

ASSESSING REASONS OF OUTMIGRATION FROM GARHWAL HIMALAYAN REGION

A case study of three hill district

Kanika Mehta^{1*} and Dr. R. K. Maikhuri²

¹JB Institute of Technology, Dehradun-248197, Uttarakhand

²G B Pant National Institute of Himalayan Environment and Sustainable Development, Garhwal Regional Centre, Srinagar Garhwal 246174, Uttarakhand

*Corresponding author: kanikam2016@gmail.com

Abstract : This study has been undertaken to assess the migration pattern in Garhwal region of Uttarakhand. In order to check the migration pattern primary data has been collected from the three village clusters of Garhwal Himalayas in which various factors like education level, health, basic facilities like food, water, market, etc. has been assessed in the region. Moreover various programmes and policies launched by the government for various programmes has also been checked whether they are helpful to check the migration or not.

IndexTerms- Migration, Uttarakhand, Agriculture, Education, Health, Government Programmes.

I. INTRODUCTION

Uttarakhand emerges as the 27th state of India on 9th November 2000, leading to the fulfillment of the new rays of hope among the resident of hilly region regarding sustainable development, employment opportunities, better standard of living, improved agricultural practices and so on. However, over one and a half decade has passed, the optimistic thoughts of the inhabitants regarding any development has gradually faded which resulted in increased shift of the people from rural areas to plain areas. Migration can be defined as the movement of a person or a group of persons, either across an international border, or within a state. Out-migration is an age-old and inseparable part of human development whereas Uttarakhand being a Himalayan state is not untouched with the problem of migration. Due to the problems of low agricultural production, no employment opportunities, harsh climatic conditions, tough terrain and increase intensities of natural calamities forced villagers of Uttarakhand to move out.

Uttarakhand was separated from its parent state with the primary motive of developing hill areas self sustainable and make each and every individual of this state prosperous. When it was carved out, it was mentioned that Uttarakhand has adequate resources i.e. Hydro-power, Medicinal and Aromatic plants (MAPS), horticulture and tourism, etc. but it is the ill-fate of this region that till date none of the programme has been implemented effectively as a result of it the out-migration increased many fold from hill areas. Due to this there is an increase in urban population giving birth to a new issue of urban poverty besides increasing pressure on resources like land, water, market and so on whereas on the other end migration from villages has increased the problem of abandoning of cultivable agricultural land.

Apart from rural people, the political parties involved in the development of the state are also seen as one of the major cause behind the lagging of the state. The rural people elect their representatives from their villages and as soon as they get into the power instead of getting more involved and devoting their time to understand the problems of the villagers they shift either near to the block office, district head-quarters or to the state capital.

The consequence of this can be seen as the Delimitation Commission of India shifted six assembly constituencies from hills to plains. After noticing the voices are unheard, the rural people also migrate to the cities or to the nearby market/towns in order to emerge-out from the hardships of the region. It has been observed that with the changing scenario from sustainable agriculture based livelihood to industrial economy, improvement in basic necessities of life and refinement in people's thoughts and perception for better standard of living compels rural population to move from their native homes to better accessible regions. Moreover, the rural youths perceiving their quality of life as poorer than the urban areas are getting attracted to the plain regions (Mamgain, 2015). No matters what qualification they possess, the mass of rural youth is moving out with the desire of easy and hurdle free life therefore do not want to work hard.

Hence, they provide cheap labour facility available to various private bodies at the cost of abysmal health and living environment.

From the ancient times people living in mountain regions are highly dependent on agriculture and livestock for their livelihood but with the changing climate, decline in soil fertility, depletion of water resources, and increased threats of wild animals like monkeys, bores and leopard; the productivity of crops have declined besides this the various industrial development in the plain regions of Uttarakhand has also accounted to barren and uncultivable land.

Moreover, due to the expansion of protected areas and eco-sensitive zones in the region the villagers started finding difficulty to meet-out their needs for food, fodder, fuel and fibre despite of its availability because of the inaccessibility imposed in these areas which turned-out as one of the major cause behind population's out-migration specifically from the border areas of the state.

