

**OUT-MIGRATION FROM HILL REGION OF UTTARAKHAND:
ISSUES AND POLICY OPTIONS**

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CONTENTS

| | <i>Page No.</i> |
|---|-----------------|
| I. The Issue | 4 |
| II Demographic Changes in Uttarakhand | 7 |
| III. Growth and Regional Inequalities | 11 |
| IV. Outmigration, Magnitude and Its Impact | 14 |
| <i>Magnitude</i> | 14 |
| <i>Migration process</i> | 18 |
| <i>Contribution of Migration to Household Income</i> | 19 |
| <i>Impact of Migration on Village Economy and Society</i> | 20 |
| <i>Impact of Migration on Women's Work</i> | 25 |
| V. Understanding Drivers of Migration | 26 |
| <i>Employment and Its Quality</i> | 28 |
| <i>Low Earnings</i> | 33 |
| <i>Village Infrastructure, Its Quality and Infrastructure</i> | 36 |
| <i>Constraints Identified by Villagers</i> | 39 |
| VI. Policy Initiatives | 41 |
| <i>Policy Issues</i> | 44 |
| <i>Lack of Pro-active Policies for attracting Return Migrants</i> | 45 |
| <i>Role of Migrants and Their Diasporas</i> | 46 |
| VII. Conclusion | 47 |
| <i>References</i> | 50 |

| | Tables | <i>Page No.</i> |
|----------|---|-----------------|
| Table 1 | Demographic Features of Uttarakhand and India, 2011 | 8 |
| Table 2 | Household Size-Class Distribution of Villages and Population, 2011 | 10 |
| Table 3 | Village-size wise Population Growth, 2001-11 | 10 |
| Table 4 | Magnitude of Out-migration | 16 |
| Table 5 | Educational Level of Sample Population (7 Years plus) by Type of Household | 17 |
| Table 6 | Number of Households who have completely Out-migrated during last Ten Years in Sample Villages | 18 |
| Table 7 | Use of Remittances | 21 |
| Table 8 | Work Participation Rate (%) | 28 |
| Table 9 | Status of Employment among Non-migrant Workers (%) | 29 |
| Table 10 | Status of Employment | 29 |
| Table 11 | Structure of Employment among Social Groups (Per cent) | 33 |
| Table 12 | Percentage Distribution of Total Persondays by Range of per Personday Average Earnings in Hill districts of Uttarakhand | 34 |
| Table 13 | Reasons for Migration | 35 |
| | Figures | |
| Figure 1 | Sectoral Composition of GSDP in Uttarakhand (2002-12) (at 2004-05 prices) | 12 |
| Figure 2 | Per capita Net District Domestic Product, 2010-11 (at current prices) (Rs. '00) | 13 |
| Figure 3 | Average Monthly Income and Expenditure of Agriculture Households (Rs.) | 14 |
| Figure 4 | Indebtedness among Agriculture Households in Select States, 2013 | 14 |

OUTMIGRATION FROM HILL REGION OF UTTARAKHAND: ISSUES AND POLICY OPTIONS

I. THE ISSUE

A distinct feature of economic growth in India relates to increase in inequalities across its regions and various social groups over the last six decades of development planning (Planning Commission, 2013). The persistence of inequalities in income levels is largely attributable to the failure to develop basic economic infrastructure across several regions of the country and unequal access to income opportunities for persons belonging to various social groups. This led occasionally to a demand for smaller states in India. The arguments in the backdrop were of better governance and resultant economic efficiency in the use of state resources, thereby leading to improved income opportunities. The creation of Uttarakhand as a new state of the Indian Union on November 9, 2000 is also largely linked with the economic backwardness of the region. The major aspirations of common people from their new State included, among others, creation of better employment opportunities for them. This in turn was expected to arrest the existing large scale out-migration of able-bodied youth, mainly educated males, from the hill regions of Uttarakhand. Other expectations relate to improved access to infrastructure facilities such as electricity, road, telecommunications, health and education, thus leading towards better living conditions for the population residing in the hill districts of the State.

The development experience of Uttarakhand over a nearly one and half decade has been quite encouraging in respect to achieving high economic growth. However, such growth has been mainly centred in three plain districts of the State, and ten hill districts remaining far behind in this increasing prosperity of the state (GoUK, 2013-14 Annual Plan). Most of the economic opportunities have been developed in plain parts of the state. As a result, population in hill region of the state has yet to struggle hard for eking out their livelihoods largely from agriculture by putting larger numbers of their household members into the labour force (Mamgain, 2004). As a result, the pace of out-migration could not slow down from the hill districts of the state after its formation. Rather it has accelerated during the recent years. This is reflected by the latest results of Population Census 2011. It shows a very slow growth of population in most of the mountain districts of the state. An absolute decline in the population in two districts, namely,

Almora and Pauri Garhwal in 2011 as compared to the year 2001 is a testimony of huge out-migration. Historically, these districts had well developed social indicators in comparison to many other districts of the state. The pace of out-migration is so huge that many of the villages are left with a population in single digit. In fact, this situation seems to arise due to an alarming increase in the out-migration from these two districts during the past, which is mainly associated with the lack of economic opportunities in the region and increasing pressure on local economy. In brief, the fruits of development could not reach to these districts which could have otherwise created out-migration reducing impact in the form of increased opportunities of economic and social well-being. The alarming de-population of villages in remote and border areas has raised the concern of security of the borders of the country falling along with the hill districts of Uttarakhand. This is in fact, a serious policy challenge that deserves immediate attention.

It is believed that due to lack of any policy and programme for attracting the skills and abilities of return migrants, a large number of out-migrants tend to settle permanently outside their villages along with their households. This has increased the tendency of out-migration of an entire household. The migration has also adversely affected the source areas in terms of loss of educated and experienced human resources, which could otherwise would have been utilized locally (Mamgain, 2004). The increased migration process in Uttarakhand's hill districts thus could hardly transform the local economy in the form of increased flow of remittances as has been seen in Kerala and to some extent, Bihar (Deshangikar and Farrington, 2009).

At the same time, there are evidences to suggest that how farm diversification in Rawain valley in Uttarkashi district has transformed its local economy with the help of local development agencies and government support. Evidence also suggests the role of NGOs in promoting cooperatives of small and marginal farmers in hill districts of Pithoragarh and Champawat and reducing their vulnerabilities (CBED, 2012). These experiences have encouraging impact on the local economy in a form of reduced out-migration of semi-skilled and unskilled poor cultivating households associated with their improved their earnings.

There are several aspects relating to migration that need to be looked at from the viewpoints of enhancing understanding and policy and action. What is the magnitude of out-migration? Are people being pushed by depletion of livelihood resources or are migrating because they are in a position both in terms of capabilities and opportunities for really better avenues elsewhere? Migration of the whole family and villages which leaves the question of the use of abandoned resources for economic and environmental regeneration needs to be

examined while partial family migration raises the issues of improved human to resources ratio at the origin and betterment of economic situation alongside possible deterioration in social situation at both ends. What is happening to the linkages between the migrants and family left behind? Are migrants contributing to the improvement not just of the current economic situation of the members left behind but also in improving the resource base, both physical and human, at the native place? Which are the regions or pockets more prone to migration? Is location and availability of infrastructure having any impact on reducing out-migration and inducing return migration? Whether development interventions could make any impact on attracting return migration and discouraging out-migration? How to attract return migration to contribute to the local economy? Why migration could not generate multiplier impacts in the local economy? What are the alternative technological options to improve the livelihood options of the people of the region?

Addressing these questions relating to migration and return migration is, thus, an important issue that deserves serious attention at the policy level, particularly in the context of providing feedback to Government of Uttarakhand for developing its policies and programmes to restrict distress out-migration and also formulating its 'brain gain' policy. This study attempts to answer some of the above questions by drawing upon largely on the sample survey specifically undertaken in 18 villages in Pauri Garhwal and Almora districts during the last quarter of the year 2013, and also earlier extensive field based work in 100 villages across ten hill districts of Uttarakhand during the year 2005 by one of the present authors (Mamgain et al. 2005).

The structure of the study is as follows. It examines the demographic changes in hill and plain districts of Uttarakhand in Section II. The growth and structure of income (gross domestic product and district domestic product) is analysed in Section III to support the argument that most of the income generating economic activities are highly concentrated in plain districts of the state. Section IV analyses the nature, magnitude and processes of out-migration and its impact on household economy. It also argues how migration has almost failed to generate any multiplier effects in the village economy. The section depicts the hardships of village life in general and women in particular in Hill Region of Uttarakhand in the wake of increasing out-migration. The drivers of outmigration are analysed in Section VI, highlighting poor quality of asset base, employment and village infrastructure. The policy paradigm is critically examined in Section V for its inability of generating remunerative employment opportunities and quality

infrastructure in hill districts and resultant out-migration for creating present demographic vacuum. The Concluding Section offers policy interventions to promote employment opportunities in Hill Region of Uttarakhand.

II. DEMOGRAPHIC CHANGES IN UTTARAKHAND

With a population of 10.09 million in 2011, Uttarakhand is at 20th position among Indian states. According to 2011 Population Census, nearly 70 per cent of Uttarakhand population lives in its rural areas. The ten hill districts (Hill Region) of the state account for 48.1 per cent of its population. The state has witnessed significant changes in its demographic structure, particularly during the decade of 2001-2011—a period of high economic growth in the state. It has registered a moderate growth in its population (1.74 per cent per annum) during the decade 2001-11, which is comparatively higher than the national average. Moreover, the hill districts of the state witnessed much lower growth in population (0.70 per cent) as compared to plain districts (2.82 per cent). In fact, there has been an absolute decline in population in two districts of Almora and Pauri Garhwal during the period 2001-2011 (registering a negative compound annual growth of -0.13 and -0.14 respectively). Other hill districts with very low growth in their population are Tehri Garhwal, Bageshwar, Chamoli, Rudrapur and Pithoragarh. Overall, the share of ten hill region in the population of Uttarakhand has declined substantially by about five percentage point from nearly 53 per cent in 2001 to about 48 per cent in 2011. While population in hilly districts predominantly resides in rural areas, a sizeable 40 per cent of population in three plain districts of the state resides in urban areas. In other words, these districts have emerged predominant centres of economic activities of Uttarakhand. Such demographic pattern in Uttarakhand is largely attributed to a huge out-migration from the hill regions to plain districts of the state. The plain districts of the state have also attracted migration from other states of India along with their economic progress.

Marginalised groups such as SCs and STs constitute over 21.6 per cent of total population in Uttarakhand. The proportion of SC population has substantially increased in the state during the period 2001-11. The opposite is true in case of STs. The proportion of SC population is comparatively more in Hill districts which increased by almost one percentage points over 2001. The opposite is true for STs, whose share in hill population sharply declined

during the decade (Table 1). The significant changes in the social composition of population also indicate a faster out-migration among other social groups (mainly upper caste Hindus) from hill districts of Uttarakhand.

Table 1
Demographic Features of Uttarakhand and India, 2011

| <i>Sl. No.</i> | <i>Variable</i> | <i>Uttarakhand</i> | | | <i>India</i> |
|----------------|------------------------------------|--------------------|--------------------|--------------|--------------|
| | | Hill areas | Plain areas | Total | |
| 1. | Population (in millions) | 48.50 | 52.36 | 100.86 | 1210.86 |
| 2. | 0-6 years population (%) | 13.18 | 13.68 | 13.44 | 13.60 |
| 3. | Population growth rate (2001-2011) | 0.70 | 2.82 | 1.74 | 1.64 |
| 4. | Sex ratio (all age groups) | 1037 | 900 | 963 | 943 |
| 5. | Sex ratio (0-6 age group) | 894 | 888 | 890 | 919 |
| 6. | SC population (%) | 20.91 | 16.78 | 18.76 | 16.6 |
| 7. | ST population (%) | 1.05 | 4.60 | 2.89 | 8.6 |
| 8. | % Urban population | 17.06 | 42.43 | 30.23 | 31.2 |
| 9. | Literate population (%) | 80.87 | 76.90 | 78.82 | 73.0 |
| 10. | Workers (main plus marginal) | 43.71 | 33.47 | 38.39 | 39.8 |
| 11. | Male WPR | 48.32 | 50.84 | 49.67 | 53.3 |
| 12. | Female WPR | 39.26 | 14.16 | 26.68 | 25.5 |

Source: Calculated from Primary Census Abstract, India and Uttarakhand, 2011

The sex ratio in hill areas has been comparatively high as compared to plain areas of the state (Table 1). Such differences are not revealing in case of child sex ratio between hill and plain districts of the state. This is, thus, mainly attributed to high incidence of male out-migration from the hill areas (Mamgain, 2004). It is intriguing to observe a sharp decline in child sex ratio by over 33 points in Hill Region of the state, whereas that remained almost same in plain districts between 2001 and 2011. This throws up several questions such as growing passion for male child among hill population and easy accessibility to select sex determination tests and female feticides, mostly accessible in the medical facilities in the plain areas of the state. This revealing phenomenon requires further in depth inquiry.

With a literacy rate of over 78.8 per cent Uttarakhand is much ahead to national average. Literacy levels of population residing in hill areas are much higher than plain areas of the state; however, such differences have significantly reduced over the decade with a faster improvement in literacy levels in plain districts of the state. Gender-wise, literacy levels of females are lower both in hill and plain areas of the state.

We have analysed the demographic changes in two districts of Almora and Pauri Garhwal (districts having absolute decline of 8061 and 9807 persons in their population, respectively between 2001 and 2011) across different village sizes. While a large number of villages (about 45.4 per cent) in Pauri Garhwal have an average size of less than 25 households, the village size in Almora is relatively bigger. Villages with over 100 households account for 7.3 per cent and 15.5 per cent of total villages in Pauri Garhwal and Almora districts, respectively. In terms of share in population, the smaller villages (less than 50 households) account for about 36 per cent population of Pauri Garhwal villages and about 24 per cent that in Almora. Larger villages (with more than 100 households) account for 35 per cent and 43 per cent of total village population in Pauri and Almora respectively (Table 2). In other words, population is widely dispersed across various sizes of villages, yet large villages though numbering few have largest share in population in both the districts.

How has been the population growth across different size groups of villages during 2001-2011? By taking 2011 as base year for the categorization of villages into their household class sizes, we have traced back the villages in 2001 for understanding the increase/decrease in their population and number of households. It emerges that maximum absolute decline in population has been in smaller villages in both the districts. This has been also observed across villages with up to 124 households. In rest of the bigger villages population growth has been rather positive and well above one per cent during the decade 2001-2011 (Table 3). It merits mention that the bigger villages are mainly the rural market places which have grown over the years. In later section, we shall argue that in smaller villages the hardships of social and economic life become more pronounced as compared to large villages, thus, posing as a serious reason for out-migration.

