



Baseline Survey of Minority Concentrated Districts

District Report

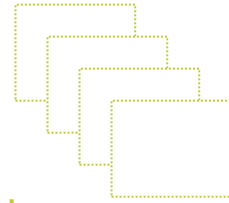
PAPUM PARE

Study Commissioned by
Ministry of Minority Affairs
Government of India

Study Conducted by



Omeo Kumar Das Institute of Social Change and Development: Guwahati
VIP Road, Upper Hengerabari, Guwahati 781036

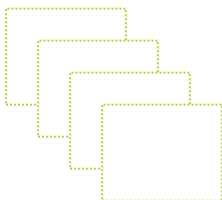


Commissioned by the Ministry of Minority Affairs, this Baseline Survey was planned for 90 minority concentrated districts (MCDs) identified by the Government of India across the country, and the Indian Council of Social Science Research (ICSSR), New Delhi coordinated the entire survey.

Omeo Kumar Das Institute of Social Change and Development, Guwahati had 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 Papum Pare 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.





CONTENTS

BACKGROUND	8
METHODOLOGY	9
TOOLS USED	10
A BRIEF PROFILE OF PAPUM PARE	11
2.1 AREA AND LOCATION	11
2.3 RESOURCE BASE	12
2.3.1 <i>Population</i>	<i>12</i>
2.3.2 <i>Sex ratio</i>	<i>12</i>
2.3.3 <i>Literacy Rate</i>	<i>13</i>
2.3.4 <i>Workforce</i>	<i>13</i>
2.3.5 <i>Education and Health</i>	<i>14</i>
2.3.7 <i>Natural Resource Base</i>	<i>15</i>
2.4 ECONOMY	16
2.5 INFRASTRUCTURE	17
2.5.1. <i>Transport and Connectivity</i>	<i>17</i>
2.5.2. <i>Power</i>	<i>17</i>
2.5.4. <i>Banking</i>	<i>17</i>
2.6. BASIC AMENITIES	17
PROFILE OF THE SAMPLE VILLAGES	19
3.1 DEMOGRAPHIC PROFILE	19
3.2 SEX RATIO	19
3.3. LITERACY RATE	19
3.4 FACILITIES	19
3.4.1 <i>Electricity</i>	<i>20</i>
3.4.2 <i>Drinking water</i>	<i>20</i>
3.4.3 <i>Toilet facility</i>	<i>21</i>
3.4.5 <i>Education</i>	<i>21</i>
3.4.6 <i>Health Facilities</i>	<i>22</i>
3.4.7 <i>Other facilities</i>	<i>22</i>
3.5 VILLAGE ORGANIZATIONS AND COMMON PROPERTY RESOURCES	23
3.6 CROP PRODUCTIVITY STATUS	24
3.7 CREDIT	24
3.8. EMPLOYMENT AND WAGE INCOME EARNING	24
3.9. RURAL DEVELOPMENT PROGRAMMES AND BENEFICIARIES ASSISTED	25
3.10 POVERTY AND PUBLIC DISTRIBUTION SYSTEM	26
3.11 SUMMARY	26
RESULT OF THE BASELINE SURVEY	27
4.1 RELIGION AND CASTE COMPOSITION	27
4.2 MOTHER TONGUE	27
4.3 AGE AND SEX	27
4.4 HOUSEHOLD SIZE	27
4.5 MARITAL STATUS	28
4.6 EDUCATIONAL STATUS	28
4.7 OCCUPATION AND EMPLOYMENT	28
4.7.1 <i>Occupation and Industry</i>	<i>28</i>



4.7.2 <i>Additional Employment and Preference</i>	29
4.7.3 <i>Migrant Workers</i>	29
4.8 LAND AND OTHER ASSETS	29
4.8.1 <i>Cultivated Land: Ownership and Operational Holding</i>	29
4.8.2 <i>Livestock</i>	30
4.8.3 <i>Ownership of Productive and other Assets</i>	30
4.9.1 <i>House Type and availability of living space</i>	30
4.9.2 <i>Domestic lighting and fuel use</i>	30
4.9.3 <i>Drinking water facilities</i>	31
4.9.4 <i>Sanitation and drainage facility</i>	31
4.10 INDEBTEDNESS OF RURAL HOUSEHOLDS	32
4.11 INCOME AND EXPENDITURE	32
4.12. CURRENT EDUCATIONAL STATUS, SKILL TRAINING	33
4.13. PRESENT HEALTH SCENARIO	35
4.14. IMMUNIZATION OF CHILDREN	35
4.15. POVERTY AND THE PUBLIC DISTRIBUTION SYSTEM (PDS)	36
4.16. AWARENESS AND PARTICIPATION	36
4.16.1 <i>Awareness on government programmes</i>	36
4.16.2 <i>Participation in the socio-political affairs</i>	36
4.16.3 <i>Conflict, insecurity and access to media and communication</i>	37
4.17 ASPIRATIONS OF THE COMMUNITIES AS REFLECTED FROM THE SURVEY	37
DEVELOPMENT DEFICITS	38
LIST OF SURVEYED VILLAGES	41



LIST OF TABLES

Table: 2.1.	Total population of Papum Pare district
Table: 2.2.	Religious group wise sex ratio in Papum Pare district
Table: 2.3.	Literacy rate by sex and area in Papum Pare district (2001)
Table: 2.4.	Number of schools in Papum Pare district
Table: 2.5.	Land use statistics of Papum Pare district
Table: 2.6.	Livestock and Poultry in Papum Pare district
Table: 2.7.	Availability of different amenities in villages of Papum Pare
Table: 3.1.	Total Population distribution in sample villages (2001 census)
Table: 3.2.	Literacy rate in sample villages of Papum Pare district (2001 census)
Table: 3.3.	Number of households with type of electricity connection
Table: 3.4.	Average hours of electricity available in sample villages
Table: 3.5.	Distribution of water sources by types in sample villages
Table: 3.6.	Distribution of toilet facilities by types in sample villages
Table: 3.7.	Total number of schools within sample villages
Table: 3.8.	Type of structure of schools available within sample villages
Table: 3.9.	Number of sample villages reporting some medical facilities
Table: 3.10.	Number of sample villages reporting other facilities within villages
Table: 3.11.	No. of villages with different organizations and their activity level
Table: 3.12.	Common resources and accessibility thereof
Table: 3.13.	Average wage income from sample villages by kind of work
Table: 3.14.	Average daily wage earning for labourers from sample villages
Table: 3.15.	Number of government job holders by religion and caste
Table: 3.16.	Beneficiaries by religious groups under three major programmes
Table: 3.18.	Distribution of village households by BPL status
Table: 3.19.	PDS functioning as reported in sample villages with PDS shops
Table 4.1:	Distribution of Sample Households by Religion and Caste
Table 4.2:	Distribution of Sample households by Religion and Mother tongue
Table 4.3:	Distribution of Sample Population by Religion and Age group
Table 4.4:	Distribution of Sample households by Religion and Age group
Table 4.5:	Distribution of Sample Population by Marital status and age group
Table 4.6:	Distribution of Sample Population by Educational level
Table 4.7:	Distribution of Sample Population by Main Occupation
Table 4.8:	Distribution of Sample Population by Secondary Occupation
Table 4.9:	Distribution of Main workers by Industry
Table 4.10:	Distribution of Main workers by Number of days of employment
Table 4.11:	Distribution of Main workers by Number of days of employment
Table 4.12:	Distribution of Number of persons looking for additional employment by type of activities
Table 4.13:	Distribution of Number of persons migrating by duration of migration
Table 4.14:	Distribution of Number of persons migrating by occupation
Table 4.15:	Distribution of Number of persons migrating by place of migration
Table 4.16:	Households with own cultivable land by religion
Table 4.17:	Households with own cultivated land by religion
Table 4.18:	Size class of own cultivated land by religious groups



