may create positive impact on the livelihood pattern of the villages. It may also help in the smooth implementation of the NREGA also.
7. Since agriculture is the main source of livelihood in the Border villages and there fore there is a necessity to have a proper plan for agricultural development. Agricultural inputs like, seeds, fertilizers, pesticide etc., to be provided free of cost to the cultivators of the Border areas. More over, the irrigation facilities need to be strengthened. As Banking Infrastructure of the Border areas is also under developed and therefore, it is need of the hour to develop Banking Institutions to provide agricultural credit to the

- poor cultivators of the border region and that can increase productivity thereby income and standard of living.
8. Educational infrastructure should be developed. More number of Primary Schools, M.E. Schools, Senior Secondary Schools, Colleges, Technical Institutions is to be constructed as soon as it is possible. Insurgency problem must be tackled immediately.
 9. Immediate steps should be taken to reduce poverty by taking appropriate poverty removal measure. Proper implementation of NREGA can reduce the extent of poverty in the border areas. Besides, they can be protected by adopting area specific employment generative programme. Bamboo resources of the state can be used to provide the gainful employment to the rural mass.
 10. The number of Fair Price Shops in not only Border areas of the Nagaland but also for the State as a whole is very low. Thus to cater the need of the poor the number of Fair Price Shops should be increased.
 11. There is a greater possibility to set up the Border Trade Point to formalize the informal trade that exists between India and Myanmar through several point. Longsa is one trading point which had already been in operation. Some other points such as Longwa, Pongru, Pangsha, Avangkhu and Pokhungri can be developed for border trade. This can not only increase trade between India and Myanmar but also make huge economic gain to the local people if there economy can be developed by taking appropriate steps that is locally viable.

**PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA:
IMPLICATIONS FOR 13TH FINANCE COMMISSION**

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Introduction

When we refer to Border we are not solely referring to the demarcating line or to the imaginary limit drawn and arisen from diplomatic negotiations or as a result of wars. In addition to including this bordering area, borders have their own characteristics which determine and give sense to the day to day life of those societies which are at one side and at the other side.

Border societies and border people share features which make the border a movable and flexible concept or category of thought, involving a great diversity of hybrid cultural expressions which are not exempted from inherent contradictions in their own nature. The border eases a series of determinations and ambiguities which jointly involve punishments for some and allow transgressions for others. Maybe due to the fact that for the border individual, the idea of border dissipates and disintegrates to the extent of disappearing and defines the border area as exclusive, beyond and above the respective rules and values at each side. Border people do not perceive the border in the same conditions as those at each side who do not hold such a condition.

Therefore, the border is not regarded as being at one side and them at the other, but as an area open to co-operation and not an abyss which divides people, but a community with its own energy, direction and future. Border identity is caused by those who live within those societies settled in the different parts of the border and the former are capable of going beyond the view of border that those who are outside it have. It is also true that we could outline many kinds of borders which go from the traditional, historical, political-administrative, linguistic, cultural, economic, maritime, fluvial, to those borders which are more intimate and refer to thought, collective imagination or mentality. Borders that are born and die or even border people who, for different reasons, the border has crossed over without their having moved from their territory, and have passed to form part of the other side without any intention on their part.

India has 15, 106.7 km of land border running through 92 districts in 17 States and a coastline of 7,516.6 km touching 12 States, Union territories and island territories. The following table highlights the length of land borders with neighbouring countries.

Length of India's International Border with Neighbouring Countries

Name of the Country	Length of the Border (in km)
Bangladesh	4096.7
China	3488
Pakistan	3323
Nepal	1751
Myanmar	1643
Bhutan	699
Afghanistan	106
Total	15106.7

GOI (2008), Annual Report 2007-08, Dept of Border Management, Ministry of Home Affairs, Govt of India.

Proper management of borders, therefore, is vitally important for comprehensive security of the nation. Different portions of India's extensive borders have a variety of development problems specific to them that need to be appropriately addressed.

Darjeeling District

Location

Darjeeling is the northern most district of West Bengal state in eastern India. It is located on the lap of the Himalayas. The district is famous for its beautiful hill station, Darjeeling, often referred as the 'queen of the Hill Stations', and Darjeeling tea. Kalimpong, Kurseong and Siliguri, three other major towns in the district, are the sub divisional headquarters of the district. It is bounded in the north by Sikkim State, in the south by Bihar State, Uttar Dinajpur district and Bangladesh, in the east and south east by Jalpaiguri district and Bhutan and in the west by Nepal.

Darjeeling Himalaya consists of a portion of the outlying hills of lower Himalayas and a stretch of territory lying along the base of the hills known as the Terai and the district is geographically divided into two broad physiographic divisions, the Hills and the Terai. The entire hilly region of the district comes under Darjeeling Gorkha Hill Council (DGHC), an autonomous administrative body under the state of West Bengal. The DGHC covers three hill subdivisions of Darjeeling, Kurseong and Kalimpong. The hill rises up to the height of over 3600 meters. The foot-hills of Darjeeling Himalaya, which come under the Siliguri subdivision is known as Darjeeling Terai. The Darjeeling Terai is the tract lying at the foot of the hills, and is bounded on the north by the mountains, on the south by the Purnia district of Bihar state, on the east by Jalpaiguri district and on the west by Nepal. It has a length from north to south of 18 miles, and a breadth from east to west of 16 miles. The Terai ranges between 100-300 meters from the mean sea level. The district is characterised by its physical configuration, drainage pattern and geological structure. The district is mainly drained by the Teesta, the Great Rangeet, the Mechi, The Balasan and the Jaldhaka Rivers. The Mechi River forms the Indo-Nepal boundary in the west and flows in an altitude of about 1900 meters. Darjeeling is a popular tourist destination for its culture, scenic beauty and biodiversity.

Location of Simana Busty in Darjeeling District



Source: www.calcuttaweb.com [Accessed January 4, 2009]

The district of Darjeeling measures a total geographical area of 3149 sq km and accounts for 3.55 percent of the total area of the West Bengal (88752 sq km). The total length of international border along the district comes to 185 kms- Nepal border: 101.02 kms, Bhutan border: 30.18 kms, Bangladesh border: 54.33 kms. The district headquarter, Darjeeling City is located at 6710 feet from the meal sea level. The topography of the district is mixed - 1/4th terai and 3/4th hilly - in nature.

Demography

The total population of Darjeeling district comes to 1609172 as recorded by the Census of India 2001, the male share of the total population being 830644 and female 778528. Accordingly, the sex ratio of the district is worked out at 937 females per 1000 males. The district accommodates a total of 204643 populations between the age group of 0-6 years. Further, Darjeeling district accommodates 204167 (12.69 %) scheduled tribe population and 258881 (16.09 %) scheduled caste population.

Darjeeling District: Population Profile 1901- 2001

Year	District Population
1901	265780
1911	279899
1921	294237
1931	332061
1941	390899
1951	459617
1961	624640
1971	781777
1981	1024269
1991	1299919
2001	1605900

Source: Census of India, various years

Darjeeling is a multi-ethnic, multicultural and multi-lingual area. The society in the area is made up of various elements drawn from diverse origin. The social diversity is perhaps the most powerful manifestation of the area. The social groups with diverse ethnic and linguistic origins, representing various racial stocks and social status have found a place for themselves at different points of time adapting themselves to the different ecological niches offered by the physiographic and climatic setting of the area. The waves of immigration have drawn the ancestors of the majority of the present population of the area from the surrounding territories across the Himalayas.

Approximate ethnic group wise composition of the population of Darjeeling Himalaya may be mentioned as follows -

" Nepali: this is a generic term and subsumes more than 15 ethnic groups under it. Various castes and tribe (like Sherpa, Subbas, and Tamangs) that immigrated to the area during the 18th, 19th and early 20th century from Nepal are subsumed under this group. Today they are the permanent settlers and bonafide citizens of India. The constitute about 50 percent of the population in Darjeeling District;

- * Lepcha: they are regarded as earliest settlers and autochthonous tribe of the region;
- * Bhutia: They are the tribe that migrated to the area from Bhutan, Sikkim and Tibet during both colonial and post colonial era;
- * Tibetan: They include refugees that fled Tibet and came to the area after the Sino-Indian War of 1961;
- * Bengali : They comprise both permanent settlers and migrants Bengalis of south Bengal and the refugees from Bangladesh (encouraged by the left front government of West Bengal over the years);
- * Other Indians

The social groups in the area with diverse history and corresponding needs and demands have not been satisfied with the multilevel planning and development framework of India and continuously struggling for the separate politico-administrative identity. Evidences available in this context highlight that the people living in the district had to pass through different phases in the process of development and importantly never formed the part of the mainstream development process.

The Census of India 2001 records the total literacy rate of Darjeeling district at 71.80 percent. There are, however, large numbers of villages across the rural spaces of Darjeeling Hills where we do not find graduates and postgraduates. Technical/vocational and professional educations are yet to make their ways into rural Darjeeling Hills. Further, a fairly noticeable gender gap still persists across various levels of educational attainment in the area. Such levels of educational attainment in the area deconstructs the very notion that Darjeeling Hills is one of the most educated geographical region in the state of West Bengal, as highlighted by various mainstream studies .¹

The life expectancy of Darjeeling district at birth of male and female is recorded at 67 years and 71 years respectively by the West Bengal Human Development Report 2004 while the infant mortality rate is calculated at 41. The issue of health in Darjeeling has to be seen in the context of geo-environmental set up of the region. The geographical locations of human habitations and climatic constraints in the region have a deep bearing on the overall health of people. To make the situation bad, irresponsibility on the part of health system with respect to proper health planning often exasperates conditions of health. Majority of the villages located across rural spaces are devoid of proper health centres and medical facilities.

The district registered a total of 569442 workers in 2001 out of which over 84 percent were main workers and about 16 percent marginal workers. The percentage share of cultivators

¹ Khawas, Vimal (2006), Socio-Economic Conditions of Tea Garden Labourers in Darjeeling Hills, Council for Social Development, New Delhi, Pp: 45

and agriculture labourers were recorded at 15.49 percent and 10.25 percent respectively. Accordingly, the dependency ratio of the district is worked out at 64.6 per cent. The per capita income of Darjeeling district is calculated at Rs 18529 by West Bengal Human Development Report 2004.

Environmental conditions play a major role in conditioning the livelihood and economy of the people in Darjeeling. The topography, climatic variations and soil condition have all influenced human occupation. Subsistence agriculture, livestock, forestry, plantations and allied activities are the major economic activity of the rural folks. Darjeeling district has only about 25 percent cultivable land in proportion to total geographical area.

Unfortunately, the economic status of Darjeeling has been disappointing. The region is excluded from the industrial map of the country. Although, the economic viability and environmental feasibility do not welcome the industrialists, small and cottage industries that have great potentialities in the area have not brought in. As one normally does in many parts of the country, the economic structure of the 'Queen of the Hills' cannot be analysed merely by observing the towns and roadside development. A house to house survey across the rural villages reveals the real picture as to how people struggle for their livelihood.

Infrastructure and Social Sector

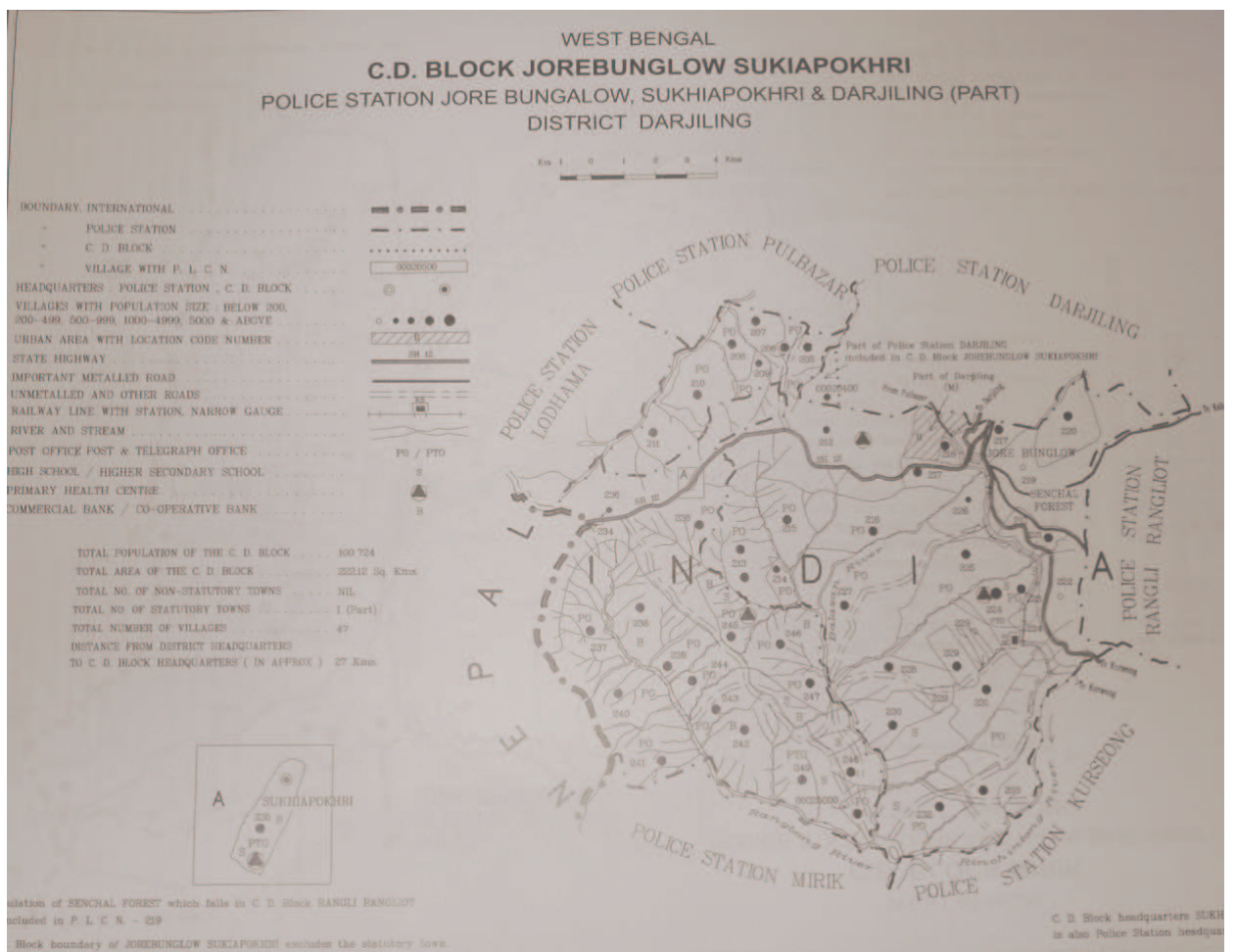
The Census of India 2001 records 38 hospitals and 32 health centers in the district. It further records a total of 319 doctors and 2833 hospital beds. There were 142 post offices and six telegraph offices in the district as per the Census record in 2001. The district had 513 fair price shops and 951 cooperative societies. Around 70 percent of the total households in the district were living without tap water facility and over 41 percent of the households were without toilet/sanitation facility. About 40 percent of the households in the district were accommodated in a single room in 2001. There were 8 percent of the households in the district with telephone connection.

