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Poverty and Gender Analysis of Uttarakhand: Some Insights from the Field

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Abstract

This paper explores poverty and gender analysis in the hill state of Uttarakhand from the perspective of mountain specificities that are interrelated and have direct bearing on the bio-physical and socio-economic aspects of the mountain life. The paper through a study carried out in 12 villages helps in understanding the causes and consequences of poverty and vulnerability based on altitude and remoteness and analyses the position of the rural women and the factors that result in their being disadvantaged and vulnerable. The paper clearly demonstrates that, both altitude and location have an impact on poverty, livelihoods and gender relations. The village study provides intensive information about the nature of the problem by various disaggregates which often large surveys do not provide. The study makes an attempt to capture the ground reality from the field and presents the findings, which may prove useful for policy interventions in the study areas and similar regions.

Keywords : Mountain specificities, livelihoods and gender relations, intensity of hunger, female drudgery, poverty and vulnerability.

Poverty and Gender Analysis of Uttarakhand: Some Insights from the Field*

I.C. Awasthi and Dev Nathan⁺

I. Introduction

Uttarakhand hill economy is by and large characterised as a subsistence farming economy with a precarious industrial base. This kind of economy has led to unemployment and large-scale out-migration, mainly in search of livelihoods and employment. The various indicators of development in the state show the low levels of development with marked inter-district disparities. The plains districts of the state, namely, Dehradun, Udham Singh Nagar and Hardwar, are relatively better off than the hill districts in terms of economic indicators.

Lack of regular employment opportunities outside the farm sector and high incidence of underemployment in terms of unutilized labour time is a major problem in the state (Mamgain, 2004). Due to agro-climatic constraints on agricultural development, majority of the rural households are forced to diversify their activities as part of their survival strategy. Apart from engaging in multiple activities, migration has emerged as an important household strategy to cope with the seasonality and uncertainty of production.

The village study in the region clearly reveals that poverty and gender dimensions have profound bearings in the betterment of people's lives. Poverty appears to be a location-specific phenomenon and it is more severe in distant villages as compared to the villages which are nearby. Our enquiry has brought out this phenomenon clearly. Yet another important phenomenon of Uttarakhand hill region is highly gender biased work structure in the rural areas where women overwhelmingly work in agriculture related occupations while their male counterparts work in non-farm occupations. The direct outcome of this aspect is

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high female drudgery that provides little or no opportunity for upward mobility and skill formation that raises issue of another kind.

(i) Objectives

The study was conducted as part of the Uttarakhand Livelihood Improvement Project (ULIP) under the auspices of International Fund for Agricultural Development (IFAD) with the objectives of (1) gaining an understanding of the causes and consequences of poverty and vulnerability; and (2) analysing the position of rural women and the factors that result in their being disadvantaged and vulnerable.

The study is expected to enable IFAD's project design team for the ULIP to devise strategies for addressing the underlying causes of poverty, vulnerability and women's disempowered position. The study also provides a participatory prioritization of the needs of different socio-economic groups living in the hill region of the state.

(ii) Methodology

The study team used participatory rural appraisal (PRA) tools to gather information from a total of 12 villages in the hill districts of Uttarakhand, These include 6 villages in each of the two administrative zones, Kumaun and Garhwal. Within each administrative zone, 3 villages were chosen in each of the three different altitude bands – high, medium and low. Further, one village in each band was chosen to be 'remote', with poor access to all-weather roads and related facilities. The other village in the altitude band was chosen on the basis of its easy access to roads and related facilities. The two types of villages are respectively named 'distant' and 'near' villages. Analysis of the data was done on two main axes – altitude and remoteness. There were 4 villages in each altitude band and 6 villages in each remoteness type. In classifying areas by altitude and remoteness, and in choosing villages to meet the required criteria, discussions were carried out with the IFAD Liaison Office in Delhi. The focus group discussions (FGDs) of women revolved mainly on various aspects of gender relations. They also tried to identify the constraints that women faced and the interventions they correspondingly suggested. The method of investigation was a combination of FGDs and key informant interviews. FGDs were carried out with men's and women's groups separately.

Participatory wealth, or more accurately, well-being was carried out to define poverty levels and distribution of households by poverty categories. These were further disaggregated by social categories, such as upper caste, Scheduled Castes (SCs or *dalits*), Scheduled Tribes (STs) and minority groups. Consequently, it was possible to carry out an analysis of the distribution of poverty by altitude, remoteness and social categories. The FGDs of women were carried out mainly on various aspects of gender relations. They also tried to identify the constraints women faced and the interventions women correspondingly suggested. These analyses would help in designing the targeting of project interventions.

The paper has been structured into five sections. First section deals with the objectives and methodology of village study. The second section briefly discusses the overview of the state and the third section makes poverty analysis utilising PRA tools. The fourth section investigates the gender differences drawn from village insights and the last section suggests the policy imperatives.

II. Overview of Uttarakhand Economy

(i) Sectoral composition of income

Economic structure is an important indicator of economic development that shows the process of structural transformation in the economy over the years. Income is generally considered as an important parameter of such structural changes. However, changes in income alone may not be a sufficient condition for any successful structural transformation. It is therefore important for any successful transformation that changes in the structure of income should be accompanied by corresponding changes in the structure of workforce or employment. But, in spite of significant changes in the structure of income in primary sector, employment structure has not shown the desired changes over the years. For instance, in the State of Uttarakhand, about 49 per cent of the workforce in the primary sector is contributing about 11 per cent of income, while 22 per cent of the workforce in the secondary sector and 29 per cent in the tertiary sector are contributing about 37 and 52 per cent of wealth respectively in 2011-12.

While at All India, the contribution of employment has been 49 per cent in primary sector 24 percent in secondary sector and 27 per cent in tertiary sector, the corresponding GDP share has been 14, 28 and 57 per cent respectively in 2011-12. One can see that structural

transformation has been relatively faster in Uttarakhand, especially in primary and secondary sector, compared to All India.

The table below presents the income structure or to say the gross state domestic product (GSDP) structure of the state as also that of all-India in terms of the standard tri-sectoral classification, viz., percentage share of primary, secondary and tertiary sectors at three points of time i.e. 2004-05, 2009-10 and 2011-12.

It may be observed that the reliance on primary (producing) sector has declined substantively from 2004-05 to 2013-14, even lower than all India during 2009-10 to 2013-14. In secondary sector, Uttarakhand has recorded a higher share than all-India from 2009-10 to 2013-14, and it has witnessed remarkably higher share and indeed a large part of increase has come through construction activities. In terms of tertiary sector, the state has lagged behind all India, by 15 percentage points in 2013-14 and the share has stagnated in 2012-13 over 2011-12 (Table-1). Indeed, there has been faster sectoral transformation after 2004-05, which is clearly visible.