Table 4.19:	Proportion of households by size class of total cultivated land by religious groups
Table 4.20:	Number of households with leased in land in different religious groups
Table 4.21:	Number of households with leased out land in different religious groups
Table 4.22:	Households with mortgaged in and mortgaged out land by religion
Table 4.23:	Distribution of households by religious groups with livestock possession
Table 4.24:	Distribution of households by religious groups with possession of agricultural implements
Table 4.25:	Distribution of households by religious groups with possession of transportation
Table 4.26:	Distribution of households by religious groups with possession of modern household assets
Table 4.27:	Distribution of households by ownership of houses
Table 4.28:	Distribution of households by type of houses
Table 4.29:	Distribution of households by number of rooms
Table 4.30:	Distribution of households by status of electrification
Table 4.31:	Distribution of households by sources of fuel for lighting for not electrified households
Table 4.32:	Distribution of households by sources of fuel for cooking
Table 4.33:	Distribution of households by sources of drinking water
Table 4.34:	Distribution of households by sources of drinking water
Table 4.35:	Distribution of households by availability of drainage facilities in the houses
Table 4.36:	Distribution of households by types of latrines used
Table 4.37:	Distribution of households by indebtedness
Table 4.38:	Distribution of households by number of loans outstanding
Table 4.39:	Distribution of households by source of loan
Table 4.40:	Distribution of households by purpose of indebtedness
Table 4.41:	Distribution of households by size of loan
Table 4.42:	Distribution of households by net annual income
Table 4.43:	Distribution of households by total annual expenditure
Table 4.44:	Distribution of households by expenditure on cereals and pulses
Table 4.45:	Distribution of households by annual expenditure on vegetables, milk etc.
Table 4.46:	Distribution of households by annual expenditure on clothes, footwear etc.
Table 4.47:	Distribution of households by annual expenditure on education
Table 4.48:	Distribution of households by annual expenditure on health and medical
Table 4.49:	Distribution of households by annual expenditure on festivals and social ceremonies
Table 4.50:	Distribution of households by annual expenditure on fuel and electricity
Table 4.51:	Distribution of households by annual expenditure on telephones
Table 4.52:	Distribution of households by annual expenditure on house repairing
Table 4.53:	Distribution of households by annual expenditure on payment of loans and interest
Table 4.54:	Distribution of households by annual expenditure on intoxicants and tobacco
Table 4.55:	Distribution of households by annual expenditure on recreation and marriage and social ceremonies
Table 4.56:	Distribution of sample population (5-25 years age) by level of education
Table 4.57:	Distribution of sample population (5-25 years age) by enrolment status



Table 4.58:	Distribution of sample population (5-25 years age) by reasons for drop out
Table 4.59:	Aspiration levels of educational attainment for girl children
Table 4.60:	Aspiration levels of educational attainment for boy children
Table 4.61:	Households interested in additional training
Table 4.62:	Households interested in type of training
Table 4.63:	Distribution of sample population by types of disease suffered during last one
Table 4.64:	Distribution of sample population reporting illness and whether hospitalized during last one year
Table 4.65:	Distribution of sample population reporting illness and place of treatment
Table 4.66:	Distribution of sample children (less than 5 years) by reported immunization status
Table 4.67:	Distribution of sample children (less than 5 years) by agency of immunization
Table 4.68:	Distribution of sample children born during last five years and place of delivery
Table 4.69:	Distribution of sample children born during last five years and assistance in delivery
Table 4.70:	Distribution of sample households belonging to BPL category
Table 4.71:	Distribution of sample households belonging to BPL category and having BPL cards
Table 4.72:	Distribution of sample households availing ration from PDS shops
Table 4.73:	Distribution of sample households availing different items from PDS shops
Table 4.74:	Distribution of sample households facing difficulties to buy regularly from PDS shops
Table 4.75:	Distribution of sample household's difficulties faced to buy regularly from PDS shops
Table 4.76:	Distribution of sample households by awareness level on various government programmes
Table 4.77:	Distribution of sample households as per benefits received under various government programmes
Table 4.78:	Distribution of sample households by membership in various organizations
Table 4.79:	Distribution of sample households by voting behaviour in last election
Table 4.80:	Distribution of sample households by access to media



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 more particularly the Muslim as a religious community in India. The Sachar 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.

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 have 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 NSSO¹. 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.



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	

Following the above methodology, total 25 villages of the district Papum Pare were identified and 30 households from each village were selected for the sample survey. The present report is based on the data gathered from the total 630 sample households of the district.

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. ■



A BRIEF PROFILE OF PAPUM PARE

2.1 Area and Location

Papum Pare District, the capital district of Arunachal Pradesh is located between 26° 55'N and 28° 40' latitude and between 92° 40' and 94° 21' longitude. The district headquarter is located at Yupia, which is situated about 20 kms from Itanagar. The district occupies an area of approximately 2875 sq km inhabited by a population of 121750. There are 274 villages and 2 towns in the district. Itanagar, the capital of the state is situated in this district.

The present Papum Pare district was added to the administrative unit of India in the year 1914 when it was made a part of the Western Section of North-East Frontier Tract. In 1919 it was renamed Balipara Frontier Tract. In 1946, the Balipara Frontier Tract was divided for administrative convenience into Se La Sub-Agency and Subansiri Area. In 1954 this Tract was further bifurcated into two administrative units known as the Subansiri Frontier Division and the Kameng Frontier Division. In 1965, the Subansiri Frontier Division came to be known as the Subansiri District. In 1987 the Subansiri District was bifurcated into Upper Subansiri District and Lower Subansiri District. The Papum Pare District was carved out of the Lower Subansiri District in 1993. The district is bounded by Kurung Kumey District in the north, Lower Subansiri District in the East, East Kameng District in the west and Assam in the south.

The Nyishis are the major ethnic group in the district and they belong to the Indo-Mongoloid group of people and their language belongs to the Tibeto-Burman family. The Mikir, migrants from Assam, also form a part of the local population.

2.2 Administrative Division

Sub – Division	Circle	Blocks
1. Sagalee Sub - Division	1. Mengio	1. Balijan
2. Yupia Capital complex sub-Division	2. Leporiang	2. Kimin-Doimukh
	3. Sagalee	3. Megio
	4. Tarasso	4. Sagalee
	5. Toru	
	6. Doimukh	
	7. Naharlagun	
	8. Itanagar	
	9. Balijan	
	10. Kimin	

The district is divided into two administrative subdivisions – Sagalee Sub-Division and Yupia Sub-division. There are ten administrative circles and four blocks in the district.



2.3 Resource Base

2.3.1 Population

According to 2001 census report of India, the population of Papum Pare district is 10,97,968. The district comprises 11.08% of the total state population. It has population density of 35 persons per sq.km. There are 313 habitations in the district.

Table 2.1 Total population of Papum Pare district

Residence	Person	Hindus	Muslims	Christians	Buddhists
Total	122003	51026	5318	36574	3330
Rural	59961	18991	1852	29158	1991
Urban	62042	32035	3466	7416	1339

Source: Census of India, 2001.

Hindus and Christians are the two major religious groups of the district constituting 42% and 30% of the population respectively. The share of Muslims is 4% and Buddhists is 3%. The concentration of minority population in the rural areas of the district is 68.33%, of which majority are Christians (71%). The proportion of Muslims and Buddhists is 4.5% and 4.8% respectively.

2.3.2 Sex ratio

The census 2001 data show that the sex ratio in the district is 901 females per thousand males.

Table 2.2 Religious group wise sex ratio in Papum Pare district

Religion	Place	Sex ratio
All religion	District Total	901
All religion	Rural	926
Hindus	District Total	794
Hindus	Rural	793
Muslims	District Total	715
Muslims	Rural	771
Christians	District Total	1054
Christians	Rural	1044
Buddhists	Total	909
Buddhists	Rural	896

Source: Census of India 2001.

The rural sex ratio in the district is higher than the overall sex ratio of the district. The sex ratio of the Christians is the highest while Muslims have the lowest sex ratio.



2.3.3 Literacy Rate

The district has the highest literacy rate in the State. A comparative picture of the literacy rate among the different religious groups shows that the Hindus have the highest literacy rate while Muslims have the lowest literacy rate. The female literacy rate in the rural areas of the district shows that less than 30% of Muslim and the Buddhist females are literates. While Christians have sex ratio of more than 1000, the female literacy is less than 50% in the district. This shows that gender discrepancy in respect of education is more prominent among the Christians than the Buddhists and the Muslims.

Table 2.3 Literacy rate by sex and area in Papum Pare district (2001)

Religion	Total	Male	Female
All Religions- Total	69.32	77.27	60.35
All Religions- Rural	59.04	68.25	48.99
Hindus- Total	77.87	84.53	69.20
Hindus- Rural	74.71	81.61	65.65
Muslims- Total	48.16	54.45	38.67
Muslims- Rural	38.12	45.54	27.61
Christians- Total	55.26	64.26	46.86
Christians- Rural	49.31	58.60	40.56
Buddhists- Total	57.84	64.84	50.08
Buddhists- Rural	39.02	48.58	28.17

2.3.4 Workforce

The work participation rate (WPR) rate in the district in 2001 (36.17%) shows a significant decrease compared to 1991 estimates (40.22%). The district has the lowest WPR among all the districts in the State. However, there is significant variation in the WPR for rural and urban areas. While the WPR in the rural areas is the lowest among all the districts, the urban WPR is the fourth highest among the districts in the State.

The work participation rate of males (46%) is higher than the females (25%) in the district. The female work participation rate in rural areas is higher (29%) than the urban areas (22%). The gender difference in WPR is more pronounced in the urban areas of the district than the rural areas.

