Baseline Survey of Minority Concentrated Districts

District Report

TAWANG

Study Commissioned by
Ministry of Minority Affairs
Government of India

Study Conducted by

OKDIS CD
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Commissioned by the Ministry of Minority Affairs, this Baseline Survey was planned for 90 minority concentrated districts (MCDs) identified by the Government of India across the country, and the Indian Council of Social Science Research (ICSSR), New Delhi coordinates the entire survey.

Omeo Kumar Das Institute of Social Change and Development, Guwahati has been assigned to carry out the Survey for four states of the Northeast, namely Assam, Arunachal Pradesh, Meghalaya and Manipur.

This report contains the results of the survey for Tawang district of Arunachal Pradesh.

The help and support received at various stages from the villagers, government officials and all other individuals are most gratefully acknowledged. ■

Omeo Kumar Das Institute of Social Change and Development is an autonomous research institute of the ICSSR, New delhi and Government of Assam.

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PART I

BACKGROUND

Issues relating to disparities across socio-religious communities have attracted much attention of the government of India of late. There is a growing realization about the relative backwardness of the religious minorities in the country. Although the Constitution of India provides for equality before law and prohibits discrimination on grounds of religion along with special provisions for protection of the interest of the minorities, situations of the minority communities have not been perceptively good. The Sarchar Committee, which was instituted specifically to look into the relative deprivations of Muslims vis-à-vis other socio religious categories in various dimensions of development, in its report on "Social Economic and Educational Status of the Muslim Community of India", exhibited deficits and deprivations of Muslims in all dimensions of development. Although Muslims as a larger minority group has attracted more attention, the plights of the other religious groups including the Buddhists are also being considered.

With 7,955,207 Buddhist population scattered all over the country, 0.8 percent of India's total population are believers of Buddhism. While Sikkim has the highest number of Buddhist population, which is 28.1 percent of total population of the state, Arunachal houses the second highest numbers (143,028 persons), which is 13 percent of the state's population. Therefore, there is a need to generate data to evaluate and address issues of religious minority backwardness in the state of Arunachal Pradesh.

One way of ensuring development of the deprived sections is to allow this group to have the benefits of all the development oriented programmes of the state. The State and the Central Government have launched various schemes for the benefit of BPL families in the fields of housing, education and health. It is important to ensure that the minority communities belonging to this category are not deprived of the benefits of the schemes available to the BPL families. In order to ensure that the benefits of schemes and programmes of government reach the relatively disadvantaged segments of society, districts having a substantial minority population on the basis of backwardness parameters were identified. Based on 2001 Census, using two backwardness parameters, viz., (1) religion specific socio-economic indicators at the district level in terms of literacy rate; female literacy rate; work participation rate; and female work participation rate and (2) basic amenities indicators at the district level in terms of percentage of households with pucca walls, safe drinking water, electricity and w/c latrines, the Ministry of Minority Affairs identified 90 Minority Concentration Districts throughout the country which are falling behind the national average in these parameters. Of these 90 districts, 53 districts have both socio-economic and basic amenities below national average, 21 districts have socio-economic parameters below national average and 16 have basic amenities below national average. The basic idea is to formulate a multi-sectoral programme for the 90 MCDs which envisage for providing beneficiary oriented schemes to minorities and infrastructure development for the entire community in the districts.

Against this backdrop the baseline survey in MCDs was conceived to-

(a) identify how existing programmes are currently targeting these districts and on the basis of the assessment to develop special programmes to provide these facilities and ensure accessibility to them in the most backward areas in a faster way; and

(b) create socio-economic profiles of the targeted districts, and receive inputs that would help improve literacy rate, especially female literacy rate, and overall work participation rate, especially female work participation rate that have a significant impact on economic development.

The survey would more specifically try to identify the gaps in (1) availability of infrastructure like schools, health centers, ICDE centers and drinking water supply (2) housing and sanitation (3) critical linkages like rural road, ITIs, banking facilities, markets etc. and also (4) identification of artisanal income generating activities in which villagers have comparative advantage.

METHODOLOGY

The present survey has been confined to rural areas. Considering the availability of data Tehsil level information has been used for stratification purpose.

Villages are taken as the first stage units (FSU) for the survey. However, before selection of sample villages, each district under the coverage was stratified first. All tehsils in a district were grouped into three strata in terms of minority population after arranging them in descending order of minority population. The grouping/stratification has been done in such a way so that the first stratum constitutes top 20% of tehsils, the second stratum constitutes middle 50% and the third/last stratum constitutes bottom 30% of tehsils in the arranged frame. The ranges vary in accordance with degree of concentration of minority population in respective districts.

Depending upon the size of the district, 25 or 30 villages were selected from each district. 25 villages were chosen if the rural population of the district is below 5 lacs; otherwise 30 villages were chosen.

The number of villages surveyed in each stratum was directly proportional to the share of each stratum/group of tehsils (according to population) to the district population, subject to a minimum allocation of 6 villages to each stratum.

Required number of sample villages from each stratum has been selected as per the probability proportion to size (PPS) with replacement, size being total population of the village as per Census 2001.

In case of household selection, complete listing of all households (by door to door visit) has been done in case of sample villages with less than 1200 population. However, in case of those villages with population 1200 or more, three or more hamlet-groups (hg's) were formed in the village as per the practice followed by NSSO[1]. From among them, a sample of 2 hg's was selected for listing of households. The hg having maximum concentration of minority population was selected with probability 1. From among the remaining hg's, one more hg were selected at random. The listing and sampling of households were independent for each selected hg.

In each selected hg, the listed households were grouped into strata as per the minority status of the household. In other words, all Muslim households formed one second-stage stratum (SSS), all Christian households another SSS, and so on.

About 30 households were selected in all from each sample village for detailed enquiry. These 30 households were allocated over 2 selected hg's (if hg's formed) and among the respective SSS in proportion to total number of households listed in the respective frames. A minimum of 2 households were allocated to an ultimate SSS. The required number of sample households from each SSS were selected by systematic random sampling without replacement (SRSWOR). In case of village having less than 30 households all the households were surveyed.

[1] The rule followed by NSSO for forming hamlet-groups is

Approximate present population of the village	no. of hamlet-group to be formed
1200 to 1799	3
1800 to 2399	4
2400 to 2999	5
3000 to 3599	6
…….. and so on	

TOOLS USED

Relevant data were collected with the help of (1) Rural Household Schedule and (2) Village Schedule.

The rural household schedule tries to capture different dimensions of socio-economic and situational variables like employment, migration and occupation details, land and other assets, ownership of productive and other assets, livestock details, housing status, rural indebtedness, family income and expenditure, current educational status and skill training, aspiration of parents of current students, awareness and participation, local

conflicts and loss of life and property, access to media and communication and general aspirations of the people.

The village schedule tries to garner authentic data regarding the village. Information such as basic population data, facilities, village organizations, land use and land transfers, credit facilities, commuting and migration data, job and wage related information, information on individual beneficiary oriented programmes, data on education including physical facilities, health, different development programmes, common property resources, and the public distribution system prevailing in the rural areas.

PART II

A BRIEF PROFILE OF TAWANG

2.1 Area and Location

The area of the Tawang district is approximately 2172 sq km., bordered by Tibet in the north, Bhutan in the south west and Sela range separate west Kameng district in the east .The district is located at a distance of approximately 180 km. from Bomdila. With a population of 38,924 inhabiting in 181 villages (as per 2001 census), Tawang lies roughly between 27.45 N and 90.15 E at the north east extremity of Arunachal Pradesh. Elevations range between 6,000 to 22,000 feet and inhabitants are found in lower altitude, where they enjoy a cool temperate climate.

2.2 Administrative Division

Tawang is an administrative district in the state of Arunachal Pradesh. Tawang town is the district headquarter. The entire district is divided into 3 sub division with 7 circles and 3 blocks under them.