Table 2
Household Size-Class Distribution of Villages and Population, 2011

| <i>Village size (No. of HHs)</i> | <i>Pauri Garhwal (%)</i> | | <i>Almora (%)</i> | |
|----------------------------------|--------------------------|-------------------|-------------------|-------------------|
| | Villages | Population | Villages | Population |
| 1-24 | 45.44 | 12.57 | 29.21 | 6.96 |
| 25-49 | 28.77 | 23.33 | 27.53 | 16.91 |
| 50-74 | 12.52 | 17.10 | 17.84 | 18.51 |
| 75-99 | 5.95 | 12.00 | 9.88 | 14.51 |
| 100-124 | 3.11 | 8.02 | 5.41 | 10.48 |
| 125-149 | 1.39 | 4.57 | 3.98 | 9.55 |
| >149 | 2.82 | 22.41 | 6.15 | 23.07 |
| All | 100.00 | 100.00 | 100.00 | 100.00 |
| Number | 3090 | 560464 | 1609 | 410062 |

Source: Calculated from Village and Town Directory, Population Census, 2011

Table 3
Village-size wise Population Growth, 2001-11

| <i>Village size</i> (No. of Hhs. in 2011 as reference category) | <i>Pauri Garhwal</i> | <i>Almora</i> |
|--|----------------------|---------------|
| 1-24 | -1.34 | -0.90 |
| 25-49 | -1.54 | -1.78 |
| 50-74 | -1.41 | -0.44 |
| 75-99 | -0.54 | -0.44 |
| 100-124 | -0.79 | -1.93 |
| 125-149 | 1.02 | 0.66 |
| >149 | 3.62 | 1.19 |
| Total | -0.25 | -0.44 |

Source: Calculated from Village and Town Directory, Population Census, 2001 and 2011

The above demographic features clearly show out-migration becoming a widespread phenomenon in the Hill Region of the state, more so in recent decade 2001-2011. The magnitude is so huge and widespread that there are about 375 villages representing 2.75 per cent of total villages in hill districts which have been almost abandoned in the wake of out-migration. These villages have turned into “ghost villages” in the hill districts of Uttarakhand. In Pauri Garhwal districts, a highest 122 villages (representing about 4 per cent of total villages) have been left with a population of single digit in 2011 (Annexure Table 1). Though, there has been a history of high incidence of migration from hill region but at the same time a large number of migrants tended to return their villages. This process seems to have reversed now. There is a spurt in the

outmigration of households. This situation can certainly not occur due to all round development in these regions. In fact, this situation seems to arise due to an alarming increase in the out-migration from Hill Region and more so from Pauri Garhwal and Almora districts during the past, which is mainly associated with the lack of development opportunities in the region and increasing pressure on local economy. In brief, the fruits of development could not reach to these districts which could have otherwise created out-migration reducing impact in the form of increased opportunities of economic and social well-being.

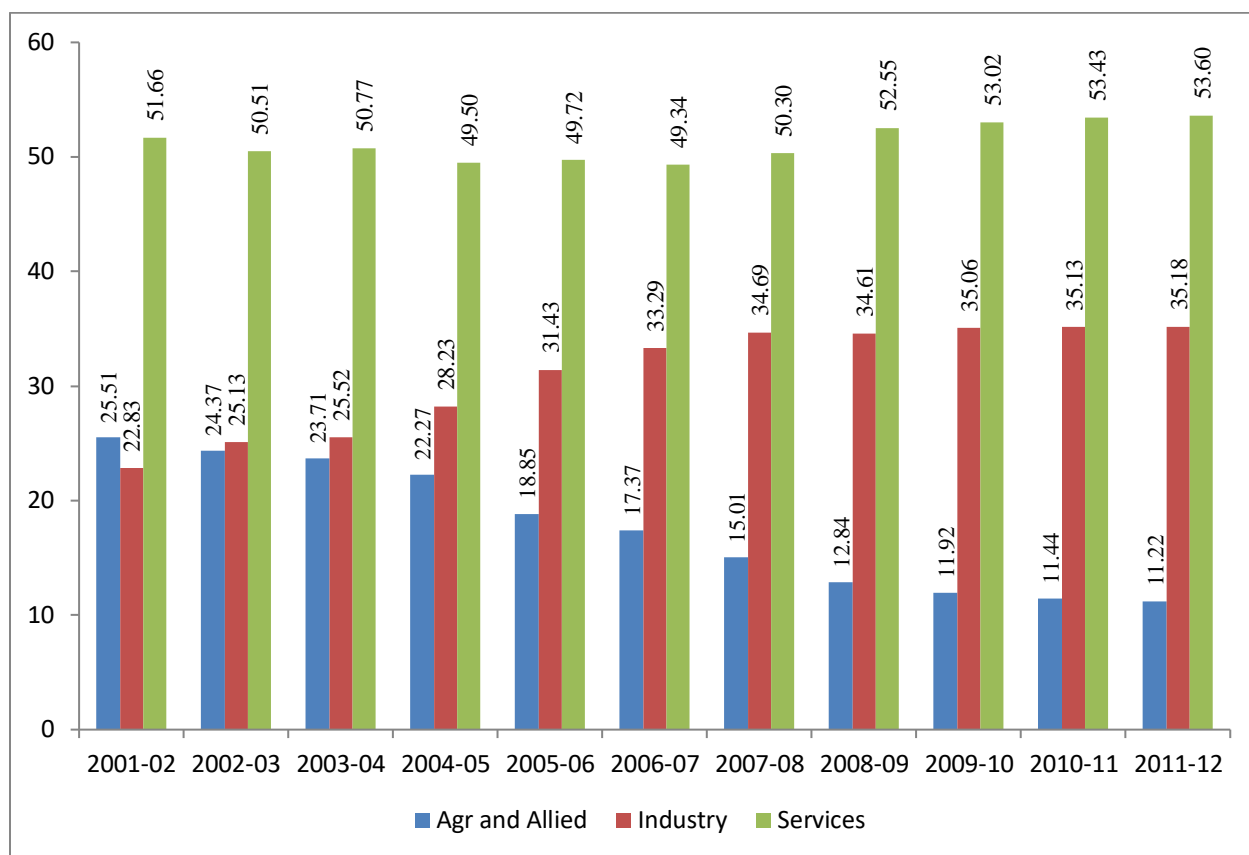
Such type of phenomenal changes in the demography of the region is a culmination of various factors and has become a prime matter of concern for polity and society of the state. It assumes more importance due to the fact that the main plank for the demand for the separate state of Uttarakhand had been its economic backwardness due to which many people had to resort to distress-driven migration to support their families. Such process still continues on a larger scale and voices are now increasingly being raised about the utility of separate state for the people residing in hill districts of Uttarakhand. Nobody knows if another movement again starts for the separate hill state within Uttarakhand itself. Unfortunately, the issue of outmigration could hardly find any space in the election manifestos of major political parties of the state during state assembly elections in 2012. This is in fact, a serious policy challenge that deserves immediate attention.

III. GROWTH AND REGIONAL INEQUALITIES

For understanding the dynamics of out-migration, it will be useful to briefly mention about the pattern of economic growth and regional inequalities in Uttarakhand. Since its formation, Uttarakhand witnessed an impressive growth of over 9 per cent in its gross state domestic product (GSDP) during the period 2001-02 to 2011-12 (at 2004-05 prices). As a result, per capita income of the State almost increased by 4.5 times from Rs. 19164 in 2001-02 to Rs. 92911 in 2011-12, and bypassed the national average growth since 2005-06 onwards. This growth is largely resulted by a rapid growth of GSDP in secondary and tertiary sectors. As a result, the structure of GSDP has changed considerably in the State. The share of agriculture in GSDP declined substantially by about 15 percentage points-- from 26 per cent in 2001-02 to 11.2 per cent in 2011-12. The share of secondary sector increased by about 12 percentage points from 23 per cent to 35 per cent, and that of services sector increased marginally by nearly three

percentage points from 51 per cent to 54 per cent (Figure 1). The credit for this impressive growth largely goes to the Industrial Policy of Uttarakhand which provided several incentives to attract private industries to the State.

Figure 1: Sectoral Composition of GSDP in Uttarakhand (2002-12) at 2004-05 prices



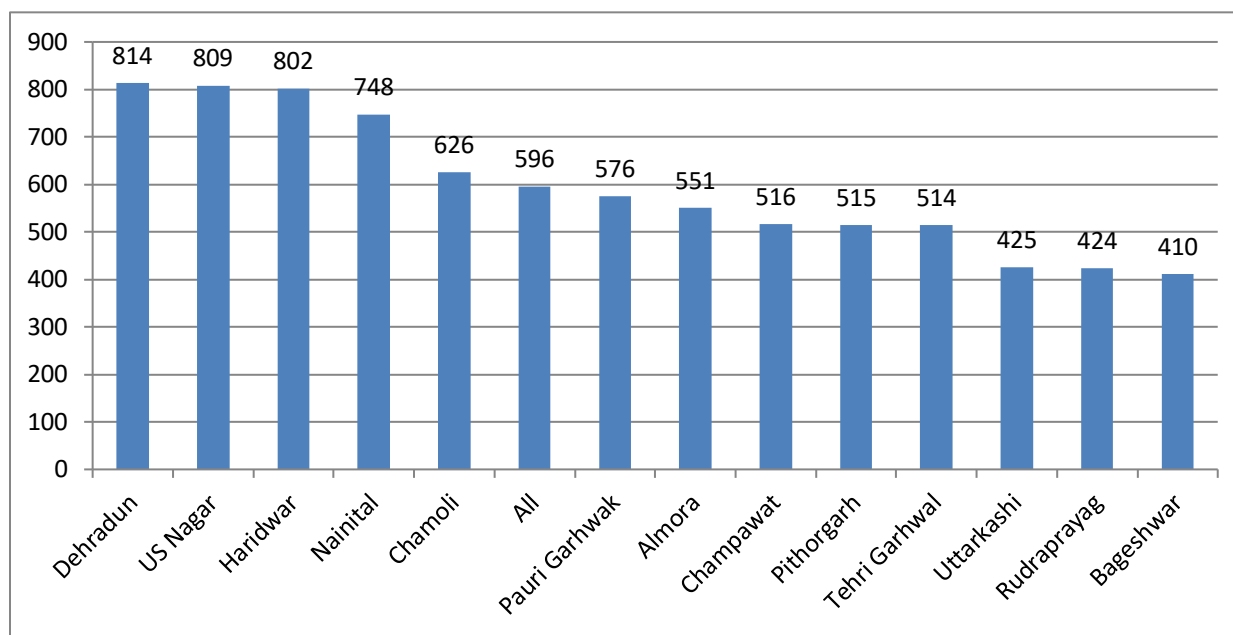
Source: Author's calculation based on CSO Data.

Uttarakhand has also made tremendous progress in reducing the incidence of poverty amongst its people. The percentage of poor population in the State decreased to 11.3 per cent in 2011-12 from 31.8 per cent in 2004-05 (Planning Commission, 2007 and 2014). However, there remain huge income inequalities across the hill and plain districts of the State. Per capita income (measured in terms of per capita net district domestic product) in Bageshwar district is less than half of that is in Dehradun (Figure 2). This is also much less than the state average in other hill districts except Nainital and Chamoli. Rudrapryag district has also low income despite having intensive religious tourism. Such income from services is not generally reflected in the district income figures. However, most of the income generating activities such as industrial units, service and business enterprises are concentrated in plain districts of the State, whereas the

population in hill districts is mainly dependent on agriculture and allied activities and that too largely carried as subsistence with abysmally low levels of productivity (Mamgain, 2004).

According to latest NSSO 70th Round (January-December 2013), nearly 72 per cent of net income of agriculture households in Uttarakhand is contributed by cultivation (53 per cent) and animal husbandry (18 per cent). Wages contribute another 22.7 per cent. The corresponding share of at national level is nearly 60 per cent. In neighbouring state of Himachal Pradesh the share is about 45 per cent, indicating larger dependence on agriculture and allied activities in Uttarakhand. The average monthly income per agriculture household, therefore, is low in Uttarakhand (Rs. 4701) as compared to India (Rs.4923) and Himachal Pradesh (Rs. 8777).

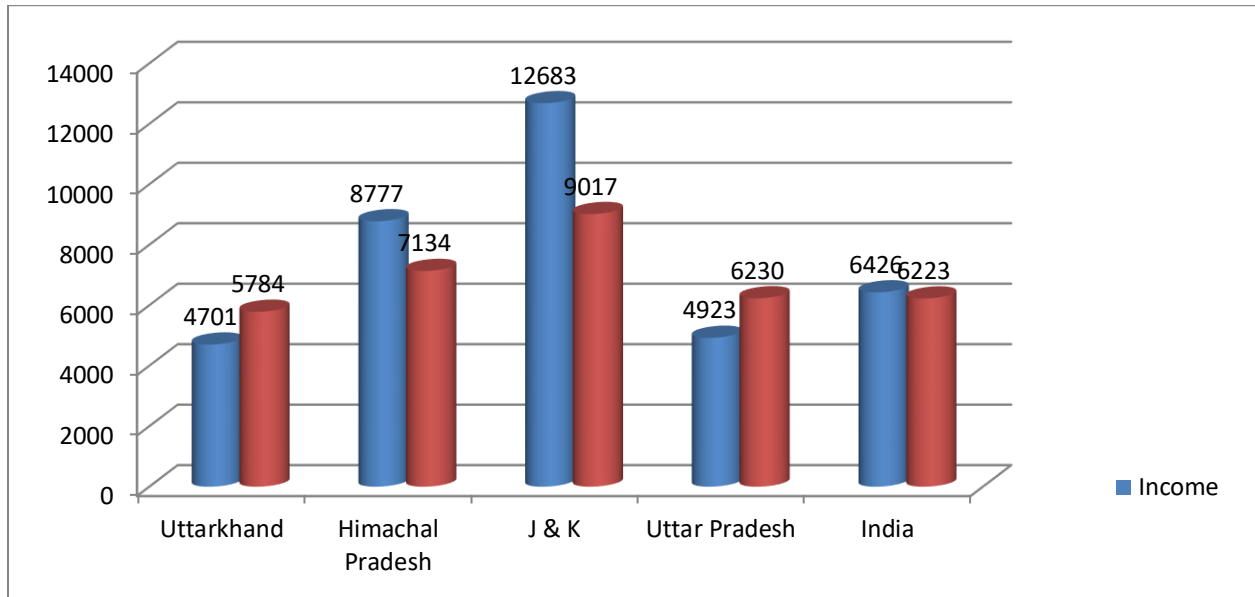
Figure 2: Per capita Net District Domestic Product, 2010-11 (at current prices) (Rs. ‘00)



Source: Statistical Dairy Uttarakhand, 2011-12, Directorate of Economics and Statistics, Government of Uttarakhand.