Of the total work force in the district, 87% are main workers. The proportion of main workers in the rural areas of the district is 82% while the same in urban areas is 91%. Among the male workers, 91% are main workers and the corresponding share for females is 77%. The proportion of females in the marginal workers in the district is 57% and in rural areas it stands at 59%. This signifies the additional constraints faced by women in entering 'productive' work, as well as the pattern of household risk management, where women's labour is kept as a buffer to meet unexpected shortfalls in consumption or earnings (Arunachal Pradesh HDR, 2005).



Among the workers, the proportion of other workers in the district is highest (71%), followed by cultivators (24%). This is mainly because in urban areas which have higher WPR, majority of workers are engaged in tertiary sector. However in rural areas, the cultivation remains the major activity and 48% of the workforce is engaged as cultivators. Proportion of female cultivators is higher than the males in the district. This is because during 1993-94 to 1999-2000, the growth rate in employment of males in the State was 0.5 per cent per annum, but female employment actually declined (-0.7 per cent per annum) (Arunachal Pradesh HDR, 2005).

2.3.5 Education and Health

Education

The district has a total of 67 primary schools, 16 upper primary schools nine high schools and three higher secondary schools.

Table 2.4 Number of schools in Papum Pare district

Place	Primary	Upper primary	Secondary	Higher secondary	Total schools
Rural total	52	16	9	3	80
District total	67	29	18	9	123

Source: Seventh All-India Educational Survey, NCERT, 2006.

Of the total enrolled students in the district in different stages, females comprised 44% while 56% of the enrolled students were males as per the Seventh All India Educational Survey. While the gross enrolment ratio (GER) in the primary stage was estimated to be 123.07%, the corresponding figure for the upper primary level was 100.01%. The drop out rate was highest in upper primary stages and female drop out rate was higher than males. Although, at secondary stage the drop out rate was almost equal for males and females, at the secondary stages, the male drop out rate was higher than females. The teacher- pupil ratio in Papum pare district is estimated to be 1:35 at primary level, 1:34 at upper primary level, 1:25 at secondary level and 1:30 at higher secondary level (Statistical Abstract A.P, 2006).

Health

The district has a total of 55 health units which comprise of 54 Government Hospitals and one Private hospital. Among all the districts in Arunachal Pradesh, Papum Pare has recorded the highest increase in number of doctors and hospital beds during the period 1990-2001. The population coverage per doctor in the district is 2174. The number of persons per hospital bed is 336. The number of Primary Health Centre/Sub Centre (Per 10,000 populations) in the district is 0.4. The number of Community Health Workers (Per 10,000 populations) is 14. As noted in the Arunachal Pradesh HDR (2005), the district has the highest life expectancy at birth (61.80) and female life expectancy at birth (62.45) is higher than male life expectancy (60.92). As per the Census HDR, 2006 data the infant mortality ratio in the district is 67 per thousand. The female infant mortality rate (64) was lower than the male infant mortality rate (71). The total fertility rate (TFR) in the



district which stands at 3.81 is the lowest in the State and can be attributed to the r use of contraceptives by 42% of the women in the reproductive age group of 15-45 years.

2.3.7 Natural Resource Base

Land and Utilization

The physiographic contours of Papum Pare district are mountainous, forming a part of the Eastern Himalayas. The area comprises of a cross-section of the foothill region adjoining the border of Assam, the lower hills and the lofty mountains extending northwards. The natural vegetation comprises mainly tropical semi-evergreen and sub-tropical evergreen forests. The physical features of the district can be divided into two parts - foothill region and hilly region. The foothill region forms the agricultural land of the district. Kimin, Balijan, Doimukh and Naharlogun are situated in this area. The mountainous area of the district forms the hilly region, which is covered with thick and dense forests. The area has very limited agricultural land. However *jhum* (slash and burn) cultivation is practiced on the gentle slopes in this area.

The district with a total forest cover of 94.95% of its geographical area has the highest area under forests in the State. Of the total forest cover 74.96% are dense forests. The Forest Survey of India data on forest cover shows that there has been an increase in the dense forest cover in the district during 2003-05. The land use pattern in the district as per the agricultural census 2001 is as follows.

Table 2.5 Land use statistics of Papum Pare district as per Agricultural Census, 2000-01

Land use	Area in hectares
Operational Area	18467
Net Area sown	13053
Current Fallow	1434
Uncultivated land excluding fallow land	1126
Fallow land other than current fallow	785
Culturable waste land	465
Land not available for cultivation	1604
Gross cropped area (irrigated)	5784
Gross cropped area (un-irrigated)	8976
Net irrigated area	4783

Source: Statistical Abstract of Arunachal Pradesh, Govt. of A.P. 2006.

The type of operational holdings in the district indicate that there are 6018 numbers of operational holdings under different size classes-of which 33% are under semi-medium and 28% are under medium size holdings. Area wise distribution of landholdings indicates that 42% of the cultivable area in the district is under medium size farmers while 28% of the area under cultivation is possessed by large farmers.



Soil and Water

The Pare, Panior and Dikrong are the main rivers in the district. The Panior river rises from a high mountain called Khoren Putu lying to the northwest of Sagalee. A tributary called Pareing also feeds the river formed by two streams – Nirpung and Nirke. The Panior known in the plains of Assam as Ranga-Nadi falls into Brahmaputra. The Ranga-Nadi Hydro Electric project is built on this river. The river Pare originates from the Senkeng Gekah range lying about 40 km away from Sagalee. It flows to the east for about 50 km before it meets the Nirochi and Pachin rivers. The main tributaries of the Pare are Pang and Namte coming down from the nearby hillock. Dikrong drains the southern part of the district and it flows from the west to the southeast. After passing through Itanagar region the river Dikrong merges with Brahmaputra in the Lakhimpur district of Assam.

The major rock formation in the district can be grouped into tertiary, gondwana, unfossiliferous sedimentary and metamorphites. The hilly region comprises shales, sandstones, phyllites, quartzite and others. The valleys and low lands have dominantly colluvial and alluvial mixed materials.

2.4 Economy

An important characteristic of the Arunachal economy is the rapid growth of the services sector; which along with the manufacturing sector, did not exist prior to 1947. The sectoral composition of the District Domestic Product (DDP) shows that in Arunachal Pradesh, majority of the districts are dependent on agriculture. However, in districts like Papum Pare and West Kameng, share of agriculture is about 14% which is less than half the share of agriculture in the state income as a whole. The tertiary sector contributes 54% of the total income of the district. The Public Administration (PA) has been one of the rapidly growing sectors in the district economy and 30.85% of district income share comes from PA. The per capita net district domestic product as per the estimates of HDR, Arunachal Pradesh is Rs.9334 and the district ranks sixth in terms of its per capita income.

Table 2.6 Livestock and Poultry in Papum Pare district as per Livestock Census 2003

Livestock	Numbers
Cattle	25921
Buffalo	106
Goats	16408
Sheep	16
Pigs	11472
Mithun	10573
Dogs	4288
Total livestock	68784
Poultry	84447

Source: Statistical Abstract of Arunachal Pradesh, Govt. of A.P. 2006.



The secondary sector has marginal contribution in the economy of Arunachal Pradesh. The trend of growth of manufacturing sector in the district is similar to the State pattern. As per the statistical records of 2006, there are 91 registered SSI units and three medium industries in the district which employ 1500 persons. There are two industrial estates in the district.

The sericulture activities in the district particularly in respect of eri silk have potential for growth. A total of 30 villages have been covered under sericulture activities with 1042 village rears engaged in eri, 50 in muga and 37 in mulberry. The district has the highest yield in production of mulberry cocoons. The district accounts for 17% of the total muga silk production in the State.

The livestock and poultry production in the district accounts for 5.07% and 6.54% of the total production in the State. The district accounts for 55.30% of the total milk production in the state.

2.5 Infrastructure

2.5.1. Transport and Connectivity

The roads form the major physical communication network in Papum Pare. The district has a total of 553.768 kilometers of road length of which 65% is black topped, 19% water bound macadam and 16% is un-surfaced. The length of rural roads in the district is 149.28 km of which 88% is un-surfaced. The air connectivity to the district is through Pawan Hans Helicopter Service from Guwahati to Naharlagun / Itanagar.

The telecommunication facilities in the district are maintained through 15 telephone exchanges with a total of 18420 numbers of telephone connections as on March, 2006. The tele- density per thousand populations in the district is 151.

2.5.2. Power

Although Papum Pare accounts for highest (71.54%) consumption of power among the districts in the State, its rural electrification achievement (80.74%) ranks third in the State. The district accounts for more than 90% of the total electric power consumption for commercial, industrial, public lighting and agricultural uses in the State.