Administrative division

Sub division	Circle	Population	Village	Block
Lumla	Lumla	5382	21	Lumla
	Zemithang	2801	12	
	Dhudhanghar	2281	24	
Jang	Mukto	3446	10	Mukto Thimbu
	Thingbu	1846	06	
	Jang	4348	31	
Tawang	Tawang	13753	84	Tawang

2.3 Resource Base

2.3.1 Population

According to the 2001 census the total population of this district is 38,924 with male and female composition of 21,846 and 17,078 respectively. The decadal growth rate is 37.6 during 1991-2001, is higher than the state average. The decadal growth rate has been highest in Tawang compared to all the other districts. The rural population comprises 78.48 percent of the total, which is lower than the state average of 79.25. 75 percent of total population belongs to scheduled tribe comprising the native Monpa, Bhotia, Adi etc. The dominant ethnic group is the Monpa, inhabiting 162 out of 163 villages.

The density of population in the district per sq. km. is 18, which is higher than the state figure of 13 but much lower than the country's population density of 324.

Population Composition in Tawang

Population	P	M	F
TOTAL	38,924	21,846 (56.12%)	17,078 (43.87%)
RURAL	30,548 (78.48%)	15,534 (71.10%)	15,014 (87.91%)
URBAN	8,376 (21.5%)	6,312 (28.89%)	2,064 (12.08%)
(O-6 YEARS)	6,515 (16.74)	3,344 (15.31)	3,171 (18.57)
SC POPULATION	128 (0.3%)	106 (0.5%)	22 (0.1%)
ST POPULATION	29,191 (75%)	14,241 (65.2%)	14,950 87.5%)

Note: Figures in parenthesis indicate percentages

2.3.2 Sex Ratio

Sex ratio in the district as per the 2001 census is 782, which is lower than the state average of 893. However sex ratio among 0 to 6 years is 948. The lower sex ratio could be due to migration of male population to the district.

2.3.3 Literacy Rate

The 2001 census reflected that the district has 47.3 percent literacy rate which is lower than the state average of 54.74 percent. Among the districts of Arunachal Pradesh, Tawang's rank is 12th out of the 13 districts of the state in terms of literate population. Literacy rate among males is 60.31 percent and among the females it is as low as 30 percent. Both these figures are lower than the state averages 63.83 and 43.53 percent respectively. The gender gap in literacy rate is as high as 30.31 percent. The rural urban differential in literacy rate is as high as 50.47 percent (79.01% urban; 28.54% rural). All these indicate educational backwardness of the district.

2.3.4 Workforce

The total workforce in the district is 55.8 percent of the population, which is higher than the state average of 43.97 percent. The male and female work participation rates are 63.50 percent and 45.99 percent respectively, which are higher than the corresponding state averages of 50.69 percent and 36.45 percent. However the male-female gap in work participation rate is 17.50, which is higher than that of the state level gender gap of 14.24 percent.

Distribution of work force in the district

District/ State	Total workers (main+ marginal)			% to total workers (main + marginal)				
	Person	Male	Female	Cultivators	Agri Labours	Household Industry Workers	Other Workers	Non-Workers
Tawang	21727	13873	7854	44.2%	2.4%	0.6%	52.8%	44.2%
Arunachal Pradesh	482902	293612	189290	57.8%	3.9%	1.3%	37.0%	56.0%

Source: Statistical Abstract of Arunachal Pradesh, 2006

2.3.5 Education and Health

The district has 57 primary schools, 23 middle primary schools, 4 secondary schools and 4 higher secondary schools. There is no college in the district.

Profiling of Students and Teachers

District	Pre-Primary		Primary		Middle		Secondary		Higher Secondary	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Tawang	1125	1051	2469	2639	622	783	298	328	136	133
Teaching Staff in the Schools										
Teachers	M	F	M	F	M	F	M	F	M	F
			100	66	88	46	40	9	51	6
Student Teacher Ratio			1:24		1:23		1:26		1:23	

Source: Statistical Abstract of Arunachal Pradesh, 2006

Historically education has been a laggard field in the entire state, schools coming into existence only at the start of 20th century. As per the 7th All India Educational Survey (2002), there are 231 habitations in Tawang out of which, 31.16 percent have primary schooling facilities within them, in 15.58 percent within 1 k.m. and in 53.24 percent of them this facility is located at a distance beyond 1 k.m. Similarly, Upper Primary Schools are located within the habitations in 8.65 percent, within 3 k.m. distance in 38.52 percent and beyond 3 k.m. in 52.81 percent of the cases.

The enrolment figures in the district in the classes I-XII, as per the survey report, reveal that there is marked decrease of students with increase of classes. While there were 1242 students in class I, it is 121 in class X. There are no enrolments in classes XI and XII. The educational index calculated on the basis of adult literacy and the Gross Enrolment Ration (GER) for the district is 0.472, which in terms of rankings among all the districts is Rank 12.

The number of state government run Medical (Allopathic) institutions in the district is 23 including 1 District Hospital located at the urban area, 5 PHCs, 14 rural health sub centres and 4 sub-centres for lep/VD/STD/HP/TB etc. There is no CHC or any referral centers in Tawang. The bed availability is very low in the district, with 30 beds in the District Hospital and 24 beds in the PHCs. This is grossly inadequate when we compare with the norm of one hospital bed per 175-person norm laid down by the Bhore Committee in 1964, and which is regarded as a standard norm in the country. Thus, health infrastructure is exceedingly poor in the district.

Moreover, inaccessible hilly terrain and scattered habitations result in poor access to health facilities. This results in health deprivation and ill health. In the district of Tawang 34.89 percent of the people are expected not to survive beyond the age of 40, as compared to 28 percent at the state level and 16.7 percent at the national level. Similarly there are large sections of children (52%) below age 5, who are under weight (Arunachal Pradesh HDR, 2005).

2.3.6 The Human Development Index

The Human Development Index which incorporates three components – health, education and income – has been calculated to measure the development in Tawang. The HDI for Tawang district of Arunachal Pradesh for the year 2001 has been estimated to be 0.555. Of the three components the value of education index is 0.472, the health index 0.413 and the income index has a value of 0.780. Tawang is ranked at number 12 and 11 in education and health, but is ranked at number 6 due to its relatively high income index. It seems high income index has not influenced education and health in the district. The Gender-related Development Index (GDI) for the district has been calculated to be 0.538 indicating disparities between male and female populations, which is higher than the state GDI of 0.529 (Arunachal Pradesh HDR, 2005).

2.4 The Economy

2.4.1 Agriculture

The economy of Tawang district is basically agrarian in nature with more than 80 of the population dependent on agriculture. The alpine and temperate agro climatic conditions of the district are conducive for certain agricultural activities. Wheat is the major food crop produced along with Rice, Maize and Millet. Other important crops of the district include potato, oil seeds and vegetables etc. Apple is introduced in Tawang and at present the district produces about one fourth of total production of apple of the state.

As per the 2001 census data, in the district the total net area sown is 4495 hector, current fallow 393 hector, 210 hector is uncultivated land excluding fallow land and 1167 hector area of land is not available for cultivation. The net irrigated area of the district is 366 hector. This indicates that the district has scope for utilization of its land resources.