Table-1 Share of GSDP at factor cost in Uttarakhand and All-India (2004-05 prices)

Sector	Uttarakhand				All India			
	2004-05	2009-10	2011-12	2013- 14	2004-05	2009-10	2011-12	2013- 14
Primary	23.48	12.45	10.58	10.38	19.00	14.60	14.40	13.94
Secondary	27.02	34.53	37.00	37.23	27.90	28.30	28.20	18.69
Tertiary	49.50	53.02	52.42	52.37	53.10	57.10	57.40	67.36

Source: Central Statistical Organisation

The relative sectoral productivity is an important indicator for change in the structure of economy. The state has registered a remarkably high rate of growth since the beginning of 2000 and the growth has been higher throughout from 2000-01 to 2012-13 as compared to all- India barring 2005-06; and it can be reckoned as the fastest growing economy among the comity of states. It is evident from Table 2 below that primary sector grew much faster during 2009-13 as compared to earlier period (2005-09) registering 4.4 per cent growth per annum. In particular, mining & quarrying saw bulk of growth. Nearly three times growth in primary sector was registered in the later period as compared to earlier one. Ostensibly, a boost in mining activities pushed up the growth of primary sector. Manufacturing, which recorded phenomenal growth during the first period, has fallen sharply to about one-third during the second period. Obviously, internal and external factors

have been responsible for this sluggish growth in manufacturing income which has caused a sharp fall in the growth of secondary sector despite the fact that construction sector has recorded an extraordinarily high growth. Share of services sector has plummeted sharply in the later period with every sub-sector showing a sharp decline. Despite a slowdown in most of the sub-sectors, the overall growth in the state has been robust and it performed much better than all-India and many states. Growth rates, though still quite robust, seem to be slowing down during the last 2 or 3 years.

Table 2: GSDP at factor cost, 2004-05 prices

Industry	Gross state domestic product (Rs. in lakh)			ACGR growth %	
	2004-05	2009-10	2013-14	2005-09	2009-13
Agri. and allied	552040	602899	700001	1.78	3.80
Mining & quarrying	29894	26844	48945	-2.13	16.20
Primary sector	581934	629743	748946	1.59	4.43
Manufacturing	315559	1287154	1937281	32.47	10.76
Electricity, gas & water supply	38446	68777	103717	12.34	10.82
Construction	315686	391200	719765	4.38	16.47
Secondary sector	669691	1747131	2760763	21.14	12.12
Trade, hotels & restaurants	419564	1259244	1978189	24.58	11.95
Transport, storage & communication	162784	352599	502297	16.72	9.25
Banking & insurance	93663	218345	339702	18.44	11.68
Business services incl. real estate	159893	198979	233818	4.47	4.12
Public admin.	133372	321954	342027	19.27	1.52
Other services	257667	331790	392667	5.19	4.30
Services	1226943	2682911	3788700	16.94	9.01
All	2478568	5059785	7298409	15.34	9.59
State per capita income (Rs.)	24726	44556	61106	12.50	8.22

Source: Central Statistical Organisation

(ii) Workforce structure and work participation rates

Any structural transformation is considered successful when changes in structure of output are accompanied by corresponding changes in the share of employment. Corresponding employment situation over time helps analyse the structural transformation of workforce. The NSS quinquennial survey data shows that there has been a relatively faster movement of workforce (7.2 percentage points) away from primary to other sectors from 2004-05 to 2011-12 (Table 3). The period 2009-10 in particular saw a fast decline of agricultural workforce over 2004-05 than the later period, 2011-12. This is true for both rural and urban locations. The overall share of agriculture sector has been 49 per cent in 2011-12 which is lower than that of all-India. Such diminution is welcome feature for any successful transformation.

The share in secondary sector's employment is 22 per cent in 2011-12. Employment in this sector increased gradually during 2004-11 and in particular it witnessed a huge increase during 2004-2009 (7.80 percentage points) of which most of the share emanated from steep rise in construction activities. Manufacturing saw a steady surge during 8 years but urban areas saw much higher stimulus in manufacturing employment share than the rural areas which stagnated during 2004-09 but later picked up during 2011-12. Manufacturing is a cause of serious concern at national level but Uttarakhand has shown a significant improvement during 2004-11. One can plausibly argue that industrial stimulus through concessional package provided by Government of India to establish industries in Uttarakhand and Himachal Pradesh spurred industrial activities in the states. The services sector employs 29 per cent and has registered perceptible increase during 2009-11. Most prominent sub-sector is trade, hotel and restaurants that contributes highest employment share in the sector. The other sub-sectors are 'Other' services and transport, storage & communication, respectively.

Table 3: Workforce by industrial category in Uttarakhand (UPS)

Sector	2004-05			2009-10			2011-12		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Agriculture	78.4	12.0	66.1	69.5	5.4	56.4	61.4	4.8	48.9
Mining & quarrying	-	0.04	0.01	0.2	0.2	0.2	-	0.1	-
Primary sector	78.4	12.04	66.11	69.70	5.60	56.60	61.40	4.90	48.90
Manufacturing	3.4	11.9	5.0	3.7	17.8	6.6	6.7	18.2	9.3
Electricity, water, gas etc	0.2	1.3	0.4	0.2	1.9	0.6	0.5	1.0	0.6
Construction	6.1	10.3	6.9	13.2	11.8	12.9	12.3	11.9	12.2
Secondary sector	9.70	23.50	12.30	17.10	31.50	20.10	19.50	31.10	22.10
Trade, hotel and restaurants	4.4	27.0	8.6	4.9	32.0	10.4	8.5	33.8	14.1
Transport, storage and communication	2.0	7.3	3.0	1.7	3.7	2.1	4.4	7.9	5.1
Other services	5.5	30.2	10.1	6.6	27.1	10.8	6.2	22.2	9.7
Tertiary sector	11.90	64.50	21.70	13.20	62.80	23.30	19.10	63.90	28.90
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: NSS various rounds

Work participation rate (WPR) is an important indicator of development showing the proportion of working population to total population in an economy. It is generally believed that the higher WPR is an indication of well-being of population and rightly so. Conversely, it is also observed that in a poor region, WPR is generally higher among the population which does not necessarily indicate improved economic status and well-being, rather it

indicates a poverty driven phenomenon. In poor regions, people do not have perennial source of employment and they are engaged in multiple activities for short duration at low wage rates. Such multi-activity is often most common in such regions to cope with the livelihood uncertainty. It is therefore important to consider the qualitative dimension of WPR in terms of pattern and nature of employment, its duration, work conditions and wages. Participation rates have consistently declined during 2004-05 to 2011-12. The distinctive feature of participation rate is a huge decline of female participation rate in 2001-12 as compared to earlier periods. This drop in female participation rate has been regarded as a welcome indicator as there has been a considerable increase of people, particularly of younger age groups, in educational institutions that caused reduction in WPRs.. Male participation rates have shown a significant increase (6.6 percentage points) during 2011-12 over 2009-10 (Table-4). The similar trend emerges in the rural areas, however in urban areas participation rates tend to increase by and large and more particularly during 2011-12.