2.5.4. Banking

The banking services in the district are mostly centred on SBI and the nationalized banks. The CD ratio in the district is only 33% which indicates that there is low off take of credit vis-à-vis deposits mobilized. While 25% of the bank offices in the state are located in Papum Pare district, the share of credit and deposit is 52% of the State total.

2.6. Basic amenities

As per the census of India, 2001 data, of the total households in the district, 41.1% live in permanent houses, 31.6% live in semi permanent and 27.3% occupy temporary houses.



The household size in the district is 5. In respect of amenities in rural areas, there are facility wise variations. The total number of Census villages in Papum Pare district is 283 as per 2001 Census. The total population of the villages as per Census 2001 is 59961 persons. The caste wise distribution of the village population shows that 69.53% of the population belongs to ST.

Table 2.7 Availability of different amenities in the inhabited villages of the district

Amenities	Number of villages
Total inhabited villages	267
Total households	9847
Safe drinking water	215
Electricity(power supply)	60
Electricity(domestic)	48
Electricity(agriculture)	12
Primary school	69
Middle school	25
Secondary/Senior Secondary school	8
College	1
Medical facilities	17
Primary health centre	3
Primary health sub-centre	9
Post, telegraph,& telephone facilities	11
Bus services	21
Paved approached road	103
Mud approach road	87

Source: Census India 2001

The average household size in the district is five. In respect of amenities in rural areas, there are facility wise variations. The total number of Census villages in Papum Pare district is 283 as per 2001 Census. The total population of the villages as per Census 2001 is 59961 persons. The caste wise distribution of the village population shows that 69.53% of the population belongs to ST.

A causal analysis of the development deficiencies in the rural areas of the district reveals that three major deficits in the rural areas are: education-secondary and vocational educational institutions, industry and tertiary sector employment and production base and access to credit particularly farm credit for investment. It may be noted that demand for investment credit in agriculture is also adversely affected by non use of electricity for agricultural purposes in the villages. The deficits need critical intervention for synergizing the growth process in the district. ■



PROFILE OF THE SAMPLE VILLAGES

3.1 Demographic profile

The total population of the sample villages is 20457 persons with total households of 4135 as per 2001 census. The average household size of the sample villages (4.94) is marginally higher than the district average household size of five members. The percent of scheduled caste population is 1.34 percent while ST population is 55.85 percent.

Table 3.1. Total Population distribution in sample villages (2001 census)

Households	Population	Male	Female	SC			ST		
				Total	Male	Female	Total	Male	Female
4135	20457	10533	9924	276	141	135	11427	5654	5773

Source: Census, 2001.

3.2 Sex Ratio

The sex ratio of the sample villages is (942 females per thousand males) is higher than the rural sex ratio of the district (926 females per thousand males). The sex ratio of the SC population in sample villages is estimated to be 957 females per thousand males, and the sex ratio for ST is 1021.

3.3. Literacy Rate

An important indicator of human development is the literacy rate. The size and proportion of literate and educated population gender wise has significant bearing on the socio-economic development. While literacy and education in general has direct positive impact on social and economic development of communities, the female literacy rate is more intrinsically linked to health and social development of the child. The literacy rate for females in the sample villages as seen from the table is higher than the rural literacy in the district while the male literacy rate is lower.

Table: 3.2. Literacy rate in sample villages of Papum Pare district (2001 census)

Place	Male	Female
District total	77.27	60.35
Rural Area	68.25	48.99
Sample villages	66.72	50.82

Source: Census, 2001.

3.4 Facilities

A definitive way to find out the quality of life in a state or region, whether rural or urban, is to ascertain the presence, accessibility and utility of the social and physical infrastructure by the residents of these spaces. Lack of access can emerge either due to



the absence of social and/or physical infrastructure, or through inaccessibility to such facilities even when they are present.

3.4.1 Electricity

Proportion of households using electricity for domestic lighting in rural areas is also indicative of economic status of the households. Of the total villages in the district, 22.47 percent are reported to have power supply as per the Census estimate 2001; however survey revealed that all the sample villages have power supply. 48 percent of the villages were electrified before 1980 while 52 percent of the villages have been electrified during the 1980's.

Table: 3.3. Number of households with type of electricity connection

Type of connection	Hindu	Christians	Total
Domestic	358 (8%)	4311 (92%)	4669 (100%)
Agriculture	0	0	0
Commercial	66 (16%)	357 (84%)	423 (100%)
<i>Total</i>	424	4668	5092

Source: Sample Village survey, 2008.

The village survey shows that majority of the power connections for various utilities is highest for the Christians which is obvious as Christian are the majority populations in the district.

The average hours of electricity available in the villages as seen from the table below indicates that there has been improvement over last ten years.

Table: 3.4. Average hours of electricity available in sample villages

Average hours of electricity available	Last year	5 years ago	10 years ago
	17	15	12

Source: Sample Village survey, 2008.

3.4.2 Drinking water

Table: 3.5. Distribution of water sources by types in sample villages

Type	Common	Hindu	Christian	Total
Public Well	0	0	7	7 (0.2%)
Private Well	2	12	181	195 (6%)
Public Hand pump	0	0	10	10 (0.3%)
Private Tube well	0	0	33	33 (0.97%)
Public Stand post	0	2	72	74 (2.1%)
Tap water in-house	0	317	2664	2981 (88%)
Tank/River	7	4	60	71 (2.01%)
<i>Total</i>	9 (0.3%)	335 (10%)	3027 (89.7%)	3371

Source: Sample Village survey, 2008.



Availability and access to safe drinking water has been the most crucial factor involving serious health concerns in rural areas. Domestic tap water supply (88 percent) is the major drinking water source in the sample villages. The common facilities for all communities account for 0.3 percent of the available sources of drinking water. The availability of drinking water facilities in the sample villages shows that 98 percent of the facilities are supposedly safe.

3.4.3 Toilet facility

The sanitation status of the sample villages shows that of the total households in the villages 92 percent are reported to have sanitation facilities. The most common toilet facility among the village households is the pit latrine. Only six percent of the households have septic tank sanitary facility.

Table: 3.6. Distribution of toilet facilities by types in sample villages

Type	Common	Hindu	Christian	Total
Septic Tank	1	103	661	765 (15%)
Pit	2	185	2219	2406 (48%)
Others	4	181	1627	1812 (37%)
Total	7	469	4507	4983

Source: Sample Village survey, 2008.

3.4.5 Education

The village survey revealed that while primary schools for boys are available in 16 sample villages, the same for girls are available in only one village. There is no middle or high school for girls in any of the villages. The availability of schooling facilities within the village as reported during survey are shown in the table below.

Table: 3.7. Total number of schools within sample villages

Schools by type	Primary		Middle		High/ Higher Sec.		Religious school	Non formal	Other
	Boys/ Co-ed	Girls	Boys/ Coe-d	Girls	Boys	Girls			
No. of schools	16	1	8	0	5	0	5	25	4

Source: Sample Village survey, 2008

A total of 64 schools are available within the sample villages while 13 schools are located within the Panchayat area.



Table: 3.8. Type of structure of schools available within sample villages

Type	Primary	Middle	High/H.S.	Religious	Non Formal	Others
Pucca	7	5	5	4	8	1
Semi Pucca	2	2	0	0	2	1
Kutchha	8	1	0	1	15	2
Total	17	8	5	5	25	4

Source: Sample Village survey, 2008

3.4.6 Health Facilities

Although private sector has been playing a crucial role in curative health care in urban India, in rural areas government facilities are the only available sources for cheap curative care. The survey revealed that availability of health infrastructure in the sample villages is very poor. The availability of the services of doctors and ANM nurses is also reported to be inadequate. The total number of ANMs posted in the sub centres is 7, while the same for PHCs is 13. There are two doctors in the sub-centers and 10 doctors at the PHCs as reported during the survey. Four PHCS have X-ray facilities. Notwithstanding the poor public health infrastructure the village survey revealed that households from 21 villages avail services from the public health system while in case of four villages, they avail health care services from private health practitioners. The ICDS centers are available in 25 villages of which 9 are located in Govt. buildings and 16 in private buildings. The conditions of the ICDS centers in terms of infrastructure revealed that as many as eight of the nine ICDS centers in Govt. buildings are in good shape while 15 out of 16 ICDS centres located in private building are in bad shape.

Table: 3.9. Number of sample villages reporting some medical facilities

Type	Within village
Sub centre	3
PHC	3
CHC	1
Hospital/ Dispensary	0
Maternity/child care centre	24
Family planning clinic	N.A.
Chemist/medicine shop	8
Private Doctor	2

Source: Sample Village survey, 2008

3.4.7 Other facilities

In respect of geographical spread of the location of the village, the nearest town is located at a distance of more than 10 km. from the sample villages. The average distance



of the block headquarters from the sample villages is beyond 10 km. The nearest bank office is located at a mean distance of more than 10 km. from the sample villages. In respect of communication- the bus services and postal services for the sample villages which do not have these direct facilities, the average distance of the facilities is 2-5 km from the villages.

