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Challenges of Development in the Border Areas: An Empirical Study

Amitava Mitra June 2020



Centre for Development Studies Department of Economics Rajiv Gandhi University Rono Hills, Arunachal Pradesh Working Paper No. CDS/06/2020

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PREFACE

The Centre for Development Studies (CDS) was set up as a research adjunct at the Department of Economics, Rajiv Gandhi University (RGU), Itanagar, Arunachal Pradesh, with a generous grant from the Ministry of Finance (Department of Economic Affairs), Government of India. The objectives of the Centre include the creation of high-quality research infrastructure for students, researchers and faculty members, in addition to sponsoring and coordinating research on various developmental issues having policy implications at the regional and national level. Publishing working/policy papers on the research outcome of the Centre, monographs and edited volumes are the key activities of the Centre. The present working paper by Prof. Amitava Mitra, titled, 'Challenges of Development in the Border Areas of Arunachal Pradesh: An Empirical Study', is an output of a research project. It is *sixth* in the series of working paper published by the Centre for Development Studies.

The working paper has explored the wide ranging inter-district disparities in the state of Arunachal Pradesh, in terms of availability of infrastructural facilities that are crucial for improving the economic condition of people in the state. The districts of the northern and eastern international border areas, with high mountains are less well serviced than the districts in the foothills of Arunachal Pradesh. Against this background, the study examines the developmental challenges, the socio-economic condition of the population at large, as well as the livelihood linkages in the international border areas of Arunachal Pradesh. All the border districts of Arunachal Pradesh and two border blocks (bordering with China) have been covered in the study. The identified challenges in the surveyed blocks include lack of physical connectivity, lack of educational facilities, lack of health facilities, erratic supply of electricity, almost no potable water supply, sanitation issues, frequent landslides, isolation and remoteness.

This working paper, focusing on the challenges of Development in the border areas of Arunachal Pradesh, will be of immense interest and use to policy planners, academics, researchers and scholars. I congratulate the author for the excellent time bound work.

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Vandana Upadhyay Coordinator, Centre for Development Studies Department of Economics Rajiv Gandhi University

Date: June, 2020

ACKNOWLEDGEMENTS

The present working paper is based on the 13th Finance Commission sponsored study on Problems of Border Areas in North East India: Implication for Thirteenth Finance Commission (Arunachal Pradesh Chapter). I am highly thankful to the Thirteenth Finance Commission, Government of India, for financial assistance without which the study would not have been possible. I am sincerely thankful to Prof. Atul Sarma, Member Thirteenth Finance Commission, for providing valuable insights about the problems of border area in the First Central Workshop held on 13th September 2008, at IIT, Guwahati. His valuable suggestions and encouragement through out the work has been a major source of inspiration to complete the task. I am thankful to Late. Prof. J.K. Gogoi, co-ordinator of the project for his kind cooperation and understanding.

I am thankful to all of my departmental colleagues for their support with the study. I am also thankful to my colleague and research scholar Dr. Maila Lama and Dr. Kaju Nath who helped not only in collecting data but also in tabulation and computation work. However the work did not see academic manifestation in the form of publication and was accumulating dusts for last several years. With the initiative of Prof. S.K. Nayak, former co-ordinator, CDS and particularly Prof. Vandana Upadhayay, the present coordinator, CDS, the report is now being presented in the form of working paper for dissemination among scholars and researchers. I am thankful to both of them and other members of CDS.

> **Amitava Mitra** Department of Economics Rajiv Gandhi University, Itanagar June 2020

SUMMARY

Arunachal Pradesh has gone remarkable economic changes within a relative short span of time. The comparatively isolated economies of the various tribal communities of the area which were later recognized as North East Frontier Agency (NEFA) and subsequently Arunachal Pradesh was gradually integrated after independence and more specially after Indo-China War of 1962. The State's economy has experienced a remarkable growth over past decades, and it has diversified from an agriculture and forestry subsistence economy into a monetized economy. However, there is a great deal of regional variations in the degree of integration with the market economy. There are wide ranging inter-district disparities in terms of availability of infrastructural facilities which are crucial for improving the economic condition of people. For example, most of the districts of the northern and eastern international border areas, with high mountains are less well serviced than the districts in the foothills of Arunachal Pradesh. Hence, in this working paper, an attempt was made to examine the challenges of development, the socio-economic condition as well as livelihood linkages of the people of international border areas of Arunachal Pradesh. The present paper dealt with all the border districts of Arunachal Pradesh in general, and two border blocks (bordering with China) in particular. There are eight chapters in the present working paper. The first chapter discussed about the background and objectives of the study. The second chapter concentrated on the data base and methodology. The third chapter consisted of the background of Arunachal Pradesh as a border State. The fourth chapter described in details the socio-demographic, economic features as well as the status of infrastructural and basic facilities of the border districts. The fifth chapter dealt with physical, socio-demographic, and economic features of the border blocks. The sixth chapter concentrated on socio-demographic peculiarities as well as resource base and infrastructural facilities of the surveyed blocks. The seventh chapter analyzed the socio-demographic and economic condition of the surveyed border villages. Finally the chapter eighth dealt with the recommendations and conclusions. The study observed 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. 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. On the basis of the selected sociodemographic and economic indicators it was 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.