A large proportion of people in Darjeeling Himalaya still reside in kutcha and semi-pucca houses. Open field defecation is still widely practiced in the area making them vulnerable to numerous health complexities, notably worm infestation. Similar is the situation with regard to safe drinking water and clean fuel. That the infrastructure is unsatisfactory is evident on seeing the poor of remote villages still trudging a day long walk to shop in the nearest town. It means many villages are without proper transport and communication facilities. The rural folks have to walk all day to sell their produce in the nearest town. The situation becomes even worse during the monsoon when frequent

Jorebunglow - Sukhiapokhri Block

Location

Sukhiapokhri-Jorebunglow is a Community Development Block under Sadar Subdivision of Darjeeling district. It is located in south-western part of the subdivision and is located approximately 27 km away from the district headquarters. The block has a total geographical area of 222.12 sq km. It shares its international border with Nepal. The block measures approximately 64 km of border with Nepal with seven border security posts located at Manevanjyang, Poolkhola, Fourth Mile, Pasupati Fatak, Simana, Sandakphu, and Meghma. The average distance between the security posts is measured around six kilometers. The topography of the block is hilly in character. The block accommodates a total of 47 villages and a town.



Source: Census of India 2001, West Bengal Administrative Atlas

Demography

The total population of the block is recorded at 100724 by the Census of India 2001. The male share of the total population is worked out at 49816 while in case of female, the figure is 50908. Accordingly, the sex ratio is calculated at 1022. The block accommodates a total of 9959 populations between the age group of 0-6 years. The literacy rate of the block is recorded at about 77 percent by the Census of India 2001. The total scheduled caste and scheduled tribe populations in the block are recorded at 2508 and 5028 respectively.

There were 33930 workers in the block in 2001, out of which 28023 (82.59 %) were main workers and 5898 (17.38 %) marginal workers. The percentage share of cultivators and agriculture labourers to total workers were recorded at 8.10 percent and 7.95 percent respectively. The dependency ratio of the block in 2001 was a sizable 66.31 percent.

Infrastructure and Social Sector

There are two police stations in the block. The block covers a total road length of 155 kilometers out of which over 50 percent is accounted by surfaced road. About 70 percent of the village has road connectivity. There are over 87 percent of the villages in the block that are electrified. About 39 percent of the households are, however, recorded without electricity facility by the Census of India 2001. The block has a total of 176 schools registering only 17 schools per 10000 populations. It also means for every 588 population there is only one school. The number of schools per 100 sq km can be worked out around 88. The student teacher ratio is calculated at 35: 1 in the block.

There is no hospital. However, there are four primary health centers and eight doctors in the block. The block has about 5 medical technical personals. The total number of beds in the primary health centres is 25. The beds are available only in the Block Primary Health Centre located at Sukhia. As per the latest record available [April - November 2008] the total number of birth recorded in the block was 679 out of which only 12 babies were reported dead after few days of their birth indicating fairly high life expectancy at birth and low infant mortality. However, the figure cannot be taken as accurate as many females from the block deliver at the district hospital and private nursing homes in Darjeeling Town.

There are 27 post offices and two post & telegraph offices. The block has 35 fair price shops and 135 cooperative societies. Out of the total 47 villages, only 28 villages are fully covered by drinking water facility. About 45 percent of the households in the block are without tap water facility. Around 36 percent of the households in the block are without coverage of any toilet/sanitation facility. Such households either use open space / nearby jungles or public toilets for sanitation. Further, around 35 percent of the households in the block live only in one room. Such a phenomenon is particularly true in case of households located in and around market places. There are currently about 20 percent of households having telephone connection.

Simana Basti

Simana Basti is located close to India's border with Nepal. It is around 51 km north-west of Siliguri. Mirik is 8 km to its south-east. Simana Basti is one of the 47 villages within Jorbunglow - Sukhiapokhri block. It has an area of 4.45 hectare. The village is entirely located along the international border of Nepal at an average height of about 7400 feet from the mean sea level. Airport close to the village is Civil Enclave Bagdogra. The nearest railway station is Ghoom Railway Station.

The village and its vicinity are blessed with abundant natural resources. Simana is somewhat famous from tourism point of view as also because of the places located around it. Jamuna in the west, Bijanbari in the north, Ghoom and Sonada in the east are nearby locations. Summand Lake, Rameetay Dara, Deosi Dara, Tiger Hill, Observatory Hill, Dhirdham Temple and Bengal Natural History Museum are the major tourist attractions around. Places like Jorepokhri, Manevanjyang, Sandakpu, all tourist spots, are situated around Simana. Jorepokhri (lake) situated at an altitude of 7404 feet is a bio-resource hub. It is one km away from Simana Basti and is second place in the world after Switzerland where Salamander can be found in maximum numbers. Jorepokhri is home of the salamander, the lizard like amphibian, now extinct in most parts of the world. There are several towns/ villages on India-Nepal border.

Jorepokhri has become a tourist spot because of this resource. Sandakpu is another place where there are abundant natural resources. It is at a distance of about 33 km from Simana Basti and is famous for its natural beauties. Vital medicinal herbs and various species of insects can be found at Sandakpu.² Other resources like variety of forest products and natural springs etc can be found in abundance in and around the Simana Basti.

According to the census of 2001, the total number of households at Simana Basti is recorded at 72. The total population of the village is recorded at 330 with 177 male population and 153 female populations. The sex ratio of the village is calculated at 864.

Basic Demographic Information of Simana Basti

Area (Hectare)	No of HH	Population (Number)			0-6 Yrs Population (Number)
		Total	Male	Female	
4.45	72	330	177	153	25

Source: Census of India, 2001

Simana Basti is inhabited by the people belonging to different communities like Hindu, Buddhist, Muslim and Christian. Different tribal groups like Bhutia, Sherpa, Drukpa, Limbu, Tamang and castes such as Kami, Damai and Sarki along with OBCs and general castes live in this village.

It is a village where lot is to be done in terms of development. The village is economically relatively backward in character. The cold and harsh geo-environment also affects the daily

² On July 2008 two Czech nationals was arrested in connection with insects smuggling in the Singalila National Park in Darjeeling.

activities of people and economy of the village. Unemployment and underemployment are the crucial factors for the backwardness of this place. Majority of the village populations are engaged in daily wage activities. Some of them are engaged in agricultural activities (mainly subsistence farming) and only few are into Government services. Agricultural products of the village mainly comprise cabbage, raddish, pea, cardamom and broom. Among these, cardamom and broom are taken to nearby market area at Sukhiapokhri for sale.

Besides being used for house making, the villagers have allotted their land for grazing of their livestock and cultivation. Terraced cultivation is the most commonly practiced cultivation among the villagers. One can also witness a fairly large track of fallow land / wasteland in the area.

The village frequently suffers from the natural calamities like landslide, mudslide, cloud burst and snowfall. Landslide and mudslide often damage houses of the villagers. During snowfall, the daily activities of the people are affected badly as one cannot venture outside the house because of severe cold and that the roads are often blocked with snows. Landslides occur more frequently during rainy seasons.

The village is connected with a pucca road. Transportation in and out of the village is meted by Tata Sumo, private buses and other private vehicles ply on the road. The nearest transport connecting point from Simana is Sukhiapokhri located around 4 km away from the village. The village, in fact, lies on the way to Pashupati (Nepal) / Mirik (India) from Sukhiapokhri. The quality of road in border areas of the block is fairly good as 70 percent road of the block is pucca. As the topography of the place is hilly in nature, people of the village have to walk a fairly long distance to reach the pucca road.

The village lacks in basic social infrastructure amenities. Facilities like hospital, high school, market place, post office, bank, police station etc. are not located within the village. Most of these amenities are located at Sukhiapokhri. Sukhiapokhri is a small hilly locality located, almost on the India-Nepal border; it is 11 km on the road from Ghum to Mirik. The post office of Simana is located at Manevanjyang located about eight kilometers away from the village.

Basic Infrastructure Facilities

SI No	Items	Distance in km
1	Veterinary Dispensary	0
2	PWD Road	0
3	Primary Health Centre	4
4	Hospital	22
5	ICDS Center	0
6	Primary School	0
7	Secondary School	4
8	Higher Secondary School	4
9	Market	4
10	Post Office	4
11	Bank	4
12	Police Station	4
13	Fair Price Shop/Cooperative shop	4
14	District Headquarters	22
15	Nearest Town	4

Source: Focus Group Discussion

Note: if the item concerned is available within the village then the distance will be 'zero'

Note: if the item concerned is available within the village then the distance will be 'zero'

Simana Basti has a sub-primary health center with one nurse and a dhai. The district hospital is located 22 km away from Simana Basti in Darjeeling Town which is also the District Headquarters. Apart from the normal health related problems like diarrhea, cold and cough etc., one disease that is largely reported by the villagers is tuberculosis. The main reason for the prevalence of this disease in this area, as cited by the villagers, is the hard physical labour required for the sustenance of the villagers. Most of the villagers are engaged in daily physical works even during harsh cold season. Moreover lack of nutrients and vital vitamins in the diet of the villagers add to the cause. However, people of the village are well aware of the immunisation vaccines. They generally take their babies to sub-primary health center situated within the village on regular basis to administer immunisation vaccines.

There are four Primary Health Centers (PHC) under Jorebunglow-Sukhiapokhri block. They are located at Sonada, Ghoom, Pokhriabong and at Sukhiapokhri. The nearest one of the four from Simana Basti is the one located at Sukhiapokhri about four kilometers away. In fact, it the Block Primary Health Center with a little more medical facilities than other three. A total of four doctors are presently available in this health centre. There are five nurses, five GNM one ANM and a pharmacist. The centre has twenty-five beds and the basic medicines are available. Besides other ongoing primary immunisation programs, the centre also has introduced Revised National Tuberculosis Programme (RNTCP).

There are two primary schools in the village out of which one is a government run primary school and the other privately maintained. Large section of the people in the village is illiterate and most of them who have attained higher education are without employment. Simana needs

all round development in the field of education. The village is devoid of upper primary, secondary and higher secondary school. Such schools are located around four kilometers away at Sukhiapokhri. Most of the students leave school after completing primary education as they have to travel to other places for immediate higher education. This is particularly so because most of the students come from a poor family background. It is reported by the villagers that number of dropouts increase after class five. It is, however, recorded from the villagers that classes in the primary schools take place on a fairly regular basis.

Nature of Sanitation Facilities

SI No	Type of Sanitation	No of Household
1	Open space/Jungle	11
2	Pit Latrine	22
3	Sanitary (with water seal)	0
4	Septic Tank	10
5	Public Toilet	29

Source: Focus Group Discussion

11 households in the villages use open space /jungles for defecation. There are 22 households having pit latrine for sanitation while 10 households have septic tank. A sizeable number of households use public toilet. The village has three public toilets all of which are in utter bad shape without any required cleanliness. The village mainly depends on natural springs for drinking and domestic water with very few households having tape water facility. The village is fully electrified with all 72 households having electricity facility.

The village has witnessed very few rural development programmes operated in the area during the last five years. In the year 2000, a programme called 'Construction of Jhora' was operated under local area development fund by the Department of Panchayat. About 12 households directly benefited from the scheme. In 2007 another programme called 'Drinking Water Scheme' was also implemented under Border Area Development Fund by the Department of Planning. About 15 households benefited out of the programme. Recently, National Rural Employment Guarantee Scheme (NREGS) had also started in the village but the work has been stopped indefinitely due the ongoing political turmoil in the Darjeeling hills for the past many months.³

In the context of various rural development programmes already operated and currently operational in the border villages it is interesting to note that they have not been implemented as expected due to various reasons. It is important the development programmes reaches the border villages like Simana in a full way. It is further desirable that the Government evolves a suitable mechanism to monitor and evaluate the development programmes operated across the border villages.