Table: 3.10. Number of sample villages reporting other facilities within villages

Facilities within villages	No. of villages
Bus stop	8
Regular Market	5
Post office	7
G.P. Office	11
Fair Price Shop	15
General Shop	16
Mandi	4
Veterinary Hospital	1

Source: Sample Village survey, 2008

3.5 Village organizations and Common property Resources

The organizational activity within the village is an important determinant of overall socio-economic development. The data shows that village level organizations are fairly active in the sample villages. All the villages have SHGs and the total number of SHGs in the sample villages is reported to be 73 and non formal Panchayat are available in 23 villages. The village survey revealed that in nine of the sample villages handicraft activities are fairly strong and 294 households from these villages are engaged in such activities. The products are sold in nearby villages and urban markets.

Table: 3.11. No. of villages with different organizations and their activity level

Status	Credit	Marketing	Political	Women Organization	Dairy
Not Active	11	7	3	0	0
Fairly Active	9	10	17	6	4
Very Active	0	4	4	1	1

Source: Sample Village survey, 2008

In respect of common property resources, the village survey showed that 21 villages have forest resources in their common pool and five of these have been encroached upon. The common property resources available in the sample villages as indicated by the survey are shown in the table below.



Table: 3.12. Common resources and accessibility thereof

Common resources of the village	Number of villages reported to have	Accessible for
Village Forest	21	All
Govt. land	18	All
School Lawn	15	All
Govt. Buildings	12	All
Pastures	2	All

3.6 Crop productivity status

The economy of Papum Pare is agrarian with paddy as the major crop. The survey results of the sample villages indicate that paddy is the major crop produced in all the villages. The harvest share varies from 10 percent -55 percent for the sample villages. The average maximum market price fetched for paddy one year before the date of survey as reported is Rs.930 per quintal while the minimum price was Rs.800. The average yield of paddy is 4 quintals per acre. The average yield in respect of cereals under jhum cultivation is 13 quintals with an average yield of 6 quintals per acre.

3.7 Credit

Purpose wise distribution of credit requirement among sample villages showed that meeting sudden expenses was the major factor for availing credit among rural labour households. In respect of small and marginal farmers and casual labourers, money lenders and friends and relatives were the major sources for availing loans if required. For artisans investment requirement was the major reason for which they incurred a debt. However, incidence of indebtedness was reported to be very less in the sample villages.

3.8. Employment and wage income earning

The survey showed that of the 25 sample villages, people from six villages migrate outside in search of livelihood. The survey indicated that in all the sample villages casualisation of labour has increased.

It is important to note that survey recorded no evidence of child labour from any of the sample villages. However, there is evidence of wage rate differentials prevalent for male and female workers in the rural areas of the district. In respect of govt. works also, there is wage differentials between males and females. On an average the male wage rate is 1.03 times higher than the female wage rate for different types of work.



Table: 3.13. Average wage income from sample villages by kind of work

Wage rate	Ploughing/land preparation	Weeding	Trans-planting	Harvesting	Threshing	Unskilled labour	Skilled labour	Govt. Programme
Male	91	91	91	90	88	80	155	80
Female	88	88	88	86	84	78	154	76

Source: Sample Village survey, 2008

The growing casualisation of labour has forced people to migrate to other places in search of livelihood. The survey results indicate that approximately 777 persons have migrated from villages for short duration during last one year looking for work. The average monthly income earning of these migrated people is Rs.2571. Majority of these people (65 percent) go to neighbouring states for work.

Table: 3.14. Average daily wage earning for labourers from sample villages

(Amount in Rupees)

Sex	Skilled labour	Unskilled labour
Male	80	162
Female	82	161

Source: Sample Village survey, 2008

3.9. Rural Development programmes and beneficiaries assisted

The survey results of the sample villages showed that in seven villages, government sponsored educational programmes are being implemented while in five villages government programmes on health and nutrition are in progress. In six villages government programmes on providing drinking water facilities have been taken up, while programmes for transport and communication development are in progress in five villages. It was reported that during last one year no government scheme based programmes have been implemented in any of the sample villages.

Religious groups wise government jobs across sample villages show that 10 cent are Hindus and the remaining 90 percent belong to Christians. All the Christians are STs.

Table: 3.15. Number of government job holders by religion and caste

Religion	No. of government job holders
Hindu	116 (10%)
Christian	1015 (90%)
Total	1131

Source: Sample Village survey, 2008

In respect of implementation of beneficiary oriented programmes in the course of last three years, the results of the villages survey shows that majority of the beneficiaries (94.06 percent) were assisted under SGSY. The religion wise break-up of beneficiary status across various programmes as shown in the table below indicates that majority of the beneficiaries were Christians.



Table: 3.16. Beneficiaries by religious groups under three major programmes

Religion	SGSY	IAY	PMGSY
Hindu	1.35	0	0
Christian	98.65	100	100
<i>Total</i>	<i>100</i>	<i>100</i>	<i>100</i>

Source: Sample Village survey, 2008

3.10 Poverty and Public Distribution System

The distribution of households by BPL cards shows that 94 percent BPL families are Christians. The proportion of BPL families in the sample villages as reported is 94 percent. However, only 28 percent of the total BPL families have been covered under Antodaya scheme in the sample villages. The distribution of families with various types of cards and coverage under various BPL schemes are shown in the table below.

Table: 3.18. Distribution of village households by BPL status

Household status	Hindu	Christian	Total
APL	156	1159	1315
BPL	133	2052	2185
Antodaya	68	583	651
<i>Total</i>	<i>683</i>	<i>3794</i>	<i>4151</i>

Source: Sample Village survey, 2008

In so far as the PDS facility is concerned 18 sample villages are reported to have PDS shops and the total number of PDS shops available in the sample villages are 31. The functioning of the PDS shops as reported during the survey is shown in the table below.

Table: 3.19. PDS functioning as reported in sample villages with PDS shops

Functioning in terms of	Good*	Satisfactory*	Average*	Bad*
Availability of goods	4	2	9	10
Get full quota	3	5	8	9
Regularity	5	5	9	6
Honesty in measurement	1	14	3	7
Honesty in price	2	17	1	5
Quality of grains	4	2	13	6
Behaviour of the dealer	1	12	1	11

*Note: * No. of villages reporting*

Source: Sample Village survey, 2008

3.11 Summary

The village survey findings reveal that sample villages in the district suffer from gaps in respect of social infrastructure viz.-health and education facilities and good communication- physical as well as telecommunication. The district which is basically an administrative unit has low level of primary activities. However, handicraft has potential for growth as handicraft activities in nine villages have generated livelihood support for the families. ■



RESULT OF THE BASELINE SURVEY

4.1 Religion and Caste Composition

The survey captured a total of 614 Christian households (97.5 percent), 7 Hindu (1.1 percent) households and 3 Buddhist (0.5 percent) households. Among the Hindu households, STs comprised of 1.1 percent. All the Christian households were STs. (Table 4.1)

4.2 Mother Tongue

For majority of the sample households (99.5 percent), other language is reported as the mother tongue while for 0.2 percent of the households Bengali is reported as mother tongue. For 0.3 percent of the sample households Hindi is reported as mother tongue. (Table 4.2)

4.3 Age and Sex

The sex ratio of the sample population (1038 females per '000 males) is found to be higher than the district rural sex ratio (926). This is because 98 percent sample populations are Christians and sex ratio of Christians in the district is more than 1000 females per thousand males. The sex ratio of the sample Christian population in the district is 1040 females per thousand males. The child sex ratio in the sample population is 1016 girl child per thousand male child.

Age composition of sample populations show that 17.6 percent of the population is in the age group of 0-<6 years while 31.4 percent of the population is in the age group of 6-14 years. 1.1 percent of the population is in the age group of over 60 years. Thus theoretically speaking 48.93 percent of the total population in the district is out of active work force. (Table 4.3)

4.4 Household Size

The average household size in the district estimated from the survey results is 6 persons per household which is marginally higher than the Census 2001 estimate of 5 persons. The survey showed that 53 percent of the sample households have family sizes up to 5 members while 46.3 percent of the households have family sizes of 6-10 members. Only a marginal fraction of the households in the district (0.8 percent) have family sizes greater than 11 members.

Religion wise break up of families with size class shows that 69 percent of Hindus and 53 percent of Christians fall in the family size class of 5 members. However, 67 percent of the Buddhists have family sizes of 6-10 members. The average family size of Hindu households in the sample is 5 persons, for Christians and Buddhists it is 6 persons. (Table 4.4).