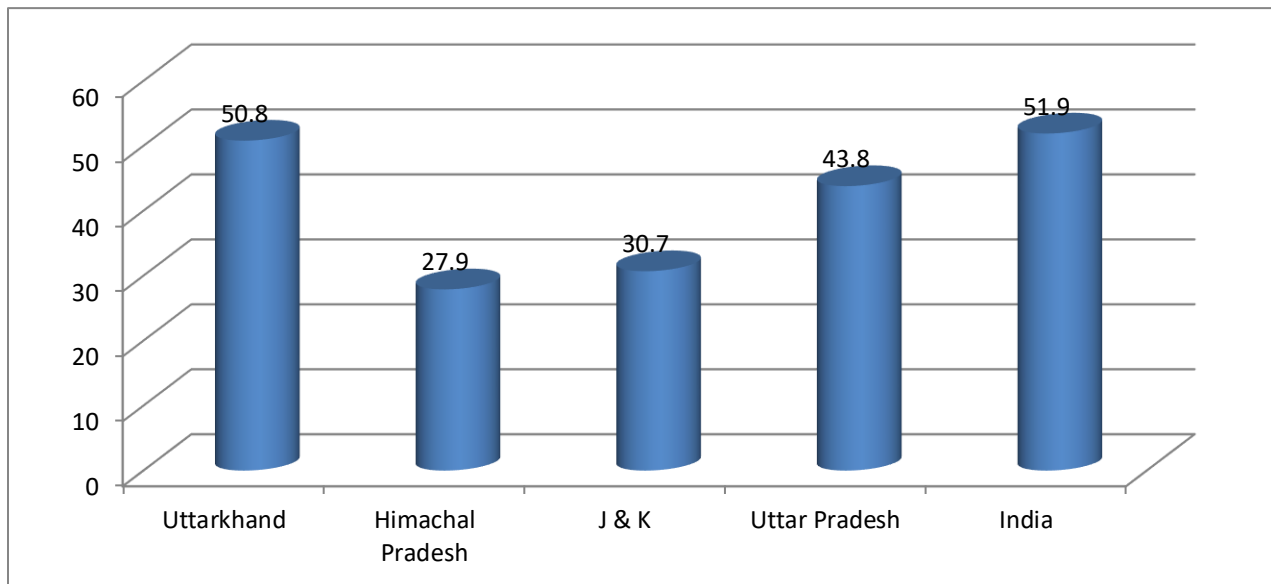
The incidence of indebtedness is also comparatively high among agriculture households in Uttarakhand as compared to Himachal Pradesh and Jammu & Kashmir. Even it is high in comparison to Uttar Pradesh (Fig. 4). The average amount of debt per agriculture household is Rs. 35600 in 2013. This stands much higher than Himachal Pradesh (Rs. 28000). The national average being Rs. comparatively higher at Rs. 47000 (NSSO, 2014).

Figure 3: Average Monthly Income and Expenditure of Agriculture Households (Rs.)



Source: NSSO 70th Round, GoI-NSSO, 2014

Fig.4: Indebtedness among Agriculture Households in Select States, 2013



Source: NSSO 70th Round, GoI-NSSO, 2014

IV. OUTMIGRATION, ITS MAGNITUDE AND IMPACT

Migration in Uttarakhand has been a historical process. The demography and ethnography of Hill Regions in Uttarakhand has been influenced by a large in-migration from other parts of the

mainland during 11th and 12th century and later years (Atkinson, 1822-88; Walton, 1910). Natives as well as migrants cleared jungles and developed farm land for cultivation through their hard labour over centuries. With the creation of Garhwal and Kumaon army Regiments during the British rule, local youth got regular employment on a large number for the first time in the region. This necessitated out-migration of local youth for few years who generally returned to their villages after the end of their service tenure. There had been seasonal migration of males from upper hills to clear the jungles in lower Shivalik hills (Walton, 1910). This initial exposure to outside world had a major influence on building acceptance of livelihood based on migration. The situation has changed substantially in recent decades with a large number of population out-migrating permanently along with families from the Hill Region of the State mainly to eke out their livelihoods and better future of their children. This has become a widespread phenomenon in hill districts, resulting in absolute decrease in population in few districts such as Almora and Pauri Garhwal and very slow growth in other hilly districts during recent decade.

A number of studies have been undertaken in the past to understand the dynamics of out-migration and its impact on local economy (see Bora, 1996; Mamgain, , 2004; Awasthi, 2012). For understanding the recent patterns in migration, we have collected information from 18 sample villages from Pauri Garhwal and Almora districts covering 217 households during the period September-December 2013.¹ Our survey results show as high as 88 per cent of sample rural households reported at least one person migrating for employment from their households (Table 4). Such widespread magnitude of migration has been also reported by earlier studies (see Bora, 1996; Mamgain, et al, 2005; Awasthi, 2012), which of course have been intensified in recent decade.

In conformity with earlier studies on migration, most of the sample migrants are men, young, educated and belong to Other castes in hill districts of Uttarakhand. About 86 per cent of migrants are males, a highest 51.4 per cent are in the age-group 30-49 years and another 35.5 per cent in the age-group 15-29 years. The percentage of SCs is proportionately less among

¹ The sample villages were selected purposively from amongst those which witnessed absolute decline in their population during the decade 2001-2011 by taking into account size as well as social composition of villages. The sample consists of 217 rural households. For our purpose, we have excluded migration related to marriage. Out-migration is defined as those household members who were not living in their villages at least since last two months preceding the date of survey due to their job and/or education.

migrants. This is mainly due to weak social networks of SCs at the place of destination. However, their proportion has substantially increased in recent years.

Table 4
Magnitude of Out-migration

| <i>Duration</i> | <i>Male</i> | | <i>Female</i> | | <i>Person</i> | |
|---|---------------|-----------------|---------------|-----------------|---------------|-----------------|
| | Number | Per cent | Number | Per cent | Number | Per cent |
| Short duration migration (2-6 months) | 36 | 11.0 | 3 | 4.6 | 39 | 10.0 |
| Long duration migration (6-12 months) | 251 | 77.0 | 35 | 53.8 | 286 | 73.1 |
| Permanent migration (more than 12 months) | 39 | 12.0 | 27 | 41.5 | 66 | 16.9 |
| Total | 326 | 100.0 | 65 | 100.0 | 391 | 100.0 |
| Sample population | 650 | 50.2 | 468 | 13.9 | 1118 | 35.0 |

Source: Field Survey

A distinguishing feature of out-migration in Uttarakhand is its being of a predominantly longer duration. In our sample, about 90 per cent of out-migrants are longer duration migrants (Table 4). This is contrary to the pattern observed in several studies in other parts of the country which report the preponderance of short duration migration among the rural households—mostly of a circular nature (see Srivastava, 2011; Unesco, 2013). This is mainly due to the fact that an overwhelming majority (nearly 74 per cent) of out-migrants of Uttarakhand has salaried jobs which are generally of longer duration. Alone 16 per cent of migrants are employed in government salaried employment and another 12 per cent are students. Another 10 per cent are engaged in domestic works, who are largely women migrants. A fairly high percentage of women (nearly 27 per cent) are students. Unlike rural out-migrants from Bihar or eastern Uttar Pradesh, they do not migrate to agriculturally prosperous regions for short-term employment in agriculture (Mamgain, 2004). Their relatively better educational attainments have facilitated them to seek employment in salaried jobs, though necessarily not fetching decent income to most of them.

Migrants have comparatively better educational attainments as compared to their non-migrants counterparts. Nearly half among them have high school/higher secondary level education and another 36.4 per cent are graduate and above (Table 5). The inter-social group

differences in educational levels are also quite significant with SCs remaining much behind than their Other caste counterparts (Table 5).

Table 5
Educational Level of Sample Population (7 Years plus) by Type of Household

| <i>Educational level</i> | | <i>Type of household</i> | | <i>Total</i> |
|--------------------------|----------------------------------|--------------------------|--------------------|--------------|
| | | Migrant | Non-Migrant | |
| All | Illiterate | 1.3 | 15.1 | 10.0 |
| | Up to Middle | 12.4 | 45.7 | 33.4 |
| | High School and Higher Secondary | 49.9 | 30.3 | 37.5 |
| | Graduate and above | 36.4 | 8.5 | 18.8 |
| SC | Illiterate | 1.1 | 19.1 | 13.7 |
| | Up to Middle | 23.9 | 56.9 | 46.9 |
| | High School and Higher Secondary | 59.1 | 20.1 | 31.8 |
| | Graduate and above | 15.9 | 3.4 | 7.2 |
| General | Illiterate | 1.4 | 13.3 | 8.5 |
| | Up to Middle | 9.0 | 40.5 | 28.0 |
| | High School and Higher Secondary | 46.7 | 35.0 | 39.7 |
| | Graduate and above | 42.9 | 11.0 | 23.7 |

Note: Migrant household is defined a household which has at least one person migrated out for job and/or education.

Yet another dimension relates to complete out-migration of households from the village. In our sample villages, as high as 253 households have completely out-migrated in Pauri Garhwal, and another 245 households in Almora district over a period of ten years. These numbers constitute more than half of the number of existing households in the sample villages (Table 6). One can see a number of locked and depilated houses and barren parcels of erstwhile cultivated land in several villages in hill districts of Uttarakhand. As high as half of the Brahmin households have out-migrated completely from their villages both in Garhwal and Almora districts. Such tendency is much less among SC households, mainly due to their poor incomes.

Table 6
Number of Households who have completely Out-migrated during last Ten Years in Sample Villages

| <i>Social group</i> | <i>Pauri (Ten sample villages) (Number)</i> | <i>As % of existing number of HHs</i> | <i>Almora (Eight sample villages) (Number)</i> | <i>As % of existing number of HHs</i> |
|---------------------|---|---------------------------------------|--|---------------------------------------|
| SC | 28 | 25.45 | 34 | 20.36 |
| OBC | 4 | 57.14 | 3 | 33.33 |
| Other-Rajput | 61 | 42.36 | 110 | 35.95 |
| Other-Brahmin | 189 | 54.47 | 98 | 50.52 |
| Total | 253 | 46.38 | 245 | 36.24 |

Note: This information is collected from Village Pradhan's records after due cross checking with the Key Informants in the sample villages.

Migration Process

Migrants heavily depend on social networks and informal channels to seek information about jobs and to obtain recommendations. These largely include friends and relatives who had already migrated to cities. In many case village youth travel to the cities where their relatives are living to seek their support in job search. Support is mostly given by family, friends and relatives and it acts like a spiral with more and more people being helped in their migration by fellow migrants from the village. The form of support includes financial help, search for job, food, accommodation, etc., at the initial stages of migration. Such social networks and support are relatively weak in case of SCs, thereby restricting their mobility. FGDs and key interviews clearly reveal that SCs do proportionately migrate less due to their low educational levels, lack of awareness, poverty and urban contacts. Migrants belonging to Other castes may help SC migrants from their villages in searching employment but will not help them in staying with them and sharing food. Newspapers and internet have also important source of information for

jobs. In some cases private placement agencies have also helped in getting job leading to migration (ICIMOD, 2010).

Box 1

In Bagwari village (consisting of 75 households) almost every household has one migrant person. Most of the migrants are in Delhi, Ghaziabad and Meerut who largely work in menial jobs like domestic servants, cooks, waiters and cleaners apart from few in armed forces. They migrated along with older migrants who in turn introduced them to prospective employers and also provided them initial help of food, shelter, etc. Moreover, with rising expectations youth want to avoid hard life of their village. (Khushal Singh, a retired ex-army person).

Shanti Devi (70 years old widow) stays alone in Molthi village, situated 22 km away from the district headquarter of Pauri. She left cultivation almost ten years ago as her three sons gradually out-migrated along with their families over the years. One of her son is a Village Pradhan but does not stay in the village. Another son who is in working in a low paid private sector job in Delhi wanted to keep his wife and children back in village. But the poor quality of education, poor agriculture and hard life of the village compelled him to take his family along with him, which he finds difficult to maintain. Shanti Devi though willing to cultivate her fields but her age and high labour costs does not allow her to do so. Sometime she accuses herself for not coping with the pressures of her children to leave the village for her remaining life. She wants to stay back in her village at any cost.

Contribution of Migration to Household Income

Migration has significant contribution to household income in Uttarakhand. Due to this, some scholars termed the mountain economy of Uttarakhand as ‘money order economy’ (Dobhal, 1987; Dhyani, 1994). However, later studies (Mamgain, et al. 2005) argue that remittances though are critical but no longer significant in the hill economy of Uttarakhand to generate multiplier effects. These contribute about 26 per cent of migrant household’s income. They are particularly crucial in poor and relatively low income group households as they increase their income by nearly 50 per cent and 38 per cent respectively. If we include the income from pension, which of course is income largely from return migration, the household income rises by nearly 40 per cent (Mamgain, et al. 2005).

The average annual amount of remittance per remitting migrant worker is nearly Rs. 16000 as per our survey results. The amount of remittance, however, varies significantly across various groups of remitters. Understandably, the average amount of remittance is comparatively higher in case of older workers, those who migrate for shorter duration, and those belonging to SCs. Most strikingly, migrants with graduate and above education remit lowest amount of remittance back to their villages. Such migrants growingly tend to migrate along with their

families and thus do not have to remit unlike their other counterparts. It merits mention here that overall flow of remittance money to the villages is also decreasing over the years as large number of migrants completely moving away with their families.

Whether all migrant workers do send remittance back to their villages? Our survey results show that nearly 60 of migrant workers send remittances. Similar observations have also been made in earlier studies (Mamgain, 2004; Awasthi, 2012). These studies show how propensity to remit is comparatively much higher among SCs, middle aged workers and those migrating for shorter durations. The propensity to remit is least among the permanently migrated workers and those with higher level of education. Notably, tendency to migrate permanently is strong among graduate migrant workers as 39.1 per cent of them are permanently migrated, while it is about 13 per cent among other workers (Mamgain et al., 2005).

The reasons for not remitting among the migrant workers may be three fold: (i) sufficient household income at their source place to meet the basic requirements; (ii) very low earnings of migrant workers making it difficult for them to save any amount for remitting money, as is the case with most of the newly migrated workers who do not remit; and (iii) inclusion of family members among the migrants thus prompting migrant workers to reduce the proportion as well as frequency of remittances—this applies to those migrant workers who are better educated and have comparatively higher income levels. Studies show that an overwhelming majority of out-migrant workers are employed in low paid salaried jobs, which makes it difficult for them to remit in larger sums. The inflationary pressures in recent years have also seriously eroded their remitting capacities.