After viewing out-migration as a serious state concern, the State Government implemented the national level programme of MGNREGA in order to provide atleast hundred days employment to the rural people.

But this programme has failed to check migration in the state as then it raises the question of what to do in rest 265days of the year? Further, the Government also implemented programmes like "Integrated Hill Development Programme" (IHDP) and "Veer Chandra Singh Garhwali Paryatan Swarozgar Yojana" to encourage and provide financial assistance to the local people to take up small scale enterprises as self-employment opportunities.

Whereas the rural areas are concerned, till date these programmes have not demonstrated any favorable results in self employment business ventures as self-employment being not in culture of the society so nobody wants to take risk of investing in it and when anybody wants to take initiative then banks do not show interest in granting easy loans to them.

All these programmes have been initiated by the government for the development of the people residing in mountain regions but they are unable to cope up with the pace of migration and have not been able to bring any big change in the lives of rural people (Bora, 2000). Rather the subsidies and incentives provided to the industries are mainly concentrated in the plain areas of the state and assisted well to them in achieving their goals.

Whereas the industrially backward rural areas remained aloof from these benefits and drowned deep into the vicious circle of poverty which drives them to out-migrate.

Therefore this study was an initiative to know the basic reasons behind the out-migration of the rural population and to understand their keen desires to migrate to the cities, towns or other accessible regions despite of having clean air, water, green environment and resources to keep them healthy and wealthy.

II. STUDY AREA

Uttarakhand is the 27th state of Indian Republic located from 28°44' N to 31° 28' N; 77°35' E to 81°01' E in India with its two sub-divisions namely Garhwal and Kumaun.

The Census of India, 2011 (Table 1) revealed that the state has total population of 1,00,86,292 where two districts i.e. Almora and Pauri reflected negative population growth of -1.73% and -1.51% respectively against national average of 17%. The reasons found behind this negative growth rate is absence of livelihood options and desire to earn better quality of life. This study has been undertaken in the three districts of Uttarakhand viz. Tehri, Pauri and Chamoli (Fig.1).