4.5 Marital Status

Of the total sample population, 61.8 percent are unmarried, 36.5 percent are married, 1.7 percent is widowed and 0.10 percent is divorced. Evidence of child marriage was found among the Christians although the proportion is very negligible (0.1 percent). The proportion married population among the Hindus is 44 percent while the corresponding figures for Christians and Buddhists are 36 percent and 39 percent respectively. (Table 4.5).

4.6 Educational Status

The survey revealed that there has been a marked increase in the literacy rate in the district. The survey revealed that the total rural literacy rate in the district has increased to 76.2 percent against the 2001 estimates of 59.04 percent. Likewise the male literacy rate in the district has increased to 79.7 percent while the female literacy rate rose to 72.8 percent.

However, the educational attainment is skewed towards the lower end with 50.76 percent of the population completing education only up to middle level. This shows that employability of the population in terms of skill and capability is restricted. This leads to low end occupational choice. (Table 4.6).

4.7 Occupation and Employment

4.7.1 Occupation and Industry

The sample survey revealed that the work participation rate (WPR) in the rural areas of the district stands at 31.48 percent which is less than the Census 2001 estimated figure of 36.17 percent for the district. The results indicate that more people are getting out of the workforce which in other words point to the constricted work opportunities in the district. Desegregated data shows that the fall in the WPR in the district is mainly due to the fall in the female WPR compared to 2001 Census estimates. The female WPR in the district which stood at 29 percent decreased to 18.87 percent over a seven year period. However, the male WPR shows an improvement over the 2001 estimates (42.93 percent) and stands at 44.52 percent for the rural areas of the district.

Of the total workers in the sample, 70 percent are males while 30 percent are females. The proportion of main workers in the total work force is 88.44 while secondary workers are 11.56 percent.

The occupational distribution of workers show that 46 percent of the workforce is engaged in farming activities while 17 percent are in business and 12.7 percent are in production related work. The industry wise classification of occupation shows that 16.3 percent of the total main workers are engaged in community and social services, while cultivation accounts for 44 percent. Whole sale and retail trade comprise 16.3 percent and only 8 percent are engaged in transport and storage. Production related activities engage bulk of the main workers (40 percent) among the Hindus while higher proportions of Christians are engaged in cultivation (44 percent)



The survey revealed that 0.8 percent of the total main workers remain engaged for 100 days or less in a year and 28.2 percent remain engaged for six months or less. 46 percent of the workers remain gainfully employed for more than 260 days in a year. In other words 54 percent of the workers still do not have full employment throughout the year which indicates the distressful work situation in the district. In respect of secondary employment 44 percent of the workers remain engaged for a period of less than 100 days while 56 percent remain engaged for 180 days.

The employment days for male and female main workers show that 48.2 percent of female main workers remain gainfully engaged for 101-180 days in a year; the corresponding proportion for males is 19 percent. However, 56 percent of the male workers are gainfully engaged for more than 260 days while the corresponding proportion for females is 26 percent only. In other words there exist gender differences in respect of employment and earning opportunities in the rural areas of the district. (Table 4.7-4.11).

4.7.2 Additional Employment and Preference

Despite the fact that 54 percent of the main workers still do not have full employment throughout the year, the demand for gainful additional employment is very low which may perhaps be due to low educational attainment. Only 27 percent of the households are looking for more employment. Of the total population (excluding 0-14 years), 30 percent were looking for more employment. Activity wise employment preferred indicated that 56 percent were undecided in respect of kind of activities they are looking for. 18.1 percent wanted salaried jobs, 17.5 percent wanted to do business. This also indicates the limited livelihood opportunities available in the district. (Table 4.12)

4.7.3. Migrant Workers

The survey findings show that one percent of the workforce in the district have migrated to other areas for short run period (3-8 months). Administrative and service related activities are the main occupation of the migrant workers which corroborates the findings in respect of preference for salaried jobs among those seeking new or additional employment. (Table 4.13- 4.15).

4.8 Land and other Assets

4.8.1. Cultivated Land: Ownership and Operational Holding

As stated earlier 46 percent of the workforce in the sample population are cultivators and 67 percent of the sample households do not have cultivable land. This indicates that there is sizeable proportion of tenant farmers among the cultivators in the sample population. Size class wise cultivable land holdings possessed by sample households show that majority (70 percent) are of marginal sizes, and only 27 percent are small holdings, while merely 3 percent are of semi-medium size.



Of the total households with own cultivable land 9 percent have either leased out or mortgaged their land and 91 percent cultivate their own land. Proportion of total cultivating households in the sample is estimated to be 30.95 percent. (Table 4.16-4.22).

4.8.2. Livestock

In respect of livestock possession, the survey indicates that comparatively a higher proportion of Christian households possess some types of livestock compared to the Hindus and the Buddhists. Pigs (61.43 percent), Milch animals (38.57), goats (30.32) and young cattle (25.24 percent) are the major livestock possessed by the households besides draught animals (21.43 percent) (Table 4.23).

4.8.3. Ownership of Productive and other Assets

The survey revealed that plough is the only agricultural implement possessed by the sample households and 24.12 percent of the households possessed one.

Although the households are asset poor in respect of agricultural implements, however, modern consumer goods are found available in all the households. Furniture is possessed by 90 percent of the households. T.V. (59.21 percent), mobile phones (52.22 percent), gas stoves (42.70 percent), electric fan (35.40 percent) and CD players (22.86 percent) are modern household assets possessed by the households as revealed from the survey.

In respect of financial assets the survey revealed that only four households i.e. 0.64 percent of the sample households possess a savings bank account. (Table 4.24-4.26)

4.9. Housing Status

4.9.1 House Type and availability of living space

The ownership status of housing in the district shows that all the sample households live in their own houses. Of the total houses with individual ownership, 16.83 percent live in kutcha houses while 37.78 percent live in traditional houses. The proportion of sample households with pucca houses is only 10.79 percent.

Availability of living spaces for the sample households revealed that the average living space for the sample households is two rooms. Approximately 48 percent live in two room houses and 30 percent live in three room houses. The proportion of households living in more than three rooms is 10 percent. While majority of Christians (60 percent) live in 1-2 rooms houses, among the Hindus majority (46 percent) live in houses with three rooms. (Table.4.27-4.29)

4.9.2 Domestic lighting and fuel use

The survey revealed that 93.8 percent of the households have domestic power connection. The proportion of electrified households among the Hindus (84.6 percent) is lower than the Christians (94 percent).



For households without electric connection, 53 percent use oil lamp for lighting while 47 percent of the households use oil lamp with lantern or other sources (Table: 4.30-4.31)

Clean fuel for cooking is a serious consideration for women who, in most cases, are burdened with the task of cooking. Census 2001 data suggests that about 60 percent of all rural households do not use any of the modern fuels such as LPG, electricity or even kerosene. The survey revealed that 42.7 percent of the sample households possess LPG stoves. The household survey revealed that 42.4 percent of households use LPG with wood for regular cooking. Of the total sample households 25.1 percent use wood for cooking while 28.1 percent use wood with hay for cooking. The use of LPG with wood is proportionately higher among the Hindus than the Christians. This is primarily because Christian households in the sample are local indigenous people and women from these households are engaged in collection of firewood and other forest products which provide an important family sustenance. (Table.4.32).

4.9.3 Drinking water facilities

As per the Census 2001 records although 80.52 percent of the inhabited villages in Papum Pare district have access to safe drinking water. The sample survey revealed that 33.49 percent of the households have access to safe drinking water. Religion wise access to sources of drinking water showed that 76.92 percent of Hindu households use safe drinking water sources. Proportion of Christian households with unsafe drinking water sources is higher (67.75 percent) and water from river ponds etc. is used for the purpose. Proportion of households with tap water connections in their houses is 9.2 percent while 17.8 percent use water from public stand post.

The survey revealed that average distance of the source of drinking water lies within 51-100 meter. 32.4 percent of the households in the district have their drinking water sources within 51-100 meters while 45.3 percent have to fetch their water from a distance of more than 100 meters away from their dwelling units. (Table.4.33-4.34)

4.9.4 Sanitation and drainage facility

The survey results on sanitation and drainage facilities among the sample households show that 53 percent have in-house sanitation facilities while for 47 percent the sanitation facilities are available outside the house. 11 percent of the households have septic tank facilities while 38 percent have pit latrines in their houses. 43 percent of the households use open field for defecation. Religion wise sanitation facilities shows that while 46 percent of Hindu households use open fields for defecation the corresponding proportions for Muslims is 43 percent.