Table 4: Work participation rate in Uttarakhand (UPSS)

NSS round	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
2004-05	52.3	42.7	47.4	51.9	12.7	33.2	52.2	35.7	43.9
2009-10	46.1	39.9	43.1	53.0	11.3	33.6	47.8	33.0	40.7
2011-12	54.3	24.8	39.9	54.6	14.7	35.5	54.4	21.9	38.6

Source: NSS various rounds

(iii) Status of employment

Yet, an important dimension of employment is its composition in terms of status of workforce (though not necessarily measures the quality of employment). Total employment is generally disaggregated into self-employment, regular employment and casual employment. Regular paid employment is generally considered secure and self-employment as fairly secure, even though incomes from certain types of self-employment activities might be highly irregular, inadequate and even uncertain. But for typical casual workers, neither the duration of employment nor the income is certain.

Self-employment base appears to have eroded sharply during 2004-05 to 2009-10 both for rural and urban locations by equal measure and the process has somewhat been arrested during 2011-12. For rural area, self-employment has been the principal mode of livelihoods for males as well as for females. But for rural females, it is indeed the sole source of employment as an overwhelmingly large majority of workforce is engaged in it – primarily

in cultivation activities. The share of regular employment which stagnated during 2009-10 has shown substantive gain during 2011-12 in both the locations. However, the pace of increase in casual employment noted in 2009-10 over 2004-05 has somewhat halted in 2011-12. Surprisingly, in urban area this share has fallen considerably (Table 5).

Table 5: Status of employment in Uttarakhand (UPSS)

NSS round	Rural			Urban			Total		
	Self- employed	Regular employed	Casual employed	Self- employed	Regular employed	Casual employed	Self- employed	Regular employed	Casual employed
2004-05	80.4	7.2	12.3	51.6	41.4	7.0	75.1	13.6	11.3
2009-10	75.0	8.3	16.7	45.0	36.4	18.6	68.9	14.0	17.1
2011-12	74.1	11.2	14.7	51.4	39.8	8.7	69.1	17.5	13.4

Source: NSS various rounds

(iv) Poverty

Poverty has been widespread in the state where proportion of poor below poverty line was alarmingly high at 32.7 per cent (combined) with rural poverty at 35.1 per cent and urban poverty at 26.2 per cent in 2004-05 based on Tendulkar's methodology. It was regarded one of the poorest states after Orissa, Bihar, Chhattisgarh and Jharkhand. However, the proportion of poor below poverty line fell sharply after 2004-05 and in particular 2009-10 when proportion of rural poverty declined appreciably and urban poverty proportion remained somewhat sluggish. In 2011-12, poverty ratio continued to decline further both in rural and urban areas. These proportions are lower in both the locations as compared to all-India (Table 6). The poverty data for 2004-05 is, however, highly suspect on account of price indices used and which were among highest in the country. Scholars have expressed concern over accuracy of reference data of 2004-05 (Joshi, 2012). However, the poverty figures for 2009-10 appear to be somewhat reasonable and sensible.

Table 6: Percentage of population below poverty line (Tendulkar Methodology)

	2004-05*		2009-10*		2011-12**	
	Rural	Urban	Rural	Urban	Rural	Urban
Uttarakhand	35.1	26.2	14.9	25.2	11.62	10.48
All India	42.0	25.5	33.8	20.9	25.70	13.70

Sources: *Press Note on Poverty Estimates, 2009-10, Planning Commission, 2009-10

** Data book for DCH; 10th March, 2014, Planning Commission

(v) Migration patterns

Out-migration has been a common phenomenon in the hill region of Uttarakhand which is closely related to economic backwardness (Khanka, 1988; Bora, 1986, 1996; Mamgain, 2004). Apart from engaging in multiple economic activities, migration has emerged as an important household strategy to cope with the seasonality and uncertainty of production.

The intensity of out-migration is high and it is the most common household strategy for supplementing consumption needs at the source area. Long-term migration from the hill region has been an old tradition primarily to eke out living in towns and cities. Although income earned has been low, yet it provided some sort of security to the family at the source area. Of late, permanent migration has emerged as an important phenomenon with a view to bettering life and investing in children's education (Awasthi, 2010). Nevertheless, migrants do maintain strong linkages with the source area through remittances and regular visits.

An overwhelmingly large number of the long-term migrant workers out-migrate with poor education levels and marketable skills, resulting in low incomes thereby adding to vulnerability at the place of destination.

(vi) Unemployment trends

Rural unemployment rate in the state is about 2.5 per cent of the labour force, which is higher than all-India (1.7 per cent) in 2011-12. Open unemployment in the state has gradually risen during 2004-05 to 2011-12. Male unemployment rate in the state is reported to be higher and female unemployment is much lower compared to the corresponding all-India rates during 2004-05 to 2009-10 (Table 7). Females are increasingly looking for job opportunities in the labour market which is evident from the recent rising unemployment rates among females. The recent 68th round results, however, show a huge increase in unemployment rates, both for males and females as compared to all-India. Male unemployment situation in rural area of the state is quite severe and it has increased from 1.3 per cent in 2004-05 to 2.7 per cent in 2011-12.

Unemployment by current daily status (CDS), which captures underemployment intensity more precisely, consistently throws a higher rate of unemployment, both for males and females, indicating a huge unutilized labour time. Although, overall rural unemployment rate by CDS is lower in Uttarakhand as compared to all-India, yet, male

unemployment rate has been comparable to All-India. Female unemployment rate in rural area has been consistently registering low rates, in particular 2004-05 to 2009-10, not because of the fact that they remain fully employed but largely because of their engagement in low-paid agricultural activities that do not allow them to report as either available or seeking for work. However, recent results clearly demolish the notion that they 'do not report themselves available for work' (Desikachar and Viswanathan, 2011).

The reasons for high and low incidence of unemployment for males and females respectively in the rural areas are altogether different. Open unemployment in Uttarakhand is a male-specific phenomenon. The reason for high rate of unemployment is primarily due to lack of regular employment opportunities and also intermittent employment opportunities that would otherwise have engaged them in a subsidiary capacity.

Table 7: Unemployment rates in rural Uttarakhand and rural India

Uttarakhand	2004-05			2009-10			2011-12		
	M	F	P	M	F	P	M	F	P
UPSS	2.0	0.4	1.3	2.6	0.2	1.6	2.7	2.1	2.5
CDS	5.7	1.3	4.1	6.6	0.4	4.5	5.4	4.3	5.1
India									
UPSS	1.6	1.8	1.7	1.6	1.6	1.6	1.7	1.7	1.7
CDS	8.0	8.7	8.2	6.4	8.0	6.8	5.5	6.2	5.7

Source: NSS various rounds

Hill districts of the state pose some specific problems and within it there exists wide diversity and variability both in terms of resource endowments, development potential as well as constraints. It is predominantly a hilly and mountainous region with undulating topography, varied climate, limited arable land and difficult agricultural conditions. This has resulted in a low economic base. Although, agriculture is the main occupation of the hill people yet it suffers from several inherent maladies. Landholdings are small, fragmented and scattered. Preponderance of cultivators in tiny size of land parcels is most common barring the plane or *tarai* region -- Dehradun, Udham Singh Nagar and Hardwar districts. The plane districts are economically better off as compared to other hilly districts in the state.