Table 2.4: Land use statistics of Tawang district, as per agriculture census, 2001 (hectare)

Net area sown	Current fallow	Unculti-vated land	Fallow land other than current fallow	Cultivable waste	Land not use for cultivation	Total	Net irrigated area
4495(69.80)	393(6.10)	210(3.26)	107(1.66)	68(1.05)	1167(18.12)	6440	366 (8.1)

Table 2.5: Area and Productivity of crops in Tawang district

		Rice	Maize	Wheat	Pulses	Oilseed	Potato	Millet
Tawang	Area in ha (%of NSA)	777 (17.3)	722 (16.1)	1702 (37.9)	124 (2.8)	185 (4.1)	600 (13.3)	835 (18.6)
Tawang	Productivity in kg/ha	1360	1950	1528	1072	1259	6000	1200
Arunachal	Productivity in kg/ha	1162	1411	1588	1045	956	7204	966

Productivity of crops in the district to a good extent is better than state average (Table 2.5). However, the district as well as the state of Arunachal falls behind to the average productivity of these crops in the country. Total fertilizer consumption in the district during the year 2005-06 was 140 MT. To this per hectare consumption of fertilizer in Tawang district is 31.1 kg compared to the state average of 6.6 kg per hectare. Relatively higher quantum of fertiliser use in this district could be linked to the relatively larger proportion of area under HYV seeds in the district. However, to the average fertiliser consumption in the country (105 kg per hectare), fertiliser use in the state is meagre.

The total quantum of food grain production (6201 MT in 2005-06) in the district reveals per capita availability of food grains of 436 grams, which is marginally lower than the country average of 445 grams per person per day. However, considering the wastage in harvest and transport the quantum could be reduced by 20 percent. This reveals that the district to an extent is self-sufficient in food grain production.

2.4.2 Industries

The state of Arunachal Pradesh is not an industrially developed state and the position of Tawang district in industrial scenario of the state is insignificant. The district has 23 numbers of village and SSI units registered permanently (functioning) as on 2006. During the year 2005-06, the district invested 25.20 lakh in industrial sector.

2.4.3 Live stock and Veterinary Facilities

The district has a good base of livestock and veterinary services. Livestock census 2003 reflected that about 3.2% of state share of cattle, 1.8% of goats and 42.48% state share of horses and ponies are estimated to be in this district. In addition 3.5% of total livestock are estimated in this district. During the year 2006 there are 5 veterinary dispensaries, 11 veterinary aid centres, 8 cattle upgrading centre, 1 district diagnostic laboratory and 7 sheep and wood extension centre

2.5 Employment and Government programme

The total number of employment exchange during 2005-06 is 11, 13 number of job seeker placed and also 472 number of jobseekers sponsored. There is 26304 no. of job seekers on live register during 2005-06.

2.6 Road Infrastructures and Connectivity

As per the records of 2005 the district had 85.22 km under PROJECT VARTAK un-surfaced district road. During the year the total length of roads under forest in this district is 0.650 km.

PART III

PROFILE OF THE SAMPLE VILLAGES

3.1 Demographic profile

There are 1928 households in the 25 sample villages with a total population of 8295 as per the 2001 census. The average number of households in the sample villages is 73.12, with average population of 331 per village. Both in terms of number of households and population size the range is very high with villages having 8 households to 307 households and with 35 persons in a village to 1740 persons in another. The average household size is 4.2 persons with maximum 5.7 persons to minimum 2.5 persons per family. While Scheduled Tribe and Scheduled Caste population consists of 66.69 percent and 4.8 percent respectively, the general population covers 28.65 percent of the total population.

3.2 Sex Ratio

The sex ratio in the 25 sample villages is found 853, which is higher than the district sex ratio of 782 but lower than the state average of 893.

3.3 Literacy Rate

Literacy rate among the population of the sample villagers is very low. As per the Census figures of 2001 only 32.06 percent of the villagers of the sample villages are literate. The female literacy rate among the sample villages is 23.74 and male literacy rate is 36.36 with gender gap of 12.62. The literacy rates of the sample villages are lower than the literacy rates of the district as a whole (47.32 %). The gender gap however is less than the gender gap of 16.32 in the district. There is wide disparity in literacy rates among the sample villages, which vary from 75.4 (Lumla) to 0 (Narmaleng).

3.4 Facilities

Facilities such as electricity, drinking water, toilet facilities, health and educational facilities indicate the quality of life of the people. Both the quality of these facilities and actual accessibility of these, ultimately determine the living conditions of people.

3.4.1 Electricity

Electrification of households.

Total Households In the Sample Villages	Total Households Electrified	Buddhist Households	Hindu Households
1828	1367	1205	162

Although all the 25 villages were electrified two of them were de-electrified due to some reason. Electricity in the villages came quite late in history. The first village to be electrified was in 1981, the next in 1982 and next two villages in 1983. Maximum numbers of villages were electrified in 1984. Electricity is mainly used in these villages for domestic purposes only, which is an indicator of household's capability to use electricity in rural setting. Three households belonging to Buddhist religion use electricity for commercial purposes. Non-use of electricity for commercial purposes indicates relative backwardness of the sampled villages. The consumption of electricity is very low in the district, which is only 4.667626 M.U. (3.58% of total electricity consumed in the state). The per capita consumption of electricity in Arunachal was 86.9 kWh in 2001-2002 against the all-India average of 335 kWh.(Statistical Abstract of Arunachal Pradesh 2006)

Availability of average hours of electricity per day

Duration of electricity availability per day	Average hours per day at present	Average hours 5 years ago	Average hours 10 years ago
	10.76	8.68	7.04

Electricity is available in the sample villages for less than half of the day. Although there is improvement in the situation of electricity supply over the years there is wide variation among the villages from 3 hours per day to 22 hours per day. There are 5 villages that receive electricity for only 3-6 hours 5 villages receiving electricity between 19-22 hours.

3.4.2 Drinking water

Drinking water has not only health implications in terms of waterborne diseases, but it affects the overall quality of life and more particularly the lives of women, who have to manage water from any source from any distance. All the villages under survey have drinking water facilities, either tank, river or from other sources. While 44 percent of households has access to tank and river water 19.4 percent uses other sources like stream water. To have water inside the house is a boon for the rural family as it reduces a lot of time and energy in water collection. Around 14 percent of the households have functional tape water inside the house. There are a substantial number of households with non-functional water sources.

3.4.3 Toilet facility

The sample villages are highly deficient in toilet facilities. In the entire sample villages there are only 5 villages with septic tank latrines, 2 with soakage pit latrine and 5 with other latrines. People in those villages mainly use open space for defecation. Around 25 percent of the villages are without any latrine facilities. Household wise, village Gyandong is the only village with 100 percent septic tanks latrines. There is only one village with 10 households with total sanitation campaign benefits.

Toilet facilities in the sample villages

Village/ Households	Septic Tank	Service Latrine	Soakage PIT/Sulabh	TSC	Other Open Field
Village	5		2	1	
Household	98		39	10	

Total villages: 25

3.4.4 Education

In almost 50 percent of the villages there are no primary schools within the village. Middle schools are there in around 50 percent of villages, while high/higher secondary schools taper off to 24 percent. Technical education is confined to 16 percent of the villages. 20 percent of the villages have religious schools. There are no girl's schools. The schools are either co-educational or boys. Probably this factor does not hamper girl's education as culturally the tribal society of Arunachal does not segregate girls from boys. In the village Bramduchung there is no other school but one religious school. In two villages all the 5 types of educational institutions are available.

Villages with Schooling facilities

Location	Primary	Middle	High/H.S.	Technical Education	Religious School	Total
Within Village	9	8	3		1	21
Within Block	3	4	2		1	10
Within Panchayat	1					1
Within District			1	4	3	8
Total	13	12	6	4	5	40

Total villages: 25

Distance to educational facilities

Distance	Primary	Middle	High/H.S.	Technical Education	Religious School	Total
.00	9	8	3		1	21
Up to 2 km	4	2				6
2 to 5 km		2	1		1	4
More than 5 km			2	4	3	9
Total	13	12	6	4	5	40

Total villages: 25

As per the District Information System for Education (DISE) 2005-06 report, 94.20 percent of the elementary schools in Arunachal are located in the rural areas. However simple presence of a facility does not indicate access to the same. Accessibility to school is dependent upon how far or near the facility is from the households and how easy or difficult is the journey to the school. The fact that not all the villages have Primary schools within the village is itself a barrier to easy access. In about one fourth of the villages the children will have to walk up to 2 k.m. to reach Primary or Middle schools. In 16 percent of the villages the distance to be covered to reach Middle or a High school is 2-5 k.m. In the hilly terrain of Arunachal this can be a deterring factor.