The survey showed that 11 percent of the households in the rural areas of Papum Pare district have drainage facilities in their houses. The sanitation habits across religious groups reveal that compared to Hindus where none of the households reported to have drainage facilities, Christians fare better with 11 percent households reporting drainage facilities in their houses. (Table.4.35 & Table.4.36)



4.10 Indebtedness of rural households

The sample survey showed that rural indebtedness in the district is very marginal; only 1.4 percent of the households are currently indebted. Of the total indebted households, 11 percent are Hindus and 89 percent are Christians. All the indebted households have only one loan.

Source wise distribution of loans; show that friends and relatives comprise the major source of loans for the indebted households and 33 percent have availed loans from friends and relatives. Other sources like banks, cooperatives, SHGs have very small proportionate shares. Purchase of consumer durables is the major reason for incurring a debt (33 percent) while other factors like repair of houses, medical treatment etc. have less proportionately shares. 44 percent of the loans are up to Rs.5000, while 22 percent of the loans are less than Rs.20000. (Table: 4.37-Table.4.41.)

4.11 Income and Expenditure

Family Income

The survey revealed that during last one year, income from agriculture has contributed the major share of family income earning for 54.60 percent of sample households, while income from animal husbandry contributed major income share for 38.89 percent sample households. Salary income accrued to 38.89 percent sample households and trade contributed towards the income earning of 23 percent of the sample households. The annual income data for the sample household in the district showed that 17 percent of the families have an annual income of less than Rs.19200 i.e. monthly income of less than Rs.1600 per family. 20 percent of the sample households have monthly income of more than Rs.1600 but less than Rs.3000 and 62 percent earn more than Rs. 3000 per month, of which 19 percent have monthly income of more than Rs.6000. (Table.4.42).

Family Expenditure

The survey results show that all the households in Papum Pare district have an annual household expenditure of more than Rs.9000.

The expenditure data of sample households for one year before the survey indicate that 80 percent of the sample households spent Rs.9001 or more on cereals and pulses. This shows that proportionately most of the households in the rural areas of Papum Pare district spent less than the annual average household expenditure of Rs.9433 on cereals and pulses for rural areas of the State as per the NSS 62nd Round (2005-06) estimate on consumer expenditure.

The per capita monthly expenditure on meat, vegetables etc. for sample households is estimated to be higher (Rs. 125.00) than the NSS estimate of Rs.86.14 for the rural areas of the State. The survey revealed that while 70 percent of the households spends up to Rs. 125 per month per capita for meat, vegetables etc. 30 percent of the households spend more than Rs.125 per month per capita on consumption of meat, vegetables etc. This



shows that consumption expenditure of people has increased compared to NSS estimates.

In respect of clothes, bedding and foot wear, the survey revealed that consumption expenditure for rural households in the district is less than the State annual average figure of Rs.3478 as per the NSS 62nd Round (2005-06) estimates. While 1.4 percent spent only up to Rs.1800 per month, 11.1percent spent between Rs.1801-2690.

The expenditure data on education shows that 20 percent of the sample households did not spend anything on education. While the average annual expenditure on education for rural areas in Arunachal Pradesh is estimated to be Rs.729 per household, the survey results indicate that 13.2 percent spent up to Rs.500, 9 percent households spend Rs. 501-850 and 58.1 percent spend more than Rs. 850 annually in respect of children's education.

The expenditure for health and medical treatment shows that 65.9 percent do not spend anything for medical treatment, while 5.7 percent spend up to Rs. 500 for health and treatment of disease and illness and 17 percent spend Rs.1501-Rs2100 and above. The NSS estimates for average family expenditure per year for health and medical treatment for rural areas of Arunachal Pradesh is Rs. 1227. An estimated 16.5 percent of the sample households spend more than Rs. 850 annually on medical treatment.

In respect of fuel and electricity the household survey showed that 0.5 percent of the households live on free collection of firewood, hay etc while 16 percent spend more than Rs. 5000 on electricity and fuel. The average annual expenditure per household on fuel and electricity for rural Arunachal Pradesh as per NSS estimate is Rs.3478. The survey revealed that 3.2 percent spend up to Rs.1000 per month while 80.3 percent of the sample households spend Rs.1001-5000 per month on fuel and electricity.

The expenditure data on telephone revealed that 46.2 percent of the households do not spend anything for telephone communication. Incidentally 46.6 percent of the households have neither a telephone connection nor a mobile phone as seen from the survey data on household assets possession. While 53.33 percent have either a telephone or a mobile the expenditure data showed that 48.6 percent spend more than Rs.2401 per year on telephones while 2.9 spend up to Rs.1000 and 2.4 percent spend Rs.1001-2004.

The NSS 62nd Round estimates show that in rural areas of the State, per month household expenditure on intoxicants and tobacco is Rs.239.35, however, the survey results indicate that the highest expenditure on intoxicants and tobacco is Rs.104.25. (Table.4.43-4.55).

4.12. Current Educational Status, Skill Training

Educational attainment among sample population 5-25 years

The educational attainment of the population 5-25 years shows that only 5.7 percent of the sample population is illiterate. 23.2 percent have completed their below primary level education. The proportion of students in the primary level is 36.6 percent, while 17.5 percent are enrolled at the middle level and 16.6 percent are reported to be at high



school/higher secondary level. No students are either in graduation or post graduation course. This clearly shows that educational attainment level is skewed towards school level educational level and not beyond. (Table.4.56).

Enrolment and drop out among sample population of 5-25 years

The enrolment data for sample population in the age group 5-25 years shows that proportion of never enrolled is 5.6 percent and proportions of females is higher (6.7 percent) than males (4.4 percent). The drop out rates after enrolment is 5.1 percent and the proportion of male drop outs (4.4 percent) is lower than female drop outs (5.8 percent) after enrolment.

The drop out rate by religious groups show that Christians have drop outs (5.2 percent) while no drop outs are reported from Hindus and Buddhists. Institution wise enrolled data shows that 87.4 percent of students is currently enrolled in government schools and is regular.

The primary reasons for drop out are failing in the examination (28.3 percent) and not interested in reading (32.3 percent). 15.2 percent of the drop outs have been due to necessity of earning at home. Gender wise desegregated data shows that 31 percent of females have dropped due to failing in the examination while the corresponding proportion for males is 25 percent. The survey showed that more males were not interested in studying and have dropped out (39 percent) compared to females (27 percent). Also, higher proportion of males (21 percent) compared to females (11 percent) have dropped out because of the necessity to earn. (Table.4.57- 4.58).

Aspiration of Parents on their Children

The aspiration of parents for their children's education shows that parents have higher aspirations for their daughter's education. While 0.2 percent parents aspired for education up to matriculation for their sons, 2.1 percent of parents want education up to matriculation for their daughters. Proportionately more girls (42.6 percent) are expected to complete intermediate than boys (27.6 percent). While 34.3 percent parents expect their daughters to complete graduation 52.9 percent parents of boys wish the same. However, in respect of PG level parents of girls (14 percent) have higher expectation compared to parents of boys (13 percent). (Table 4.59-4.60).

Attitude and Approaches in Skill development training

The survey indicated that 3.81 percent of the households were interested in some skill training for their children. Stated preference for vocation wise training skill shows that 58.3 percent are interested in training as computer operator, 25 percent are interested in on job training and 13 percent are interested to take training in weaving. (Table.4.61- Table.4.62).



4.13. Present Health Scenario

Persons reporting ailment (PAP) and treatment

The data on number of persons reporting sickness during last one year before survey indicates that proportion of sample population (5.86 percent) in the district suffering from different diseases is lower than the NSSO estimates (60th Round) which stands at 6.1 percent for the rural areas of Arunachal Pradesh. The type of illness and diseases reported indicate that malaria (36.3 percent of reported cases of illness), jaundice (16.2 percent), fever (15.2 percent), diarrhoea (12 percent) and pregnancy related complications (11 percent) are major ailments suffered by the sample population during last one year.

In respect of treatment of ailments, the survey result shows that 19.1 percent of the sample population required hospitalization. The proportionately higher percent of sample population reporting illness and requiring hospitalization is mainly due to malaria, jaundice and pregnancy related. 68.1 percent of the population reporting some ailments received treatment from government hospitals while only 28 percent were treated in private hospitals, 0.5 percent received treatment from both government hospitals and private medical practitioners and 2.5 percent went for traditional treatments. (Table.4.63-Table.4.65).

4.14. Immunization of Children

A child is considered to be fully immunized if s/he has received one dose each of BCG and measles and three doses each of DPT and Polio (excluding the polio dose 0 given at birth). The survey looked into the immunization coverage of children between 0-5 years and the results indicate that 71.31 percent of the children in the sample population were fully immunized.

Of the total fully immunized children, the proportion of Christians was 71.31 percent and, Hindus comprised 67 percent. Gender wise immunization status of the sample children shows that 70.11 percent of the fully immunized children were females.