Rural Development Programmes operated in the village during the last five years

Name of Programme	Year of Inception	Name of Department	No of Beneficiaries
Drinking Water Scheme	2007	Border Area Development Fund ¹	10-15 households
Construction of Jhora	2000	Local Area Development Fund	12 households

Source: Focus Group Discussion

About 55 households in the village have radio and TV sets. Majority of the households in the village watch the National Doordarshan Channel. Few of the households possess DISH TV and have the privilege to watch other private channels. Besides Doordarshan, two foreign channels are also available and watched by the villagers. They include Nepal Channel and Bangladesh Channel. However, the most popular television channel among the villagers is the Doordarshan. The village has both landline telephone and cell phone connectivity. About 25 households of the village have landline telephone connections while about 32 households have mobile telephone. About 64 households also possess tape recorder, two households have motorbike and nine households possess motor car in Simana Basti.

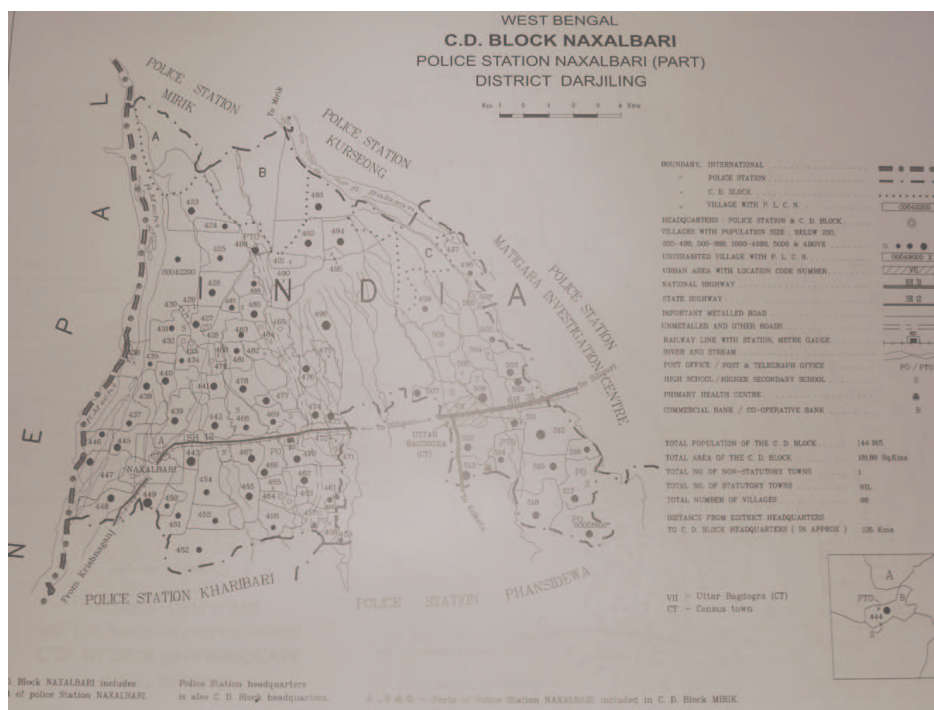
Simana Basti does not have a proper market place in its immediate vicinity. The villagers have to travel to Sukhiapokhri for basic marketing purpose. While the village is connected with pucca road and vehicles do ply along the road, majority of the villagers cannot take advantage of the facility because of their poor economic background. The villagers face problems regarding buying and selling of essential consumption goods as a result. Most of the agricultural products in the village are, however, produced on subsistence basis and only the surplus product is sold in the nearby market.

The international border with Nepal has not been sealed along this village. The border is demarcated only by a small drain. No tax is paid for the entrance and exit from one country to

³ The people of Darjeeling are once again up with the demand for a separate state of Gorkhaland. Frequent strikes and other political activities are the order of the day in the region at present.

another. People from both the sides of the border participate equally in each others functions both economic and cultural. Pashupati, a small marketing place lies on the other side of the border in Nepal. It is located about eight km away from Simana busty. Pashupati is a common marketing place for most of the villagers in Simana Basti. Because of cheap availability of cloths mostly supplied from China and South East Asia, people from the village often visit Pashupati. Besides the Simana Basti, Pashupati also supplies such consumer items to the whole of Darjeeling Hills including the Darjeeling, Kurseong, Kalimpong and Mirik towns. Although the international border along Simana Basti has not been sealed, there has been report of incursion of external forces or threat to the security of the village people. Cases of smuggling, trafficking, drugs, HIV etc. have not been reported in the area so far. As the village lies along the international border one can find a number of security posts. Perhaps because of this reason, there is no security related threats and law & order problem in this region.

It is difficult to point out that there has been no case of migration from across the border into India and vice-versa openness of the border but there is no official record available in this regard. However, there are no cases of conflict of interest between the people of the two countries ever recorded or observed by the villagers. The economic and socio-cultural relations between the people across the border have been harmonious and peaceful so far. As the border is not sealed people from both the sides participates in each others functions and remains in a peaceful and harmonious environment. According to the people of the village, the relation between the local population and the state security forces has been cordial and till date there are no cases of extortion or rape recorded. As the village is thinly populated, a sense of remoteness, however, persists among the people inhabiting the area.



⁴ The Border Area Development Programme (BADP) was started during seventh Five Year Plan with the twin objectives of development of sensitive border areas in the western region and in Eighth Five Year Plan (i.e 1993-94); it was extended to states which have international border with Bangladesh. During the Ninth Five Year Plan, the programme was further extended to the State bordering Myanmar, China, Bhutan and Nepal and currently there are 17 Border States which have international land borders

Sikkim Himalaya

Location

A small and beautiful state, Sikkim situated in the Eastern Himalayas spreads below the world's third highest mountain Kangchendzonga (8598m). The state is separated by the Singalila range from Nepal in the west, Chola range from Tibet in the northeast and Bhutan in the southeast. Rangit and Rangpo rivers form the borders with the Darjeeling district of West Bengal in the south.

Sikkim Himalaya is strategically located. It lies between latitudes 27° 5' north to 28° 9' north and longitudes 87° 59' east to 88° 56' east. It is wedged between Nepal in the west and Bhutan in the east and China in the north and northeast. Measuring just 65 Km east to west and 115 Km from north to south, it ranges from sweltering deep valleys, with a mere 300 meters above sea level to lofty snow peaks such as Kangchendzonga. The state being a part of inner ranges of the mountains of Himalayas has no open valley and plains but varied geographical elevations ranging from 300 to 8598 meter above mean sea level consisting of lower hill, middle and higher hills, alpine zones and snow bound land, the highest elevation 8598 meter being the top of the Mt. Kangchendzonga itself. On its north-western side of the Sikkim Himalaya lies the massive 31 Km long Zemu glacier. Sikkim's botanical and zoological affluence is truly impressive. The variety of birds and butterflies in Sikkim is matched only by incredible diversity in the animal and botanical world, nourished by unique and dramatic geographical features.

Sikkim Himalaya measures a total geographical area of 7,096 sq km with 349.3 km of international border- China border: 220 km, Bhutan border: 32.8 km, Nepal border: 96.5 km. It has a national border of 30.3 km with West Bengal. The nature of the International Border is natural in character. About 100 kms from the border town Rangpo in South Sikkim lies the Bangladesh. The state of Sikkim has four districts - North, South, East and West- with the capital city of Gangtok located in the East district. The North district is largely a tribal district inhabited by about 56 percent tribal population. It has nine sub-districts/sub-divisions. Sikkim does not have the concept of Community Development Block as in the case of West Bengal /Darjeeling district. The state has very recently demarcated its administrative blocks. Macro developmental and other related information with regard to the administrative blocks are not available at present. Further, the total number of border administrative blocks is yet to be recorded by the state. Similarly, the figure with regard to the total number of security posts is not available with the state. The state has 453 revenue blocks / villages. The total number of border villages in Sikkim has not been recorded by the state so far. Sikkim merged with Indian Union in 1975 and is currently ruled by a democratically elected party 'Sikkim Democratic Front' headed by Dr Pawan Chamling as its Chief Minister.

Sikkim Himalaya



Source: <http://maps.newkerala.com/Sikkim-Travel-Map.jpg> [Accessed 12 January, 2009]
Demography

Demography

Sikkim is a multi-ethnic state. The population of the state can broadly be divided into tribal and non-tribal groups. Lepchas, Bhutias, Sherpas, Tamangs and Limbus are categorized as Scheduled Tribes. The Lepchas are believed to be the original inhabitants of the state. Over 68 per cent population of the Sikkim Himalaya consist of Nepali ethnic community. They are dominant group in the state. The people from the plain mostly involved in trade and services represent a marginal group.

The Census of India 2001 recorded a total of 540851 populations in the state of Sikkim out of which 288484 comprised of male population and 252367 of female populations. The sex ratio was calculated at 875 while the total number of populations in the age group 0-6 year was recorded at 78195 in 2001. The literacy rate of the state was recorded at 68.80 percent. There were 111405 Schedule Tribe population (20.6 %) and 27165 (5.0 %) Schedule Caste population in the State in 2001. The life expectancy at birth in the state of Sikkim has not been recorded so far. The Infant Mortality Rate was 32 per 1000 birth in 2005.

The economy of Sikkim is mainly based on agricultural and animal husbandry. Approximately 11 percent of the total geographical area is under agriculture. Agriculture is, however, of the mixed type and still at the subsistence level. The total number of workers in the state as recorded by the Census of India 2001 is 263043 out of which 212904 (80.9 %) are the main workers while 50139 (19.1 %) are marginal workers. Out of the total main workers, 51.8 percent workers were engaged in agriculture in 2001. Agriculture accounts for about 26 percent of gross domestic products of Sikkim. The importance of agriculture can be judged by the high percentage of population engaged in it. Animal husbandry is an integral part of the house hold economy of the region. There are certain house hold industries also which substantially add to house hold incomes. The past one and half decade has witnessed a tremendous upward swing in various development programmes giving a new thrust to the Sikkim economy. This process has increased wage employment opportunities. Though most of the inhabitants are basically agriculturists, they have diversified into tertiary jobs such as Government services. The dependency ratio in Sikkim is calculated at 48.6 percent.

Per Capita Income of Sikkim (at current prices)

Year	Per Capita Income
1980	520
1985	1,220
1990	2,340
1995	5,200
2000	9,710
2003	23,786
2005	29,808

Source: National Accounts Division : Press release & Statements". Ministry of Statistics and Programme Implementation. 2006-05-23. http://mospi.nic.in/mospi_nad_main.htm. Retrieved on 2006-10-12.

Source: National Accounts Division : Press release & Statements". Ministry of Statistics and Programme Implementation. 2006-05-23. http://mospi.nic.in/mospi_nad_main.htm. Retrieved on 2006-10-12.

Infrastructure and Social Sector

After its merger with the India union, a large number of developmental activities have taken place in Sikkim. Adequate plan funds started flowing in for implementation of various schemes. Sikkim therefore has been emerging as fast developing state. However, the developmental process has not been same across the sectors. A lot of potential is still there in energy, tourism and industrial sectors.

Sikkim does not have any airports or railheads because of its rough terrain, however a Government Grant has been approved for an airport in Pakyong. The closest airport, Bagdogra Airport, is near the town of Siliguri, West Bengal. The airport is about 124 km away from Gangtok. A regular helicopter service run by the Sikkim Helicopter Service connects Gangtok to Bagdogra; the flight is thirty minutes long, operates only once a day, and can carry 4 people. The Gangtok helipad is the only civilian helipad in the state. The closest railway station is New Jalpaiguri which is situated sixteen kilometers from Siliguri.

Sikkim: Airport work begins

Punj Llyod Construction Company has begun mobilisation work for the construction of Greenfield Airport here.

Officers and staff of the constructing company is at present busy looking for buildings and land for lease to set up camps, offices and workshop.

Many house owners and landlords could be seen interested in leasing out their houses and land to the company.

“I am ready to lease my land at Dikling area for setting up the camps but not for the workshop of vehicles as the land will be unfertile for agriculture use late,” some landlords told this correspondent.

Company staff said they are finding difficult to get required land and building. “We are still looking for land and houses outside the airport land. We need adequate place to set up camps and also to keep heavy machines like stone grinding, trucks and storage,” he added.

Executive Director (Engineering) of AAI S Raheja said that time will take to bring all the required equipment for the construction of the Airport.

Source: Sikkim Express, January 20, 2009

National Highway 31A links Siliguri to Gangtok and is a lifeline of Sikkim. The highway is an all-weather metalled road which mostly runs parallel to the river Teesta, entering Sikkim at Rangpo. Numerous public and privately run bus and jeep services connect the airport, railway station and Siliguri to Gangtok. A branch of the highway from Melli connects western Sikkim. Towns in southern and western Sikkim are connected to the hill stations of Kalimpong and Darjeeling Hills. Within the state, four wheel drives are the most popular means of transport, as they can navigate rocky slopes. Minibuses link the smaller towns to the state and district headquarters.

Road transport is the only means of communication in the land locked State of Sikkim. Road transport is a vital infrastructure and a dominance role of transport for the growth, development process and sustenance of the economy of the State. It is both cause and effect of sound and economic development. It offers a number of other advantages such as accessibility, flexibility, reliability and competitive resource cost. Sikkim Nationalised Transport through its operation of the fleet of commercial vehicles have been providing basic infrastructure to the State since its inception. The department was established with an objective to provide an efficient, adequate, economic and properly coordinated road transport system in the State for promotion of rapid economic growth.

Due to hilly terrain and loose soil structure, roads are still to be fully developed in the state of Sikkim. The state has a total of 1789 kilometers of road length including National Highway, State Highway and district road. The length of road per 100 square kilometer can be calculated at 25.2 km. 74.3 percent of the total road in the state is surfaced in nature. There were 69.3 percent of the villages in the state of Sikkim having approach by pucca/surfaced road in 2001. There are 26 police stations in the state at present.