Lack of productive employment in the hill districts has forced people to seek multiple livelihood strategies as the main coping mechanism to meet increasing food and cash requirements. Unemployment among adult males has led to a large-scale out-migration in search of livelihood and employment. The migrants in turn have been supporting back their

families through remittance. The plane districts of Udham Singh Nagar, Hardwar, Dehradun (mainly the Doon valley) and to some extent Nainital (mainly the Bhabar tract covering Haldwani-Kathgodam, Kaladhungi, Ramnagar and Lalkuan in fact attracting in-migrants. The movement of people from the region is closely related to its backwardness. In all the hilly districts of the state, out-migration exceeds immigration. Micro level studies also show high rate of out-migration particularly among the educated youth. By and large, push factors motivated to a large number of migrants (Bora, 1996; Awasthi, 2012). Evidently, Census 2011 shows generally low rates of population growth during 2001 and 2011 in the mountain districts with the exception of Uttarkashi and Champawat. In two districts – Almora and Pauri Garhwal – the decadal population growth was in fact recorded negative.

III. Poverty Analysis: Evidences from Villages

(A) The Study Villages

Twelve villages were chosen for the diagnostic study with a focus on poverty and gender dimensions. In four districts (Bageshwar, Pithoragarh, Tehri Garhwal and Chamoli), two each in Garhwal and Kumaun regions, villages were chosen along two dimensions, altitude and remoteness. The three different altitudes were high, medium and low ones. Remoteness was defined along two features – villages which are on main road, and connected to all-weather roads were taken as nearby villages; while those which are far from the main road, and not directly connected with all-weather roads were taken as distant villages. It was expected that altitude and location would both have an impact on poverty, livelihoods and gender relations. The features of the chosen villages are presented in Table 8.

Table 8: Villages selected in Uttarakhand

Altitude	Kumaun region			Altitude	Garhwal region		
	Village location	Name of village/block	District		Village location	Name of village	District
High (2000 meters approx from sea level)	Distant (10 kms approx from road heads)	Gogina (Kapkote)	Bageshwar	High (1900 meters approx from sea level)	Distant (9 kms approx from road heads)	Banchuri (Bhilangana)	Tehri Garhwal
Medium (990 meters approx from sea level)	Near (500 meters from road heads)	Simgarhi (Bageshwar)	Bageshwar	Medium (810 meters approx from sea level)	Distant (3 kms approx from road heads)	Genwali (Jakarnidhar)	Tehri Garhwal
Low (780 meters approx from sea level)	Distant (4.5kms approx from road heads)	Thanga (Bageshwar)	Bageshwar	Low (570 meters approx from sea level)	Near (1.5 kms from road heads)	Molno (Bhilangana)	Tehri Garhwal
High (1700 meters approx from sea level)	Near (300 meters from road heads)	Bala (Munshyari)	Pithoragarh	High (1900 meters approx from sea level)	Distant (2.5 kms approx from road heads)	Gwar (Karnprayag)	Chamoli
Medium (850 meters approx from sea level)	Distant (4 kms approx from road heads)	Garaon (Berinag)	Pithoragarh	Medium (1230 meters approx from sea level)	Near (1.2 kms from road heads)	Sonla (Karnprayag)	Chamoli
Low (520 meters approx from sea level)	Near (500 meters approx from road heads)	Bagrihat (Kanalichhina)	Pithoragarh	Low (590 meters approx from sea level)	Near (1.0 kms from road heads)	Jilasu (Pokhari)	Chamoli

Source: Fieldwork, April 2011

(i) *Population, average size of households and sex ratio*

The 12 surveyed villages have a total population of 9,129, with males comprising of 49.7 per cent and females 50.3 per cent. Distant villages have slightly higher population (50.7 per cent) than those located near roads (49.3 per cent). Upper social groups constitute 59.9 per cent while lower social groups comprise of 40.1 per cent of the total population (Table 9). Small size settlements in hill districts is common and clearly settlement patterns has no relation with social group habitation rather different social groups coexists together barring northern most part of Uttarakhand which is inhabited by Bhotia tribe --- known as Bhot region.

Table 9: Population by location and social groups

Altitude and location of villages	Upper social group			Lower social group			All persons			
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	
Altitude	High	1601	1679	3280	551	589	1140	2152	2268	4420
	Medium	798	773	1571	505	477	982	1303	1250	2553
	Low	319	294	613	760	783	1543	1079	1077	2156
	Total	2718	2746	5464	1816	1849	3665	4534	4595	9129
Location	Near	1155	1109	2264	1123	1111	2234	2278	2220	4498
	Distant	1563	1637	3200	693	738	1431	2256	2375	4631
	Total	2718	2746	5464	1816	1849	3665	4534	4595	9129

Source: Fieldwork, April 2011

Note: Upper social group constitutes Brahmin and Kshatriya while lower social group comprises of SC, ST, OBC and Muslims.

The villages comprise of 1,644 households, of which 834 were located roadside and 810 were distant villages. Average households and population in a village were 137 and 761, respectively. Average size of households was 5.5 with little variation across distant (5.7) and roadside villages (5.4). The surveyed villages have a sex ratio of about 1,013 females per thousand males (Table 10). This gender favourable ratio can be attributed to the phenomenon of male-specific out-migration in the hill areas. Sex ratio across upper and lower social groups does not vary significantly. A higher sex ratio is reported in high altitude (1,054 females per thousand males) and distant villages (1,053 females per thousand males). A higher sex ratio indicates a greater propensity of male out-migration from the higher altitude and distant villages that provide limited livelihood opportunities due to remoteness and other hill specificities (Table 10).

Table 10: Average households, household size, population and sex ratio

Altitude and location of villages		Total households	Household	Household size	Population	Sex ratio
Altitude	High	787	197	5.62	1105	1049
	Medium	468	117	5.46	638	959
	Low	389	97	5.54	539	998
	Total	1644	137	5.55	761	1013
Location	Near	834	139	5.39	750	974
	Distant	810	135	5.72	772	1053
	Total	1644	137	5.55	761	1013

Source: Fieldwork, April 2011

(ii) Village facilities

Village facilities are important indicators for improving and bettering of human lives. Different participatory rural appraisal (PRA) techniques have been used in the study to generate a profile of the people's perceptions. The discussions were designed to elicit responses pertaining to the villagers' perceptions of livelihood issues – assets, vulnerability, perceptions on improvement in access to livelihoods and employment opportunities. PRA exercise was undertaken in selected villages through social mapping and wealth ranking in order to understand the physical characteristics and socio-economic conditions of the community.

(a) Schools

There has been rapid expansion of school education in the state and even remote and distant locations have schooling facilities. Village survey results amply corroborate this phenomenon. All villages have primary schools and most of them have more than one primary school in their vicinity. Even most of the villages have middle school, barring three low altitude villages. In recent years, there has been a parallel expansion of private schools in the villages, what has been called public school with English as a medium of instruction. These schools have profound implications for the government-run schools in terms of declining pupil-teacher ratio and poor teaching. However, only two villages have secondary/senior secondary schools and in the remaining villages, students have to traverse long distance for availing the facilities.