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 were enlisted for the surveyed blocks. The enlisting of the felt needs were done as per the priorities perceived by the people in both the blocks.

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CHAPTER 1 INTRODUCTION

1.1 Background of the Study

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 paper an attempt was made to study the problems of the border areas of Arunachal Pradesh. The present paper dealt with all the border blocks of Arunachal Pradesh in general, and two border blocks (bordering with China) in particular. There are eight chapters in the present working paper. The first chapter discussed about the background and objectives of the study. The second chapter concentrated on the data base and methodology. The third chapter consisted of the background of Arunachal Pradesh as a border State. The fourth chapter described in details the socio-demographic, economic features as well as the status of infrastructural and basic facilities of the border districts. The fifth chapter dealt with physical, socio-demographic, and economic features of the border blocks. The sixth chapter concentrated on sociodemographic peculiarities as well as resource base and infrastructural facilities of the surveyed blocks. The seventh chapter analyzed the socio-demographic and economic condition of the surveyed border villages. Finally the chapter eighth dealt with the recommendations and conclusions.

1.2 Objectives

The objectives of the study are as follows-

- 1. To examine the socio-economic, demographic features as well as infrastructural status of the border districts of Arunachal Pradesh as compared to other districts.
- 2. To study the brief profile of surveyed border blocks and villages.
- 3. To identify the challenges faced by the surveyed border villages and to suggest measures to prepare future action plan.

CHAPTER 2 DATA BASE AND METHODOLOGY

The study was basically empirical in nature. It was 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 was 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 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 block namely Mechuka (West Siang district) was included in order to get a better picture of the problems of the border area.

CHAPTER 3

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). 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.

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 3.1.

Table 3.1 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).

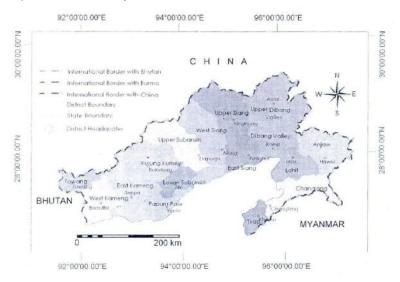
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Districts	Countries with International	Length of International
	Border	Border (in km.)*
Tawang	Bhutan & China	208.49
West Kameng	Bhutan& China	84.74
East Kameng	China	41.05
Kurung Kumey	China	97.28
Upper Subansiri	China	111.06 I
West Siang	China	53.69
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

Table 3.1: Border Districts of Arunachal Pradesh and their length of International Border(In km).

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.



Map 3.1: Location map of Arunachal Pradesh and its Sixteen Districts

CHAPTER 4

SOCIO-DEMOGRAPHIC AND ECONOMIC FEATURES OF BORDER DISTRICTS

4.1. 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), an attempt was made 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.