The state itself lacks proper road connectivity. As per the Arunachal Pradesh Human Development Report 2005, 46.51 percent of the people has access to pucca roads, 26.93 per cent to kutcha roads, and 26.56 percent has no connectivity at all.

3.4.5 Health facility

Number of health facilities in the sample villages

Sub Centre	**PHC**	**Hospital Dispensary**	**Pvt. Qualified Doctor**	**Chemist Medicine Shop**	**Others**	**Total**
14	9	4	3	1	2	33

Access to facilities within village,(block) and < district>

Seasons	Mode of transport	Sub Centre	PHC	Hospital Dispensary	Pvt. Qualified Doctor	Chemist Medicine Shop	Others
Summer	On foot	(5)	1 (3)	(1) <3>	<2>		1
	By vehicle	1 (3)	1(2)	(1) <2>	<1>		1
Winter	On foot	(3)			(1)	(1)	
	By vehicle	(3)					
Rainy	On foot						
	By vehicle	(2)			(1)	(1)	
Summer & Winter	On foot						
	By vehicle	(1)	(1)	<1>	<1>		
Summer Winter & Rainy	On foot	2 (3)<1>	(3) <2>				(1)
	By vehicle	1 (2) <1>	(3) <2>				(1)

Note1: (facility within block); <facility within District> Note2: Figures indicate number of villages

People's health to a large extent depends on access to health care facilities. Mere presence of a health facility often does not indicate automatic access. Good road conditions, availability of vehicles to carry the critical patients and emergency

attendance in need are all important elements of access to health care. It is seen that there are only 9 sub centres which are accessible during all weather on foot and by vehicles. PHCs which have all weather accessibility are 10. As is evident, to have access to private qualified doctors, villagers will have to go out to the block or district facilities. Distances to health facilities including the qualified doctors, in case of 48 percent of the villages are more than 5 k.m., which for a critically ill person is long distance. For about one third of the villages the distances is up to 2 k.m. There is major disparity between rural and urban areas as most of the facilities are urban based.

Distance to health facilities

Distance	Sub Centre	PHC	Hospital Dispensary	Pvt. Qualified Doctor	Chemist Medicine Shop	Others	Total
Up to 2 km	4	1				1	6
2 to 5 km	4	3	1	1	1	1	11
More than 5 km	6	5	3	2			16
Total	14	9	4	3	1	2	33

Facilities at the SCs and PHCs

Health Facility	ANM	Medicine	Doctor	Regular Check-up	Pathological Check up	X-ray	Beds	Any other
Sub Centre	27	16	1	13	4	3	6	2
PHC	23	11	13	10	4	3	21	-

The ratio of ANM to person is 1:166. The doctor per person ratio is 1:638, while beds per person come to 1:395. While the proportion of ANM and doctor per person ratio is better than the norm (1 doctor per 1600 persons and 1 nurse per 600 persons) set by the Bhore Committee (1946), which is a standard norm still followed in the country, and bed per person ratio is much lower than the norm of 1:175, i.e., one bed per 175 persons.

3.4.6 Other facilities

The availability of other facilities in the sample villages reveal that block head quarter, nearest town, nearest bus stop, rail station, Gram Panchayat office are located at an average distance of above 10 k.m. for more than 85 percent of the villages. Even the basic necessities like regular market, fair price shop, general shop and mandi are available within the village only in case of 12 to 16 percent of the villages. For around 14 percent of the villages these are located within 2-5 k.m. radiuses and for the rest of the villages people will have to travel above 10 k.m., for these facilities as reported by the villagers. (Table 3.2, 3.3 & 3.4)

3.5 Village organizations

Village organizations are important indicators of nature and level of activities in the community. They also indicate overall awareness of the group. In the sample villages baring cultural organizations in one third of the villages (8 no.), production of khadi in 6 villages, marketing related activities in 4 and political activities in 5 villages there is not much other activities keeping the villagers busy (Table 3.5 & 3.6).

Around 44 percent of the villages are engaged in artisan/handicraft activities. Most of the products are sold in within the villages and in local market. Both availability of raw materials and marketing are weak (Table 3.7 & 3.8).

3.6 Crop productivity status

People of Arunachal practice both shifting and settled cultivation and cultivate mainly rice, maize and millets as major crops. The survey results of the sample villages indicate that vegetables are the major crop produced in the villages. The maximum market price fetched for vegetables one year before the date of survey as reported was Rs.1800 and minimum price Rs. 700 per quintal. There is wide variation among the villages producing 102 quintal per acre of land to 7 quintal per acre. Paddy fetches maximum price Rs. 1700 and minimum price Rs.500. Potato is another crop produced by 3 villages fetching between Rs. 500 to Rs. 400 per quintal (Table 3.9 and 3.10).

3.7 Input status for cultivation

3.7.1 Current inputs

The survey revealed that 19 cultivators have done cannel irrigation in only one village. Net area irrigated by cannel irrigation is third lowest in the district, with only 53 hectares of land being covered under this against state average of more than 98 hectares. The HYV seeds in paddy and wheat were used in 7 villages. Chemical fertilizers were used in 20 villages. There was wide variation in the number of cultivators using this item in the sample villages. It is obvious that the cultivators using the HYV seeds used the chemical fertilizers the most. It is the case with pesticides and insecticides, which was used by 15 villages. All the villages reported short supply of HYV seeds and fertilizers and pesticides during the peak seasons (Table3.11& 3.12).

3.8 Credit

It is revealed that villagers need credit to meet the current cultivation costs, and for financing investments in machinery or land. However, the proportion of villages requiring credit is very small. Those small and marginal cultivators who sought credit got it from institutions (Tables 3.13 through 3.16).

3.9 Migration and employment and wage income earning

From the sample villages, daily 367 people commute or have migrated out for works in neighbouring villages, blocks or to district head quarters (Table 3.17). Majority of out migrated workers however, work in the neighbouring villages. The earnings ranged from 14000 to 1500 and this indicate that such migration has added to increasing income although related difficulties could not be assessed (Table 18). Baring two villages, in all the 23 villages the wage of casual labour has increased. Students also migrate to other places. More boys than girls go out of villages to pursue studies in higher secondary/ college level.

Average wage income in the sample villages by kind of work

Wage rate	Ploughing land, land preparation	Weeding/ iterculture	Trans-planting	Harvesting	Thre-shing	Unskilled labour	Skilled labour	Govt. Progra-mme
Male	60	60	58	60	60	96	139	121
Female	53	51	53	52	52	79	120	118
Child	50	50	50	50		50		

In 23 villages there is casualisation of labour. Lack of opportunities has forced people to migrate in search of jobs to outside their village. Gender disparity in wage can be observed. In one village there is child labour and they are paid lowly.

In 19 villages there are 206 persons working in government jobs. However, there are wide disparity in government jobs holding with villages having 30, 40 persons to villages with only 2 persons.

In 20 out of 25 villages people have responded that the villages are now better off than 10 years ago while in 4 villages they perceive no change, in one village there was no response to that (Table 3.19).

3.10 Rural development programmes and beneficiaries assisted

During the last 3 years prior to the survey, one major government programme under which people in all the 25 villages got assistance is the IAY. Only in one village people were benefited by SGSY scheme. Programmes like NREGA or PMGSY did not have any presence in the sample villages. Both old age and widow pension recipients were found in sample villages. Majority of old age pensions in 21 villages, were received since 2002-03. Widow pensions were received in 11 villages since 2002-03.