Currently, there are six hospitals, 24 primary health centres and 147 primary health sub-centres in the state of Sikkim. The number of Primary Health Centers per ten thousand populations is calculated at 0.44 while the number of Primary Health Center per 100 sq km is worked out at 0.34. The number of hospital beds per ten thousand populations is calculated at 22. There were 1134 schools in Sikkim in 2006 registering over 16 schools per 100 sq km and 21 schools per 10000 populations. The teacher student ratio is accordingly calculated at 1:16. Education up to Class VIII is free for its people in Sikkim.

Sikkim in 2001 had 94 percent of its villages covered with electricity facility. There were 22.2 per cent of the households in the state without electricity in the same year. The state had 70.7 percent of its villages fully covered by drinking water in 2001 with 30 percent of the households without tap water facility. There were 28.5 percent of the households living in one room. There were further 36.6 of the households without toilet / sanitation facility.

The Census of India 2001 recorded 13.2 percent of the households with telephone connection in the Sikkim. Sikkim today has, however, the highest density of telephone network among the Indian States.⁵ In 2004 the landline connection was around 50,000. Mobile services have grown rapidly with almost all private operators being in Sikkim. At present there are over 35000 mobile connections. In the next five years more than one lac connections are expected with each home having one connection. Broad band services have been launched and more than 500 connections have already been taken. Community Information Centers have come up in almost all sub divisional headquarters.

⁵ Address by SK Sarda, President – Sikkim Chamber of Commerce on 22 June 2007 to the Tibetan community of Sikkim, Hotel Tibet, Gangtok

SIKKIM: Cooperative society awarded

The Nayuma Women's Cooperative Society was awarded first prize in the National Co-operative Fair 2009, held in Jaipur Rajasthan. The cooperative members, led by their manager, Mr HP Adhikari, returned to Gangtok jubilant after participating in the Fair held from 2 January to 18 January.

They were awarded for the best decoration and best handicrafts and handloom items of Sikkim. Ms Kamala an active shareholder of the Society said: "We are very happy and encouraged to produce even better products and win international awards the next time." The Nayuma Women's Cooperative Society has three outlets in Gangtok to showcase its products. They have trained young unemployed women from rural areas of all the four districts of the state of Sikkim.

In an age when cooperative societies are being declared sick and making way for self-help groups in many parts of the country, the society is doing commendable work and flourishing. During the Fair in Jaipur they earned Rs 65,200, which would provide further impetus to the co-operative movement in Sikkim, officials said.

Source: The Statesman, January 21, 2009

There were 211 post offices⁶ in the State in 2001 and the number of post offices per 10000 populations can accordingly be calculated at four. The total number of fair price shops in the State, currently, is 1185 and the number of cooperative society is worked out at 591. The number of fair price shop and number of cooperatives per 100 sq km calculated at 17 and eight respectively. The per capita state income is calculated at Rs 29521 (2006-07) at current price.

East District

Location

East Sikkim district is one of the four administrative districts of the Indian state of Sikkim. It is situated on south-eastern corner of the state of Sikkim. It is bounded in the north by North Sikkim District, in the east by the Chumbi valley of Tibet and the kingdom of Bhutan, in the south by the state of West Bengal and in the west by West Sikkim District. The district headquarters is located at Gangtok. Gangtok is the hub of all administrative activity in the state. Military wise, the district is a very sensitive area with the Indian army having control over most areas east of Gangtok and near its borders with People's Republic of China and Bhutan. The civilian region is administered by a district collector, appointed by the Union Government and the military area by a Major General.

The district occupies a total geographical area of 954 sq km. It is hilly and mountainous in nature. It lies at an average elevation of 1700 m from the mean sea level. East Sikkim shares its international boundary with China in the North - East and Bhutan in the South - East. The total length of international border along the district is approximately measured at 54.8 kilo-

⁶ Post Office include Post Office, Telegraph Office and Post & Telegraph Office [Census of India 2001, District Census Hand Book , Sikkim, Series – 12, Part A & B, Directorate of Census Operation, Gangtok, P. 68]

meters - China: 22 km and Bhutan 32.8 km. The nature of border is natural in character. There is no data available with regard to number of border security posts, distance between the security posts and the number of border villages of Sikkim.

East District of Sikkim



Source: <http://www.mapsofindia.com/maps/sikkim/districts/eastdistrict.htm> [Accessed 02 January 2009]

Demography

The Census of India 2001 records the total population of 245040 in the district with male and female populations accounting 132917 and 112123 respectively. The population of the age group between 0-6 was recorded at 31410. The sex ratio of this district was calculated at 844 females per 1000 males, which is, indeed, less than the sex ratio at the State level. The reason for such a low sex ratio can be attributed to migration (intra state) which is mainly a male dominant. People migrate to this part of the state for government services and in search of other opportunities in the capital. People in East Sikkim are mostly of Nepali ethnicity. Other ethnicities include the Bhutias, the Tibetans and the Lepchas. Nepali is the predominant language in the region.

The literacy rate of East district is 74.7 percent as recorded by the Census of India 2001. There were 14277 (5.83 %) scheduled caste and 45321 (18.5 %) scheduled tribe population in the district in 2001. The data with regard to life expectancy and infant mortality is not available at the district level.

The total number of workers in the district was 116529 in 2001 out of which the main workers registered 92577 (79.4 %) and marginal workers 23952 (20.2 %). There were 39.6 per cent workers engaged in agriculture. Accordingly, the dependency ratio can be calculated at 52.4 per cent for 2001.

A sizeable proportion of people of East Sikkim are engaged in agriculture. However, the tourism industry forms the backbone of the district. The district can boast of many places of tourist interest. One of the major attractions of the district is the city of Gangtok, the capital of Sikkim which has many tourist destinations. The Rumtek Monastery, Nathu-La and Tsomgo Lake are other major attractions. Tsomgo Lake is situated 38 kms away from Gangtok at a height of 12400 ft. The lake collects water from the melting snow of the surrounding mountains. It lies on the ancient trade route between Gangtok and Nathula Pass. About 20 kms ahead of Tsomgo lake lies the Nathula Pass (14000 ft), gateway to Tibet. This place is situated on the border of India and China. The pass is on the old caravan trail that traverses to Tibet. The Nathula Pass formed the offshoot of the ancient Silk Road which connected Lhasa to India. The pass is open to Indian nationals only. To enter this region a special pass - The Inner Line Permit - has to be obtained one day prior to departure.

Infrastructure and Social Sector

There are nine police stations in the district. East district had 286.38 km of road in 2006. The length of road per 100 sq km was calculated at 30 km for the district and 79.3 percent of the total road was surfaced. There were 67.2 percent of villages having road connectivity in 2001. The Census of India 2001 recorded 100 percent electrified villages in the district as against 15 percent households with electricity facility.

There were 376 schools in the district in 2006. Accordingly the number of schools per 10000 populations is calculated at 15 and number of schools per 100 sq km at 39. The teacher student ratio is worked out at 1:14 in the district as against 1:16 in the state. There are three hospitals in the East district out of the six in the state. This is particularly so because of the location of the capital city Gangtok in this district. Of the three hospitals, two are government run and one maintained by private party. There are eight Primary Health Centers (PHCs) and 48 Primary Health Sub-Centers (PHsCs) within the district. There were a total 900 beds in the hospitals in 2005 while populations per doctor in the district were at 2024. The number of Primary Health Centre per 10000 populations was calculated at 0.32 and the number Primary Health Centre per 100 sq km was worked out at one in 2005. There were 37 hospital beds per 10000 populations in the district in the same year.

There were 71 percent villages in the district fully covered by [improved] drinking water while there were 28.5 percent households without tap water facility in 2001. Further, there were 24.4 percent of households without toilet/sanitation and 29.3 percent households living in one

room in the East district of Sikkim in 2001. Similarly, there were 19.7 percent house holds having telephone connection in the district in 2001. The per capita district income is calculated at Rs 39937 (2006-07) at current price. There are 91 post offices in the district. Accordingly, the post office per 10000 populations is calculated at three. Earlier the telegraph office used to be under post office it is now merged with BSNL. The number of fair price shops and cooperative societies per 100 sq km in the district is registered at 55 and 26 respectively.

The National Institute of Rural Development, Hyderabad conducted an Impact Assessment Study on Rural Development Programmes in East District of Sikkim during 1998 - 2000 and came out with the following relevant findings:

- Around 40 percent of respondents are estimated to have crossed the poverty line as a result of the self employment scheme, while others gained some improvement in family income.
- Though wage employment programmes offered only a marginal addition to income in the family, durable infrastructure meeting the most felt needs of the communities had been created, resulting in improved quality of life and reduction in drudgery. There was an overwhelming opinion that wage employment programme benefited the poor individually and collectively.
- Among the beneficiaries 97 percent were new beneficiaries and only a small proportion were old indicating second dose of assistance.
- For SHGs only the grant component has been disbursed and cash credit facilities from the banks is largely absent. The co-operation and participation of the banks was very minimal.
- Village Panchayats played an important role in selection of beneficiaries under self employment schemes.
- The average assistance under IRDP/SGSY was more than Rs.10000 per beneficiary and covered the entire cost of physical assets.
- In 94 percent of the cases the assets found to be in fair condition and almost all of the continued the assisted activity.
- Maximum amount under JRY/JGSY has been spent for constructing foot paths and school building.
- Contractors and Sarpanches were reported to be primary executing agents under EAS.
- Considerable number of beneficiaries under IAY belonged to relatively better off sections in the villages and everyone except a single case was satisfied with the house.
- The Rural Development Programmes have great potential to reduce the severity of burden of poverty and improving the quality of life in rural areas.
- The general awareness of various programmes of Rural Development at village level is poor and massive publicity as well as orientation training for grass root functionary is necessary.

Aritar Revenue Block / Village

Aritar is located in the south western part of East District. Towards the west of the village lies the Kingdom of Bhutan while on its south is the Darjeeling district of West Bengal. Aritar has a total area of 695 hectare. The village /revenue block accommodates six wards within its administrative boundary namely, Gumpa Simana Gaon. Aritar Manaydara, Pradhan Gaon, Kingston, Upper Khamdong, and Kuttitar. The Panglakha and Rachela Wild Life Sanctuary act as a buffer between Aritar and Bhutan. The village lies at an average elevation of 4750 ft from the mean sea level.

The area is popular for its scenic beauty and is famous for sacred lake called Lampokhari Lake. The lake is a major tourist attractor. The people of this area often go for trekking to neighboring Bhutan Himalaya. There is no economic interaction across the border reported.

Aritar currently accommodates 765 households and a total population of 3405 out of which the male share is 1805 and female population 1600. The sex ratio is calculated at 886 females per 1000 males. There are 338 populations in the age group of 0-6 years. Out of the total population 72.8 percent are Hindus, 24.8 percent are Buddhists and 2.7 percent are Christian. The literacy rate in the area is recorded at 62 percent by the Census of India 2001. There were 461 scheduled tribe populations and 160 schedule caste populations in the area in 2001. The main tribal groups found in the area include Bhutias, Sherpas and Lepchas. Their primary source of livelihood is agriculture and animal husbandry.

The total number of workers in Aritar in 2001 was 1583 out of which the main workers registered 986 and female workers 597. Over 70 percent of the populations were engaged in the agriculture and allied activities. The main occupation of the village, therefore, is agriculture followed by government services, contract works and tourism. Paddy, maize, mustard, wheat, pulses, potato, millets, cardamom, ginger are grown in the village. Various medicinal plants are also available in the forest area. The village has 57.2 hectare of its land under forest, 461 hectare under terraced cultivation and 179.2 hectare barren land. The main resource base of the village is its scenic beauty, forest, water, crops, flora including medicinal plants/orchids and fauna. As everywhere unemployment problem is evident in this village too.

The consumption pattern of the village is mainly local as there is no trade across the border. The food is fairly sufficient in the village and there no problem of buying and selling the agriculture produce both within and outside the village.

Infrastructure Facilities (Distance of the Village from the following)

SL No	Items	Distance in Km.
1	Vetenary Dispensary	0
2	GREF* road	0
3	Primary Health Centre	7
4	Hospital	37
5	ICDS centre	0
6	Primary School	0
7	Secondary School	0
8	Higher Secondary School	0
9	Market	7
10	Post Office	0
11	Bank	7
12	Police Station	7
13	Fair Price Shop/Co-operative Shop	0
14	District Headquarters	62
15	Nearest Town	29

Note: If the item concerned is available within the village then the distance will be 'zero'

*the roads running across the village is maintained by GREF

The village is connected by a surfaced road. Over 90 percent of the wards/hamlets located within the village are connected with surfaced road. A few roads serving as feeder roads to the main trunk road also exist. The roads are not very wide but surfaced with black topping for faster and smoother connectivity. Construction activities are still taking place. The roads are maintained and constructed by GREF.

The roads are the lifeline and only mode of transportation in the village. Other modes of transportation like railways, waterways and airways are not available. The only means of transportation in this area is a narrow metalled road which is rather in a poor shape. In this regard, Pradhan Mantri Gramodaya Yojana (PMGY) which aims at developing rural connectivity is under progress.

100 percent of the households in the village are electrified. Households below the poverty line are being provided with the free electricity connection. The electricity consumption is being charged at considerably subsidised rate with free energy up to 50 units. The main source of drinking water in the village is tap water followed by natural springs. About 90 percent of the households have tap water facility. Majority of the hamlets are covered by improved drinking water. However, the villages reported that water scarcity is often pronounced in the area during dry seasons. The reasons put forth by the villagers in this regard include depleting natural vegetation, high altitude of the village and lack of proper water reservoir.