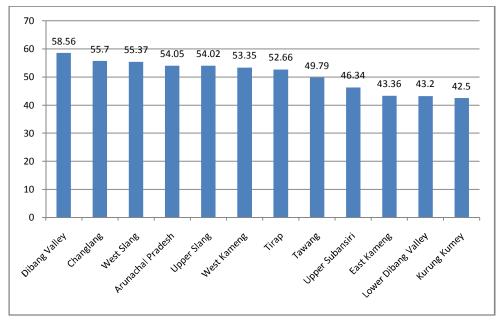


Fig 4.1: Life Expectancy of the Arunachal Pradesh and the Border Districts

Source: Human Development Report, 2005

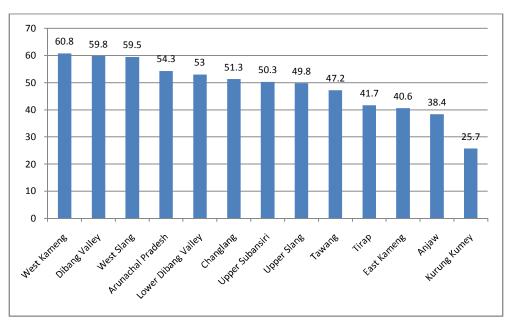


Fig 4.2: Literacy rate of the Arunachal Pradesh and Border Districts

Source: Census of India, Arunachal Pradesh, 2001

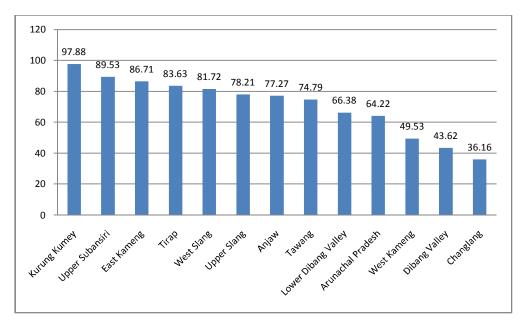


Fig 4.3: Composition of ST Population of Arunachal Pradesh and the Border District

Source: Census of India, Arunachal Pradesh, 2001

4.2. 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 capital income than the State average income. On the other hand another border district Changlang (which is the most populas 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

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percentages. It was found that the majority of female workers were employed in the agricultural sector. As a result, it was observed 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 (Arunachal Pradesh Development Report, 2009). 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 (Arunachal Pradesh Development Report, 2009). 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.

4.3. 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.

Box: 4.1

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? Ii) 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 43.59 per 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 that on the other side of the border there is a four-lane road but on the Indian side either there is no road or 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.

4.4. 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 which 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 A 7)

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.

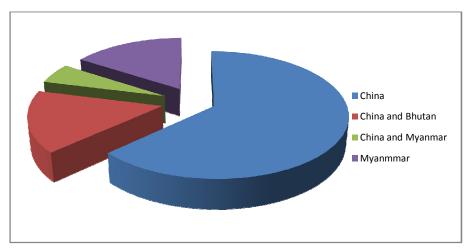
CHAPTER 5

PHYSICAL, SOCIO-DEMOGRAPHIC AND ECONOMIC FEATURES OF THE BORDER BLOCKS

5.1 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 A). 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.





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, 2009, 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 sleep 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.

5.2 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 pains 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 Sate. 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 bocks 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

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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.

5.3 Socio-demographic and Economic Features of the Border Blocks

Now an attempt was made 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.1 0 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.1 0) In fact, it was found that in two of the border blocks of Dibang Valley viz Anini-Mipi and Etalin-Maliney 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.

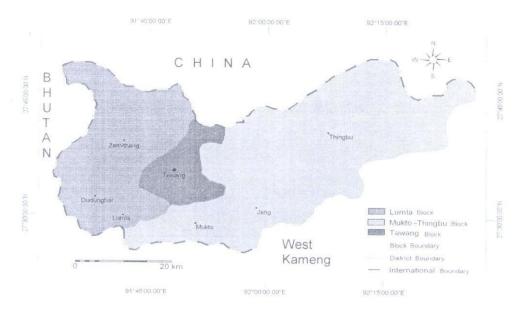
Thus, the analysis revealed that most of the border blocks of Arunachal are much worse off as compared to the State average and even the respective district averages.

CHAPTER 6 PROFILE OF BORDER BLOCKS

6.1 Surveyed Blocks at a Glance

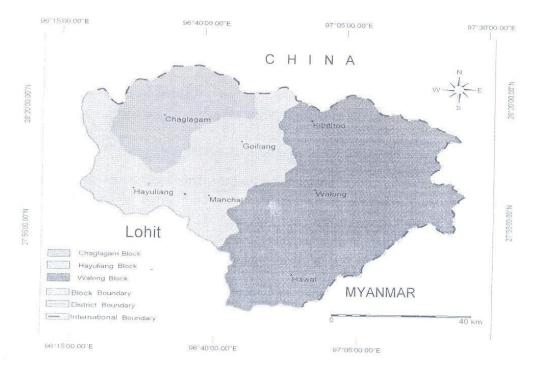
For a detailed study, two blocks with the Chinese border were selected by purposive sampling. These are Lumla block (in Tawang district) lying to Western Chinese border of the State and Chaglagham (in Anjaw district) which is to the extreme eastern Chinese border of the State. Both the blocks are very backward in terms of socio demographic and economic indicators (Tale 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 6.1.