(b) Health

Uttarakhand became the first state to adopt an Integrated Health and Population Policy in 2002, especially based on participatory process. However, people face socio-cultural and

economic barriers in access and use of health facilities owing to lack of reliable all-weather transport and distance involved. Although there has been greater penetration of economic and social infrastructure in the state, which compares well with all-India on aggregate terms, yet far-flung and remote areas in the state still face the problem of accessibility.

Frequency of visits of health workers, particularly, the medical officer and pharmacist in the villages is pretty low. Surprisingly, out of the 12 surveyed villages, eight villages had never seen a visit from the doctor; five villages had never been visited by the pharmacist. Only in two cases had the pharmacist visited that too during health camps. In half of the surveyed villages, the Auxiliary Nurse Midwife (ANM) reportedly visited on a weekly basis; while in four villages, the ANM visited just once in a month. In the remaining two villages, their visit was either highly infrequent and or they never visited. In majority of the villages, visits of Accredited Social Health Activist (ASHA) and Anganwadi workers were reported to be satisfactory.

(c) *Drinking water and sanitation*

Drinking water is an acute problem in some of the surveyed villages, particularly in summers. The analysis of water sources shows that the 'other source', especially small stream, springs like *naula and dhara* is the dominant source in villages. Around 67.70 per cent households depend on this natural source of water, with highest share in distant villages (80 per cent). About one-fifth of households use piped water and a little over one-tenth of households use public stand post with relatively higher share in nearby villages than distant villages. Public hand pump and private well constitute negligible share. As mentioned earlier, piped water, which is supposed to be safe for drinking, is used only by one-fifth of households and as a result waterborne diseases caused by pathogenic microorganisms are directly transmitted when contaminated fresh water is consumed. Various infectious diseases spread primarily through contaminated water.

Lack of clean, safe drinking water and proper sanitation facilities together leads to various waterborne diseases that have serious health hazards. Almost 46 per cent households practice open defecation (which leads to diarrhea and other gastrointestinal diseases and can result in outbreak of other related diseases). Government subsidy for sanitation has come up in a big way but it is not sufficient for constructing latrines. As a result, many structures remain incomplete. Distant villages have higher intensity of open defecation than the nearby ones, and similarly, villages with high and medium altitude have higher intensity of such

cases followed by lesser intensity of such cases in low altitude villages. The villages surveyed amply show that safe drinking water and sanitation is still a major challenge and needs to be put at the very top of the poverty eradication and sustainable livelihood development agenda of the hill areas.

(d) *Public distribution system (PDS)*

The village economy of the state largely depends on PDS for food security as the state is a food-deficit one. All the villagers depend on PDS ranging from a few months to larger part of the year. Although PDS was functioning satisfactorily, yet in some of the surveyed villages, either foodgrains were not available on time or the quality of grains was poor. Despite these facts, the network of PDS is strong and acts as a lifeline in the state, particularly in distant villages. Average distance of PDS shop from the village is 1.3 km – 0.7 km in nearby villages and 2.0 km in distant villages. Almost half of the families (44.5 per cent) are covered under BPL, *Antyodaya* and *Annapurna* schemes. Nearly 43 per cent of nearby villages and 46 per cent of distant villages are covered under PDS.

(e) *Electricity*

Uttarakhand region has plenty of water resources with good potential for hydro-electricity; but it has barely harnessed this potential. In recent years there have been greater developmental efforts to provide electricity to the remote villages and this has improved the situation substantively. Nearly 84 per cent households have electricity connections and distant villages have better access and higher connectivity (85 per cent) than the nearby villages (83 per cent). Even villages located in higher altitudes have fairly high connectivity. All the surveyed villages were electrified some 11 to 16 years ago and on an average received electricity between 9.60 hours in distant villages to 12.50 hours in nearby villages. However, out of 12 villages surveyed, four villages (Bagirhat, Gwar, Jilasu and Sonla) did not get electricity during 6-9 p.m. (peak hours) when electricity is needed most by the households. In the rainy season the problem was more apparent in these villages and electricity was highly irregular even during day time. One of the main reasons is that electricity is supplied to shops and establishments in rural markets during peak hours and hence there is corresponding cut of supply to the villages.

(f) *Road connectivity*

The benefits of linking villages with a good road network are enormous. In addition to

employment generation, road links yield socio-economic benefits like reduction in prices of agricultural and consumer products, access to markets, public transport, employment opportunities and better education and healthcare facilities. Hill areas typically pose constraints of remoteness with sparse population and bio-physical constrictions.

Transport facilities are not that robust in surveyed villages. Out of the 12 villages, nine do not have pucca (metalled) road and none of the distant villages has pucca road. Seven villages do not even have bus stop in the village. Distant villages lack these facilities relatively more than the nearby villages. None of the villages are linked to railways, for which they have to travel long to reach the nearest railway station.

B. Poverty in Villages: The Pervasiveness

Aggregate poverty level in the state has witnessed a faster decline in particular from 2004-05, both in rural and urban locations as compared to all-India. However, the literature palpably shows that poverty in hill states suffers from 'statistical invisibility' as these surveys do not take into account factors associated with hill specificities. It is generally argued that hill people require more energy in terms of calorie intake, more woollen clothes in order to sustain their living. Generally, poverty is more prevalent, severe, and uneven in mountain region owing to hill specificities that is often not captured in the usual surveys (Papola, 2002). One of the principal reasons of poverty is food deficit in the hill regions and enormously high dependency on foodgrain import (IDFC, 2002). Supply of foodgrains from public distribution system is the lifeline, particularly for distant villages, that face severe foodgrain shortages owing to inaccessibility. Although poverty is not necessarily a consequence of lack of foodgrains but more so due to lack of affordability (or effective demand), that arises from lack of incomes. Field data corroborate that 6.32 per cent households do not consume two meals a day (Table 11). This has aspects of both inaccessibility and un-affordability of food grains across social groups and locations of villages. There is lesser intensity of hunger among upper social groups (2.49 per cent households) than the lower social groups (3.83 per cent households) in terms of not consuming two meals a day. Among lower social groups, households consuming less than two meals a day out of the total households in that social category go up to 10.28 per cent and among upper social group it falls to about 4.00 per cent. Households located near roads have comparatively lower intensity of hunger (5.5 per cent) than those in distant villages (7.2 per cent). Poverty appears to be a location-specific phenomenon and it is more severe in distant

villages than the nearby ones. It seems reasonable that villages near to road heads have better opportunities for development activities than the distant ones. However, the lower social group (SCs) has been at disadvantageous position due to lack of resources (viz, land) and other entitlements that perpetually denied opportunities for bettering their lives which have been deep rooted in caste system for generations. This has resulted in economical and social backwardness despite the fact that numerous affirmative actions have been initiated through reservation policies. Even their being located near roads does not ensure them having enough opportunities for better living primarily because of lack of resources and entitlements.