There are a total of seven government schools in the area - Primary School: 4, Junior High School: 1, Secondary School: 1, Senior Secondary School: 1. Further, there are two private primary schools and one private secondary school in the area. The number of schools per 100 sq km is calculated at one. The teacher student ratio comes around 1:13 in the area. All

the Government Schools are affiliated to CBSE. On an average the each school has about eight rooms. Over 60 percent of the teachers are from the village and hence reside there. All the schools have toilet facilities for both boys and girls.

Government Schools, Students and Teachers in Aritar Village

Type of School	Government		
	Number of School	Number of Students	Number of Teacher
Primary	4	320	33
Upper Primary	1	221	16
Secondary	1	244	20
Senior Secondary	1	840	53

In order to encourage the parents to send their children to school, no tuition fees are charged to the student in all government schools. Further, textbooks, exercise copies, uniforms, school bags and raincoats provided to the students free of cost upto fifth standard. The classes in the schools are held regularly. However, there are many cases of dropouts from the schools. The main causes for the dropout as cited by the villagers include lack of proper education of the parents, poor economic background of the family and improper guidance.

There is one Primary Health Sub-Centre within the village with one Multi Purpose Health Worker (MPHW) and two ANMs (Auxillary Nurses & mid wives). The PHSC has three beds. There are no medical technicians. The nearest Primary Health Centre is located at about 7 km at Rhenock. The PHC has four doctors, five ANMs and five beds.

The diseases which are common in the area is Gastritis and Liver problems. Some people reportedly used to take Ganja. Significant improvements have been made in the health sector. The government of Sikkim provides free primary medical facilities to the people. Medical ailments for which facilities do not exist in the State are generally referred to the medical institutions outside the state and the patient is provide with the financial assistance of Rs 20000 by the State. The performances under Pulse Polio Immunisation Programme are also highly successful and encouraging. The people of these areas are well aware of Pulse Polio Immunization and are regular for the vaccination. Hepatitis B vaccination programme was started long ago for benefit of the children in the age group of 0-1 year at government expense.

All the households of Aritar have sanitation facilities. The total sanitation campaign program (TSCP) has been successfully implemented by the state of Sikkim in Aritar.

Nature of Sanitation Facilities

SL No	Type of Sanitation	No. of households
1	Open Space/Jungle	
2	Pit Latrine	
3	Sanitary(with water seal)	
4	Septic tank	100 percent
5	Any other specify	

The rural development programmes operated/operational in the village during the last five years are-

1. The Total Sanitation Campaign Program (TSCP), as a result of which Aritar was awarded with Nirmal Gram Purashkar for the total coverage of sanitation to all the households.
2. National Rural Employment Guarantee Scheme (NREGA) was implemented in the year of October 2007. 539 card holders were benefited by the programme.
3. Under Indira Awas Yojana the state provides Rs 20000 to the Homeless people of the village in order to assist them to construct houses under rural housing scheme. This is one of the successful programmes in the state.
4. Under Pradhan Mantri Gramodaya Yojana (PMGY) the village has benefited with all weather road connectivity.
5. The Sampurna Gramin Rozgar Yozna was launched to provide employment to women, Scheduled Caste, Scheduled Tribe and Parents of children withdrawn from hazardous occupations. Every worker seeking employment under the SGRY is provided 5 kg food grains.
6. Under village electrification program also Aritar has benefited.
7. In order to curb wide spread felling of trees for fuel wood the government has provided with free Liquefied Petroleum Gas (LPG) Cylinders with Gas Stoves to the households Below the Poverty Line.
8. To promote village tourism the state is working on the basic amenities and modern facilities a in different parts of the village.
9. Further, people living below poverty line are provided with 35 kgs of subsidised rice at the rate Rs.4/kg per family per month. This programme is called Mukhia Mantri Antyodaya Annadan Yozna (MMAAY).

10. Under Annapurna Scheme 10 kg of rice per month is provided free of cost to the poor senior citizens above the age of 65 years who are eligible for old age pension.

There is no public transport service available in the village. Tata Sumu, Marshal, Spacio, Commander Jeep, Savari, Maruti Van and such other private vehicles are available for public transport. The nearest government bus stop /transport connecting point is located at Rhenock located about 7 km away from the village. People normally pay Rs. 10/- to maruti van and Rs 5/- to Tata Sumu to travel from the village to Rhenock Bazar.

There is one police station and a branch post office in the village/revenue block. The village has four cooperative societies. The nearest town Rangpo is 29 kms away from this village. There is one ICDS center within the village established in the year of 1997. The village does not have any market place. The nearest marketing centre of the village is Rhenock located at a distance of 7 km. A bank is located at Rhenock. The nearest town Rangpo is located at 29 kms and the district headquarters, Gangtok, at about 62 kilometers from Aritar.

Households with luxury facilities in Aritar

Items	Number of household	Percentage of household
Television	446	58.3
Radio	319	41.7
Telephone	363	47.5
Mobile	510	66.7
Motor Bike	128	16.7
Car	96	12.5
Tape Recorder	446	58.3
Fridge	64	8.3
Micro Wave Oven	32	4.2
Washing Machine	32	4.2
Electric Rice Cooker	32	4.2

With the introduction of mobile / the cell phones about 70 percent of the households have either telephone or mobile connections. About 60 percent of the households have television set. Doordarshan, Aaj Tak etc are the Indian channels available in the village. The available foreign channels are Ten Sport, ESPN, National Geographic, Discovery, Nepal, Sony, Star Movies, Star Plus, HBO etc. Star Plus and Sony Channels are relatively popular in the village. About 48 percent of the households have radio set. Vivid Bharati and Siliguri FM are popularly listened.

There is no communication on the border area between the people of two countries as such except during time of marriages and other important social/cultural/religious functions. There have been no cases of conflict between the people of Sikkim and Bhutan on the border. However, as reported by the villagers, many years back there was a big fight between the people of the two countries during Gumpa Mela after people from both the sides were drunk. There is no trade relation across the border. As reported by the villagers, no cases of smuggling, trafficking, drugs, HIV etc are observed by them so far. The law and order situation in the area is normal and on cases of conflict of interest between local population and state security forces relating to extortion, rape and resource extraction have been recorded.

The natural calamity that is most common in the village includes landslides. Earthquake of minor scale is also experienced in the village quite frequently. Because of landslide the roads are often blocked during the rainy season thus it affecting the life and livelihood of the people. As reported by the villagers, in the year 1968 the village was heavily impacted by large numbers of damaging landslides. Another major natural calamity that impacts the economy of the village is hailstone. It damages the agricultural products and other properties.

East Sikkim: Revenue blocks with more than 50% of their geographical area in most vulnerable zone and the population and house holds lying in such areas

East Sikkim: Revenue blocks with more than 50% of their geographical area in most vulnerable zone and the population and house holds lying in such areas

Sl No	Revenue Blocks	% of Area in Most Vulnerable Zone	Households and Population involved	
			Households	Population
1	Parbing	78	60	315
2	Luing	75	249	1363
3	Subeni Dara	72	204	992
4	Lingtam	70	141	736
5	Machong	70	188	938
6	Rhenock	66	1001	3433
7	Taraythang	62	92	471
8	Chisopani	61	292	1271
9	Central Pendam	60	811	4305
10	Biring	60	113	604
11	Chuba	60	127	671
12	Namin	60	28	150
13	Tumblabong	60	37	191
14	Tumen	60	263	1586
15	Rongyek	60	265	1568
16	Sherwani	57	129	551
17	Aho	55	107	551
18	Sajong	52	66	365
19	Khamdong	51	182	913
20	North Regu	51	109	585
21	Chanmari	51	373	1650
22	Beng Khamdong	50	35	205
23	West Pendam	50	888	4321
24	Pachak	50	74	421
25	Lingey	50	100	526
26	Thekabong	50	72	301
27	Yangtam	50	31	152
28	Taza	50	158	876
29	Amba	50	180	1012
30	Singbel	50	128	686
31	Penlong	50	447	1894
32	Ranka	50	51	282

Source: National Informatics Centre, Gangtok

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Annexure

Border Area Development Programme (BADP)

The Border Area Development Programme (BADP) was started during seventh Five Year Plan with the twin objectives of development of sensitive border areas in the western region and in Eighth Five Year Plan (i.e 1993-94), it was extended to states which have international border with Bangladesh.

During the Ninth Five Year Plan, the programme was further extended to the State bordering Myanmar, China, Bhutan and Nepal and currently there are 17 Border States which have international land borders.

The programme was extended to the State of Sikkim w.e.f 1998-99 with initial allocation of Rs. 4.00 crores. Since then, the programme is continuing as integral part of every annual plan. Amount of Rs. 6.58 crores was initially allocated as ACA in the Annual Plan for 2006-07. Subsequently, an amount of Rs. 9.08 crores was allocated as additional central assistance in the form of cluster approach. Schemes were recommended by the State and sanctioned by Ministry of Home Affairs, Government of India

Programme is being implemented in the year 2006-07 in 17 Border blocks viz., 8 blocks on Bhutan border, 4 blocks on China border and 5 blocks on Nepal Border. Total population covered under these 17 blocks is 27739 as per 2001 census. During the year under report an amount of Rs.10.77 crores was budgeted against which an expenditure of about Rs.10.43 crores has been reported by the implementing departments.

The details of funds allocated and released to the States under BADP during the years 2006-07 and 2007-08 are as under:

(Rupees in lakhs)

SI No	Name of States	2006-07		2007-08		2008-09
		Allocation	Released	Allocation	Released	Allocation
1.	Arunachal Pradesh	4498.00	4498.00	6608.00	6608.00	5772.00
2.	Assam	2338.34	2338.34	1969.00	1969.00	2470.00
3.	Bihar	3119.00	3119.00	3172.00	3172.00	3732.00
4.	Gujarat	2096.00	2096.00	2249.72	2249.72	2818.00
5.	Himachal Pradesh	1269.00	1269.00	1119.00	1119.00	1297.00
6.	Jammu & Kashmir	9793.05	9793.05	7583.00	10583.00	10500.00
7.	Manipur	1250.00	1250.00	1244.63	1244.63	1357.00
8.	Meghalaya	1313.36	1313.36	1127.60	1127.60	1267.00
9.	Mizoram	2262.00	2262.00	2086.00	2086.00	2535.00
10.	Nagaland	1577.00	1577.00	1000.00	1000.00	1150.00
11.	Punjab	3641.12	3641.12	2173.94	2173.94	2218.00
12.	Rajasthan	5731.36	5731.36	7659.00	7659.00	8849.00
13.	Sikkim	1566.04	1566.04	1000.00	1000.00	1150.00
14.	Tripura	2678.48	2678.48	2282.00	2282.00	2793.00
15.	Uttar Pradesh	2231.00	2231.00	2369.15	2369.15	2924.00
16.	Uttarakhand	871.00	871.00	1191.82	1191.82	2297.00
17.	West Bengal	5765.25	5765.25	7164.05	10164.05	9992.00*
Kept reserved for contingencies etc.						379.00
Total		52000.00	52000.00	52000.00	58000.00	63500.00

* Includes additional amount of Rs.140 lakh exclusively for hilly areas of District Darjeeling.

Source: Border Area Development Programme, [online web] [www.mha.nic.in/pdfs/BM_BADP \(E\).pdf](http://www.mha.nic.in/pdfs/BM_BADP(E).pdf) [Accessed 6/12/2008].

**PROBLEMS OF BORDER AREAS IN NORTH EAST INDIA:
IMPLICATIONS FOR 13TH FINANCE COMMISSION**

TRIPURA

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Agartala
2009

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Introduction :

Security of life requires security from physical threats and also security of livelihood. Threats may be from both internal and external sources and requires establishment of rule of law and military protection of sovereignty, by the State. Security of livelihood is essentially related to the human development approach and places the human aspect at the centre. Poverty and underdevelopment constitute the most difficult challenges with respect to security of life. Human security in its true sense must ensure that each individual has the opportunities and choices, to fulfill his or her potential.

In the context of border areas the questions of poverty, underdevelopment, unemployment etc. add a different dimension to the problems. Poverty and underdevelopment in the border areas often create an unhealthy nexus and germinates illegal activities. Poverty stricken villages in the border area are susceptible to allurements as well as threats from anti-social elements leading to different types of crimes (Routray, 2003). Thus border management is not only about military management but also must involve socio economic development of people living in those areas. Human security cannot be achieved without protecting people in conflict and post-conflict situations, economically supporting displaced persons, eradicating poverty, ensuring universal primary education, guaranteeing basic health service etc. Securing people also entails empowering the people, particularly the disadvantaged and marginalized section of the society. These are the interrelated building blocks of human security.

Tripura is mainly a hilly territory with altitudes varying from 50 ft. to 3080 ft. above sea level, though the majority of population of the state lives in the plains. The porous nature of the 856 kilometer long international border in Tripura pass through difficult terrain of forest, rivers and mountains across all the four districts of the state, and make the task of guarding it, challenging. The border areas in North and Dhalai Districts are covered with dense forest while the borders in West and South are mostly plain lands. Thus the density of population in the border areas of West District and South District are relatively higher compared to the other two districts.

The physical features of the border areas as well as the political events of the past years have greatly influenced the nature of the present day border problems. Before partition of India the hilly lands of Tripura was inhabited by the tribal indigenous population. However, the boundary of the then princely state extended beyond the hills over the plain lands of erstwhile East Bengal and was home to Maharaja's Bengali speaking subjects. After the Partition and its aftermath a large number of people from the erstwhile East Pakistan just crossed over to plain land areas in different parts of Tripura, a place where the rulers had traditionally welcomed people to reside within the territory. The funds from the central government for refugee rehabilitation acted as a growth booster and were instrumental in initiating many of the development projects. However, the demographic composition of the population in the meantime has changed drastically resulting in a lower proportion of tribal population in the face of excessively high population growth rates.