Map 6.1: Location Map of Tawang District and the Surveyed Block Lumla

Amitava Mitra



Map 6.2: Location Map of Anjaw District and the Surveyed Block Chaglagham

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

Table 6.1: Demographic Characteristics of Surveyed Blocks

Note: Figures in the parentheses indicate district average.

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

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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.

6.2 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 tried 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 subcentre 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.

CHAPTER 7 PROFILE OF THE SURVEYED VILLAGES

7.1. 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 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 attitude among the surveyed villages (Table A 9). The attitudes 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 attitude 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 Taraons or Digaru Mishmi. Their houses are long and raised on pillars. A corridor runs along the length of the house on the side and the other side is portioned 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 thinly 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.

7.2 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 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 cultivations 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*.

7.3 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-a-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.

7.4 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

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among the surveyed villages. The details and 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 nonavailability 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 complicacies 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.

7.5 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:

Chaglagham Block	Lumla Block	
Health	Sector	
More numbers of Primary Health Centers	More numbers of Primary Health Centers	
To set up at least one hospital in each block	To set up at least one hospital in each block	
Doctors to be available in Health centers	Doctors to be available in Health centers	
Medicines for main diseases to be available in the Health centers	Medicines for main diseases to be available in the Health centers	
X-ray machines to be made available in health centers	X-ray machines to be made available in health centers	
De-addiction centre for opium addicted people	Ambulance facility	
Education Sector		
More primary and middle schools	More primary and middle school	
To set up a secondary school in the block head quarter	To upgrade the middle school	
To construct Toilets in the existing Schools	To improve the infrastructure including sanitation in the existing schools	
Security wall at middle school	To construct teacher's quarters	
To construct teacher's quarters	Regularity of teaching staff needed	
Infrastruc	ture Sector	
To broaden the existing road from Hayuliang to Chaglagham	To widen the road from Tawang to Zemithan	

Table 7.1: Felt Needs of the People of Lumla and Chaglagham Block

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To start Government buses regularly from Chaglagham to Hayuliang	To improve public transport facility.
To improve the connectivity of villages	To connect the villages by road
To electrify the villages including the block head quarter	To ensure regular supply of electricity
To improve drinking water facility	To construct land retention wall in order to save villages from frequent landside
To provide at least land telephone facility in block headquarter	To improve the telephone exchange for better land telephone connectivity.
To construct security fencing in some villages	To construct Gompa type of community Hall
Agricultural and Allied Flo	od 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
Securit	y Sector
To shift the border post of ITBP near the border instead of camping at near the villages	Pucca road along the border.
	To provide a police station/outpost in Zemithang Circle.
ITBP which protects the border have no artillery	Solar lights near the border.
To start construction- of road up to Border	
Need for regular army patrolling.	
•	·

Source: Focal Group Discussion, 2008

CHAPTER 8

SUMMARY OF FINDINGS AND POLICY IMPLICATIONS

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 Eat 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 infrastrudural 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 sociodemographic and economic indicators. In fact, the literacy level of Chaglagham block was only16.8 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 are 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 understandings 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-Iapsable 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 departmen/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.

Challenges of Development in the Border Areas: An Empirical Study

- 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 new 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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APPENDICES

Table A1: Socio Demographic features of Arunachal Pradesh vis a visNorth 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 NE Region	3887769	148	937	68.84

Source: Basic Statistics of North Eastern Region, 2006

Table A2: Area and Population of the Border Districts of Arunachal Pradesh, 2001

Border District	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*

Border Districts	Life Expectancy (in years)	Literacy (in percentage)	Schedule Tribe Population as 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

Table A3: Socio-demographic characteristics of the Border Districts of Arunachal Pradesh

Note: Figures in the brackets indicate difference of the State average from the respective district.

Source: (1) *Statistical Abstract of Arunachal Pradesh,* 2006

(2) Human Development Report of Arunachal Pradesh, 2005.

Rondon District Real new Carrita Market Researchers of Human									
Border District	Real per Capita Net District Domestic Product	Work Participation Rate (in percentage)	Percentage of Main Workers Engaged in Agricultural Sector	Human Poverty Index					
(1)	(2)	(3)	(4)	(5)					
Tawang	10541 (120.33)	55.82 (+11.84)	41.98 (-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 (91.12)	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)	51.21 (+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					

Table A4: Economic Features of the Border Districts of Arunachal Pradesh

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.