Thus, in a situation where nearly 70 per cent of migrant workers are in low-paid petty jobs, more than one-third are semi-literate and most of them are unskilled, the overall earnings and remittances of migrants are extremely low, despite the high propensity to remit.

Impact of Migration on Village Economy and Society

How out-migration has impacted on source areas? The neo-classical economists argue that migration improves the income and standard of living of source areas through several ways. The remittances received in source areas generate demand for goods and services in that region which further improves employment and income opportunities. Migrants also bring with them new knowledge and technology which they use in their native place (Lewis, 1954; Fei and Ranis, 1964, Stark, 1991). However, there are mixed experiences of such positive impacts as emerge

from our field observations. In case of villages in Hill Region of Uttarakhand, migration has made a tremendous change in consumption pattern, which is mostly met from outside the region. This has been shifted from consumption of coarse *bara naja* (twelve grains) to wheat and rice like other regions of India. Though people do grow ragi and finger millets but these are mainly used as animal feed. Alcoholism among male youth is widespread and has become a major social concern.

Almost all remittance receiving households (more than 91 per cent) spend remittance amount to met their daily consumption requirements. More than 60 per cent of such households use remittance money to education and health related expenses. Only over one-tenth of households use the remittances for paying the labour charges in their agriculture. There are about 5 per cent households who mainly use remittances for the education of their children. None of households use remittances in activities such as non-farm business development (Table 7). Thus, remittances are hardly able to generate any multiplier effect at the village economy level except opening up of few grocery shops to serve the consumer demand. Moreover, the consumer items sold in grocery shops are mostly procured from outside the hill region. Even vegetables and milk and milk produces, which were earlier available within the villages, are being procured from plain areas of the State. Thus, remittances used to finance such consumption are again ploughed back to plain areas, thereby unable to create any multiplier impact in the local village economy.

Table 7
Use of Remittances

| <i>Use of remittances</i> | <i>% households</i> |
|---|---------------------|
| Basic consumption need | 91.8 |
| Education of children | 60.1 |
| Health care | 64.3 |
| Payments for labour and other costs relating to agriculture | 12.2 |
| Repair of house | 8.2 |
| Purchase of consumer durables | 2.0 |
| Payments of loans | 3.1 |
| Purchase of land | 2.0 |

Source: Field Survey

Box 2

Veena Juyal (65 years old) of Kanda village in Pauri Garhwal argues that the most of the migrant workers of her village are working in petty service jobs in plains. She is worried about the poor economic condition of old parents of many migrant workers staying behind in the village. The irregular yet small amount of remittances being received by the parents of migrant workers is hardly sufficient to meet the consumption requirements of such old parents in the

village. Many times, they have to resort to borrowing for meeting their consumption and medical requirements. In case of their illness, sometimes Veena has to help them as a fellow villager and social worker by taking them to doctor and bear their medical expenses. Veena is quite upset with the pathetic condition of old age parents of migrants in her village. She blames the compulsions of migration for this state of affairs and questions the very purpose of family and children who are unable to take care of their old age parents. Veena also questions the blind race for out-migration among the village youths who could have otherwise put their hard labour in their agriculture and allied activities. She argues that some youths with low levels of education could have been motivated to take up farm based livelihoods through better training.

Box 3

Tula Ram is 65 year old and belongs to a Scheduled Caste household in Almora district. His wife Ganeshi is 59 years old. They have one son Dinesh (age 40 years) who out-migrated with his wife, two sons and one daughter to Delhi. Dinesh works in a private company and has low earnings. He occasionally sends remittances casually to his parents. The amount of remittance is very small—last year he sent only Rs. 3500 and Tula Ram and his wife could not even meet their food requirements with this amount. Therefore, despite his ill health, Tula Ram is forced to do casual work apart from cultivating his small parcel of land. Dinesh and his family have not visited their parents for the last two years.

People have abandoned their farmlands in large number, which had been developed by their ancestors with their hard labour over several years. This is a common scene in districts like Pauri and Almora. In some villages over half of the erstwhile cultivated land is lying barren. Given the alternative, every able bodied person of the village, particularly young ones, would like to discontinue his/her farming based livelihoods.² In several parts of hill regions, even irrigated parcels of land have been abandoned due to huge outmigration. The reasons for such disenchantment include very low productivity of agriculture, increasing menace of wild animals (like monkeys, bores and bears) in destroying crops, and practically no technical know-how and support to diversify agriculture. Moreover, it has become increasingly difficult to find labour for ploughing, leading very high charges for such labour in many villages. This has again dissuaded villagers to cultivate their land.

The magnitude of out-migration is so huge that there are several ghost villages left with very few old people (Umar, 2012; Outlook, 2013). In Pauri Garhwal, the identities of many villages are saved by one or two people who still live there (Trivedi, 2012). The names of such villages may be lost to the world soon. The barren fields and ruined houses tell the tale of the

² Based on FGDs and Key Informant Interviews

sad exodus. The condition of those living back in such villages is pathetic as they face huge social marginalization by their own kith and kins, who hardly visit them. Sometimes it is difficult to manage couple of people for the last rites of a dead person in such villages.

Out-migration has also marginalized the political voices in the rural areas of hill districts in Uttarakhand. Majority of MLA seats have been now shifted to plain districts of the State after the delimitation exercise of 2008. Local MLAs/MPs hardly take interest in the development of local resources including agriculture. Rather the level of political interferences in the functioning of development agencies have increased manifold, thus adversely impacting on the development projects for the villages.³

Due to huge migration of educated youth, voices of villagers in local level Gram Panchayats have weakened. Many of such Gram Panchayats are unable to place their demand for the development works and other services before the government developments. Their voices are hardly listened either by politicians or development agencies. The positive development of such migration relates to increasing importance of SCs in political economy of Hill districts with their increasing proportion in population (19.8 per cent in 2001 to 20.9 per cent in 2011). The forms of untouchability no more remain that severe as existed few decades back due to political empowerment of these groups.

With the increasing penetration of market forces coupled with out-migration, social institutions in the villages have become weak. A new class of political leaders, contractors and government officials is growingly defining the new boundaries of “class” in these villages. Most of them have settled their families in relatively better places like Dehradun and Haldwani in plain areas of the State. However, they dominate in decision making in the village.

Youth power is becoming growingly idle and inactive in Hill Region due to lack of employment opportunities outside agriculture and associated vocational guidance and training. They are least interested in taking up tedious agricultural work on their fields. In some places their fields are being cultivated by Nepalese for vegetable production to cater the local market. Notably, these Nepalese labour give a nominal amount as rent to the villagers. Local youth are

³ Discussions with the District Magistrate of Pauri Garhwal.

indulged whole day in playing cards as their time pass activity. Added to this is increasing liquor addiction and passive attitude towards life and society. There is a huge obsession for salaried jobs irrespective of quality and tenure—expectations of people have ever risen and want to avoid hard life. This is due to high risk and uncertainty associated with starting self-employed ventures outside agriculture.⁴

Despite better educational levels, youth hardly possess any skill training. Most of the skilled/semi-skilled jobs are being undertaken by labour from outside the State, even from far flung areas of Bihar. Unskilled casual wage works, thus, do not attract local labour, which is more irregular and short in duration. As a result, there are often labour shortages to complete public works⁵. If government establishes skill development centers and improves education and the healthcare system, things will dramatically improve,” as suggested by respondents in villages of Takula block in Almora. However, there are good examples (for example Gadola village in Rudrapryag district) of youth taking up commercial farming. This could be possible due to better quality of land, better extension services and good access to market resulting in remunerative farm income.

Box 4

Molthi village, situated at a distance of 22 km. from the district headquarters Pauri, has a Primary School having 29 students. Alone 19 students are from SC community of the village. The school has two female teachers who commute daily from the district headquarters and generally reach late to school. They have made a routine of coming to school every alternate day so that there is at least one teacher present in the school daily in the school. It is impossible for a single teacher to handle 29 students from different grades. This has adversely affected the quality of teaching as admitted by several parents. However, nobody from the village questions such arrangement made by the teachers.

Many migrants would like to return their villages provided they get employment outside agriculture and at the same time better services of education, health and other basic amenities within or nearby their villages. ⁶ A major issue is high rate of absenteeism among teachers and health care workers and other line department officials responsible for village development. There are hardly any livable places for government employees nearby their places of work such as schools or health facilities. This forces them to travel a distance of 25 km to 50 km daily by

⁴ This emerged prominently during our discussions with villagers of Ujedi, Lwalli, Kanda, Malli and Bagwari

⁵ As emerged during discussion with the District Magistrate of Pauri Garhwal.

⁶ As emerged in FGDs and Key Informant interviews in sample villages of Pauri and Almora

partly travelling by bus/taxi and partly on feet to reach their residence in nearby market places; and thus giving less time to their work.⁷

Impact of Migration on Women's Work

Migration as a labour reallocation process is expected to improve the overall income levels of households. With the improving income levels a household has a choice between work and leisure. It is postulated that household labour would withdraw themselves from activities with zero marginal productivity and would rather choose leisure with the improving income levels either through remittances or increase in productivity. It is in this sense, households receiving remittances in Hill Region would have withdrawn from tedious activities such as cultivation and animal husbandry. For understanding this phenomenon we have used the time use data collected for this study both for men and women in the working age-group 15-59 years. It emerges that remittances *per se* have not reduced the work load and related drudgeries of women population.

The work load of women belonging to migrant households remains almost similar to their counterparts belonging to non-migrant households. Every able bodied women work for average eight to ten hours daily in various productive activities, such as cultivation, fodder collection, fuel collection, animal husbandry apart from cooking of food and care of child and old people in their households. Alone 4 to 5 hours of a hill woman are spent in farm related works, animal tending, fuel wood collection and fodder collection. Next important activity is cooking of food and cleaning of home and utensils which takes about another 2-3 hours daily. While collecting fuel wood and fodder from forests they are always fearful of being caught by forest officials of state owned reserve forests. In many cases migration has in fact overburdened women as they have to undertake those activities which were being performed earlier by their spouses like working in agriculture and MNREGA works. Women's share over half the MNREGA employment. The burden of cooking and other domestic chores get reduced for women in joint families where relatively older women take care of cooking and animal tending activities. Contrary to this, their male counterparts work daily for about four hours, mainly undertaking ploughing, leveling and repair of their fields, and sometime collection of fuel wood⁸.

⁷ As emerged in Key Informant interviews in sample villages of Pauri and Almora

⁸ It is common to see male members engaged in time-pass games such as playing of cards, going to local markets, etc. They would simply find farm related works uninteresting and non-remunerative.

The gender differences in work load are so sharp that even school going girl child has to share tasks related to farm, animal husbandry, fuel and fodder collection with her mother more frequently than her brother. Girl children hardly find any time to devote time for their studies at home. Many of them would like to pursue higher studies. But their parents are unlikely to support them partly due to weak financial position of households and partly due to passiveness towards girls' education. Such gender discrimination severely affects their studies and future.⁹

In brief, an overburdened woman is a widespread phenomenon across villages in hill districts in Uttarakhand. They are the backbone of hill society yet remain most exploited, marginalized in household decision making and governed by complex traditional, cultural norms and practices (IHD-IFAD study, 2011). Remittances though have ameliorated their economic conditions to certain extent but still their work related drudgeries remain almost unchanged. This is due to the fact that remittances are not sufficient enough to meet the household requirements; whereas farm related activities still provide some additional economic support to such households for few months. Thus, women's contribution is very critical in supporting household well-being, more so in migrant households in hill districts of Uttarakhand. This unique situation shows the precarious situation of women in the village society of hill regions of Uttarakhand which remains almost unchanged as depicted by Walton way back during 1910 (Walton, 1910, reprinted in 1994).

V. UNDERSTANDING DRIVERS OF OUTMIGRATION

There are several causes of migration, the nature of which predominantly depend on the conditions prevailing in a household or a region. The causative factors are generally categorised into two groups in Lee's (1966) framework of 'push' and 'pull' factors. Both these factors concentrate only on labour market related migration. In case of migration in developing countries like India such framework is inadequate to capture the complex interplay of variations in the labour market (both expanding opportunities and failure of the rural labour markets in providing jobs), social and political reasons, the living environment (housing, sanitation and access to basic infrastructure such as education and health) (Jayaraj, 2013). In the context of the Hill Region in Uttarakhand, 'push factors' predominate the decision to migrate since most of the households have marginal land holdings with abysmally low levels of farm income—mainly attributed to traditional farm practices and extremely limited employment opportunities outside agriculture for

⁹ Discussion with girl students in select High Schools and Intermediate Colleges.

increasing population. Over 90 per cent of respondents attribute abysmally low levels of agriculture productivity coupled with increased fragmentation of land holdings as one of the important reasons for migration. A recent NSSO 70th Round survey of Agricultural Households (2013) also shows per household gross value of production lower by 3.4 times for households reporting cultivation as a major activity in Uttarakhand (Rs. 10752) as compared to similar figure for all-India (Rs. 36696).

No major efforts have been made to improve the agriculture and its productivity through its diversification in favour of high value crops. In fact, farmers are willing to diversify their farm production to improve their income, but the required support of agricultural extension services, development of irrigation channels, use of better seeds, improved inputs, technology and marketing remain major concern. As a result, almost all cultivators are willing to leave their highly non-remunerative agriculture provided they get other alternative livelihoods. Apart from very low agricultural productivity, destruction of crops by wild animals has become more frequent and widespread, resulting in huge losses to farmers. As a result, farmers have left their cultivable land barren in outer circle of their village boundaries. Also, rapid spread of wild grass and wild bushes have destroyed the farm land and other barren land in the hill districts, leaving farm activity more difficult. Irrigation channels are in bad shape and are hardly being maintained for irrigation purposes. Many of these channels have been washed away during recent years due to frequent heavy rains. The utter failures of hydraulic pump systems for irrigation show the callousness of government towards infrastructure development for agriculture. One can see such defunct systems in many villages in Pauri Garhwal.

Like land, the availability of other assets like livestock, farm and non-farm assets is extremely limited. Livestock mainly consists of local breed of milch, draught and other animals like goats and sheep. This is mainly practiced to support the crop production and augment the milk requirements of the households. The number of such animals has drastically reduced over the years. Now rural households tend to retain proportionately lesser number of milch animals to augment their livelihoods. Moreover, the quality of milch animals is poor resulting in very low milk yields. Due to limited land, the shortage of fodder poses a serious problem for most of the households as they have to travel longer distances to collect fodder from reserve forests. This also discourages households from maintaining a large number of milch animals. There is hardly any visible programme aimed at providing cheaper fodder through PDS, effecting improvement in the breed of milch animals and development of infrastructure for procurement of milk.