The phenomenon aggravated even more after the Bangladesh Independence War in 1971. Not only Tripura, but whole of north east experienced large-scale influx of population. This was to be identified as the root cause of much political and social unrest in future, in the region. Throughout the late nineteen seventies and eighties Assam reeled under violent student movements on the issue of identification of illegal immigrants. In Tripura a growing rift among the tribal and non tribal population was visible at around this time. Tripura experienced its share of worst ethnic violence, in the form of Mandai Massacre in 1980.

Apart from the unhindered migration severely impacting the demography of the North East, militant outfits operating in the region have been the prime beneficiaries of the porous and unguarded borders (D. Souza, 2006). Although insurgency problem is officially classified as internal conflicts, an external dimension arises because of various reasons. Existence of cross border training camps for the insurgents, and insurgents seeking refuge in the neighboring country after carrying out their operations, in the state has become a sore point in bilateral political relationship between Bangladesh and India. Sometimes the problem takes international dimension in the shape of smuggling of modern arms, banned narcotic drugs like heroin etc. from both sides of the border of Tripura affecting human security in various ways. Due to the porous nature of border with Bangladesh, such transnational crimes by the insurgents involve a diverse range of activities. Even drugs like high-inducing, codeine-laced cough syrup Phensedyl (also consumed as an intoxicant) are also smuggled from Tripura to Bangladesh and that have now become a booming business. The three distinct types of trafficking of arms, of narcotic and now of women negatively affect both human and state security. In December 2004, the Tripura administration has blamed the banned outfits, particularly the NLFT(BM), for circulating fake Indian currency (manufactured in sophisticated machines outside the country) in border markets of almost all districts with the design to cripple the economy of the state, posing another threat to the people (Chakravarty, M. 2007).

Population movement into the state without legal permission from proper authority or the problem of infiltration through the border was an area of concern all throughout. To this now is added a new dimension, when the lack of economic opportunity and abject poverty force people to take up illegal activities, ranging from organized unauthorized border trade to petty bootlegging. The close affinity between the local people with people across the border compounds the problem even more.

The BSF have 205 outposts, manning the border at a distance of more than four kilometers between two posts, on average, which is much higher than the desirable distance of 2.5 km. to 3.5 km. With the BOPs placed in such distances, manning the border becomes difficult and often ineffective.

II

The present study is attempts to highlight the socio-economic condition of people living in the border districts and blocks with an objective to identify their special needs. For this, data are mainly collected from secondary sources for all the border blocks. Two blocks are chosen purposively for in-depth study and primary surveys are conducted in 11 selected border villages in the selected blocks (5 in Mohanpur and 6 in Boxanagar, Table 1).

Out of 40 rural development blocks of Tripura, 24 blocks shares the international border with Bangladesh. More than 60 percent of state population resides in these 24 blocks. Out of these 24 border blocks 10 are in West Tripura District, 5 in South Tripura, 4 in Dhalai and 5 in North Tripura District (Table 1). As the population density in the West Tripura is highest, two border blocks, Mohanpur and Boxanagar from the West Tripura are chosen for primary village survey because this is expected to reflect the condition of a larger number of people. Villages in the blocks are selected purposively on the basis of focus group discussions held at the block level keeping in view the population composition. In particular, information on demography, economy, and infrastructure (health, educational and physical) are collected for the state, districts and all the border blocks. These are presented in the following sections.

1.Population

1.1 Population Growth rate:

The most important demographic feature of Tripura is its current growth rate of 1.57 per cent during 1991 - 2001, which indicates a significant decline from 3.43 during 1981 -1991. It is better than the national average of 2.1per cent. This perhaps indicates effective implementation of family planning programme.

1.2 Population Density:

West Tripura District has the highest population density (433 persons per square kilometer) among the four districts and it is higher than the state figure of 305 persons per square kilometer. Dhalai District has lowest population density. The districts and blocks with higher proportion of tribal population, has got lower density of population.

Proportion of urban population in 20 (out of 24) border blocks is zero. Border blocks South district and North district do not have any urban population.

1.3 Sex ratio:

Sex ratio may be considered a summary indicator of condition of women in society. Sex ratio is lowest in Dhalai district, which has highest concentration of tribal population, lowest proportion of urban population and lowest literacy rate. West district has the highest sex ratio as well as the highest literacy rate. The block with the lowest literacy rate (Chhamanu in Dhalai district) also has the lowest sex ratio among the border blocks. Sex ratio for the state also shows a very significant trend of increase from 904 in 1951 to 950 in 2001 compared to the declining national picture of 946 (1951) to 933 (2001). The obvious improvement in sex ratio is reflected in the sex ratio of 0-6 years children, which changed from 967(1991) to 975 (2001) in Tripura as against the national average of 945 (1991) to 927 (2001) (Chakraborty,I. 2007) (Table 3a).

1.4 Proportion of ST population:

It is important to identify the areas with higher proportion of ST population in border blocks in order to direct the development initiatives in a proper manner. It is observed that though Dhalai District has highest proportion (54 per cent) of tribal population the border block with highest proportion of tribal population is Hezamara (96 per cent) of West District.

2 Living Conditions

The need to be adequately sheltered is as least as basic as the need to be adequately nourished and clothed (Sundharam and Tendulkar, 1995). As many as 35,000 people (belonging to about 7123 families) who were living along the Tripura's international border have already been evicted from their homes due to the ongoing project of barbed wire fencing and about 11,375 hectares of cultivable land went outside fencing causing serious concern to the farmers (Chakraborty,2007).

Shelter constitutes an important element of standard of living and has significant health implications. Central to the question of shelter quality is the house-structure, the access of the household to certain basic amenities deemed to be necessary for livability, e.g. availability of safe drinking water, sanitation, electricity etc. The proportion oh household lacking these basic necessities in the districts and border blocks are presented in Table 7.

2.1 **House Structure:**

In Tripura, a large number of families (85.4%) reside in kachha houses while only 8.4% families have pacca houses and 6.2% have kachha roofs but pacca superstructure. This amply demonstrates that the housing condition of the people is far below satisfactory as compared to the country status (32.5% families have kachha house). Only 3.18 percent of households are classified as having permanent house structure in rural Tripura. The percentage is highest in North Tripura (5.72) and lowest in Dhalai (2.18). In Tulashikhar, Padmabil, Hezamara and Chamanu the figure is less than 1(one) per cent with Padmabil in West Tripura having the lowest figure (0.62). Panisagar in North Tripura has the highest percentage (8.82) of permanent houses.

2.2 **Availability of Drinking Water, Toilet and Electricity:**

In rural Tripura 18.07 percent households have tap water in the household premises, with as many as 16 border blocks having a lower percentage than the state. 22.7 per cent households of the state in rural area do not have any latrine and the figure is highest in Chhamanu Block (61.39) of Dhalai district (Table 6). While 68.3 per cent of households in the state do not have electricity, the percentage is highest in North Tripura District (72.4). But the border block with the highest percentage of household without electricity is Tulashikhar (91.7) in the West District.

3 The Economy

3.1 **Sectoral Contribution:**

The process of industrialization has been tardy due to lack of infrastructure and geographical isolation of the state. It is considered primarily agricultural because this sector alone employs the largest number of population. But if sector wise contribution in NSDP is considered, then the tertiary sector has the highest share, contributing more than 55 per cent (Table 8).

3.2 **Work Participation Rate:**

Proportion of workers (main and marginal taken together), in total population ranges from 29 per cent in Boxanagar 30 per cent in Dasda, Kadamtala, Panisagar and Kathalia, to 52 per cent in Chhamanu (Table 9).

Lack of economic opportunity becomes evident from the low work participation rate in the border blocks. Higher participation rate is observed in blocks with higher ST population with a very strong correlation (0.82) between proportion of tribal population and work participation rate.

4 The Social Sector

The social sector spending by the government particularly in health and education is crucial for the wellbeing of the people. However, in the context of limited means the effort falls far short of need and the benefits do not reach every area and every population group. The border areas being remote and far, are often left out of the development initiatives.

4.1 **Education:**

In a state like Tripura with little prospect of industrial expansion, scope of employment in future will crucially depend on the human capital base of the population. Literacy rate is the simplest outcome indicator of the government- effort in the field of primary education. Often the literacy rate of the state (73 per cent) which is higher than the national figure

(59.4 per cent) is cited as a success story. But a more disaggregated figures at the district and block levels reveals the uneven nature of spread of education in Tripura. The literacy rate ranges from as low as 30 percent in Chhamanu (in Dhalai) to 83 percent in Dukli (West Tripura), and Panisagar (North Tripura) (Table 3). The number of schools in different districts and border blocks are presented in Table 10 and Table 11. Number of schools per 10,000 population is highest in Dhalai district and number of schools per 100 square kilometer is highest in South Tripura District.

4.2 **Health:**

Some of the demographic indicators like total fertility rate, crude birth rate, natural growth rate, couple protection rate, crude death rate, neonatal death rate, post neonatal death rate , infant mortality rate and under- 5 mortality rate for Tripura and India are presented in Table 12 and Table 13. In all these, figures of Tripura are better than that of the national averages. Selected health indicators for districts in Tripura are given in Table 14. It shows that life expectancy is higher for women in the state as well as in all the districts. Infant mortality is also higher for girls. Data on health infrastructure availability are presented in Table 15, Table 16 and Table 17. Number of primary health centres per 100 skm is less than one in all the districts except North Tripura indicating that in most of the cases the catchment area of a single PHC is spread beyond 100 skm. The situation is worst in Dhalai with respect to number of primary health centres per 100 skm, number of doctors, number of beds and number of PHC per 10,000 population (Table 16). Percentage of villages having access to medical facilities is also very low in Dhalai district and its four border blocks (Table 17).

5. Connectivity

For people in the farthest and remotest corner of the state road connectivity is important because they can avail the benefits of development only if they can access them. Often absence of roads forces a child to drop out from school. A patient may not seek or avail treatment in hospitals in the absence of roads connecting the village with the city.

The state is connected through the NH 44 and NH 44A (around 450 km.), the state highway measuring 689 km and 15,868 km of PWD and other roads. Thus the total road length is 17,005km. The length of road per 100 sq. km. has steadily improved over the years and stands at 162.08 km in 2006-07(Table). Out of a total of 8132 habitations, only 8 per cent (649 habitations) still remain unconnected. Among the 24 border blocks, 7 are fully connected. In West Tripura out of 10 border blocks, only two are fully connected whereas in South Tripura out of 5, four are fully connected and one border block has 3 unconnected habitations. None of the 4 border blocks in Dhalai is fully connected. The block with highest proportion of uncovered habitations also belongs to Dhalai district (Damburnagar, 61 percent). Out of 5 border blocks in the North district only one is fully connected. (Table19).This is only expected as border areas in North and Dhalai Districts are mostly hilly areas covered by forests.

III

As mentioned earlier Mohanpur and Boxanagar blocks in the West District were chosen for collection of primary data. Mohanpur is located in the outskirts of the capital city Agartala and one fifth of its population is urban. Boxanagar is about 60 kilometer away from Agartala is entirely rural. Boxanagar is less developed in comparison to Mohanpur with respect to all the indicators considered in the secondary data.

Two FGDs held in the two blocks were attended by persons from various sections of the society including sitting MLAs, local residents, and block development officers, employees in the block office and panchayat functionaries. In addition discussions were held with high level officials of the border security forces and government officials at various levels. These helped in identification of villages near the international border (Table 1) and the border related problems.

The issues raised in the focus group discussion may be classified as under:

- A. Problems: A.**
1. Loss of cultivable land outside the border fence.
 2. Conflict with BSF regarding access to cultivable fields.
 3. Crop grown in the land outside the border fence is often taken away by miscreants from across the border.
 4. Cultivators are forced to employ people across the border to cultivate the land as share-cropper or tenant and earn only a very meager amount.
 5. Loss of occupation due to loss of land and restrictions on illegal border trade
 6. Loss of market opportunities for local products in Bangladesh
 7. Displacement of population
 8. Displaced families are unable to become beneficiaries of government development programmes, as their names do not figure the panchayat registrar.
- B.**
1. Acquisition of the land outside fencing by government and creation of productive ventures like tea plantation, jute etc.
 2. Award of government schemes on priority basis to the displaced households.
 3. Creating opportunities of formal trading of local products by opening more border trade check posts.
 4. Issue of identity cards by Block authority for crossing the border fencing when necessary.
 5. Setting up of small enterprises based on local skills and local products for economic rehabilitation of the people residing in the border villages.
 6. Survey to find out the priority areas for intervention.

The BSF personnel were of the opinion that people near the border are hand in gloves with the people on the other side of the border and engage in illegal trade basically because of poverty. They are antagonistic towards BSF because they try to prevent the practice. This conflict of

interest creates hostility between local residents on one hand and the Border Security Forces on the other.

It was also observed that fencing of the border has thrown up an unexpected result. It has led to increased enrolment in the schools at village level. Earlier these school age children used to actively take part in the informal trade. But after the fencing has come up these children are out of job and are forced to come back to the schools. This calls for higher investment for improvement of the infrastructure at the school level, recruitment of more teachers and providing the students better facilities. Residents also informed that in villages neighbouring border, stealing of livestock, particularly of milche cow by miscreants from across the border were a regular phenomenon. After the fencing has come up villagers now are adopting livestock rearing as one of the livelihood options.

The information from primary survey about the villages in the two selected blocks are provided in Table 20-26.