Source: (1) Statistical Abstract of Arunachal Pradesh, 2006

(2) Human Development Report of Arunachal Pradesh, 2005.

Border Districts	Length of Road per 100 Sq km	Surfaced road as percentage of Total road length	Percentage of Village connectivity status	Electrified village as percentage of total Village	Number of school per 10,000 population	Number of school per 100 sq km	Number of PHC and sub-centre per 10,000 population	Number of PHC and sub- centre per 100 sq Km	Number of Doctors per 10,000 population	Number of medical Technical Personal per 10,000 population	Number of Hospital Beds per 10,000 population	Numebr of Fair Price shops per 10,000 population
(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	12.03*	64.49*	46.97	33.8	21.05	2.12	5.49	0.55	3.22	2.14	19.17	10.86
Kameng	(-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	15.49	49.56	26.52	49.67	28.33	3.92	7.34	1.02	3.32	2.27	24.48	10.86
Kameng	(-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 (-14.42)	41.21 (-21.85)	7.47 (-31.06)	N.A.	25.4 (+5.99)	1.22 (-1.32)	16.69 (+11.03)	0.81 (+0.07)	N,.A.	N.A.	N.A.	23.75 (+9.95)
Upper	15.33	42.7	28.18	16.33	26.74	21	7.59	0.6	4.34	3.43	20.59	31.44
Subansiri	(-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	13.32	57.46	56	54.34	21.88	1.18	5.99	0.32 (-0.42)	7.19	3	23.37	17.98
Siang	(-3.36)	(-5.6)	(+17.47)	(+6.16)	(+2.47)	(-1.36)	(+0.33)		(+2.96)	(+0.6)	(+3.17)	(+4.18)
Dibang	7.67#	74.85#	23.58	39.51	20.63	0.17	15.13	0.13	2.95#	5.72#	22.52#	37.13
Valley	(-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 (+28.43)	53.03 (+4.85)	11.7 (-7.71)	1.26 (-1.28)	5.55 (-0.11)	0.6 (-0.14)	N.A	N.A.	N.A.	8.52 (-5.28)
Anjaw	10.63~ (-6.32)	73.46~ (+10.4)	13.88 (-24.65)	N.A.	27.66 (+8.25)	1.16 (-1.38)	10.3 (+4.64)	0.43 (-0.31)	4.34 (+0.11)	4.34 (+1.94)	31.45 (11.45)	16.81 (+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	94.61	94.61	17.44	7.41	4.39	1.86	4.09	2.59	18.64	11.76
	(+30.48)	(+2.18)	(+43.43)	(+46.43)	(-1.97)	(+4.87)	(-1.27)	(1.12)	(0.14)	(+0.19)	(-1.56)	(-2.04)
Arunachal Pradesh	16.95	63.06	48.18	48.18	19.41	2.54	5.66	0.74	4.23	2.4	20.2	13.8

Table A 5: Infrastructural indicators of the Border Districts of Arunachal Pradesh

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.

Source: (1) *Statistical Abstract of Arunachal Pradesh* 2006.

(2) Human Development Report of Arunachal Pradesh 2005.

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 (-14.74)
Dibang Valley	30.99 (-6.3)	41.93 (+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

Table A6: Possession of Assets of Households of the Border Districts of Arunachal Pradesh, 2001(in Percentage)

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.

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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	43.21	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

Table A7: Percentage of Household with Basic Services in the Border Districts of Arunachal
Pradesh, 2001

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

Name of Block	Countries with International	Population as per 2001		
	Border	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-Arzoo	China	1353		
Hunli-Kranli	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	7657		
Pangchau-Wakka	Myanmar	19662		

Table A8: Border Blocks of Arunachal Pradesh and their Population, 2001

Note: Blacks as per Statistical Abstract of Arunachal Pradesh, 2006.