3.11 Common resource and facility uses

Number of schools with type of school structure

Kutcha/Thatch	Kutcha/Tile	Semi Pucca	Pucca	Total
		9	15	24

Number of schools with type of flooring

Mud	Brick	Cement/Stone	Thatch	Total
	2	22		24

Schools with number of rooms

Class Rooms	Up to 5 rooms	Above 5 rooms	Total
No of Schools	13	11	24

Provision for desks

Desks	For all students	For some students	Total
No of Schools	20	4	24

Toilet and drinking water facilities in schools

Toilet facilities			Drinking water facilities		
Available	Not available	Total	Available	Not available	Total
17	7	24	20	4	24

Mid-day meal & students' opinion in schools

	Very good	Good	Bad	Very Bad	Average	Total
Quality	5	15		1	3	24
Preparation	2	4		10	8	24
Regularity	3	1	4	7	9	24

Availability of Slates, notebooks and books

With all students	With most of the students	With some students	Total
20	2	2	24

Teachers in schools

Teachers currently teaching I-V			Teachers present on the day of visit		
Up to 5 teachers	Above 5 teachers	Total	Up to 5 teachers	Above 5 teachers	Total
18	6	24	19	5	24

Students' opinion about teachers

	Very good	Good	Bad	Very Bad	Average	Total
Quality	5	10			8	24
Preparation	4	14			6	24
Regularity	5	10		1	8	24

Of the 24 schools in the villages, 15 (62%) of them have pucca building and 9 semi pucca building. In almost all the village schools, floors are made of cement and stone. In two schools the flooring is thatched. Up to 5 classrooms are found in more than half of the schools and above 5 rooms in the rest. Baring 2 schools all the schools have blackboards.

In five sixth of the schools there are provisions for desks for all the students in rest one sixth desks are available only for some students. In 29 percent of the schools there are no toilet facilities while in 16 percent there are no drinking water facilities. In order to understand the situation of mid-day-meal scheme in the schools opinion were sought from some students. While majority said that the quality was good, preparation was said to be very bad and that the programme was of average regularity. In 4 schools slates, exercise books and books were not available to all the students.

Number of teachers was found to be adequate in the sample schools with 5 or more than 5 teachers per school in the sample villages. Students' opinion about teachers was good in majority of the schools in all the three dimensions of quality (41%), preparation (58%) and regularity (41%). Only in one school the students' opinion about regularity of teachers was very bad.

So far as availability and use of health as a common resource and facility is concerned, the village schedule indicate that except for the ANM and the Vaccinators other health staff were hardly present in the villages during the last one year prior to the survey. Almost all the people in the villages avail government facility in case of illness.

Visit of the government health personnel during last one year

Health Personnel	Medical Officer	Lady Health Visitor	ANM	Malaria Inspector	Health Educator	Vaccinator	ASHA	Others
Total visits	4	9	46	3	4	55	10	1
No. of Villages	2	4	22	2	2	20	3	1

The government sponsored scheme SGRY is in operative only in one village (Seru). The common property forest has been used by all the villages and by every household. All the people are using the village pond in five villages. In 17 villages every household is using pasture. School lawns and buildings are reported to be used in 17 villages by every household. In 10 villages government buildings are in use by every household. No encroachment of any of these common properties is reported from any of these villages.

Presences of caste panchayats are reported from 10 villages whereas there are no such panchayats in 15 others. Neither the non-formal panchayats nor clash of superiority among them is reported from these villages.

There are only 4 SHGs in the sample villages. ICDS centres are located in government buildings in 12 villages and in 11 others they are housed in private buildings. These buildings are mostly reported to be average in condition in 70 percent of the villages. Altogether 94 mothers and 630 children and 24 ICDS Supervisors are reported to have visited the centres over the last one month. The level of satisfaction with the functioning of the Anganwadis is reported to be average in most of the villages.

PDS shops are reported to be available only in 4 villages, with one PDS centre in each. It means in 21 (88 %) of the villages PDS is not available. In the villages where PDS is not available they are located at a distance of up to 2 k.m. in case of 7 villages and up to 5k.m. in case of 14 villages.

Summary

High rate of illiteracy is found among the sample villages with glaring gender gap in it. One village is reported to have no literate person. Although electricity connection is there in all the villages its availability for consumption is for less than half of the day. The sample villages are highly deficient in toilet facilities. Health facilities are also not easily accessible. Basic necessities like regular markets, general shops, fair price shops, etc. are also not located at an easily accessible distance for majority of the villages. Migration of workers to outside the villages indicates low level of livelihood availability and casualisation of labour force.

PART IV

RESULT OF THE BASELINE SURVEY

4.1 Religions and Caste Composition

Of the total 636 households surveyed 633 are Buddhists households comprising 99.5 percent of the total. Rest 3 households belong to Hindu religion (Table 4.1). Therefore, the analysis will reflect Buddhists only. The three Hindu households in the sample by and large will be ignored for analysis.

4.2 Mother Tongue

The language spoken by the villagers are none of the recognized scheduled languages of India. The Buddhists mostly speak monpa language. Only two out of three Hindu households speak Hindi. (Table 4.2)

4.3 Age and Sex

The total population of the 636 sample households is 2839, of which 53.61 percent females and 46.38 percent males. The sex ratio among the sample population is 865 females per 1000 males. Tawang is a predominantly Buddhist district, with 99.5 percent population belonging to that faith and Hindus comprising the rest 0.5 percent. The details of age group composition are given in the Table 4.3. Highest number of population is found in the children in the age group of 6-14, which is 21.1 percent of the Buddhist population. This is true among the Hindus as well. But comparisons cannot be made due to small number of Hindu households. Next larger group between both these religious groups is adults of 31-45 age groups.

4.4 Household Size

While 71 percent of the households have a family size up to 5 members, 28.6 percent are with a family size of 6-10 members. There are two households with more than 11 members (Table 4.4). The average family size is 4.65 members.

4.5 Marital Status

No marriage is found to have taken place at or below 14 years of age, as it is found in some parts of the country. However, there are 0.3 percent of populations between 15-18 age groups who are already married. While widowhood has fallen on 9.2 percent 1 percent cases are either separated or divorced. (Table 4.5)

4.6 Educational Status

Literacy rate among the sample villages is 51.0, with 78.6 percent male and literates and 72.5 female literates. Although there are high literacy rates among the sample villagers,

much higher than the district literacy rate of 47.3, the level of education is very low. It ranges between below primary level to higher secondary. Majority of those who have gone for formal education have remained without completing primary level. Less than 3 percent of them have completed higher secondary level. Graduates consist of less than one percent of the total population. It may be noted that there is no male-female educational disparity within the sample (Table 4.6).

4.7 Occupations and Employment

It appears that (Table 4.7) a large number of people (44.0 %) are engaged in production and related works and activities like transport and equipment operators including driving. Activities under this category are mainly road construction, artisan work and driving. Another major occupation is farming (39.5%) which is mainly paddy farming and also horticultural farming. 4.5 percent are engaged in professional work like teaching and Anganwadi workers. There are gender differentials in pattern of work. The main occupation among the females is farming (around 26 %) against 14 percent males. Similarly, 25 percent of males are engaged in production and related works whereas only 19 percent of females are so engaged. While a miniscule of the population is engaged in clerical works (0.4%), 4 percent are in service like home guard, security force and defense. Less than 4 percent of the sample population is engaged in small businesses like pan shop, ration shop, cloth mercantile and the like.

Farming is also a major secondary occupation of the villagers (41.3%), production and related activities coming in the second (36.4%). A large number of people are engaged in secondary occupation, which could not be put into any standard classification (22%).

Table 4.10 indicate that 71.7 percent of main workers work for more than 260 days, while 27.3 percent work between 181 to 260 days and 1 percent work for less than 181 days. The work participation rate among the sample population is 44.51, including 21.47 male and 23.03 female work participation rates. While equal number of males and females are engaged in main occupation for more than 260 days, more females (15.4%) than males (11.8%) work for more than 181 days.