Employment and Its Quality

For understanding the whole issue of out-migration from Hill Region of Uttarakhand, it would be useful to first shed some light on the type and quality of employment available in the region. As mentioned earlier, the number of working population is proportionately more in hill districts of Uttarakhand as compared to plain areas. This is mainly due to higher percentage of working women in the hill districts who act as backbone of the hill agriculture. The percentage share of working men is rather smaller in hill districts than plain districts of the state and also much smaller than the national average (Table 1). Our sample data also show nearly 46 percent of non-migrant women as workers in Pauri Garhwal and Almora villages. The low rate of work force participation among males is not a demographic phenomenon; instead it is purely an economic phenomenon where a large percentage of the males out-migrate for earning cash income—about 88 per cent of out-migrants being workers; and females replace their labour, thereby increasing their overall participation (Table 8).

Table 8
Work Participation Rate (%)

| <i>Population group</i> | <i>Male</i> | <i>Female</i> | <i>Person</i> |
|-------------------------|-------------|---------------|---------------|
| Migrant | 87.7 | 9.2 | 74.7 |
| | (326) | (65) | (391) |
| Non-migrant | 45.1 | 45.9 | 45.5 |
| | (324) | (403) | (727) |
| Total | 66.46 | 40.81 | 55.72 |
| | (650) | (468) | (1118) |

Note: Figures in brackets are total number of persons in sample households. Migrant households include those family members who have been staying outside their village consecutively for more than three months. It does not include marriage related migration.

Source: Field Survey.

If we look at the status of employment, Hill Region of Uttarakhand is no different when compared to rural areas of the rest of the country. Self-employment is a predominant form of employment in hill districts of Uttarakhand. Our survey results also show nearly two-thirds of workers as self-employed, primarily working in agriculture and animal husbandry activities. Another 27.5 per cent of workers are engaged in casual wage works. Thus, opportunities for regular salaried employment are extremely limited in the region (Table 9). Out-migration brings substantial changes in the status of employment of migrant workers. A huge 94.2 per cent of out-migrant workers from Uttarakhand are working in regular salaried jobs (Table 10).

Status of employment significantly varies across gender, social group and economic category of households (Table 9). Less than half of male workers in Hill Region are self-employed whereas over 77 per cent of their female counterparts are engaged as self-employed. Casual wage employment is also a major mode of employment in case of male workers, employing nearly 40 per cent of them. The percentage of females in regular salaried jobs is almost four times less than males.

Similarly, in the case of the SC workforce, their proportion was comparatively less in agriculture as compared to the other castes. This was mainly due to the larger extent of landlessness among SCs. Their dependence on casual wage labour is much higher than Others as is seen in the following Table 9. Their access to regular salaried jobs is extremely limited as compared to other castes. Reasons for such limited access to regular salaried jobs to SCs as compared to Others are generally seen in their low levels of education; but underlying discrimination of SCs in access to local level regular jobs can be explored further in Uttarakhand also.

Table 9
Status of Employment among Non-migrant Workers (%)

| <i>Category</i> | <i>Self- employed</i> | <i>Regular salaried</i> | <i>Casual labour</i> | <i>Number of workers</i> |
|-----------------|-----------------------|-------------------------|----------------------|--------------------------|
| Male | 49.3 | 11.6 | 39.0 | 146 |
| Female | 77.3 | 4.3 | 18.4 | 185 |
| SC | 55.6 | 2.0 | 42.4 | 99 |
| Others | 68.9 | 10.1 | 21.1 | 232 |
| APL HH | 72.7 | 12.8 | 14.5 | 172 |
| BPL HH | 56.3 | 1.9 | 41.8 | 159 |
| Total | 64.9 | 7.6 | 27.5 | 331 |

Source: Field Survey

Table 10
Status of Employment

| <i>Type of worker</i> | <i>Self- employed</i> | <i>Regular salaried</i> | <i>Casual labour</i> | <i>Number of workers</i> |
|-----------------------|-----------------------|-------------------------|----------------------|--------------------------|
| Migrants | 1.7 | 94.2 | 4.1 | 292 |
| Non-Migrants | 64.9 | 7.6 | 27.5 | 331 |
| Total | 35.3 | 48.2 | 16.5 | 623 |

Source: Field Survey

Workers belonging to BPL households have also significantly different employment structure as compared to those belonging to APL households. About 42 per cent of workers

among BPL households are engaged in casual age works. Their access to regular salaried jobs is very limited, thereby explaining their poverty (Table 9).

The predominance of self-employment in rural areas is also revealed by latest NSSO data on employment and unemployment for the year 2011-12. It shows nearly three-fourths of workers in rural areas of Uttarakhand as self-employed, another 14.7 per cent as casual wage workers and remaining 11.2 per cent as regular salaried workers. The share of regular salaried workers in rural employment of the state increased substantially from 7.2 per cent in 2004-05 to 11.2 per cent in 2011-12. It also shows over 61.4 per cent of rural workforce in Uttarakhand working in agriculture and allied activities. The next highest sector is construction employing 12.3 per cent of rural workforce in the state (Annexure Table 2.).

For understanding the structure of employment, its quality and earnings, a study of employment in 100 villages across 10 hill districts of Uttarakhand by Mamgain et al. (2005) brings out some noteworthy findings. It shows that for about 70 per cent of the sample workforce, agriculture and allied activities were the main source of livelihood. Construction was the next main sector of employment as it employed about 16 per cent of the workforce. The share of other sectors in employment was not prominent. There are significant variations in the sectoral pattern of employment of rural workforce across 10 hill districts. For example, more than three-fourths of the workforce in Pauri Garhwal district was engaged in agriculture and allied activities. On the other extreme, this percentage was the lowest at about 57 per cent in Uttarkashi district. In other districts the share of agriculture and allied activities in employment varied between 68 and 72 per cent. (Annexure Table 3).

The study found construction sector another major sector of employment for over one-fifth of the workforce in Champawat, Nainital and Pithoragarh districts. In all the other hill districts except Rudraprayag, it provided employment to a sizeable percentage of the workforce (Annexure Table 3). In fact, there was a significant increase in developmental projects in all the hill districts in the State which led to intensive construction related work. This gave a fillip to the demand for labour in the construction sector. It should, however, be mentioned here that in major hydro power construction sites like the Tehri Garhwal Dam and Vishnu Prayag, there was a negligible number of local labourers involved. The reasons for such a situation can broadly be traced to lack of skills among local labour, tendency of local youth to out-migrate and general preference among employers for outside labour.

The share of the service sector in employment was the highest at about 16 per cent in Rudraprayag and the lowest at about 6 per cent in Pauri Garhwal district. The other districts with comparatively higher share of service sector employment were Tehri Garhwal, Bageshwar and Uttarkashi. These districts also have a better flow of tourists, which promotes demand for the service sector, mainly hotels and amenity services. It should be mentioned here that nearly half the service sector employment belonged to public services, which mainly comprise teachers and health workers in the rural areas of the hill districts. This was true for the all the sample districts. The manufacturing sector employed a very small percentage (1 to 2 per cent) of the workforce in most of the hill districts except Uttarkashi and Chamoli. In these two districts, 17 per cent and 6.3 per cent of the workforce was respectively employed in the manufacturing sector. In both these districts particularly at the high altitudes, most of the households were engaged in weaving, knitting and manufacturing woollen garments based on locally available wool and skills. This has been a traditional occupation of these communities but in the recent past they have been facing problems such as availability of raw material, higher cost of production and stiff competition from cheaper and better finished products from urban areas. As a result this traditional occupation is gradually vanishing. In brief, there is a need to initiate a suitable growth process which will help in shifting a larger proportion of the workforce to rural non-farm employment with adequate incomes.

There emerged a marked difference in the structure of employment between males and females. Almost all the females in the rural areas were employed in agriculture and allied activities. They alone accounted for more than 83 per cent of the total workforce engaged in the agriculture sector. On the other extreme, more than three-fourths of the male workers were employed in rural non-farm employment, mainly in construction work. The pattern was almost similar across the hill districts in Uttarakhand (Mamgain et al. 2005).

The highest concentration of the male workforce in rural non-farm activities, particularly in the construction sector, was mainly due to government support for building infrastructure like roads, culverts, bridges, buildings and wage employment programmes. However, it needs to be clarified that most of such rural non-farm jobs in the construction sector were not necessarily located within the boundaries of villages. A large proportion of these jobs were available through daily commuting to nearby towns/rural bazaars. Access to such jobs for women was highly restricted owing to various barriers.

Yet another visible industry group was that of retail shops, which catered to the food and non-food needs of the villagers. In almost every sample village two to three such shops could be seen. In some villages, the villagers had their shops in nearby rural bazaars where they generally commuted daily. Apart from these, there were tailoring shops and black smiths, etc., serving the village communities. Assistance provided under the *Pradhan Mantri Rozgar Yojana* (PMRY) too helped some youth to open shops in villages.

Most of the workers in the construction sector were unskilled. The demand for skilled workers such as masons, plumbers, carpenters, drillers and welders was generally met by labourers from outside the State, even from distant places such as Bihar.

Thus, accessibility to non-farm employment opportunities was mainly in the domain of males. This further accentuated the vulnerability of women, though they were the main producers in agriculture. They had no direct access to income, howsoever little, that accrued from agriculture and other non-farm activities.

Structure of Employment among Social Groups

The structure of employment significantly varies among various social groups such as SC, ST and other castes. In the case of the SC workforce, their proportion was comparatively less in agriculture as compared to the other castes. This was mainly due to the larger extent of landlessness among SCs. As can be seen from Table 11, about one-fourth of the SC workforce was working in the construction sector in which their share was the highest as compared to the other caste groups. Their relatively higher share at 12 per cent in the manufacturing sector was mainly concentrated in repair related work and in caste-based occupations like basket weaving, black smithy and copper smith which are essentially low paying occupations (Mamgain et al., 2005).

Gender-wise structure of employment was almost similar across the various social groups, except for STs. Women predominantly worked in agriculture and allied activities while the men worked in the non-agricultural sector. In the case of STs, the largest percentage (63.6 per cent) of the women workforce was engaged in manufacturing of woollen garments. This is a traditional economic activity. In other words, there are no social barriers for women working in their own fields or household enterprises. However, there appeared to be serious mobility restrictions once a woman decided to move out to non-agricultural employment such as in construction related

works, which are generally located outside their villages. This was true for all the castes. In essence, woman working in agriculture either as casual or family labour was not viewed as an exception.

Table 11
Structure of Employment among Social Groups (Per cent)

| <i>Industry</i> | <i>Others</i> | <i>SC</i> | <i>ST</i> | <i>OBC</i> |
|---|---------------|-----------|-----------|------------|
| Agriculture and allied activities | 72.44 | 61.29 | 40.26 | 69.44 |
| Mining & quarrying | 0.19 | 0.23 | 0 | 0 |
| Manufacturing | 0.94 | 7.14 | 42.86 | 1.39 |
| Construction | 14.85 | 25.81 | 5.19 | 9.72 |
| Trade, hotel & restaurant | 3.81 | 1.04 | 5.19 | 1.39 |
| Transport and communication | 1.75 | 0.23 | 2.6 | 6.94 |
| Finance, business activities etc. | 0.3 | 0.12 | 0 | 0 |
| Public admn, education, commercial services | 5.72 | 4.15 | 3.9 | 11.11 |
| Total | 100 | 100 | 100 | 100 |

Source: Mamgain et al., (2005).

Low Earnings

Nearly half of the labour input in agricultural sector (employing nearly 70 per cent of the rural workforce) in hill districts of Uttarakhand could not fetch up even a minimum wage level (Rs. 60 during 2004-05) (Mamgain et al., 2005). This only indicates a very high incidence of underemployment among those engaged in these two sectors. Similarly, over half of the person days remained underemployed in animal husbandry. The NSSO 70th Round (2013) also reconfirms the very low average monthly income of agricultural households in Uttarakhand (Rs. 4701) as compared to neighbouring Himachal Pradesh (Rs. 8777) (GoI-NSSO, 2014). Per person day average earnings are comparatively better for those self-employed in non-farm activities (Mamgain et al., 2005). However, such employment opportunities are extremely limited. Thus, transfer incomes are very important sources of household income (Mamgain et al., 2005). District-wise, for 70-80 per cent of person days, the average per person day earning was less than the minimum wage in Pithoragarh, Tehri Garhwal and Pauri Garhwal. Chamoli was the only district where less than one-fifth person days in agriculture remained underemployed. Similarly, over half of the person days remained underemployed in animal husbandry. The highest incidence was in Uttarkashi, Pithoragarh and Rudrapryag (Mamgain et al., 2005).

In sum, the quality of employment in hill districts of Uttarakhand is largely poor as it hardly fetches them commensurate incomes. It appears that the benefits of a fairly higher growth in income in Uttarakhand has yet to reach to hill districts of the state, which are predominantly agrarian with extremely low levels of productivity. This precarious situation on the front of employment coupled with the hardships of mountain life pushes a sizeable number of youth to out-migrate to plain areas in search of employment and decent living.

Table 12

Percentage Distribution of Total Persondays by Range of per Personday Average Earnings in Hill districts of Uttarakhand

| <i>Range of per personday earnings (Rs.) (at 2004-05 prices)</i> | <i>Self-employed in agriculture</i> | <i>Self-employed in animal husbandry</i> | <i>Casual wage labour</i> | <i>Self-employed in non farm activities</i> |
|--|-------------------------------------|--|---------------------------|---|
| Upto 30 | 14.85 | 23.25 | 0.16 | 10.36 |
| 30-60 | 33.16 | 30.14 | 10.06 | 14.77 |
| 60-90 | 22.14 | 25.82 | 54.75 | 17.84 |
| 90-150 | 19.80 | 15.60 | 34.74 | 26.70 |
| 150+ | 10.05 | 5.18 | 0.29 | 30.33 |
| All | 100.00 | 100.00 | 100.00 | 100.00 |

Source: Mamgain et al. (2005).

However, such typical “push factors” may necessarily not be true for a sizeable section of population who are endowed with relatively better education and seek regular salaried jobs outside their villages. These jobs are certainly not available in the hill region. One of the important strategies adopted by such risk averting households is to improve the educational levels of their members, mainly males, so that they are able to secure remunerative employment outside the household. This is why nearly one-tenth of migrant workers migrated first for improving their educational levels. Nearly 19 per cent of the workers migrated in anticipation of better economic prospects in the cities. Personal/social contacts also play an important role in promoting such kind of migration. Another 17.4 per cent migrated due to their job transfers and/or because they got other jobs (Table 13). The attraction to cities arising due to hardships of village life in hills such as poor transport connectivity, lack of water, inadequate medical facilities, poor educational facilities and inaccessible markets have further accelerated the process of migration of youth. This situation has not changed much over the years as a large number of educated youth are pushed out to cities to search employment for them.