- | | |
|-----------------------------------|--|
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Table 2: Density and Rural Urban Distribution of Population in Border Areas of Tripura, 2001

Border Blocks	*Area (in skm.)	Population			Proportion of urban	Proportion of ST (%)	Density of population
		Total	Urban	Rural			
Tulashikhar	294.41	45039	0	45039	0	80.0	153
Khowai	119.88	62144	0	62144	0	17.0	518
Padmabil	134.89	27417	0	27417	0	95.0	203
Hezamara	147.03	32896	0	32896	0	96.0	224
Mohanpur	268.11	201613	42639	158974	21.1	13.0	752
Dukli	135.03	205257	109400	95857	53.3	4.0	1520
Bishalgarh	324.68	166069	9659	156410	5.8	23.0	511
Boxanagar	110.54	44064	0	44064	0	7.0	399
Melaghar	220.11	108018	0	108018	0	13.0	491
Kanthalia	147.71	54347	0	54347	0	14.0	368
West Tripura	3544	1532982	410067	1122915	26.7	25.0	433
Rajnagar	320.18	83198	0	83198	0	17.0	260
Hrishyamukh	166.29	48214	0	48214	0	23.0	290
Rupaichhari	256.76	39346	0	39346	0	82.0	153
Karbuk	156.02	39643	0	39643	0	82.0	254
Satchand	289.51	78104	0	78104	0	34.0	270
South Tripura	2624.35	767440	54147	713293	7.1	38.0	292
Damburnaga	562.66	42122	0	42122	0	79.0	75
Ambassa	548.05	57321	13724	43597	23.9	58.0	105
Salema	366.61	109324	0	109324	0	27.0	298
Chamanu	562.46	28097	0	28097	0	93.0	50
Dhalai	2312.29	307868	18867	289001	6.1	54.0	133
Kadamtala	162.04	105282	0	105282	0	2.0	650
Panisagar	237.88	97927	0	97927	0	8.0	412
Gournagar	239.12	92426	0	92426	0	15.0	387
Kumarghat	242.42	75256	0	75256	0	20.0	310
Dasda	707.27	94661	0	94661	0	69.0	134
North Tripura	2,469.90	590913	62669	528244	10.6	25.0	239
Tripura	10492	3199203	545750	2653453	17.1	31.0	305

Source: www.censusindia.gov.in

* Source: Report of the Working Group on Border Area Development Programme for the Formulation of the Tenth Five Year Plan.

Table 3a: Population in the Age group of (0-6) years and Sex Ratio of (0-6) years

State/ Districts	Population (0-6 years)			Sex ratio
	Total	Male	Female	
West Tripura	1,92,899	98,045	94,054	967
South Tripura	1,10,028	56,117	53,911	961
Dhalai	47,902	24,379	23,523	965
North Tripura	85,617	43,461	42,156	970
Tripura	4,36,446	2,22,002	2,14,444	966
India	16,38,19,614	8,49,99,203	7,88,20,411	927

Source: Census 2001.

Table 4: Distribution of houses in Tripura by Type of Structure, (Rural), 2001

District/ Block	Type of structure				Unclassified
	Permanent	Semi-permanent	Temporary		
			Serviceable	Non-serviceable	
West Tripura	4.44	57.53	38.03	20.05	0.01
1.Tulashikhar	0.95	30.91	20.74	47.38	0.01
2.Khowai	3.84	57.80	17.45	20.91	0.00
3.Padmabil	0.62	48.38	23.56	27.44	0.00
4.Hezamara	0.73	37.82	29.25	32.19	0.00
5.Mohanpur	6.55	63.81	19.05	10.60	0.00
6.Dukli	3.81	74.50	12.43	9.25	0.01
7.Bishalgarh	6.39	63.81	19.34	10.45	0.01
8.Boxanagar	4.14	55.64	26.54	13.69	0.00
9.Melaghar	3.56	54.17	24.75	17.52	0.00
10.Kanthalia	2.18	58.95	24.59	14.28	0.00
South Tripura	2.52	43.88	53.58	21.88	0.02
11.Rajnagar	1.55	52.39	27.94	18.13	0.00
12.Hrishyamukh	2.19	50.06	15.73	32.02	0.00
13.Rupaichhari	1.19	25.43	13.77	59.61	0.00
14.Karbuk	1.55	18.43	28.06	51.96	0.00
15.Satchand	1.81	44.14	25.52	28.53	0.00
Dhalai	2.18	21.29	76.53	25.01	0.01
16.Damburnagar	1.08	16.30	21.53	61.09	0.00
17.Ambassa	1.60	18.64	18.53	61.22	0.00
18.Salema	3.27	28.36	31.64	36.72	0.01
19.Chamanu	0.66	10.09	5.37	83.86	0.02
North Tripura	5.72	30.46	63.81	16.31	0.01
20.Kadamtala	8.11	35.59	14.97	41.31	0.02
21.Panisagar	8.82	38.62	15.87	36.69	0.00
22.Gournagar	6.16	32.40	18.82	42.61	0.00
23.Kumarghat	3.17	30.97	20.89	44.43	0.00
24.Dasda	1.75	15.68	13.23	69.32	0.02
Tripura (Rural)	3.90	44.70	20.40	31.00	0.01

Source : Census of India, 2001

Table 5: Distribution of Houses in Tripura by Source of Drinking water, (Rural), 2001

Border Districts/ Blocks	Distribution of houses by source of drinking water		
	Tap	Hand pump & Tube well	Others open sources
West Tripura	19.55	31.91	48.54
1.Tulashikhar	2.12	14.16	83.72
2.Khowai	48.07	18.18	33.75
3.Padmabil	0.69	6.92	92.38
4.Hezamara	2.07	2.7	95.24
5.Mohanpur	19.19	33.16	47.64
6.Dukli	27.08	33.62	39.31
7.Bishalgarh	21.39	30.29	48.33
8.Boxanagar	20.16	63.83	16
9.Melaghar	12.97	48.42	38.61
10.Kanthalia	21.23	50.46	28.32
South Tripura	21.43	28.09	50.49
11.Rajnagar	15.05	32.74	52.22
12.Hrishyamukh	21.39	29.53	49.08
13.Rupaichhari	5.44	13.01	81.55
14.Karbuk	9.16	10.96	79.88
15.Satchand	18.67	24.8	56.53
Dhalai	12.93	19.97	67.11
16.Dumburnagar	12.27	22.35	65.37
17.Ambassa	13.41	15.53	71.06
18.Salema	17.66	28.89	53.45
19.Chhamanu	2.75	7.78	89.47
North Tripura	12.76	18.06	69.19
20.Kadamtala	13.18	17.89	68.93
21.Panisagar	12.78	11.36	75.85
22.Gournagar	14.56	28.07	57.37
23.Kumarghat	12.07	16.02	71.91
24.Dasda	15.8	14.43	69.76
Tripura (Rural)	18.07	26.92	55.02

Source : Census of India, 2001

**Table 6: Distribution of houses in Tripura by type of latrine within the house, (Rural)
Tripura, 2001**

State/ Districts/ Block	Type of latrine			No latrine
	Pit latrine	Water closet	Other latrine	
Tulashikhar	37.03	0.84	6.56	55.57
Khowai	76.85	3.01	5.02	15.12
Pabmabil	50.11	0.34	1.86	47.70
Hezamara	49.56	0.81	1.81	47.81
Mohanpur	77.00	5.73	4.02	13.02
Dukli	86.05	3.00	1.93	9.03
Bishalgarh	66.21	3.96	10.37	19.46
Boxanagar	66.04	7.60	2.78	23.58
Melaghar	75.53	5.25	2.15	17.07
Kathalia	74.10	3.06	0.92	21.93
West Tripura	66.65	4.07	5.42	23.87
Rajnagar	69.60	4.24	6.64	19.52
Hrishyamukh	65.03	4.29	13.00	17.68
Rupaichhari	40.12	0.96	11.06	47.86
Karbuk	52.02	2.98	8.46	36.54
Satchand	59.42	5.59	7.84	27.15
South Tripura	73.26	4.98	6.91	14.86
Dumburnagar	44.52	4.29	9.01	42.18
Ambassa	58.26	3.39	5.30	33.04
Salema	71.03	3.62	10.08	15.26
Chhamanu	31.13	3.35	4.13	61.39
Dhalai	60.65	4.05	9.04	26.26
Kadamtala	88.28	4.94	1.63	5.15
Panisagar	80.29	7.24	4.70	7.77
Gournagar	57.85	4.24	9.44	28.47
Kumarghat	78.58	6.52	5.25	9.66
Dasda	67.32	3.38	9.08	20.21
North Tripura	72.26	4.22	6.21	14.26

Table 7: Household amenities

Sl. No.	Border District/ Blocks	Percent of households without electricity	Percent of households without latrine in premises	Percent of households without tap water facility	Percent of households having telephone connection
1	Tulashikhar	91.7	55.6	97.9	0.4
2	Khowai	62.6	15.1	51.9	3.4
3	Padmabil	87.6	47.7	99.3	0.3
4	Hezamara	89.1	47.8	97.9	0.6
5	Mohanpur	51.6	13.0	80.8	3.4
6	Dukli	53.8	9.3	72.9	2.1
7	Bishalgarh	61.6	19.5	78.6	2.1
8	Boxanagar	66.4	23.6	79.8	0.7
9	Melaghar	64.3	17.1	87.0	2.6
10	Kanthalia	60.5	21.9	78.8	1.9
West Tripura		64.6	23.9	80.5	7.6
11	Rajnagar	73.9	19.5	85.0	2.1
12	Hrishyamukh	63.6	17.7	78.6	2.1
13	Rupaichhari	90.4	47.9	94.6	0.3
14	Karbuk	70.9	36.5	90.8	0.5
15	Satchand	72.3	27.1	81.3	1.6
South Tripura		69.5	14.9	78.6	3.1
16	Damburnagar	72.6	42.2	87.7	0.8
17	Ambassa	68.3	33.0	86.6	0.7
18	Salema	68.6	15.3	82.3	1.7
19	Chamanu	85.7	61.4	97.3	0.3
	Dhalai	71.9	26.3	87.1	1.5
20	Kadamtala	75.1	5.1	86.8	2.4
21	Panisagar	70.4	7.8	87.2	2.4
22	Gournagar	66.7	28.5	85.4	1.7
23	Kumarghat	74.6	9.7	87.9	1.7
24	Dasda	79.4	20.2	84.2	1.1
North Tripura		72.4	14.9	87.2	3.7
TRIPURA		68.3	22.1	81.9	5.2

Source: Census of India, 2001

Table 8. Sectoral Contribution to NSDP (in percent)

Industry	2005-06 (base year 1999-2000) in Lakhs of Rs.	Percentage
Primary Sector	208522	24.897
Secondary Sector	160952	19.217
Tertiary Sector	468070	55.886
Total	837544	100

Source: Statistical Abstracts of Tripura, 2007, Directorate of Economics & Statistics

Table 9: Worker Classification

District		Border Blocks	Total workers	Total main worker	Total marginal worker	Work participation rate (%)	% of workers in agriculture
West Tripura	1	Tulashikhar	21159	13859	7300	47.0	44.0
	2	Khowai	21931	17700	4231	35.0	31.0
	3	Padmabil	11920	7813	4107	43.0	39.0
	4	Hezamara	14691	10133	4558	45.0	45.0
	5	Mohanpur	65920	55545	10375	33.0	12.0
	6	Dukli	63798	56957	6841	31.0	6.0
	7	Bishalgarh	55993	46516	9477	34.0	24.0
	8	Boxanagar	12839	10248	2555	29.0	32.0
	9	Melaghar	37180	27613	9567	34.0	30.0
	10	Kanthalia	16198	12043	4155	30.0	38.0
South Tripura	11	Rajnagar	28560	21741	6819	34.0	26.0
	12	Hrishyamukh	18581	13325	5256	39.0	39.0
	13	Rupaichhari	17726	12305	5421	45.0	42.0
	14	Karbuk	19169	12297	6872	48.0	40.0
	15	Satchand	28149	20771	7378	36.0	36.0
Dhalai	16	Damburnagar	17593	11570	6023	42.0	29.0
	17	Ambassa	25367	19221	6146	44.0	24.0
	18	Salema	40042	30513	9529	37.0	28.0
	19	Chamanu	14600	9660	4940	52.0	67.0
North Tripura	20	Kadamtala	31819	27308	4511	30.0	10.0
	21	Panisagar	29474	25781	3693	30.0	15.0
	22	Gournagar	30144	24107	6037	33.0	17.0
	23	Kumarghat	30794	22862	7932	41.0	23.0
	24	Dasda	28080	19885	8195	30.0	22.0

Table 9: Worker Classification

Source: www.censusindia.gov.in

Table 10: Number of Schools in the Districts of Tripura, 2007

Districts	Total schools (rural)	Total area (in sq. km.)	Population (rural) 2001	Schools per 10000 population	Schools per 100 sq. km.distance
West	1287	3544	1532982	8.395402	36.31
South	1062	2624.35	767440	13.83822	40.47
Dhalai	641	2312.29	307868	20.82061	27.72
North	643	2,469.90	590913	10.88147	26.03
Total	3633	10492	2653453	13.6915	34.63