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

Border Districts/Blocks	Land use fo	r cultivation	Fores	t Cover	Land under	Other**	
	Settled* Cultivation	Shifting Cultivation	Evergreen Forest	Degrated & Decitative	Barren rocky/Snow cover	uses	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Tawang (D)	0.27	0	41.74	27.94	29.4	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	2.0	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	
Chayanglaja (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.	
Kalariang (including Sarli) (B)	0	0	74.71	10.91	14.32	0.06	
Damin (including Parsi-Parlo) (B)0	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	6.12	72.53	12.47	3.33	1.46	
Mechuka (including Manigong) (B)	8.37	2.62	73.75	5.89	7.82	1.55	
Upper Siang (D)	0.02	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	0.74	0.05	
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	2.03	2.26	71.57	8.09	7.43	7.6	

Table A9: Land use/Land Cover in the Border Districts/Blocks of Arunachal Pradesh (in percentage)

Note: *Settled Agriculture include Rabi, Kharif and Double Cropping land.

Sources: (1) A Resource Atlas of Arunachal Pradesh by Surendra Singh 1999. (2) National Remote Sensing Agency, Hyderabad.

^{**} Category of other uses indicates land under water bodies, Lakes, Streams and Build-up Areas.

Name of Border State/ District/ Block	Density of Population	Difference of District Average from respective Blocks	Literacy Rate	Difference of district Average from respective Blocks	Percentage of ST Population	Difference of District Average from respective Blocks	Work participation Rate	Difference of District Average from respective Block	Percentage of Main Workers engaged in Agricultural Sector	Difference of District from respective Bock
(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)		40.03 (-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)	-7.17
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
Chayanglaja (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	64.47 (+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	52.28 (+43.73)	4.8	85.83 (26.67)	0.01
Koloring (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	99.98 (+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
Manigong (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)	-2.45
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-Maliney (B)	1 (-12)	-3	46.6 (-7.7)	-6.5	56.06 (-8.16)	-10.32	65.46 (+20.91)	13.8	28.28 (-30.88)	-3.41
Aneli-Arzoo (B)	2 (-11)	-2	33.5 (-20.6)	-19.5	93.79 (+29.57)	27.41	46.10 (+1.55)	-5.56	56.67 (-2.49)	24.98
Lower Dibang Valley (D)	NA		59.8 (+5.5)		43.62 (-2.06)		43.62 (-0.93)		61.21 (+2.05)	
Hunli-Kronli (B)	1 (-12)	NA	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
Nampong-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 (+16.98)	3.89
Tirap (D)	43 (+30)		41.7 (-12.6)		83.67 (+19.45)	12.56	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	

Table A10: Demographic and Economic Features of the Border Blocks of
Arunachal Pradesh 2001

Notes: Figures in the brackets indicate difference of the State average from the respective Blocks.

Data newly created block Dippisorang is not available

Source: Census of India. Final Population Total 2001 Arunachal Pradesh.

Table A11: Possession of Selected Assets of the Border Blocks of
Arunachal Pradesh 2001 (in percentage)

Name of Border State/ District/ Block	Banking Services	Concerned Block minus respective District Average	Radio/ Transistor	Concerned Block minus respective District Average	Television	Concerned Block minus respective District Average	Telephone	Concerned Block minus respective District Average	Bicycle	Concerned Block minus respective District Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Tawang (D)	36.73 (+1.44)		50.69		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)	-16.7	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
Kalakthang (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)	-7.65	0.73 (-16.69)	-1.08
East Kameng (D)	27.44 (-9.85)		17.87 (-21.09)		12.00 (-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
Chayanglaja (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
Koloring (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
Manigong (B)	0 (-37.29)	-43.68	31.09 (-7.87)	-16.24	0.19 (-25.51)	-25.84	0 (-9.19)	-7.16	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
Etalin-Maliney (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-Arzoo (B)	6.78 (-30.51)	-24.21	16.2 (-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)	1.45	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)	156 (-35.73)	-26.06	20.25 (-18.71)	-18.56	13.08 (-12.62)	-6.65	0 (-9.91)	-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	16.75 (-22.2)	-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	

Notes: Figures in the brackets indicate difference of the State average from the respective Blocks.