It is also seen that villages using improved but diversified farming practices and better infrastructure facilities have relatively lesser propensity to migrate. In such villages distress driven migration is very low as many of them are able earn their income from remunerative farm as well as non-farm sources (Mamgain, 2004; ICIMOD, 2013). But the number of such villages/areas is very few.

Fear of exclusion from mainstream development processes are looming at large among those who have remained behind in their villages. Their major concerns are education of children, old age care, good health facilities, access to quality physical infrastructure and above all, remunerative income opportunities outside agriculture.

Table 13
Reasons for Migration

| <i>Reasons for migration</i> | <i>Number</i> | <i>Per cent</i> |
|---|---------------|-----------------|
| Got employment/Job transfers | 68 | 17.39 |
| In search of better employment and income opportunities | 73 | 18.67 |
| Lack of employment opportunities | 184 | 47.06 |
| Education and training | 45 | 11.51 |
| Others | 21 | 5.37 |
| Total | 391 | 100.00 |

Source: Field Survey

In brief, factors that lead out-migration significantly are uneconomical land holdings, improved educational levels, lack of employment opportunities in and around the villages and rising aspirations of youth. Social pressures to out-migrate such as stigma of being in the village and working in fields, particularly for males, are also growingly becoming important in case of male members of the family (Mamgain, 2004). The obsession of hill society for regular/secured jobs irrespective of salary and working conditions has been built over the years due to growing vulnerability of rural households to income fluctuations --and that too at the cost of hard labour which they have to put in farm based activities.

Box 5

Darshan Lal (56 years) of Idadhar village is worried about the future of his three grandchildren. His two sons are working in a school as Chwokidar and Cook in Dehradun. Their families stay back in the village. They occasionally remit money to their father which is mainly used to meet consumption requirements. Darshan Lal is keen to send his grandchildren to good school but unable to do so. He strongly feels that education being provided in nearby government school is not enough with the changing times. This can only be possible if one of his daughter-in-laws along with children shifts to Dehradun with his

son. But wages of his sons are not sufficient to support other family members at their place of migration. He also feels that due to their poor background, they could not be benefitted by the job reservation policy in education and employment.

Box 6

Pankaj (24 year old) from Rangaun village is simply a high school pass. He never wanted to migrate for a work. But he had to do so due to social pressures. It was difficult for him to get married as he had no salaried job. For this his family decided to send him to Haridwar to work in a factory as a helper. He had been helped by his fellow villager to get a temporary job in a factory in Haridwar. His salary was hardly enough to support him therein. He had to work there unwillingly till his marriage was settled back in his village. After his marriage he left the job and returned to village. He is happy to work in the village in similar casual wage jobs.

Box 7

Ekambar Singh Rawat (62 years) a retired Daftry from Garhwal University, Srinagar Garhwal has 2.5 acre land in his village Malli, situated just 10 km away from district headquarter. His village has all basic amenities except employment opportunities outside agriculture. He had been cultivating his fields during his service time also. His sons are not interested in agriculture. He has leased out a part of his irrigated land to Nepalese just for few hundred rupees. His village has a good potential for vegetable production, which Nepalese are doing labouriously therein. He laments that the unemployed youth of his village would like to sit idle rather putting hard work in their fields to grow commercial crops, such a vegetables for nearby market. Due to disinterest in agriculture a large area of agricultural land is being invaded by wild grass. Wild animals such as monkeys and wild pigs are also destroying crops of his village.

Village Infrastructure, Its Quality and Infrastructure

Village level infrastructures have important bearing on migration. Many of migrant households argued that the decision of their family members to out-migrate have been largely due to lack of facilities like access to quality education, health care services, roads, drinking water, telecommunication, etc., in/nearby their villages. Road connectivity has considerably improved in the Hill Region of Uttarakhand. This has been possible under Prime Minister's Gram Sadak Yojana (PMGSY). In our sample villages average distance from motor road is 2.5 kms. One can see huge road construction going on in various parts of the region under PMGSY. Even the network is being developed in those villages which have only few households left therein in the wake of out-migration. Electricity is also available in these villages but about 40 per cent of households have taken electricity connection in their households. Mobile phone connectivity has penetrated in hill villages on a large scale. Such connectivity has improved social and

psychological bondage of hill women, particularly of those whose family members have migrated to distant cities. Mobile connectivity has also improved the health care of villagers by reducing their substantial time in to and fro commuting to health care facilities located at distant places. One can see a hill woman carrying her mobile phone while going to collect fuel and fodder in the forests.

Though access to piped drinking water has tremendously improved over the years, the traditional sources of pure water such as springs have been grossly neglected. Moreover, the access to piped water is highly erratic, thus taking a substantial time of residents, particularly women and children, of several villages in fetching water from a distant source. There are hardly any water conservation projects which could have been used both for drinking and irrigation purposes. Due to scarcity of water, toilets constructed under government programme remain almost unutilised. Pedestrian paths (RCC roads) have been developed in many villages in recent years. This has improved the accessibility of households within villages.

Access to schools has also improved tremendously in the hill region. In our sample villages, every village has primary school. High school is available at an average distance of four kilometer. Network of degree colleges and ITIs has also substantially improved in Hill Region of the state. Out of the 67 Government degree colleges 52 are located in hill districts. However, these educational institutions lack basic facilities and staff (Joshi, 2010). Thus, quality of schools and teachers therein is a major concern. Most of the villagers pointed our attention at the rapidly deteriorating teaching standards in schools and colleges. Teacher absenteeism is a quite common phenomenon and parents hardly raise their voices against this practice. Though there are school management committees but their meetings are rarely convened. The District Magistrate of Pauri Garhwal has candidly pointed the issue of absentee teachers, falling quality of education and political pressures to transfer teachers to urban/well connected centres to avoid the hardships of serving remote villages. Several teachers working in hill region are close family members of powerful politicians, PRI representatives and bureaucrats who would never be willing to be posted in difficult places. Several positions of subject teachers in science stream are vacant in government schools. Facilities within schools such separate toilets for girls, furniture and labs are serious bottlenecks. (This also emerged during discussions with teachers and students in Government Inter College, Thalising). The sparsely populated villages coupled with distantly located education facility takes a substantial travel time of children for attending school. Due to this, many of village girls discontinue their education associated with their safety and

comfort. It is rather dismal state of public education institutions in many parts of Hill Region of Uttarakhand despite their rapid expansion after the formation of new state. Though several private schools have mushrooming growth in small market places/towns, these are hardly accessible to those residing in remote areas.

The region also could not benefit from the rapid growth in self-financed technical and professional educational institutions as only six out of 89 are located in Hill Region (Joshi, 2010). This lopsided development in the field of higher education has bereft the region of several educational development related backward and forward linkages.

There is a huge drop out of students after their school education. Many of parents are not in a position to send their children for higher and technical education which are located at far off places. Such children, mainly males, resort to migration and help their families in supporting their household income. During our visit to a senior secondary school, an overwhelming majority of male students preferred to out-migrate and find job either in armed forces or any regular salaried jobs. There is hardly any vocational counseling and guidance available to these young and enthusiastic minds at their schooling stage which could shape their preferences and options for a better career. We could hardly come across any skill development centres nearby our sample villages. People are also ignorant about the Prime Minister's Skill Development Programme.

Similar to educational infrastructure, access to health services is a major concern. There has been a tremendous expansion of public health institutions under NRHM. There were 9 CHCs, 28 Block level PHCs, 42 Additional PHCs, 117 Allopathic Dispensaries and 413 Sub-centre in Pauri Garhwal and Almora districts during the year 2012-13. Despite such expansion, these centres are facing acute shortage of human resources, particularly that of Doctors and Lab Technicians. Over 40 per cent of sanctioned positions of Doctors, 54 per cent of Lab Technicians and 16 per cent of Nurses are lying vacant in Uttarakhand. Among working Doctors nearly one-fifth are on contractual appointment (GoUK, 2012, Uttarakhand PIP 2011-12, Uttarakhand Health & Family Welfare Society, Dehradun). This situation is further aggravated in the Hill Region where a very few of Doctors are willing to join the health services (GoUK, CM's presentation to Planning Commission, 12th Plan). Such human resource shortages have seriously affected the availability and quality of health services. The other issues of very poor quality of health services relate to lack of medicines, lack of personal care and visits of doctors to villages. Due to this, dependence on private health services and that too of substandard quality at higher

costs is a common feature of health care by villagers. Villagers complained that even for minor ailments doctors refer patients to distant CHCs or district hospitals, which involve huge personal costs for the patient. Geographical terrain and associated lack of access to transport facility at the doorstep is yet another major hurdle to health care in the hill region. Thus, concerns for better health care also act as another major driver of household decision to permanently out-migrate to cities and towns. The Emergency Health Service (called 108 service) has proved to be very useful in providing people emergency health support in hill region of Uttarakhand. It has saved many lives, but the challenge is of improving the access and quality of overall health care system in the villages.

In brief, despite improvement in road and other infrastructure, lack of quality education and health facilities compel many out-migrant workers to take their families along with them in the hope of better education and health care at their place of migration. Everybody wants to avoid the hard life his/her village. This point strongly emerged during our discussions with a cross section of respondents.

Constraints Identified by Villagers

In our earlier work (see Mamgain et al., 2005) the major constraints identified by villagers were lack of employment opportunities, lack of knowledge and skills, poor infrastructure facilities, the passive nature of banks for financing the credit needs and market support. People were reluctant to put their entire agricultural land or even a substantial part of it for the production of commercial crops due to food security constraints. During our present field survey, the increasing menace of wild animals in destroying crops has emerged another major challenge in the sample villages. This has dissuaded farmers to cultivate their lands. In FGDs, many villagers pointed towards the irregular and inferior supply of food grains through PDS.

Some of the other constraints that were identified in FGDs (Mamgain et al., 2005; present Field Survey) which have a direct bearing on the livelihoods and out-migration of the rural population in the Hill districts of Uttarakhand are:

1. Lack of quality education.
2. Many schools are facing a shortage of teachers, which in turn is affecting the education of children.
3. Absence of teachers from schools is a common feature.
4. No major facilities for technical education at the block level.

5. High literacy rates but least technical competencies.
6. High incidence of unemployment among the youth.
7. Educated youth unwilling to take up agriculture related tasks.
8. Higher incidence of migration of educated male youth.
9. Lack of public health facilities. Even those which exist are of a poor quality.
10. People have to largely depend on quacks/untrained practitioners largely for health care.
11. The old system of Ayurvedic medicine disappearing.
12. Major expenditure in case of illness.
13. Drinking water is a major problem.
14. High cost of maintenance of infrastructure
15. Frequent damage to agricultural land due to land slides
16. Destruction of crops by wild animals like pig, bore, bear, stag, etc
17. Fuel wood is a major problem. Women have to travel long distance to collect fuel wood.
18. High incidence of alcoholism among rural males.
19. Poor governance and high corruption in public offices.
20. Poor quality of assets created under government supported programmes.
21. Nexus between local politicians, contractors and government functionaries.
22. General lack of entrepreneurship
23. Highly overburdened women
24. Safety of women
25. Changing social fabric in favour of market forces

Way out suggested by villagers: Suggestions made by villagers towards improving employment opportunities and quality of life include a plethora of issues and areas which require immediate policy interventions. These include consolidation of farm land, diversification of crops towards high value and less irrigation intensive crops; better R&D of agricultural extension services, improving access to markets for farm and non-farm produces, use of MNREGA for farm development, village tourism, drinking water, road connectivity, quality education infrastructure such as residential schools and skill development centres in every block, quality health services, mobile services for health checkups, promotion of village level organizations for development, etc.

VI. POLICY INITIATIVES

Development of hill areas has been a policy priority in the national planning process since long. Special Hill Area Development Programme was initiated in Sixth Plan period for the development of hill regions in the country. The main emphasis had been on creation of infrastructure facilities and social and community services during the Sixth and Seventh Plan periods. Production sectors and sectors that have direct bearing on environment preservation have received attention in subsequent plans under the Hill Area Development plans of Planning Commission. The state has been accorded a Special Category Status in 2002 by the Planning Commission. A widespread backwardness in the Hill Region has been a major plank for the demand for new state. One of the biggest challenges before the new state, therefore, was to initiate a plethora of measures for promoting all round development of Uttarakhand without losing precious time. Some of the important policy measures initiated by the Government of Uttarakhand are critically examined in the following sections.

Industrial Policy

Towards achieving all-round development of the State, the government of Uttarakhand has initiated several policy measures since its formation in November 2000. The first Industrial Policy of the State was prepared in 2001. Keeping in view the fast changing economic scenario, the State prepared its New Industrial Policy in June 2003, and offered major incentives. These included: (a) for next five years for the companies and 25% for others, (b) 100% central excise exemption for ten years on items other than those mentioned in the negative list in the concessional industrial package announced by the Central Government; (c) exemption from entry tax on Plant & Machinery for setting up industry or undertaking substantial expansion and modernization, and (d) Capital investment subsidy @ 15 per cent subject to a maximum of Rs. 60 lakh. The policy on the sectors where Uttarakhand has inherent advantage like Agro and Food Processing, Floriculture, Handloom, Hydropower, Khadi and Village Industries and Tourism. Subsequent to this, Integrated Industrial Development Policy was launched in February 2008.

There has been tremendous progress in industrial development in the state. The number of industries registered under Factories Sector Act increased by over seven times from 698 in 2001-02 to 2843 in 2011-12. Employment in these factories jumped over 8.4 times from 40880 to 342385 during this period (CSO, ASI data). Unfortunately, hill areas remained almost

untouched in industrial development as most of the units were located in plain areas of the state. Similarly, there has been a big jump in the number of MSMEs in the state, but again largely were confined to plain areas of the state. Since industrial policy of the state could hardly benefit hill areas, a separate Hill Industrial Development Policy was announced in 2008 for 10 years to attract industries to hill districts. However, this policy was almost non-starter till 2011, when Government of Uttarakhand amended 2008 policy and extended its incentives like upto 90 per cent tax rebate, transport subsidy and rebate on power tariff till 2025. It also decided to set up 11 industrial hubs at district headquarters. With initial hiccups, the policy has started attracting a growing number of units to hill areas—643 in 2008-09 to 911 in 2011-12, employing about 3077 persons in 2011-12. The impact of this policy has yet to percolate on a large scale to block headquarters. There are several issues related to creation of quality infrastructure such as roads, buildings and power supply which need to be addressed.