From the policy point of view, it is extremely important to develop both economic and social infrastructure, which has a strong impact on bettering the human life.

Table 11: Proportion of households (hhs) consuming less than 2 meals a day

Altitude and location of villages		Upper social group	Lower social group	Total hhs
Altitude	High	23 (2.92)	23(2.92)	787
	Medium	15 (3.20)	16(3.41)	468
	Low	3(0.77)	24(6.17)	389
	Total	41(2.49)	63(3.83)	1644
Location	Near	9(1.08)	37 (4.44)	834
	Distant	32 (3.95)	26(3.21)	810
	Total	41(2.49)	63(3.83)	1644
Total hhs		1031	613	

Source: Field survey, April 2011

Distribution of households under poor and non-poor categories shows that 45.70 per cent households are identified as poor through wealth ranking exercise. This shows the proportion of households identified as poor based on the perceptions of villagers on wealth classes. The proportion of poor is higher in the nearby villages (47.1 per cent) than the distant ones (44.2 per cent), whereas the ultra poor are more in the distant villages than the nearby villages. This is somewhat a puzzle. Proportion of poor on the basis of wealth ranking is a measure of relative poverty which is based on perceptions of people in a village context. While absolute poverty (ultra poor) is a measure of deprivation and hunger which is more serious.

It can be seen from Table 12 that majority of poor households are SC (63.3 per cent), followed by ST (55.1 per cent) and are least among the upper social group households (35.8 per cent). Similarly, proportion of ultra poor or those consuming less than two meals a day (intensity) is highest among the SC (dalit) and lowest among the ST households. This clearly

Consequences of poverty are enormous and carry negative effects in the lives of people, particularly of the poor with inadequate livelihood options and entitlements. Its impacts are profound in terms of hunger, malnutrition, high infant mortality, dampening income potential, hygiene and diet related diseases and huge out-migration, etc. The survey results clearly show that nearby villages are more affected with hunger and malnutrition, dampening income potential, inadequate nutrition for children, high infant mortality and reduced literacy than the distant villages (Table 13).

Table 13: Consequences of poverty

Altitude and location of villages		Hunger and malnutrition	Dampening earning potential	Children's inadequate nutrition and high infant mortality	Increase in hygiene and diet related diseases	Increased school drop outs	Out migration	Reduced literacy rates	Limited access to productive resources
Altitude	High	2	3	1	1	2	1	2	1
	Medium	3	3	4	1	0	3	0	0
	Low	2	2	2	1	0	0	3	0
	Total	7	8	7	3	2	4	5	1
Location	Near	4	5	4	2	0	2	4	0
	Distant	3	3	3	1	2	2	1	1
	Total	7	8	7	3	2	4	5	1

Source: Field survey, April 2011

Good nutrition apart from generating energy provides structural components, vitamins and minerals. Food must contain enough protein, fat, carbohydrates and vitamins. Pulses, fruits, vegetables, milk, meat/eggs provide nutrition and energy. Malnutrition contributes to poverty illness, lowers cognitive function and thus reduces educational attainment, productivity and relegates the individual to reduced options for livelihoods. It has been observed that the poor households mostly consume grains and little or no nutritious foods. In all the villages, it was observed that the poor households were not consuming fruits and vegetables, meat and eggs. Out of 12 villages, six villages consumed pulses, nuts and seeds while four villages consumed milk in their diet. This is true for all villages across altitude and location. In the case of 'not so poor households', 10 villages consumed pulses, nuts and seeds; three villages fruits; eight villages milk and only one village consumed meat/eggs in their diet. Rich households in all the villages have pulses, nuts and seeds, milk, fruits and vegetables as part of their diet. Meat/eggs constitute a part of the diet only in five villages.

shows that SCs are a vulnerable lot in the social hierarchy. In a way, social caste system has played an important role in determining the lifestyles of each group, which differs starkly from each other. For example, SC houses are small, often with thatched roof and located slightly at a distance from other higher social groups. The caste system is clearly ranked, and historically the upper social castes have generally monopolised the economic and social power, and the class endogamy tended to keep the rich as rich and the poor as poor.

Table 12: Poverty analyses across 12 villages

Village category	Total HHs	Ultra poor %	Poor including ultra poor %	Not so poor %	Better-off %
All 12 villages	1644	6.32	45.70	36.58	17.71
Near	834	5.52	47.12	36.33	16.55
Distant	810	7.16	44.20	36.91	18.89
High	787	5.84	41.17	42.06	16.77
Medium	468	6.62	47.43	29.91	22.65
Low	389	6.94	52.70	33.68	13.62
Bageshwar	418	6.22	48.80	39.95	11.24
Pithoragarh	420	5.71	41.19	42.14	16.67
Tehri	520	4.61	50.19	31.92	17.88
Chamoli	286	10.49	39.51	32.16	28.32
Upper social group	1031	3.97	35.79	43.55	19.98
SC	535	11.00	63.36	25.42	12.33
ST	78	2.56	55.13	20.51	24.36

Source: Field survey, April 2011

The system has exploited the scheduled castes for a long time and in this process they could not get enough opportunities of education and better options for livelihood. It is not that they were discriminated against in the access to education or other facilities provided by the government, but somehow they were the victims of social deprivation for generations. However, this did not curtail social interaction between various social classes.

Intensity of poverty (ultra poor) is clearly discernible in the distant villages than the nearby ones. Also 'not so poor' proportion is highest among upper social groups and lower among lower social groups. The inequality appears to be sharper in the better-off households and results appear to be consistent. SCs have the lowest proportion of better-off households and upper social groups have much higher proportion. However, ST households have the highest proportion of better-off households and also lowest proportion of ultra poor, primarily because they are the trading community and also benefited from the reservation policy. Tehri and Bageshwar districts have higher proportion of poor households and Pithoragarh and Chamoli have comparatively lower proportion.

IV. Gender Differences: Findings from Villages

(i) Gender roles and relations

Women are most exploited, poorest and marginalized, mainly due to inequities in the social system and subordination to patriarchal order. Low valuation of women is typically governed by complex traditional, cultural norms and practices. Hill women are more deprived than their men folk primarily because women bear the burden of cultivation and household chores, and though women manage the household food security yet males are treated as the main breadwinners. The drudgery of hill women is enormous as they work for about 12-14 hours per day. Even the men folk whose main activity is cultivation are relatively less burdened than their female counterparts as they perform only specific tasks of cultivation such as ploughing, sowing, hoeing, ditching and threshing. Gender inequality is not only related to work but also education, health and other productive resources and participation in economic activities.