Data newly created block Dippisorang is not available

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

Table A12: Infrastructural Facilities of Surveyed Blocks Sr. No. **Infrastructural Facilities** Lumla Block Chaglagham Block (1) (2) (3) (4) Number of Primary Schools 8 1. 17 Number of Middle Schools 2 2. 13 3. Number of Primary Health Centre 2 0 2 4. 1 Number of Primary Health Sub-Centre 5. Number of Doctors Posted 1 1 Number of Banks 0 6. 1 Number of Post Office/Sub Post Office 2 7. 1 4.24 8. Number of Schools per 10000 Population 5.58 9. 0.85 Number of PHC and Sub-Centres per 10000 0.37 population 10. Number of Schools per 100 sq.km. 0.74 4.13 Number of PHC and Sub-Centre per 1000 11. 0.41 0.15

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Source: Village Survey Data, 2008

sq.km

Amitava Mitra

Name of Village	Appropriate Altitude (in feet)	Distance from Border (in km)	Number of Households	Main Occupation	Secondary Occupation			
(1)	(2)	(3)	(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 (T	Tawang)							
Muchlat	7000	13	25	Farming	Labour			
Garsam	3000	13	90	Farming	Labour			
Lumpo	6000	10	45	Farming	Labour			
Kharman	4000	14	38	Farming	Labour			
Zemithang	3000	13	90	Farming	Labour			
Mechukha Blo	ck (West Siong)							
Targelling	6200	48	22	Farming	Govt. Service			
Segong	6300	43	11	Farming	Govt. Service			

Table A13: Characteristics of the Surveyed Villages

Source: Village Survey Data, 2008.

Challenges of Development in the Border Areas: An Empirical Study

Name of Villages	Jeepleble Road	P.H.C./ Sub-Centre	Hospital	Primary School	Middle School	Secondary School	market	Post office	Bank	Police Station	Fair Price 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
Tegomne	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
Garsam	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

Table A14: Infrastructural Facilities in the Surveyed Villages (Distance in K.M.)

Source: Data collected from Respective Blocks.

Table A15: Distribution of Villages by method of identification of Felt needs of the people of	
Chaglagham, Lumla and Mechukha Blocks.	

Name of Border Block/Villages	Person Consulted	Problems Identification			
Chaglagham Block (Anjaw)					
Tabalkhun	Gaon Bura	Lack of Health facilities, Lack of Education, Lack of Communication, Electricity, Lank Slide, Lack of Sanitation, Opium Addiction.			
Tarampa	Gaon Bura	Health problems (Diarrhoea, Stomach Pain, Fever) Lack of Education, Land Slide, Lack of transportation, Opium Addiction.			
Tegamna	Gaon Bura	Problems (Diarrhoea, Stomach pain, Common cold, Fever), Lack of Education, Lack of Electricity, Lack of Transportation, Opium Addiction, Lack of Sanitation			
Taflagham	Gaon Bura	Problems (Diarrhoea, Stomach pain, Common cold, Fever) Lack of Education, Lack of Electricity, Land Slide, Lack of Transportation, Opium Addiction.			
Apumna	Gaon Bura	Problems (Diarrhoea, Stomach pain, Common cold, Fever) Lack of Education, Lack of Electricity, Lack of Transportation, Opium Addiction.			
Abuagham	Gaon Bura	Problems (Diarrhoea, Stomach pain, Common cold, Fever) Lack of Education, Lack of Electricity, Land Slide, Lack of Transportation, Opium Addiction, Sanitation Problem.			
Lumla Block(Taw	ang)				
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			
Zemrthang	Gaon Bura	Lack of Health facilities, Lack of Education, Inadequate Electricity supply.			
Mechukha Block	(West Siang)				
Targelling	Gaon Bura	Lack of Transportation, Lack of Education facilities, Lack of Educational Facilities			
Segong	Gaon Bura	Lack of Electricity, Lack of Education, Lack of Water Supply.			

Source: Village Survey Data, 2008.

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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		

Table A16: Allocation of BADP Fund for Arunachal Pradesh since 1997-98

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

Para Military Forces/Allocation		
Name 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
Kurung Kumey	121.67	2.55
Upper Subansiri	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

Table A17: Fund Allocation of Allocation of B.A.D.P. Fund in Border Districts in 2007-08

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

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The Centre for Development Studies (CDS) was set up in 2013 as a research adjunct at the Department of Economics, Rajiv Gandhi University (RGU),Itanagar, Arunachal Pradesh, with a generous grant from the Ministry of Finance (Department of Economic Affairs), Government of India. The objectives of the Centre include the creation of high quality research infrastructure for students, researchers and faculty members, in addition to sponsoring and coordinating research on various developmental issues having policy implications both at the regional and national level. Sponsoring national and international scholars for delivering lectures and other academic engagements and organizing national and international seminars, workshops, symposiums at periodic intervals on relevant topics and publishing working/policy papers on the research outcome of the Centre, monographs and edited volumes are other key activities of the Centre.

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