For harnessing the potential of tourism, the State has its Tourism Policy under which the activities include developing state-of-the-art infrastructure, year round tourism, development of new tourist destinations, promotion of tourism oriented handicrafts industry and cuisine and human resource development. Towards linking local population with tourism related activities as well as employment generation, the State government launched the *Veer Chandra Singh Garhwali Paryatan Swarozgar Yojana*. This is a credit-cum-subsidy scheme with a maximum loan of Rs. 10 lakh with a subsidy to the extent of 20 per cent of the project cost subject to a maximum of Rs. 2 lakh. Assistance is given for fast food centres, setting up of retail outlets for local handicrafts, transport, motels, hotels, equipment for adventure sports, setting up of tourist information centres with PCs, restaurants, etc. Tourism, thus, is being seen as a source of employment generation both directly as well as indirectly.

However, the potential of tourism and other related activities has yet to be harnessed for creation of employment and income in the hill districts of Uttarakhand. At present most of the tourism is religious in nature, which has also been severely damaged due to the disaster in Kedar valley during June 2013. There are several places and locations in hill districts which are yet to be explored and developed fully for attracting tourist inflows to the region. There are serious lacks of good quality road connectivity, suitable accommodation, drinking water and trained human resources. Equally important issues that hinder the effective marketing of the state as a tourism destination are lack of awareness of Uttarakhand as a tourism destination; ineffective branding of the state; lack of a marketing strategy and expensive annual campaigns that are not

sufficiently focused; development and operational issues; awareness of the scheme among the locals, lack of skill development facilities, and the virtual non existence of public-private sector coordination.

For harnessing the potential of agriculture and horticulture the State government set up many development boards like the Organic Board, Jatropa Board, Board for Development of Aromatic and Medicinal Plants, the Organic Farming Board, Tea Board, Bamboo Fibre Board, Technology Mission for Integrated Development of Horticulture, Livestock Board, Sericulture and the Watershed Board. An Integrated Horticulture Development Programme has been launched in the hill districts of Almora, Pauri Garhwal and Chamoli. A separate university of Horticulture has been established in Bharsar, Pauri Garhwal for education, research and extension services.

For improving the livelihoods in hill region, Government of Uttarakhand with the financial support of IFAD is implementing Uttarakhand Livelihoods Improvement Project for the Himalayas, commonly known as Ajeevika since 2004. The programme is being implemented in five districts of Almora, Bageshwar, Chamoli, Tehri and Uttarkashi, covering 959 villages across 17 Development Blocks. The programme has been successful in improving farm productivity, ensuring food security, access to markets and access to credit to rural households.

Yet another Integrated Livelihood Support Project is being implemented by Uttarakhand Watershed Development Unit with the financial support of IFAD in seven Development Blocks in three districts of Pauri Garhwal, Champawat and Nainital. The strategy involves supporting and developing food production systems and promotion of cash crops through improved technology and market support. It also supports rural tourism and skill development for remunerative employment.

Despite a comprehensive organizational structures and targeted programmes initiated over the years for agriculture and horticulture development, the position of agriculture and horticulture development in Hill Region could not improve at the desired levels. In our sample villages in Almora and Pauri Garhwal districts, there are hardly any evidence of use of better farming practices in crop production, horticulture, poultry, dairy and fishery production. This is mainly due to lack of agricultural extension services available to villagers to improve their farm practices and productivity. Hardly any upscaling efforts are being made to improve farming practices and small enterprise development to a large part of hill region.

Special financial allocations are also provided under various Central Finance Commissions to hilly states to their environmental protection. The Thirteenth Finance Commission has also recognized the need for incentivizing forest conservation and compensating states for economic disadvantages arising from the maintenance of forest cover. The Commission has recommended a forest formula designed to take into consideration various factors and allocated a sum of Rs.5,000 crore for compensating States for these purposes. However, it is seen that apart from Arunachal Pradesh which has been given a highest allocation of Rs.728 crore over the 5 year period, the allocation to other States is much lower with Sikkim getting Rs.40.56 crore and Uttarakhand Rs.205.44 crore (GoUK, 2014). Government of Uttarakhand has been arguing for a larger share under this provision made by the Finance Commission.

In brief, the development strategy of Uttarakhand government has made remarkable achievements within a short period by accelerating its economic growth substantially as compared to many states in India. This growth process has been largely led by the development of manufacturing and construction activities in the state. But this development strategy has resulted huge regional inequalities within the state as Hill Region lagging far behind than its plain regions in economic development. The spillover effects of such high growth could hardly be harnessed, especially in the creation of employment and income opportunities in hill regions, thereby fuelling the outmigration of able bodied persons form the hill region.

Policy Issues

The policy framework for the all-round development of Hill Region of Uttarakhand is comprehensive and appreciable. However, Uttarakhand needs targeted growth strategy that resembles as well as differs in critical ways for hills. Despite high social indicators, growth prospects in hills are hampered by sparse population, severely adverse terrain, high cost of construction and service delivery and general livability challenges (GTZ Report cited in World Bank, 2012, p. 53). In particular, efforts need to be made to generate greater progress in niche agriculture and horticulture and in higher value services. Uttarakhand has not benefited greatly from the growth in services that has fueled much of the growth in the rest of India. The challenge lies in weighting the public policy needs appropriately to achieve balance between ecology and economics.

There are encouraging examples of promoting sustainable livelihoods, linking these to value chains and improving quality of life of rural areas in the hill districts, being undertaken by

various government agencies, bilateral donors and NGOs. A study by Choudhary et al., 2013, for ICIMOD amply shows about the tremendous opportunities for income generating activities both in farm as well non-farm sector through value chain development of high-value products and services. In this entire process, the role of local communities is of paramount importance for upstream interventions. Equally important are improved access to information, skills, technology, markets, policy and institutional support leading to better terms of engagement for small producers (p.32). Policies need to be implemented fairly and/or developed with a pro-poor and mountain bias. Institutions responsible for the implementation of such policies must be proactive and develop a synergy and coordination to avoid conflicts and produce better results. Mobilising and empowering communities with information, skills and support services are of paramount importance.

Choudhary et al. (2013) argue that given the diversity, fragility and marginality of mountain areas, a straight jacket policy frame will not work. Rather, area policies need to be made by understanding the local situations and the key leverage points that can address the problems of small producers in hill region. Thus, there is a need for innovative strategies that take into account both inert-and multidisciplinary actions that address the constraints. This will necessitate streamlining of State Government line departments and making these accountable for mountain area development.

Lack of Pro-active Policies for attracting Return Migrants

It is believed that due to lack of any policy and programme for attracting the skills and abilities of return migrants, a large number of out-migrants tend to settle permanently outside their villages along with their households. This has increased the tendency of out-migration of an entire household. The migration has also adversely affected the source areas in terms of loss of educated and experienced human resources, which could otherwise would have been utilized locally (Mamgain, 2004). The increased migration process in Uttarakhand's hill districts thus could hardly transform the local economy in the form of increased flow of remittances as has been seen in Kerala and to some extent, Bihar (Deshangikar and Farrington, 2009).

At the same time, there are evidences to suggest that how farm diversification in Rawain valley in Uttarkashi district has transformed its local economy with the help of local development agencies and government support. Evidences also suggest the role of NGOs in promoting cooperatives of small and marginal farmers in hill districts of Pithoragarh and Champawat and reducing their vulnerabilities (CBED, 2012). These experiences have

encouraging impact on the local economy in a form of reduced out-migration of semi-skilled and unskilled persons from marginal cultivating households associated with their improved earnings.

To conclude, poor resource base for livelihoods with least information of modern technical know-how to improve income opportunities is a common feature for rural households in hill districts of Uttarakhand. The uncertainties in land based production activities along with poor productivity levels have forced most of the rural households to resort to migration.

Role of Migrants and Their Diasporas

The non-resident Uttarakhandis (NRUs) can play major role towards promoting the overall development of the State. They can be role-models for resident Uttarakhandis in their specialized fields. There is a need to promote region-wise *melas* relating to development issues concerning people in various fields such as education, skill training, career counseling, health care, governance, right to information, development debate, networking, promoting cultural heritage, technology knowledge, etc. In fact, they can act as "Watch Pole" on government policies and programmes through their apex umbrella organization. NRUs can help in developing and strengthening several voluntary organizations, in the State, related to their respective fields of knowledge and expertise. In fact, they can adopt certain villages and initiate a development process therein. NRUs can also support the poor children of Uttarakhand in their studies by establishing some fellowships.

There is a good example of such diasporas actively engaged in various socio-economic development activities in Musyari in Pithoragarh district such as revival and strengthening of old educational institutions for quality education, annual sporting events including cultural events by Johar Club, tree plantation and environmental awareness by Johar Shuaka Welfare Society, organising medical camps by Johar-Munsyari Doctors Association, etc. Thus, Munsyari, at the micro-level, presents a modest example of how one positive move on the part of a group of returned migrants has led into a range of very innovative initiatives which has not only improved the over-all environ and ambience of the area but has also resulted in a substantial private investment on the part of the return migrants. Improved ICT connectivity has also encouraged a far larger number of visitors both from within India and abroad. What PADIMA study has indicated can also be seen here in action, triggered by mostly the return migrants, who with a relatively higher educational attainment level has made an impact that also has catalysed even the normally passive public sector (Tolia, 2015).

VII. CONCLUSION

The overall growth path of Uttarakhand has been impressive since its separation from Uttar Pradesh. However, this growth has created huge regional inequalities within the State. The growth process could hardly create productive employment and income opportunities in Hill region of Uttarakhand. There is hardly any visible progress made towards developing remunerative agriculture in most of the villages in Hill Region. As a result, there remains hardly any interest in agriculture for almost all young men folk due to hard work involved, very low productivity and frequent destruction of crops by wild animals. Outside agriculture, employment opportunities in construction grew significantly, but local people are mostly unwilling to undertake manual work. Their access to skilled jobs in construction sector was severely affected due to lack of such skill training. The employment opportunities in other sectors such as trade, transport and government services though improved in Hill Region but remained limited to few people. Thus, lack of remunerative livelihoods coupled with obsession for salaried jobs has forced a large number of youth to migrate to cities in search of salaried jobs which are of relatively longer duration irrespective of earnings. The situation has become quite grim in some pockets as there are hardly few people left in single digit in a number of villages. Such destitution needs to be reversed.

The policy framework for the all-round development of Hill Region of Uttarakhand is comprehensive and appreciable. However, the New Industrial Policy of the State, which has almost remained ineffective in attracting investment to hill areas of the State, needs to be re-looked and made more effective to ensure balanced industrial growth by attracting more capital to backward districts, particularly in the hill areas. The persistent bias in credit flow for priority sectors is yet another example where the banking sector prefers to finance only developed districts and is hesitant to take risks in the hilly districts. In this process, the gap in development is bound to widen. As a result there is hardly any visible progress made towards developing remunerative employment opportunities in farm as well as non-farm sectors in most of the villages in Hill Region. There remains hardly any interest in agriculture for almost all young men folk due to hard work involved, very low productivity and frequent destruction of crops by wild animals. Outside agriculture, employment opportunities in construction grew significantly, but local people are mostly unwilling to undertake manual work.

Suggestions made by villagers towards improving employment opportunities and quality of life include a plethora of issues and areas which require immediate policy interventions. These

include consolidation of farm land, diversification of crops towards high value and less irrigation intensive crops; better R&D of agricultural extension services, improving access to markets for farm and non-farm produces, use of MNREGA for farm development, promoting village tourism, drinking water, road connectivity, quality education infrastructure such as residential schools and skill development centres in every block, quality health services, mobile services for health checkups, promotion of village level organizations for development, etc. These would require a multi-disciplinary innovative institutions for the development of Hill Region.

Our field experience in rural areas and discussions with various line departments of the State government indicate that there is a big gap between the productive employment needs of rural households and the efforts that are being made by the government towards this end. The huge potential of horticulture and tourism needs to be developed on a wider scale in the Hill Region. Agriculture extension services need to be strengthened to improve their outreach and effectiveness. Various forms of tourism as outlined in the Tourism Policy of the State need to be developed in letter and spirit in a given time frame. This will create large number of employment opportunities for local youth and arrest their distress driven migration. Similarly, given the relatively higher educational levels of Hill population, expansion of communication network, better electricity and comparatively cheap land, there is a good scope for developing knowledge based IT services in Hill districts.

Towards harnessing the potential of employment opportunities, skill development of both men and women is crucial for various trades and occupations. Most of the people including migrants of the Hill Region though are better educated but lack skill training. This severely affects their employability and earnings. This would require their training in a larger proportion in different vocations. The skill training measures need to be generic as well as area specific depending on the choices and opportunities for such skills.

With the growing emphasis on protection of environment in the context of climate change, role of Hill and mountain Regions is being seen very critical towards this endeavour. In this direction, Eco Task Force could be created on the lines of Territorial Army by recruiting local people, whose services can be used in forestation and their maintenance. This will not only help in improving environment but also provide salaried employment to local youth.

There are encouraging examples of promoting sustainable livelihoods, linking these to value chains and improving quality of life of rural areas in the hill districts, being undertaken by various government agencies, bilateral donors and NGOs. A study by ICIMOD (2013),

demonstrates tremendous opportunities for income generating activities both in farm as well non-farm sector through value chain development of high-value products and services in hill regions. In this entire process, the role of local communities is of paramount importance for upstream interventions. Equally important are improved access to information, skills, technology, markets, policy and institutional support leading to better terms of engagement for small producers (p.32). Policies need to be implemented fairly and/or developed with a pro-poor and mountain bias. Institutions responsible for the implementation of such policies must be proactive and develop a synergy and coordination to avoid conflicts and produce better results. Mobilising and empowering communities with information, skills and support services are of paramount importance.

In sum, the programmatic interventions must support the higher growth initiatives in Hill Region of Uttarakhand which have yet to witness a remarkable improvement in employment and income opportunities for their population. These efforts also to percolate to poor and marginalised sections of the society such as SCs and religious minorities. The development dreams of people of Uttarakhand, as they visualized at the time of demand for a new State, particularly those residing in hill districts must be addressed on a priority basis. In fact, there is need for a strong political will to initiate a process of niche based development strategy for the hill areas of the State with a strong support of bureaucracy. The myopic vision of developing already developed regions will not prove to be an inclusive strategy. This will also not be a tribute to those who sacrificed their lives for making Uttarakhand a State of their dreams where everybody gets decent work opportunities with least brain drain.