(ii) Women's drudgery

In the case of hill regions of Uttarakhand, out-migration results in high sex ratio of women to men, tightening of local labour market that eventually leads to high female drudgery, involvement of children in cultivation and livestock rearing. The drain of young people has cascading socio-economic effects on the migrating family and local labour market conditions. Socio-economic implications include the drain in human resource, impact on reproductive behaviour, long separation from family adding to family insecurity, etc. To some extent, shortage of labour is offset by women putting in long hours thus increasing their drudgery and children helping in cultivation and animal caring activities. Shortage of labour has adverse impacts on agriculture productivity and gets manifested in the labour market through increased wage rates, which is generally higher than the market determined wage rate. High amount of drudgery that provides little or no opportunity for upward mobility and skill formation raises issue of another kind (Awasthi, 2012).

It can be noticed from Table 14 below that hill women suffer from excessive workload. On an average, they work nearly for 12.7 hrs. a day, which is higher in distant villages (12.9 hrs.) than nearby ones (12.4 hrs.). High altitude villages have even longer working hours for women (13 hrs.). Overall, the situation is not radically different in villages located at different altitudes and distance from motor road in terms of drudgery of women. It can be

observed from Table 13 that most of the time they are engaged in household related work which is time consuming, for example, free collection of firewood/animal dung, cooking, feeding animals, household chores, etc. An overwhelmingly large part of their time is spent on household related work (58 per cent) followed by productive work (mainly cultivation) (about 33 per cent), and community work (less than 10 per cent). While their male counterparts work about 7.5 hrs a day on an average, of which 61 per cent is productive work, approximately 21 per cent and 19 per cent each is spent on non-productive and community work, respectively. Women in distant villages spend more time on household related activities and less on productive activities while in nearby villages the opposite is the case – women spend more time on productive activities than on non-productive activities. This aspect has come out distinctly in the field data.

Table 14: Average hours of work per day by female

Altitude and village location		Hrs/day
Altitude	High	13.0
	Medium	13.0
	Low	12.1
	Total	12.7
Location	Near	12.4
	Distant	12.9
	Total	12.7

Source: Field work, April 2011

(iii) Vulnerability

The reasons for their vulnerability are varied and even complex in a typical male dominated society. Some of the important reasons are discernible from Table 15, based on women's perceptions gathered through separate focus group discussions (FGDs) with women. Lack of education and skills; lack of cash income; male dominated society and excessive workload emerge as the dominant reasons for their vulnerability. In any case, absence of ownership right on productive resources is not mentioned as an important reason for their vulnerability. Results from distant villages strongly indicate that lack of education and skills, lack of cash income and excessive drudgery are the principal reasons for their vulnerability. However, in the nearby villages lack of education and skills, male dominated society and lack of cash income appear to be stronger reasons. Absence of ownership rights on productive resources appears as a weak reason for vulnerability.

Table 15: Reasons for vulnerability of women as compared to men

Altitude and location of villages		Excessive drudgery due to family and household responsibilities	No right on productive resources	Lack of education and Skills	Male dominated society	No cash income earner	No gender mainstreaming policies	Other
Altitude	High	2 (4)	0	3	3	3	1	0
	Medium	2 (4)	1	4	2	2	1	1
	Low	2 (4)	0	4	2	3	1	0
	Total	6 (12)	1	11	7	8	3	1
Location	Near	3 (6)	0	6	5	4	0	0
	Distant	3 (6)	1	5	2	4	3	1
	Total	6 (12)	1	11	7	8	3	1

Note: Figures in parentheses indicate number of villages.

Source: Field work, April 2011

The discussions with womenfolk in these villages brought forth some of the distinct possible measures to reduce the situation of vulnerability among women. What comes out dominantly is the control over resources, access to education, training and skill development across all the villages. Gender sensitisation and mainstreaming policies, access to technologies which can reduce the drudgery and reservation in political and economic spheres are other important capacity variables to improve their situation. These measures have direct policy implications on reducing their drudgery and improving their status in the society.

In the gender literature it is often strongly advocated that women should be given property rights in order to involve them in decision making process and thereby empowering them. Surprisingly, hill women like women elsewhere in the country, do not own any property rights over land or other assets. Being the primary breadwinners, men exercise control over household income and are also the decision makers on how to spend or invest the money. Though women are the main contributors in cultivation and household food economy, yet they are seldom treated as breadwinners and hence have little control over income. However, in some cases it is seen that women do participate in controlling household income, particularly in educated families. In nearby villages, women have greater say in controlling household income than their counterparts in distant villages. The possible reasons for relatively greater control over household income in nearby villages are demonstration effects (caused by observation of others' actions), spread of education particularly among women that enhances women's earning power and greater say in

household decision making process. In distant villages, it is the opposite case as deep rooted cultural norms and practices inhibit them from entering the labour market and taking part in decision making process.

(iv) Economic inequality

Gender discrimination results in inequality in terms of education, health, employment, wages, entitlements and participation in decision making process. In order to reduce inequality, gender-focused approach to development is widely accepted as an affirmative action. Lack of education, lack of skills, gender biased cultural norms and values, and gender-ascribed roles have been the major reasons for greater economic inequality among the women. This has direct policy implications for formulating appropriate gender policies for empowerment of women on a sustainable basis.

The perceptions of villagers as recorded on enhancing the capabilities of women indicate some possible policy measures to improve their entitlements. Reducing drudgery, increased involvement in the decision-making role in community affairs, increasing access to education and skill development and gender-equality strategies are clear policy messages in order of priority.

(v) Involvement of women in the community

Involvement of women in participatory forestry, the *Chipko* Movement, is an important manifestation of mobilization of hill women in bettering their lot and making hill resources sustainable. Some of the important reasons for mass mobilisation are huge male specific out-migration, declining agriculture, precarious industrial base, illiteracy, gender based roles, shrinking natural resource base and greater risk of food security, etc.

IFAD funded Uttaranchal Livelihood Improvement Project for the Himalayas (ULIPH), popularly known as *Aajeevika* project, has played an important role in promoting livelihood activities such as increasing agriculture production, food and economic security and ensuring livelihood options for the rural poor. As a result of these interventions, number of self-help groups has sprung up in different fields. Women groups have become beneficiaries of these interventions in the surveyed villages.

The involvement of women in these community groups was distinctly visible across all types of villages and locations and their involvement was far more than their male

counterparts. The proportion of women is above 37 per cent (at the overall as well as gram panchayat level), which is more than the 33.3 per cent reservation mandated by the 73rd Constitutional Amendment Act. Uttarakhand has become the first state in the country to reserve 50 per cent of seats in panchayats for women for two succeeding terms. The Bill for increasing the reservation to 50 per cent in the panchayats was passed by the Uttarakhand Assembly in 2008. In every village, women have representations in panchayats irrespective of location and altitude. However, it has been noted in some villages that women are not active participants in community level decision making process due to their excessive workload at home and in farm.

(vi) Female headed households

It can be observed that 13 per cent of the households report themselves as women-headed households. This proportion is generally low in the households' demographic profile but in the context of hill regions, this is not an unusual phenomenon primarily because of high degree of male out-migration to the plains in search of jobs and livelihoods. The outflow of able-bodied males puts enormous burden on females in both farm and non-farm activities, including household chores.