Secondary occupation status (Table 4.11) indicates that 54.7 percent are secondary workers for less than 101 days, while 45.3 percent work up to 180 days. In secondary occupation also more females than males are engaged up to 100 days (female: 29.1%, male: 25.6%) and less than 180 days (female: 25.6% and male: 19.7%) categories.

Thus, it is seen that women in the sample villages are more active than the men. It could also mean more work opportunities for women than for men.

4.7.1 Occupation and Industry

Industry-wise main workers classification (Table 4.9) indicates that 40 percent of the main workers are in construction activities and about 38 percent are engaged in cultivation. While around 10 percent are in community, social and personal services, 2 percent are engaged in livestock rearing. A distinct gender difference is visible in all

these engagements. More women (25.4%) than men (12.6%) are engaged in cultivation. As expected greater number of men are in construction activities (22.9%) than women (17.2%).

4.7.2 Self-Employment Scenario

Table 4.9 also provides a synoptic view of the section of sample population of the district. It can be safely said that only 4.8 per cent of the main workers has reportedly been self-employed, engaged mainly in livestock including poultry, and non-agriculture based manufacturing. For the section of sample population with self-employment, it has been observed that the average annual net income is about Rs. 2,00,000/-, and most of them do not have enough working capital. The other problems they are confronting with are shown in Table 4.12.

4.7.3 Additional Employment and Preference

Around 38 percent (Table 4.13) of the households look for more employment. Activities in order of preference are self-employment (55.6%), salaried job (24.1%), services (11.0%) and manual labour (9.2%).

4.7.4 Migrant Workers

There has been out migration from the sample villages to other rural and urban areas in search of jobs. Out of 206 (12.3 percent of the working population) persons, who have gone out of the villages to work (Table. 4.14), 8.3 percent did so to do service, 7.8 percent to do production and related works, 2.4 percent to do clerical jobs, less than 2 percent each for professional and technical and administrative works and 1 percent due to farming and related works, while in around 77 percent of the cases they have migrated not with any specific defined activities (Table. 4.15. A). So far as the places of migration is concerned (Table. 4.15.B), maximum migration is taking place to urban places: outside the state (32.0 %), within the state (15%) and within the district (30.6%). There is also considerable migration to rural areas within the district (14.6%) but less to rural areas within the state (4.9%) and outside the state (1%). Around 2 percent of migrated persons have gone out of the country. 84 percent of the migrants have gone for a long-term basis for more than 8 months time period while the rest of them have migrated for a short period of time between 3-8 months (Table 4.16).

4.8 Land and other Assets

With shifting cultivation or Jhum as the predominant mode of agriculture, the pattern of ownership over land in Tawang like other parts of the state traditionally was collective. The institution of traditional village council used to manage and control property right in both land and forest. Nevertheless, the traditional mode of cultivation in the district has been gradually changing due to several factors such as lack of sufficient surplus generation, demographic change along side reinforcing intervention by both state and market forces. Consequently, witnessing a transition from communal ownership to individual ownership, private property right over land has gradually been emerging

along side persistence of jhuming with a reduced jhum cycle. However, scarcity of land suitable for permanent wet rice cultivation in the vicinity of the villages has substantially restricted emergence of a class of big landholders. Moreover, the emerging agricultural practices involving permanent cultivation have often been influenced by the prevailing practices of jhuming. Yet, emergence of private property right over land is a noticeable phenomenon, and Table 4.17 provides a synoptic view of the same. It is clear from the table that more than 72 per cent of the households can be characterized as marginal in term of ownership over land while about 26 per cent of the households are landless indicating complete dependency on jhuming.

4.9 Livestock

Altogether 23 percent of the households have milch animal, 9.32 percent have draught animal, 15.5 percent have young cattle, 7.1 percent have goats, 2.2 percent have sheep, 10.4 percent have poultry (cock/hen/ducks), and 17.37 percent have pigs. The details of livestock of the sample population are given in Table 4.18 and 4.19.

4.10 Ownership of Productive and other Assets

4.10.1 Agricultural Implements

While only 10 households (1.57 percent) own plough, 21.64 percent have other implements like spade. No household possess modern agricultural Implements like tractor, power tiller, threshing machine, pump set, sprayer, fodder cutter etc. This is obvious because agriculture there is mainly based on swidden cultivation, the slash and burn method known as *jhum,* where these implements are hardly used (Table 4.20).

4.10.2 Transport

Altogether ten transport related assets are found in the sample households, including 1 truck, 5 cars and 4 motorcycles. This itself, speaks about the development lags in the villages.

4.10.3 Non-agricultural Machinery Implements

The sample households are deficient in non-agricultural productive implements. Only 18 households possessed handlooms, 4 rice mills, 4 swing machines, 1 power loom and 1 sugarcane crusher.

4.10.4 Modern Household Assets

Among the modern household assets 54.50 percent possess furniture, 49.13 percent gas stove, 29.22 percent TV, 20 percent CD players, 12 percent has phone and 7.6 percent has mobile phones, while 8 households have refrigerators.

4.10.5 Financial Assets

A small percent (9.63 percent) of the households have savings in banks (Table 4.21) and only 1.26 percent has fixed deposits. However, more than quarter of the households (27.8 %) has gold.

4.11 Housing Status

More than 95 percent of the households have own houses, 2.7 percent reside in government provided houses under Indira Awas Yojana and 2.2 percent live in rented houses (Table 4.22). Those who have own houses only a limited percentage of them (18.1%) have pucca house and almost equal number of them have kutcha (18.9%) houses, while majority of them (62.8%) live in semi pucca houses (Table 4.23).

4.11.1 House type and availability of living space

About a quarter of households having own houses reside in reasonably specious houses with 4 rooms, about equal number of them live in 2 bedroom houses (24.8%), 22.6 percent live in 3 bedroom houses and 13.6 percent of households live in one bedroom houses. It is noteworthy that around 14 percent of them have very specious houses with 5-10 bedrooms (Table 4.24).

4.11.2 Domestic lighting and fuel use

All the households have lighting facilities with electricity connections (Table 4.25), although the period of electricity availability is very poor as mentioned in the earlier section (Table 3.4.2 in part III). Therefore, the sample households also use other sources of lighting. While 23.8 percent use oil lamp, 7.9 percent use lamp and lantern, 4.8 percent use oil lamp and petromax and around 62 percent of the household use oil lamp and other sources (Table 4.26).

4.12.3 Drinking water facilities

Around 48 percent of the households use public tap for drinking water. 24 percent have water taps in their dwellings and equal numbers of households use pond, river and stream water. Majority of the households (58.5%) have their water sources within 10-50 meters of distance. Around 32 percent have water sources within less than 10 meters. For 6.8, 2.4 and 0.6 percent of the households they are located at a distance of less than 100 meters, less than 200 meters and less than 500 meters respectively (Tables 4.27 & 4.28).

4.11.4 Sanitation and drainage facility

Good sanitation is an important component of public health. Lack of proper sanitation is associated with a number of communicable diseases. Altogether 89.8 percent of the households have sanitation facilities. Majority of the households (76.6%) have pit latrines. While less than 10 percent have septic tank latrines, 2.8 percent have covered dry latrines and more than 10 percent of the people uses open fields for defecation.

Although a large number of households have pit latrines, the capacity of these latrines are less than the septic tank latrines and once the pit is filled up the need for a new pit is necessitated. There are 3 covered dry latrines own by the community in the sample villages (Table 4.29). The drainage facility is very poor in the sample households. With only 9.2 percent households having drainage facilities, majority lack this facility (Table 4.31).