The government agency is the main agency engaged in immunization of children in the district and 99 percent of the immunized children were covered by government agencies. The survey indicated that every child received some dose of immunization even if they never completed the full dose. (Table 4.66-Table.4.67).

Although the survey indicates fairly high immunization coverage in the district, what continues to be a major distressing factor is the incidence of institutional delivery. Proportion of institutional delivery in the district is 20.39 percent as estimated from the number of new born during last five years in the sample households. More importantly 69 percent of the new born were delivered by untrained dais. (Table. 4.68-4.69)



4.15. Poverty and the Public Distribution System (PDS)

The survey results on BPL status of the households showed that 71 percent of the sample households stated that they belong to BPL category. Of the total households reported to belong to BPL category, 97.3 percent revealed that they have BPL ration cards.

In respect of availing ration from PDS shops the survey indicated that 85 percent of the sample households avail ration from PDS shops. All the BPL families avail ration from the PDS shops.

Of the total households with BPL ration cards, 96 percent avail rice, 2.39 percent avail Kerosene and 1.09 percent avail sugar. In respect of availing PDS services, 53 percent of the beneficiaries reported insufficient quantity as major difficulty while 20 percent stated that irregularity and insufficiency of supply were major problems in the PDS functioning of the district.

Of the total households who usually buy from PDS shops, 7.3 percent cannot regularly buy from the PDS mainly because of lack of money (82 percent) and inadequate supply (18 percent). (Table.4.70-Table.4.75)

4.16. Awareness and Participation

4.16.1 Awareness on government programmes

The awareness level of the sample households on various government programmes as indicated by the survey results is found to be fairly high particularly in respect of programmes which bring direct benefits for children and women and the family e.g. ICDS (97.78 percent), Sarvasiksha (87.94 percent), Old Age/Widow pension schemes (82.38 percent), MCH (80 percent) and IAY (79.52 percent). However programmes on sanitation and drinking water under the TSC (3.97 percent) and ARWSP (40 percent) and income oriented schemes like SGSY (11.43 percent) have fairly low awareness level among the sample households.

Notwithstanding the fact that awareness level of the sample households on various schemes of the government is fairly high, it however remains a fact that except for the Sarvasiksha (58.10 percent) and ICDS (55.71 percent) the sample households have not benefited much from the other programmes.

Religion wise survey results on the beneficiaries under various programmes shows that of the total beneficiaries under various programmes in progress in the district, majority are obviously Christians. (Table.4.76 & Table.4.77).

4.16.2 Participation in the socio-political affairs

Recent development debates envisage a pro-active role from the people at the grassroots for successful democratic decentralization, which in turn accelerates the process of growth and development. The 73rd and 74th amendments of the Constitution further the scope of democratic decentralization in the country by putting local governance



Institutions at the centre-stage. The process of democratic decentralization can be most potent source of ushering development, particularly in rural areas, when people participate in the process.

The participation of the sample households in political and social affairs has been indicated by their voting behaviour and membership in local Panchayat, SHG and religious and social organizations. The survey indicates that an average of 99 percent of the households have voted in the different elections held in the district.

In respect of memberships and affiliation to any organization the survey indicated that 0.3 percent of the households have membership in local panchayat, 29.8 percent households are members of SHGs and another 4.0 percent are members of religious and social organizations. (Table 4.78 & Table.4.79).

4.16.3 Conflict, insecurity and access to media and communication

The survey findings show absence of any kind of conflict in the district. Access to media is taken as a proxy measure for the level of awareness on current affairs. The survey indicates that 57 percent of the sample households had access to some media-either listened to a radio, or read a news paper or watched TV. However proportion of sample households reading news paper was only 9.8 percent while 1.1 percent listened to radio and 47.1 percent watched TV. (Table.4.80).

4.17 Aspirations of the Communities as reflected from the Survey

Most important facilities lacking in the villages

Majority of the respondents feel that transportation (62 percent), water supply (54 percent), health (42 percent) and education (19 percent) are the major deprivations in Papum Pare district.

Most important deprivation in the families

Most of the households across all religious groups identified employment (61 percent), health (47 percent), house (36 percent) and education (32 percent) as their major deprivations.

Perceived priorities for the welfare of minority communities

The major priorities for their welfare as stated by the minority community are health (55 percent), water supply (31percent), employment and transportation (28 percent) and education (26 percent).

Access to health care facilities and safe drinking water supply are the major social sector deprivations from the people in Papum Pare district. In respect of economy and livelihood security transport and communication with employment opportunities remain the major challenge in rural areas of the district. ■



DEVELOPMENT DEFICITS

The Arunachal Pradesh Human Development Report (APDR), 2005 states that in respect of Human Development Index (HDI), Papum Pare ranks third in the State with an index value of 0.402 which is marginally lower than the state index at 0.503. Although the district ranks 1st in respect of education index and health index, in rural areas as revealed from the survey both these aspects remain a major challenge in terms of availability and accessibility to majority households. The HPI in the district is 33.085 and has the second lowest incidence of poverty. However, the district ranks 5th in respect of households using safe drinking water and 12th in respect of underweight children below age 5.

Development Deficits and Plan Priority for the District

Sl No	Indicators	Survey Result	Estimate for India	Deficit	Priority Ranking attached
	<i>Socio-economic indicators</i>				
1	Rate of literacy	76.2	67.30	8.90	6
2	Rate of female literacy	72.8	57.10	15.70	8
3	Work participation rate	31.48	38.00	-6.52	4
4	Female work participation rate	18.87	21.50	-2.63	5
	<i>Basic amenities indicators</i>				
5	Percentage of pucca houses	10.79	59.40	-48.61	2
6	Percentage of households with access to safe drinking water	33.49	87.90	-54.41	1
7	Percentage of households with sanitation facilities	53.00	39.20	13.80	7
8	Percentage of electrified households	93.80	67.90	25.90	9
	<i>Health indicators</i>				
9	Percentage of fully vaccinated children	71.31	43.50	27.81	10
10	Percentage of institutional delivery	20.39	38.70	-18.31	3

■ The survey of villages and the households revealed that the major development deficits in Papum Pare district includes its poor housing status, low infrastructure-roads, communication and power, social infrastructure-education and health, low landlessness and poor employment opportunities.



- Access to safe drinking water is another major concern in Papum Pare district. Only 33.49 percent of the households in the district have access to safe drinking water and the deficit with the national average stands at (-54.41).
- The second major development deficit in the district is with respect to housing where only 10.79 percent of the households live in pucca houses. No households have their houses under IAY.
- The access to institutional medical care is captured by the number of institutional delivery. The percentage of institutional delivery in the district stands at 20.39 percent i.e. out of every 100 child born, 80 are delivered at home and only 20 in the hospital. More serious is the fact that 69 percent of these non institutional deliveries were taken care by untrained dais.
- The fourth major deficit in the district is the work participation rate especially the female work participation rate. The survey revealed that only 31.48 percent of the population is in the workforce and only 46 percent of main workers remain gainfully employed throughout the year which indicates the distressful work situation in the district. The low female work participation rate in the district shows that economic independence of women is fairly restricted. The survey results revealed that 18.87 percent of the women are in the work force and 16.6 percent of the females were engaged in household work and free collection of goods.
- The survey revealed that 46 percent of the workforce in the district is cultivators and 25.27 percent of the households in the district possess and cultivate their own land. Size class wise cultivable land holdings possessed by sample households show that majority (70 percent) are of marginal sizes, and only 27 percent are small holdings, while merely 3 percent are semi-medium size. However, agricultural practices are still traditional and low intensity as only 24 percent of the households possessed a plough. This explains the poor farm mechanization practices in the district and also the low proportion of households cultivating their own land in the district.
- Although the district has been implementing several development programmes of the government, the results of the Baseline survey showed that only two programmes viz. Sarvasiksha and ICDS have benefited some proportion of households and programmes like IAY, SGSY have no beneficiaries from the sample households
- Transport and communication is a major constraint to sustain the development process in the district especially its road connectivity.
- Notwithstanding the various gaps that need to be addressed, the major strength lies in the absence of any communal disturbances and relatively higher proportion of literate population. ■



LIST OF SURVEYED VILLAGES

Sl. No.	VILLAGE
1	Sagalee H.Q.
2	Town Bill
3	Doimukh H.Q.
4	Dathbasti
5	Nirjuli Complex
6	Chimpu
7	Papuu - II
8	Naharlagun Model Village
9	Tigdo
10	Tarajuli
11	Jalang
12	Bandardewa
13	Hollongi Chariali
14	Jampa
15	Rupung
16	Sakiang H.Q.
17	Pilla
18	Peech - Hoj
19	Yalong
20	Sangling
21	Pangbasti
22	Jote
23	Machang
24	Khemling
25	Sangbang Basti