Table 16 shows that out of the total households, female-headed households constitute 7.8 per cent in the upper social groups and 5.2 per cent among the lower social groups. However, a cursory look into the social group composition shows that female households are relatively higher among the lower social group households (14 per cent) than the upper social groups (12.4 per cent). It appears plausible in poor households with relatively higher dependency ratio, where able-bodied males are pushed out from the place of origin to various destinations in search of jobs and livelihoods. Although, outmigration tend to be higher among upper social groups for various reasons and more recent trend indicate that permanent migration has emerged as an important phenomenon among upper social groups with a view to bettering life and investing on children's education (Awasthi,2012). However, the present research has shown that intensity of outmigration among lower social group is higher compared to upper social groups. One can explain this phenomenon of outmigration mainly of short term nature which is more so distress form among lower social groups in selected villages.

Table 16: Distribution of female headed households in upper and lower social groups

Altitude/location of village		Upper social group	Lower social group	All hhs
Altitude	High	55(6.99)	39 (4.95)	787
	Medium	44 (9.40)	28(5.98)	468
	Low	29(7.45)	19(4.88)	389
	Total	128(7.79)	86(5.23)	1644
Location	Near	61(7.31)	44(5.27)	834
	Distant	67(8.27)	42(5.18)	810
	Total	128 (7.78)	86(5.23)	1644
Total hhs		1031	613	

Note: Figures in parentheses show percentages.

Source: Field survey, April 2011

V. Implications for Policy

The village study provides first hand intensive information about the nature of the problem by various disaggregates which often large surveys do not provide. Understanding poverty and gender issues from the perspective of field view is crucial to comprehend the development issues in order to capture the nuances of village economy. To this end, the study makes an attempt to capture the real view from the field and presents the findings which may be useful for policy interventions in study villages.

Poverty is more prevalent, severe, and uneven in mountain region owing to hill specificities that is often not captured in the usual surveys. For instance, the minimum requirements for food, energy and other basic needs are higher in this area due to climatic and weather conditions which is not taken in to account in consumption expenditures (Papola, 2002, 2012). Location of villages and social groups has profound implications on hunger and malnutrition of the people in the region. Poverty appears to be a location specific phenomenon and it is more severe in distant and remote villages than the nearby ones. Households located near roads villages have comparatively lower intensity of hunger than those in distant villages. Also, majority of the poor households are scheduled caste and scheduled tribes as compared to the upper social group households. Intensity of ultra poor or those consuming less than two meals a day is clearly discernible in the distant villages than the near located ones. Similarly, proportion of ultra poor is highest among the scheduled caste (*dalit*) households. Also 'not so poor' proportion is highest among upper social groups and lower among lower social groups. The inequality appears to be sharper in the better-off households and results appear to be consistent. Scheduled castes have the lowest proportion of better-off households and upper social groups have much higher proportion. It seems reasonable that villages near the road-heads have better opportunities for development activities than the distant ones. From the policy point of view, it is extremely important to

develop both economic (roads, bridges, portable water supply, electricity, telecommunication, banks and markets) and social infrastructures (schools, health centres, community facilities etc.) which have a strong impact on bettering the human life.

The scheduled castes have been the most disadvantaged section in the social class structure in the region and they have little land of their own as they have been providing services (*jajmani*) to the upper castes. Landlessness among scheduled castes has been more acute but over the years government policy has helped them to own some land. Also, in general, their educational levels are also low as compared to other social groups. There is a clear need for inclusive policies for scheduled caste population in terms of providing land to landless and special educational and skill development programmes for improving their livelihoods and income opportunities. Though, cultivable land is scarce and the only possibility remains to confiscate abandoned agricultural land and distribute to scheduled caste population having little or no land. and special educational and skill development programmes for improving their livelihoods and income opportunities.

Gender inequality is not only related to work but also to education, health and other productive resources and also to participation in economic activities. Hill women are more deprived than their men folk primarily because women bear the burden of cultivation and household chores, and though women manage household's food security yet males are treated as the main breadwinners. The drudgery of hill women is enormous as they work for about 12-14 hours per day. The drudgery is more severe in distant and remotely located villages. Women in distant villages spend more time on household related activities and less on productive activities while villages located near roads the opposite is the case. Reducing drudgery, increased involvement in the decision-making role in community affairs, increasing access to education and skill development and gender-equality strategies are clear policy messages in order of priority.

In a situation of a very high male out-migration, women manage land and agriculture. But without ownership of land they are disadvantaged in securing credit, entering into contracts, or other activities of agricultural management. Women have equal entitlement to ancestral land in Hindu succession law, but this remains largely unimplemented. Women's ownership of land is a key measure that could improve women's management of agriculture and women's own empowerment.

Out-migration from the hill region is a most conspicuous phenomenon resulting primarily due to low economic base, which in turn, results in low employment and earning opportunities in the region. The intensity of out-migration is high and it is the most common

household strategy for supplementing the consumption needs at the source area. An overwhelmingly large number of the migrants are without requisite education levels and marketable skills, resulting in low incomes which add vulnerability at the place of destination. From the policy point of view, it is necessary to upgrade their education, skills and competencies in order to compete for better jobs in the urban centres.

From the long-term development perspective, agriculture-field crops have limited scope for increased productivity, employment and incomes due to limitations posed by the hill specificities in agriculture. Therefore, promotion of various non-farm activities, in particular, niche products, has potential for promotion of employment and incomes of people. The region offers potential for development in view of its specific resource endowments and relative advantages such as tourist amenities services and cultivation of high value non-food crops (fruits, vegetables, seeds, medicinal plants, exotic flowers, mushroom, etc.). There is a huge scope for promoting new concepts of tourism like pilgrimage tourism, wildlife tourism, trekking, adventure sports, river rafting and winter sports, etc. Tourism and amenities services contribute not only directly (tourist flow) but also indirectly through developing and supporting many tourist related activities (e.g. vegetable production, raising poultry, handicrafts, etc.). The contribution of travel and tourism to GDP is around 9 per cent. Though income originating from tourism has been impressive over the years, yet the gain from it has been minimal for the local economy due to low retention capacity of this income. This is primarily due to poor linkages generated by the tourism industry to the local production base; as a result, large part of income flows outside the local economy for procuring goods and services. It is often argued that tourism industries in the mountain economies generate considerable leakages rather than strengthening linkages. There are evidences to show that tourism activities have helped reducing poverty considerably in some of the hill regions in China and India (Nathan et al., 2013). Study by Dev Nathan et al. shows that tourism in the Lijiang region in China is a major source of income of the community that has helped reducing poverty significantly. Similarly, in some of the areas of Uttarakhand hill region tourism combined with migration and migrants' remittances has helped reducing poverty. Poverty reducing impact of tourism can be achieved considerably if linkages to local economy are strengthened through appropriate institutional mechanism within the perspective of mountain development.

The issues of poverty and gender are, therefore, central in the hill region of the state and they need to be dovetailed within hill development framework. This would require sector-specific development strategies integrating environmental, economic and social components of sustainable hill development.

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