4.12 Indebtedness of rural households

Incidence of indebtedness is almost negligible in the sample households. The survey identified only 9 households (1.4%) who have taken loan and are in present state of indebtedness. The rest of the households have not taken any loan. All the 9 households have taken only one loan. Amount of loan taken is also not very high. While three households took Rs.5000 or less, one household took less than Rs.10000, five households took loan above 20000. The survey revealed that the main source of loan is friends/family (6 households, 67%) and only three households have taken government loan, which is above 20000. Thus, it is seen that the institutional agencies have not played any role in this (Tables 4.32, 4.33 &4.34).

Of the 9 households who have taken loans, one third of them did so to repair their residential houses, while 2 households have taken loans for medical purposes and of the remaining 4 households, took loan for capital expenditure in non-farm business, purchase of land/house, purchase of livestock and for other purposes respectively (Table 4.35).

4.13 Income and Expenditure

Family income

The net income of the households ranged from Rs.19200 to Rs. 72000 during the last one year prior to the survey. Around 32 percent of the households earned net income up to Rs.19200, while 7.58 percent earned below Rs. 22801 (Table 4.36), with per capita income of Rs.320 and Rs. 380 respectively. Going by the poverty line estimates put forth by the Planning Commission for the state of Assam (in absence of such estimate for Arunachal Pradesh), which is Rs.388 per capita per month, we find that 40 percent of the sample population live below the poverty line.

Family expenditure

The estimated family expenditure in cereals and pulses by the sample households (Table 4.38) reflect that 65 percent of the households spent less than the Indian average family spending of Rs. 7200 and 53.4 percent spent less than the average family spending in Assam (Rs. 6000) on the same items. The per capita family expenditure in pulses and cereals was Rs 100 per month by more than 50 percent households and Rs. 150 by around16 percent of households, while for rest of the households it varied between these two figures. So far as the spending on vegetables is concerned 97.5 percent of the households spend less than the Indian average family expenditure of Rs. 150 per month

(Table 4.39). On an average, around 68 percent of households spend Rs. 45 per person per month on cloths, footware, bedding etc (Table 4.40).

On education, more than 55 percent of the households spend Rs. 851 per year, which is equal to amount of money spent by an average Indian household on education. It is really surprising that more than 40 percent of the households do not spend anything on education at all (Table 4.41). Table 4.42 indicate that health spending among the sample household is low, with more than 55 percent incurring no health related expenditure during the last one year. While less than one third of the households spent up to Rs. 2100, only 15.3 percent spent Rs. 2101 and above (Rs. 35 per month per person), which is at par with the average Indian spending on health. It is seen that (Table 4.43) a substantial amount is spent on festivals and ceremonies. Around 34 percent of the households spent Rs. 3251 and above on this count, spending Rs 54 per person per month. Around 48 percent spent on health between Rs. 1851 and Rs. 3250 (Rs. 42.5 per person per month) during the year preceding the survey, while per capita spending on health by 18 percent households is Rs. 31.

Per month expenditure on electricity and gas came up to Rs. 417 per household (Table 4.44) for 70 percent of the households, while more than a quarter of them spent Rs. 83 per month. In 88.2 percent of the households there was no expenditure on telephone, while 11 percent spent at least Rs. 200 per month on telephone during the last year (Table 4.45). Expenditure on house repairing had not been incurred by more than 62 percent of the households, while around 37 percent spent less than Rs. 5000 (Table 4.46).

The overall expenditure pattern indicates that maximum amount is spent on cereals and pulses and electricity and gas. Festivals and ceremonies also occupy a major share of their expenditure. Education and health are two sectors where expenditure is less. Although equivalent to the all India spending, expenditure on education is the lowest among all the spending records.

4.14 Current Educational Status, Skill Training

4.14.1 Educational attainment by gender

Around 22 percent of the members of the households between 5-25 age groups is never enrolled in school, of which 13.5 percent females and 8.7 percent males (Table 4.47). More than 7 percent are either enrolled but left school or enrolled but does not go to school. There is no male-female discrepancy among the members in this category. 60 percent are regularly attending the government schools, while more than 2 percent are attending private schools and 8 percent go to other religious institutions.

Altogether 34.9 percent members of the households have acquired below primary or primary education, with females almost one percent more than the males. 26.3 percent are Primary completers of which almost 15 percent are women. Educational level of around 22 percent is Middle school, of which 12.5 percent is female and 9.3 percent male. Above this level there are much fewer persons, with less than 10 percent completing Matric or Secondary level and only 5 percent with Higher Secondary level. There are 2

persons (1female) with Post Graduate degree and 1 with Graduate degree. In all the educational levels, there are more females than males (Table 4.48).

4.14.2 Current educational status of children

More than 90 percent of the students who are in schools are studying in government schools and only 4.4 percent are in private schools (Table 4.49). Females outnumber males as per present enrolment is concerned. However, the dropout rates among the female students are more than the males. 7 percent of the enrolled students dropout of school and two main reasons for dropping out for both male and female students are the need to earn and to work at home (Table 4.50).

4.14.3 Aspiration of parents about their children

When parents were asked about their aspiration for their children's education, 63 percent of them aspired for Bachelor's degree both for their sons and daughters, while 25 percent wanted their sons to be Post Graduates 19 percent wanted their daughters to be so educated. A clear gender difference in aspiration is observed as more than 10 percent of the parents wanted their daughters to achieve high school level while around 4 percent of them aspire for the same education for their sons. Same is true for technical education. Thus, it is seen that aspiration for boy's education is higher than that of the girls (Table 4.51 & 4.52).

14.4.4 Attitude and approaches towards skill development training

It is noteworthy that only 21 percent of the households are interested in skill training (Table 4.53). Of the different training avenues, the first choice is weaving (29%), followed by computer operator (26%), handicraft (17%) and driving (15%)(Table 4.54).

4.15 Present Health Scenario

Altogether 383 persons from the sample households have taken treatment during the last one year for different ailments. The most predominant ailment for receiving treatment happen to be the pain in the stomach (17.4%), followed by cough and cold (10.9%), jaundice (7.8%), TB (7.0%), fever (5.5%), fracture (4.6%), typhoid (2.6%) and teeth problems (2.6%) (Table 4.55).

The main source of treatment is the government hospital for majority of population (67%). For others it is combination of government and private and government and traditional. Around 3 percent of the patients had taken treatment from the traditional healers (Table 4.56). Around 32 percent of the patients were hospitalized (Table 4.57).

4.16 Maternal and Child Health

Altogether 77.5 percent of the total children of age group between 1 to 23 months in the sample households are found to be fully immunized, of which 52.94 percent male and 47 percent female (Table 4.58 &4.59). All most all the vaccinated children received vaccination from government agencies (Table 4.60). The reasons cited for non-

immunization (Table 4.61) of those who did not receive immunization vary from not aware (17.4 %), facility far away (8.7%) to others (73.9 %). Non-immunized children form a fairly large number and are a cause of concern.

The birth of the last child in the households took place at home for 89.5 percent of the cases. Only 10.5 percent of the children were born in the hospitals including both public and private (Table 4.62). In majority of the cases, the delivery was assisted by untrained dai (52 %) and by others (36.7%) i.e., non-medical persons. Only 7 percent of the deliveries were assisted by doctors and 4.4 percent by trained midwife/ASHA workers (Table 4.63).

4.17 Poor and PDS Support

Around 77 percent of the households reported that they belong to the BPL category. Out of this group only 46.3 percent possess ration cards and 76 percent uses ration cards to avail goods under PDS. While about quarter of them is able to buy goods, 75 percent of them are unable to do so (Tables 4.64 to 4.67). Two important difficulties cited by those not using PDS are lack of money (23%) and lack of adequate PDS supply (77%) (Table 4.68).

4.18 Awareness and Participation

Effective implementation of any programme is dependent upon the level of awareness among the people and their willingness to participate. Government of India has initiated a number of programmes targeting the rural poor for alleviation of their conditions.