Source: Directorate of School Education & SSA Rajya Mission

Table 11: Number of Schools in Border Blocks of Tripura, 2007

District		Border Blocks	Schools (2007)					Schools per 10,000 population	Primary Schools per 10,000 population
			Primary	Upper Primary	Sec	H.S	Total (rural)		
West Tripura	1	Tulashikha	50	22	3	4	79	17	11
	2	Khowai	38	18	10	6	72	11	6
	3	Padmabil	50	22	6	3	81	29	18
	4	Hezamara	48	26	5	2	81	24	14
	5	Mohanpur	55	28	19	9	111	6	3
	6	Dukli	30	10	10	9	59	6	3
	7	Bishalgarh	60	36	31	10	137	8	3
	8	Boxanagar	26	9	7	4	46	10	5
	9	Melaghar	59	33	13	10	115	10	5
	1	Kanthalia	33	17	8	5	63	11	6
South Tripura	1	Rajnagar	60	23	18	6	107	12	7
	1	Hrishyamu	54	22	11	3	90	18	11
	1	Rupaichhar	81	16	5	3	105	26	20
	1	Karbuk	53	13	3	3	72	18	13
	1	Satchand	73	27	15	10	125	16	9
Dhalai	1	Damburna	75	23	4	2	104	24	17
	1	Ambassa	81	28	6	1	116	26	18
	1	Salema	92	42	14	9	157	14	8
	1	Chhamanu	68	34	2	1	105	37	24
North Tripura	2	Kadamtala	26	36	13	6	81	7	2
	2	Panisagar	38	34	14	8	94	9	3
	2	Gournagar	48	37	9	5	99	10	5
	2	Kumarghat	43	39	12	4	98	13	5
	2	Dasda	48	37	9	5	99	10	5

Source: Directorate of school education & SSA Rajya Mission

Table 12: Health Indicators in Tripura

	TFR 15-49 years (%)	CBR2 2001 (Per 1000)	CDR2 2001 (Per 1000)	NGR2 2001 (Per 1000)	MMR5 2001 (Per 1000)	LEB (YEARS) ³
Tripura						
Total	1.87	16.1	5.6	10.6	4.05	71 years (Male) 74 years (Female)³
Urban	1.36	13.5	5.6	8.3		
Rural	1.99	16.6	5.2	11		
India						
Total	2.85	25.4	9.7	17	4.37	61.9 years (Male) 63 years (Female)³
Urban	2.70	20.3	7.8	14		
Rural	3.07	27.1	10.4	18.1		

Source: NFHS - 2 (North Eastern States), 1998 - 1999

2. SRS (1999-2001) as reported, SRS bulletin vol. 37. No. 1, 2003

3. Demographic Scenarios for Tripura , by Samir Guha Roy.

4. The Economic survey and SRS bulletin, 2003.

5. Register general of India , as cited in Health Information of India ,2004.

Cited in "Background paper on Health for Human Development Report", Tripura.

Note: TFR : Total fertility rates, CBR: crude birth rates, CDR: crude death rates, NGR: natural growth rates MMR maternal mortality rates , LEB: Life expectancy at birth

Table 13. Neonatal, post neonatal, infant and under –5 mortality rates per 1000 live birth

State/ country	Neonatal mortality rates (NNMR)	Post neonatal mortality rates (PNNMR)	Infant mortality rates (IMR)	Under-5 mortality rates (U-5 MR)
Tripura (for 10 years period)				
Total	(28.6)**	(15.6)**	NA (42.1)**	(51.3)**
Male	50.6	13.1	63.7 (35.0)*	73.5
Female	41.6	18.9	60.4 (34.0)	63.4
India (for 10 years period)				
Total	47.7	25.3	73	101.4
Male	50.7	24.2	74.8	97.9
Female	44.6	26.6	71.1	105.2

Source : NFHS – 2 , 1998-1999 (India) and NFHS – 2 (North Eastern States), 1998 - 1999

* SRS data, as published in 2003, vol. 37, No-1 (This is based on a 3- year period, 2000-2002)

** NFHS- 2, 1998-1999 (this is based on 5 years period preceding the survey.)

Cited in “Background paper on Health for Human Development Report”, Tripura.

Table 15: Availability of health facilities in Tripura

SI. No.	Items	Tripura
1	No of PHC per 10000 population	0.27
2	No of PHC per 100 sq. km.	0.82
3	No of Doctors per 10000 population	2.491
4	No of hospital beds per 10000 population	8.211

Source: Statistical Abstracts of Tripura, 2007, Directorate of Economics & Statistics

Table 16. Medical Facilities in Districts of Tripura

Districts	Medical facility	No. of Medical & Para medical personnel				Per 10,000 population (2007)			No. of PHC per 100 sq. km.
		Doctor	Mw/Dai	Nurse	Pharma	No. of PHC	No. of Doctors	No. of hospital beds	
West	294+59	540	33	523	174	0.91	1.688	4.545	0.967
South	180+37	114	5	188	98	0.78	0.356	1.688	0.952
North	132+17	95	7	108	31	0.63	0.297	1.225	1.545
Dhalai	81+8	48	7	67	24	0.38	0.150	0.753	0.517
Total	687+121	797	52	886	327	0.27	2.491	8.211	0.82

** Medical facility (allopathic + others) including private aided institutions

**Pharma includes allopathic & other pharmacists

Source: Statistical Abstracts of Tripura, 2007, Directorate of Economics & Statistics

Table 17 : Access to medical facilities in Tripura

District	villages having access (in percent)
West Tripura	79.3
1.Tulashikhar	80.0
2.Khowai	100.0
3.Padmabil	69.2
4.Hezamara	68.8
5.Mohanpur	100.0
6.Dukli	100.0
7.Bishalgarh	72.7
8.Boxanagar	100.0
9.Melaghar	72.4
10.Kathilia	100.0
South Tripura	66.1
11.Rajnagar	53.3
12.Hrishyamukh	52.9
13.Rupaichhari	55.2
14.Karbuk	45.0
15.Satchand	100.0
Dhalai	45.0
Dumburnagar	13.9
Ambassa	25.8
Salema	45.7
Chammanu	46.2
North Tripura	72.5
Kadamtala	90.0
Panisagar	100.0
Gournagar	64.1
Kumarghat	95.5
Dasda	60.7
Tripura	67.8

Source: Census 2001

Table 18 : Proportion of Unconnected Habitations in districts of Tripura(as on Dec. 2008)

District	Total no of habitations	Unconnected habitation	Per cent unconnected
West	3599	237	6.58
South	2442	0	0
Dhalai	1037	304	29.32
North	1054	226	21.44
Total	8132	649	7.98

Source: www.pmgysy.org

Table 19 : Proportion of Unconnected Habitations in Border Blocks of Tripura (as on Dec. 2008)

District	Sl. No.	Border Blocks	Total habitations	Unconnected habitations as on 2008	% of unconnected habitations as on 2008
West Tripura	1	Tulashikhar	247	68	28
	2	Khowai	119	38	32
	3	Padmabil	167	17	10
	4	Hezamara	282	0	0
	5	Mohanpur	312	13	4
	6	Dukli	318	11	3
	7	Bishalgarh	464	0	0
	8	Boxanagar	91	10	11
	9	Melaghar	254	32	13
	10	Kanthalia	106	27	25
South Tripura	11	Rajnagar	255	0	0
	12	Hrishyamukh	148	0	0
	13	Rupaichhari	208	0	0
	14	Karbuk	206	6	3
	15	Satchand	328	0	0
Dhalai	16	Damburnagar	186	113	61
	17	Ambassa	190	50	26
	18	Salema	287	39	14
	19	Chamanu	126	36	29
North Tripura	20	Kadamtala	120	0	0
	21	Panisagar	171	22	13
	22	Gournagar	213	19	9
	23	Kumarghat	158	28	18
	24	Dasda	218	106	49

Source: www.pmgysy.org

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Table 20 Population of the Surveyed Villages

Block	Name of the /village	Total households	Population			No. of households with electricity	Length of border (in km)
			Total	Male	Female		
Mohanpur	1.Singerbil	1263	5709	2732	2977	1074(85)	5.5
	2. Narsinghar	1375	7079	3893	3186	1101(80)	6.75
	3. Ishanpur	437	2153	1086	1067	205(47)	8.75
	4.Vidyasagar	899	4394	2417	1977	584(65)	7.5
	5.Brahmakunda	1021	4887	2434	2452	300(29)	7
Boxanagar	6.Putia	537	2732	1399	1333	193 (36)	9
	7.Rahimpur	757	4185	2080	2105	320 (42)	7.5
	8.Madhya Boxanagar	517	2994	1614	1380	460 (89)	1
	9.Boxanagar	679	3376	1857	1519	550 (81)	1.5
	10.Kalshimura	1056	5126	3076	2051	385 (36)	4.5
	11.Uttar Kalamchoura	803	3522	2061	1461	330 (41)	5

Source: Village Panchayats.

Note: Figures in bracket denote percentage of households

Table 21: Population according to religion

Block	Name of the	Hindu	Muslim	Christian	Others
Mohanpur	1.Singerbil	60%	40%	0	0
	2. Narsinghar	99%	1%	0	0
	3. Ishanpur	100%	0	0	0
	4.Vidyasagar	100%	0	0	0
	5.Brahmakunda	100%	0	0	0
Boxanagar	6.Putia	2%	98%	0	0
	7.Rahimpur	2%	98%	0	0
	8.Madhya Boxanagar	20%	80%	0	0
	9.Boxanagar	40%	60%	0	0
	10.Kalshimura	55%	45%	0	0
	11.Uttar Kalamchoura	55%	45%	0	0

Source: Village Panchayats.

Table 22: Sanitation in the Selected Villages

Block	Name of the /village	Open space/jun	Pit latrine	Sanitary (with	Septic tank	other
Mohanpur	1.Singerbil	0	996	200	67	0
	2. Narsinghar	0	80	1260	35	0
	3. Ishanpur	5	15	414	0	0
	4.Vidyasagar	0	899	0	0	0
	5.Brahmakunda	0	989	32	0	0
Boxanagar	6.Putia	0	511	26	0	0
	7.Rahimpur	25	660	72	0	0
	8.Madhya Boxanagar	0	500	17	0	0
	9.Boxanagar	0	600	65	14	0
	10.Kalshimura	40	951	45	20	0
	11.Uttar Kalamchoura	113	680	10	0	0

Source: Village Panchayats.

Table 23 : Availability of Modern Infrastructure (Distance in km)

Block	Name of the /village	Veterinary dispensary	PHC	Hospital	ICDS centre	Primary School	Secondary School	HS School
Mohanpur	1.Singerbil	0.5	0.5	1.5	0	0.25	0	0.3
	2. Narsinghar	1	0	0	0	0	0	2
	3. Ishanpur	0.2	3	15	0	0	0	0.8
	4.Vidyasagar	2	2	16	0	1	1	2
	5.Brahmakunda	0	2	18	0	1	0	1
Boxanagar	6.Putia	0	10	0	0	0	0	8
	7.Rahimpur	0	6.5	0	0	0	0	6.5
	8.Madhya Boxanagar	1.5	1.5	0	0	0	0.5	1.5
	9.Boxanagar	0	0	0	0	0	0	0
	10.Kalshimura	1	1	0	0	0	0	0
	11.Uttar Kalamchoura	0	6	0	0	0	0	6

Table 23(contd.): Availability of Modern Infrastructure (Distance in km)

Block	Name of the /village	Pwd road	market	Post office	bank	Police station/ outpost	Fair price shop	District HQ	Nearest town
Mohanpur	1.Singerbil	0	1	0.3	0.3	2.5	0.5	7	7
	2. Narsinghar	0	0	0	0	0	0	12	12
	3. Ishanpur	0	1	1	1	7	0	38	38
	4.Vidyasagar	0	1	0.75	0	2	0.75	42	42
	5.Brahmakunda	0	0	3	3	0	0	45	45
Boxanagar	6.Putia	0	0	0	8	8	0	42	12
	7.Rahimpur	0	0	0	6.5	6.5	0	40	28
	8.Madhya Boxanagar	0	1.5	1.5	1.5	1.5	1.5	35	25
	9.Boxanagar	0	0	0	0	0	0	32	22
	10.Kalshimura	0	0	1	1	1	1	35	25
	11.Uttar Kalamchoura	0	0	0	6	6	0	45	20

Table 24: Ownership of Assets (no. of households)

Block	Name of the /village	TV	Radio	Tape recorder	Telephone		Freeze	Bicycle	Motor bike
Mohanpur	1.Singerbil	814	5	0	758	126	63	505	190
	2. Narsinghar	826	550	14	413	138	13	1100	14
	3. Ishanpur	205	20	150	41	8	9	205	11
	4.Vidyasagar	584	90	360	315	207	35	270	9
	5.Brahmakunda	202	404	50	100	45	30	250	15
Boxanagar	6.Putia	143	22	43	0	0	9	137	12
	7.Rahimpur	277	15	35	0	0	8	115	7
	8.Madhya Boxanagar	450	25	60	60	20	30	110	15
	9.Boxanagar	500	50	20	150	50	25	100	15
	10.Kalshimura	250	30	40	120	45	18	200	10
	11.Uttar Kalamchoura	220	20	10	12	6	5	52	12

Table 25: Means of Transport

Block	Name of the /village	Bicyc le	Motor bike	Motor car	Bulloc k Cart	Pony	Boat
Mohanpur	1.Singerbil	505	190	100	0	0	0
	2. Narsinghar	1100	14	10	0	0	0
	3. Ishanpur	205	11	9	0	0	0
	4.Vidyasagar	270	9	7	0	0	0
	5.Brahmakunda	250	15	2	0	0	0
Boxanagar	6.Putia	137	12	2	0	0	0
	7.Rahimpur	115	7	3	0	0	0
	8.Madhya Boxanagar	110	15	2	0	0	0
	9.Boxanagar	100	15	1	0	0	0
	10.Kalshimura	200	10	1	1	0	0
	11.Uttar Kalamchoura	52	12	3	0	0	0

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