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Annexure Tables

Annexure Table 1: Demographic Features of Uttarakhand, 2001 & 2011

| Sl. No. | Variable | 2001 | | | 2011 | | |
|---------|------------------------------|------------|-------------|-------|------------|-------------|--------|
| | | Hill areas | Plain areas | Total | Hill areas | Plain areas | Total |
| 1. | Population (in million) | 41.56 | 43.33 | 84.89 | 48.50 | 52.36 | 100.86 |
| 2. | 0-6 years population (%) | | | | 13.18 | 13.68 | 13.44 |
| 3. | Sex ratio (all age groups) | 1050 | 885 | 962 | 1037 | 900 | 963 |
| 4. | Sex ratio (0-6 age group) | 920 | 885 | 908 | 894 | 888 | 890 |
| 5. | SC population (%) | 19.77 | 16.05 | 17.87 | 20.9 | 16.8 | 18.76 |
| 6. | ST population (%) | 2.70 | 3.32 | 3.02 | 1.00 | 4.60 | 2.89 |
| 7. | % Urban population | | | | 17.06 | 42.43 | 30.23 |
| 8. | Literate population (%) | 74.9 | 64.3 | 71.6 | 80.87 | 76.90 | 78.82 |
| 9. | Workers (main plus marginal) | 42.4 | 30.7 | 36.9 | 43.71 | 33.47 | 38.39 |
| 10. | Male WPR | 44.7 | 47.6 | 46.1 | 48.32 | 50.84 | 49.67 |
| 11. | Female WPR | 40.1 | 11.6 | 27.3 | 39.26 | 14.16 | 26.68 |

Source: Population Census, 2001 and 2011.

Annexure Table 1a: Number of Villages by Population Size

| 2001 | Population size (No.) | | | | | |
|---------------|-----------------------|-------|--------|---------|------|-------|
| | less than 10 | 10-49 | 50-149 | 150-499 | 500+ | Total |
| Uttarkashi | 5 | 29 | 110 | 370 | 168 | 682 |
| Chamoli | 26 | 131 | 307 | 528 | 174 | 1166 |
| Rudraprayag | 6 | 59 | 148 | 305 | 140 | 658 |
| Tehri Garhwal | 28 | 157 | 423 | 876 | 317 | 1801 |
| Garhwal | 100 | 529 | 1185 | 1166 | 171 | 3151 |
| Pithoragarh | 52 | 242 | 479 | 614 | 192 | 1579 |
| Bageshwar | 38 | 97 | 239 | 385 | 124 | 883 |
| Almora | 46 | 194 | 625 | 1017 | 290 | 2172 |
| Champawat | 16 | 74 | 191 | 275 | 100 | 656 |
| Nainital | 13 | 90 | 234 | 484 | 270 | 1091 |

| 2011 | Population size (No.) | | | | | |
|----------|-----------------------|-------|--------|------|------|-------|
| | less than | 10-49 | 50-149 | 150- | 500+ | Total |
| District | | | | | | |

| | | | | | | |
|---------------|-----|-----|------|------|-----|------|
| | 10 | | | 499 | | |
| Uttarkashi | 12 | 27 | 96 | 360 | 199 | 694 |
| Chamoli | 36 | 139 | 291 | 524 | 180 | 1170 |
| Rudraprayag | 15 | 52 | 152 | 286 | 149 | 654 |
| Tehri Garhwal | 30 | 150 | 431 | 853 | 310 | 1774 |
| Garhwal | 122 | 637 | 1189 | 1038 | 156 | 3142 |
| Pithoragarh | 43 | 264 | 483 | 592 | 190 | 1572 |
| Bageshwar | 32 | 110 | 243 | 362 | 127 | 874 |
| Almora | 49 | 223 | 681 | 948 | 283 | 2184 |
| Champawat | 22 | 66 | 171 | 265 | 138 | 662 |
| Nainital | 14 | 86 | 203 | 469 | 325 | 1097 |

Annexure Table 1b: District-wise Work Participation Rates

| Name | 2001 | | | 2011 | | |
|---------------------|--------|-------|--------|--------|------|-------------|
| | Person | Male | Female | Person | Male | Female |
| Uttarkashi | 46.07 | 48.28 | 43.71 | 47.6 | 50.0 | 45.2 |
| Chamoli | 44.48 | 44.90 | 44.06 | 46.2 | 48.4 | 44.1 |
| Rudraprayag | 44.86 | 42.32 | 47.15 | 46.7 | 45.7 | 47.5 |
| Tehri Garhwal | 43.77 | 45.06 | 42.54 | 45.3 | 47.3 | 43.5 |
| Garhwal | 38.71 | 40.79 | 36.84 | 39.9 | 45.1 | 35.2 |
| Pithoragarh | 42.98 | 43.40 | 42.58 | 44.8 | 47.4 | 42.2 |
| Bageshwar | 47.64 | 45.14 | 49.90 | 47.6 | 47.2 | 47.9 |
| Almora | 46.34 | 44.52 | 47.92 | 47.9 | 48.9 | 47.0 |
| Champawat | 40.17 | 43.49 | 36.93 | 38.3 | 46.1 | 30.5 |
| Nainital | 36.56 | 48.06 | 23.88 | 39.4 | 52.0 | 25.9 |
| Hill Region | 42.35 | 44.72 | 40.06 | 43.7 | 48.3 | 39.3 |
| Udham Singh Nagar | 31.74 | 48.03 | 13.68 | 35.9 | 51.8 | 18.6 |
| Hardwar | 29.39 | 47.20 | 8.79 | 30.6 | 49.5 | 9.1 |
| Dehradun | 31.23 | 47.78 | 12.57 | 34.3 | 51.4 | 15.4 |
| Plain region | 30.72 | 47.64 | 11.56 | 33.5 | 50.8 | 14.2 |

Annexure Table 2: Industrial Structure of Employment in Uttarakhand

| Industry group | 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 and Quarrying | | 0.04 | 0.01 | 0.2 | 0.2 | 0.2 | 0.0 | 0.1 | 0.0 |
| Manufacturing | 3.4 | 11.9 | 5.0 | 3.7 | 17.8 | 6.6 | 6.7 | 18.2 | 9.3 |
| Electricity water etc | .2 | 1.3 | .4 | .2 | 1.9 | .6 | .5 | 1.0 | .6 |
| Construction | 6.1 | 10.3 | 6.9 | 13.2 | 11.8 | 12.9 | 12.3 | 11.9 | 12.2 |

| | | | | | | | | | |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| trade hotel and restaurant | 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 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Calculated from NSSO Unit Level Data on Employment and Unemployment.

Annexure Table3: District-wise Structure of Employment

| <i>District</i> | <i>Agri..</i> | <i>Mfg,</i> | <i>Const.</i> | <i>Trade</i> | <i>Tpt.</i> | <i>Fin., etc</i> | <i>Pub. Admn.</i> | <i>All</i> | <i>Total number</i> |
|-----------------|---------------|-------------|---------------|--------------|-------------|------------------|-------------------|------------|---------------------|
| Almora | 71.88 | 1.92 | 15.63 | 2.40 | 1.20 | 0.48 | 6.49 | 100 | 416 |
| Bageshwar | 70.55 | 0.91 | 16.44 | 3.65 | 0.91 | 0.91 | 6.62 | 100 | 438 |
| Chamoli | 68.50 | 5.73 | 15.42 | 3.74 | 1.98 | 0.00 | 4.63 | 100 | 454 |
| Champawat | 68.53 | 1.74 | 21.24 | 3.67 | 1.54 | 0.19 | 3.09 | 100 | 518 |
| Nainital | 68.77 | 1.62 | 22.02 | 2.53 | 0.72 | 0.36 | 3.97 | 100 | 554 |
| Pauri Garhwal | 75.10 | 0.99 | 18.18 | 2.17 | 0.59 | 0.20 | 2.77 | 100 | 506 |
| Pithoragarh | 69.37 | 0.90 | 20.50 | 3.15 | 0.90 | 0.00 | 5.18 | 100 | 444 |
| Rudraprayag | 73.52 | 1.43 | 8.96 | 3.05 | 2.24 | 0.20 | 10.59 | 100 | 491 |
| Tehri Garhwal | 70.88 | 1.20 | 14.46 | 3.82 | 3.82 | 0.20 | 5.62 | 100 | 498 |
| Uttarkashi | 57.03 | 17.27 | 10.84 | 5.02 | 1.81 | 0.00 | 6.22 | 100 | 498 |
| Total | 69.36 | 3.40 | 16.44 | 3.32 | 1.58 | 0.25 | 5.46 | 100 | 4817 |

Source: Mamgain et al., 2005.

Annexure Table 4: Propensity to Remit

| <i>Household category</i> | <i>% of remitting migrant workers</i> | <i>Average amount remittance of (Rs.)</i> |
|---------------------------|---------------------------------------|---|
| <i>Land class</i> | | |
| Landless | 43.64 | 17167 |
| Marginal | 67.04 | 13214 |
| Small | 56.67 | 14997 |
| Medium | 60.00 | 34000 |
| Large | 50.00 | 12000 |
| Total | 64.41 | 13661 |
| <i>Caste</i> | | |
| Others | 66.26 | 14131 |
| SC | 73.79 | 9383 |
| ST | 28.36 | 21395 |
| OBC | 92.86 | 13738 |
| <i>District</i> | | |
| Almora | 62.93 | 13237 |
| Bageshwar | 73.75 | 16327 |
| Chamoli | 73.68 | 17179 |
| Champawat | 62.50 | 10910 |
| Nainital | 75.32 | 9131 |

| | | |
|---------------|-------|-------|
| Pauri Garhwal | 72.88 | 8898 |
| Pithoragarh | 79.17 | 13787 |
| Rudraprayag | 68.37 | 15209 |
| Tehri Garhwal | 54.08 | 14772 |
| Uttarkashi | 39.56 | 18042 |

Source: Mamgain et al., 2005.

Annexure 4a
Education-specific Propensity to Migrate

| <i>District</i> | <i>Upto middle</i> | <i>Sec & higher Secondary</i> | <i>Technical education</i> | <i>Graduate & above</i> | <i>Total</i> |
|-----------------|--------------------|-----------------------------------|----------------------------|-----------------------------|--------------|
| Almora | 15.84 | 38.84 | 28.57 | 41.67 | 21.70 |
| Bageshwar | 6.74 | 24.57 | 50.00 | 21.62 | 12.38 |
| Chamoli | 2.56 | 13.73 | 17.39 | 28.57 | 6.69 |
| Champawat | 4.14 | 13.50 | 27.27 | 44.44 | 7.77 |
| Nainital | 6.00 | 24.11 | 27.78 | 40.63 | 11.02 |
| Pauri Garhwal | 5.30 | 16.00 | 24.14 | 25.00 | 7.77 |
| Pithoragarh | 4.67 | 17.99 | 11.11 | 29.73 | 7.67 |
| Rudraprayag | 6.92 | 25.19 | 41.18 | 35.25 | 15.94 |
| Tehri Garhwal | 7.20 | 20.15 | 35.29 | 48.35 | 14.29 |
| Uttarkashi | 10.46 | 18.35 | 16.30 | 35.29 | 14.81 |
| Caste | | | | | |
| Others | 6.50 | 21.34 | 31.25 | 36.53 | 12.06 |
| SC | 5.50 | 20.08 | 6.56 | 24.24 | 7.87 |
| ST | 27.11 | 29.69 | 24.24 | 46.94 | 29.89 |
| OBC | 4.85 | 18.42 | 44.44 | 0.00 | 10.32 |
| Total | 6.90 | 21.63 | 25.76 | 36.38 | 12.02 |

Source: Mamgain et al., 2005.

Annexure 4b
Contribution of Remittances to Household Income

| <i>Household category</i> | <i>% share of remittance</i> |
|---------------------------|------------------------------|
| Land class | |
| Landless | 12.56 |
| Marginal | 10.22 |
| Small | 9.96 |
| Medium | 13.84 |
| Large | 10.84 |
| <i>Caste</i> | |
| Others | 10.73 |
| SC | 8.04 |
| ST | 10.55 |
| OBC | 11.24 |

| <i>District</i> | |
|-----------------|--------------|
| Almora | 19.10 |
| Bageshwar | 11.80 |
| Chamoli | 8.23 |
| Champawat | 5.81 |
| Nainital | 8.94 |
| Pauri Garhwal | 8.17 |
| Pithoragarh | 8.61 |
| Rudraprayag | 12.75 |
| Tehri Garhwal | 12.80 |
| Uttarkashi | 7.79 |
| Total | 10.36 |

Source: Mamgain et al., 2005.

Annexure 4c
Percentage Distribution of Migrant Households by Their
Range of Increase in Household Income due to Remittance

| <i>Household category</i> | <i>Range of increase (%)</i> | | | | | | <i>Total</i> |
|---------------------------|------------------------------|-------------|--------------|--------------|--------------|--------------|---------------|
| | 25 | 25-50 | 50-100 | 100-200 | 200-400 | 400+ | |
| <i>Caste</i> | | | | | | | |
| Others | 22.57 | 8.15 | 14.42 | 18.18 | 15.67 | 21.00 | 100.00 |
| SC | 25.40 | 11.11 | 17.46 | 15.87 | 14.29 | 15.87 | 100.00 |
| ST | 11.76 | - | 17.65 | 17.65 | 23.53 | 29.41 | 100.00 |
| OBC | 55.56 | - | 11.11 | - | 11.11 | 22.22 | 100.00 |
| <i>Land class</i> | | | | | | | |
| Landless | 42.86 | - | 9.52 | 4.76 | 28.57 | 14.29 | 100.00 |
| Marginal | 23.61 | 8.33 | 15.83 | 18.06 | 13.89 | 20.28 | 100.00 |
| Small | 4.35 | 13.04 | 4.35 | 17.39 | 30.43 | 30.43 | 100.00 |
| Medium | - | - | 25.00 | 25.00 | 25.00 | 25.00 | 100.00 |
| <i>District</i> | | | | | | | |
| Almora | 30.30 | 9.09 | 10.61 | 24.24 | 12.12 | 13.64 | 100.00 |
| Bageshwar | 20.41 | 6.12 | 22.45 | 12.24 | 18.37 | 20.41 | 100.00 |
| Chamoli | 29.17 | 4.17 | 16.67 | 20.83 | 16.67 | 12.50 | 100.00 |
| Champawat | 13.04 | 13.04 | 4.35 | 21.74 | 17.39 | 30.43 | 100.00 |
| Nainital | 19.05 | 4.76 | 16.67 | 11.90 | 11.90 | 35.71 | 100.00 |
| Pauri Garhwal | 13.89 | - | 22.22 | 8.33 | 38.89 | 16.67 | 100.00 |
| Pithoragarh | 22.22 | 11.11 | 8.33 | 19.44 | 8.33 | 30.56 | 100.00 |
| Rudraprayag | 21.05 | 12.28 | 15.79 | 21.05 | 8.77 | 21.05 | 100.00 |
| Tehri Garhwal | 34.88 | 11.63 | 13.95 | 11.63 | 18.60 | 9.30 | 100.00 |
| Uttarkashi | 21.88 | 6.25 | 15.63 | 21.88 | 12.50 | 21.88 | 100.00 |
| Total | 23.28 | 8.09 | 14.95 | 17.40 | 15.69 | 20.59 | 100.00 |

Source: Mamgain et al., 2005.