The level of awareness about these programmes is very high among the sample households. Except for the NREGA, about which 97 percent of the households are aware, in all other programmes the levels of awareness are more than 99 percent. Benefits derived from these programmes varied from 94 percent in ARWAP, 99 percent in Sarvasiksha, 99.5 in SGSY and 100 percent in all the other programmes (Table 4.96 & 4.70).

4.18.1 Participation in the Socio-Political Affairs

People's participation in the socio political affairs is the key issue in development debates today. The survey results show that there is high level of participation (99.5%) among the household in all the election, including the Panchayats, State Assembly and Parliamentary elections (Table 4.71 & 4.72). While around 4 percent of them are reported to be office bearers of the Panchayats, 99 percent of them are SHG members and equal percentage of them are affiliated to religious/social organizations (Table 4.73).

4.18.2 Conflict, insecurity and access to media and communication

Although the survey was looking at the extent of disturbances in the households due to conflicts in the society, the households reported no such incidences. However, almost all

the households did mention that there were conflicts in the households but could not point at any specific incidence or so.

While reading of newspaper is found to be abysmally low among the villagers (1.9 %), 32 percent listen to radio and 27.5 percent view TV. Thus, the survey records low level of access to media among the households (Table 4.74).

4.19 Aspiration of the Communities as reflected from the Survey

Most important facilities lacking in the villages

Three most important facilities that are perceived to be lacking in the villages by the respondents are PDS, health facilities and water supply (Table 4.75, 4.76 &4.77).

Most important deprivation in the families

The villagers feel deprivation in the areas of land (44.2%), housing (21.2%), health (14.8%), education (4%), employment (5.7%) and skill development (0.9%). (Tables 4.78, 4.79 & 4.80)

Perceived priorities for the welfare of minority communities

The three priorities perceived by the villagers in order of preference are education, health and communication, including road, bridge, transportation/telecom etc. (Table 4.81, 4.82 & 4.83)

PART V

DEVELOPMENT DEFICITS

Despite an overall good development profile, especially in rural electrification, certain development deficits are prominent in the district of Tawang. Although the State Human Development Report ranks this district of Arunachal at 6th, its deficits in terms of housing and health are very high. The baseline survey results point at the development deficits, which call for immediate attention. The following table makes a comparative assessment of the district in terms of the national averages for the country in order to bring out the deficits in the district.

Development deficits and the priority rankings

Sl. No	Indicators	Survey Results	Estimates for India	Deficit	Priority Ranking Attached
Socio-economic indicators					
1	Rate of literacy	51.00	67.30	-16.30	4
2	Rate of female literacy	72.50	57.10	15.40	7
3	Work participation rate	44.51	38.00	6.51	6
4	Female work participation rate	23.03	21.50	1.53	5
Basic amenities indicators					
5	Percentage of pucca houses	18.10	59.40	-41.30	2
6	Percentage of households with access to safe drinking water	24.00	87.90	-63.90	1
7	Percentage of households with sanitation facilities	89.80	39.20	50.60	10
8	Percentage of electrified households	100	67.90	32.10	8
Health indicators					
9	Percentage of fully vaccinated children	77.50	43.50	34.00	9
10	Percentage of institutional delivery	10.50	38.70	-28.20	3

- The first priority among the deficits as the table above reveals point at the drinking water. The safe drinking water is available only in 24 percent of the households. Although the safe drinking water is the most basic necessity for every household, even going by the all India coverage of 77.9 percent, the present deficit accounts for 53.9 percent. This is really a huge gap.

- Secondly, although majority of the households have their own houses, the conditions of the houses are not good. Only 18 percent of them have pucca houses, while rest live in kucha or semi pucca houses. The government

provisioning also have not reached this section as less than three percent of the houses are constructed under the existing Indira Awas Yojana schemes.

- In the sample households the percentage of fully vaccinated children are high compared to the all India average although 22 percent of the children are yet to be vaccinated. The percentage of institutional delivery is as low as trained hands conduct 10.5 percent and 11.4 percent of deliveries. Institutional delivery ensures deliveries in proper hygienic conditions under the supervision of trained health professionals, which takes care of avoidable complications both for the mother and the child. Low institutional delivery can also be attributed to lack of access to health facilities. As is indicated in the part III of this report health infrastructure is abysmally poor in the sample villages with only 9 sub centers and 10 PHCs which has all weather accessibility. To have access to private qualified doctors the villagers will have to go out to the block or district facilities. Distances to health facilities including the qualified doctors, in case of about half of the villages are more than 5 k.m. For about one third of the villages the distances is up to 2 k.m. There is major disparity between rural and urban areas as most of the facilities are urban based.

  Moreover, the overall health scenario in the district as a whole is not at all encouraging. Inaccessible hilly terrain and scattered habitations result in poor access to health facilities. This results in health deprivation and ill health. In the district of Tawang 34.89 percent of the people are expected not to survive beyond the age of 40, as compared to 28 percent at the state level and 16.7 percent at the national level. Similarly there are large sections of children (52%) below age 5, who are under weight (Arunachal Pradesh HDR, 2005). It may be mentioned that the health index as calculated by the same report places Tawang in the 11th rank among the 13 districts, indicating poor health status. Therefore, health needs special attention in the district.

- While the total literacy rate of the people of the sample household is low, the female literacy rate is much higher than the all India average. This indicate comparatively better literacy situation for women. However, in terms of over all education scenarios the survey results are far from being good. Around 22 percent of the members of the households between 5-25 age groups is never enrolled in school, of which 13.5 percent females and 8.7 percent males. More than 7 percent are either enrolled but left school or enrolled but does not go to school. The level of education is very low. It ranges between below primary level to higher secondary. Majority of those who have gone for formal education have remained without completing primary level. Less than 3 percent of them have completed higher secondary level. Graduates consist of less than one percent of the total population. It may be noted that there is no male-female educational disparity within the sample.

  As mentioned in part III of this report the sample villages are deficient in educational infrastructure. Not all villages have primary schools within the village. As is well known, accessibility to school is dependent upon how far or

near the facility is from the households and how easy or difficult is the journey to the school. The fact that not all the villages have Primary schools within the village is itself a barrier to easy access. In about one fourth of the villages the children will have to walk up to 2 k.m. to reach Primary or Middle schools. In 16 percent of the villages the distance to be covered to reach a Middle or a High school is 2-5 k.m. In the hilly terrain of Arunachal this can be a deterring factor.

- Despite having a better work participation ratio for both male an female compared to that of the national average, the district records a poor performance in this regard. Adequate measures may be taken to enhance the work participation ratio for both male and female.

- Although sanitation facilities exists in majority of the household the type of latrines are not satisfactory. A large number of households have pit latrines, which have less capacity and needs replacement of the pit once the pit is filled up. Therefore, there is need for construction of septic tank latrines, which is a more satisfactory means of disposing excreta and liquid wastes from individual dwellings.

- The survey results revealed that all the households have electric connections. But mere electrical connections do not really speak of the availability of the same for use. Electricity is available in the sample villages for less than half of the day, as reported at the village level. Although there is improvement in the situation of electricity supply over the years there is wide variation among the villages from 3 hours per day to 22 hours per day. There are 5 villages that receive electricity for only 3-6 hours 5 villages receiving electricity between 19-22 hours. Thus, improvement of power supply needs attention.

LIST OF SURVEYED VILLAGES

Sl. No.	VILLAGE
1	BRANDUCHENG
2	THRILLAM
3	SHERENUP
4	LUMLA H.Q.
5	GONGKHAR
6	RENGYANG
7	LOUDUNG
8	DUNGJEE
9	SANGHAR
10	KHARSA (OLD)
11	THONGSLENG
12	GORSAM
13	PHOMANG
14	YUMTHUMBU
15	MALING
16	NAMTSERING
17	NEW LEBRANG
18	GYANDONG
19	NAMET
20	SHAKTI
21	SERU
22	SHYRO
23	SOCKTSEN
24	NARMALENG
25	DUDUNGHAR