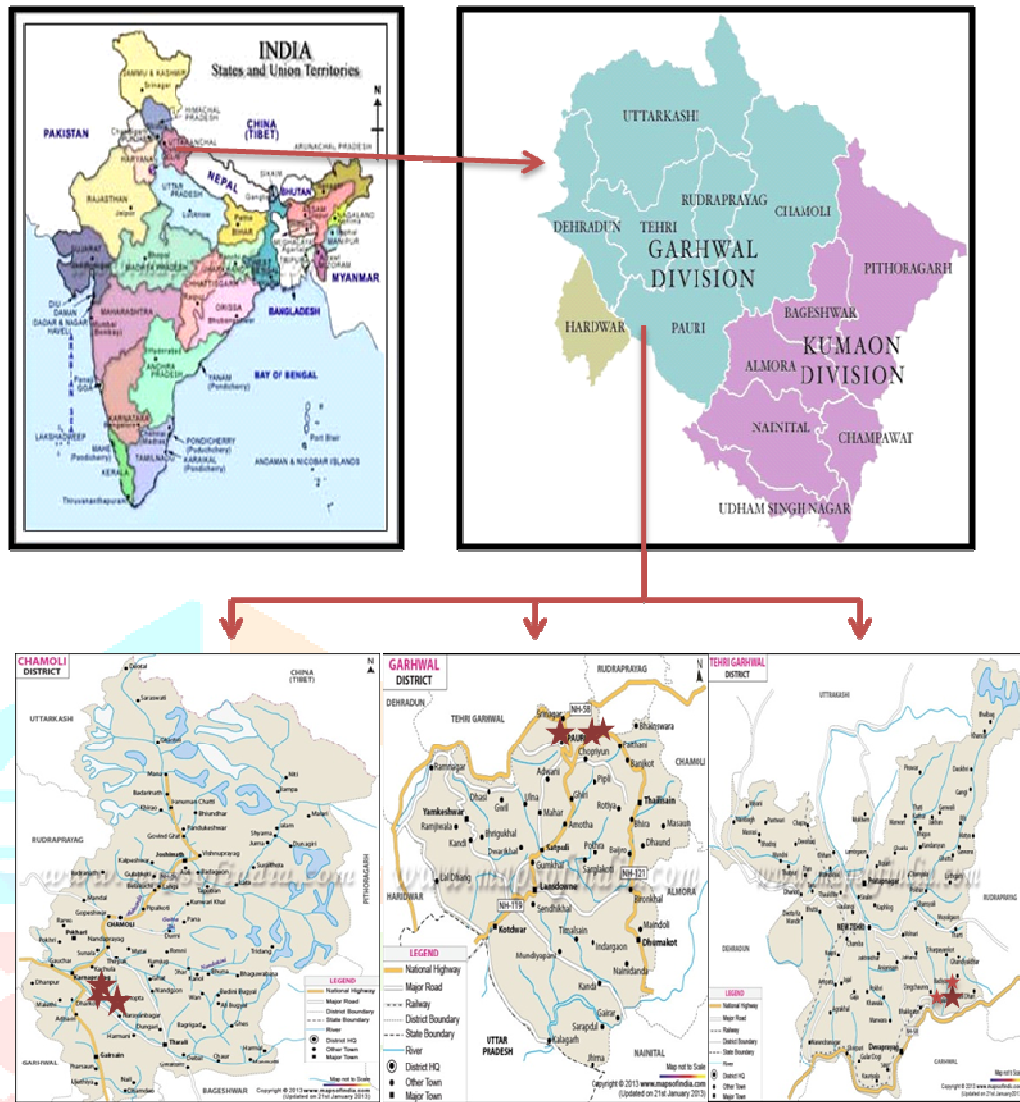


Fig.1 Study area map

III. METHODOLOGY ADOPTED

The present study focuses on the hilly regions of Uttarakhand in which three districts namely Tehri, Pauri and Chamoli Garhwal has been selected. In each district 5-7 villages were covered on the basis of their distance from village panchayat, block head quarter and district head quarter, water resources available, distance of educational institutions, health facilities, electricity, forest and market from the villages. It has been observed that the distance of selected village clusters are one to ten kilometers away from the road head or national highway but the migration trend seen in every cluster is same even if the villages are well-connected with the road networks. The tool used for collecting primary data is the structured questionnaire. Our questionnaire includes questions regarding person's place of origin, place of migration, educational qualification and reasons of migration. Along with the primary data, the secondary data from various agencies has also been used to understand the reasons.

IV. RESULTS

Human Population and its impact

The Indian Himalayan regions are the reservoir of various valuable medicinal and aromatic plants along with the natural scenic beauty. No doubt, number of studies has revealed that the traditional cultivation of pulses, seasonal vegetables and fruits and their value-addition can provide good employment opportunities to the rural people. But now with the passage of time due to variations in climatic condition, degrading quality of seed and soil and more importantly decline in the interests of people to work hard, these livelihood options seems insufficient to sustain people living in the rural areas and hence influencing migration in the region. Uttarakhand is still a developing state with a total population of 1,00,86,292 persons where 70,36,954 of its population resides in rural area which constitutes almost 69.76% of the total population and about 30,49,338 person resides in the urban areas (Census 2011). According to the census 2011 there is 11.5% (*rural*) and 39.9% (*urban*) of decadal change in population which clearly reflects that urban areas are growing at a faster pace than that of rural areas.

As more number of people are moving out from rural area which renders a threat about the sustainability of rural ecology, population, culture and traditions. According to UNESCO Atlas of the World's Languages in Danger, both Kumauni and Garhwali language are under world's vulnerable language and migration of people to plains making them to forget their own dialects.

The population residing in hilly villages faces number of challenges since time immemorial. Earlier in late 80's and 90's every second person in the rural area was involved in agriculture as their main source of income generation. But after 2000 the economy has shifted from agricultural economy to job-oriented economy, a huge mass of population is out-migrating with the aspirations of attaining quality life. Moreover, low agricultural productivity, degrading soil quality, increase in unwanted natural calamities and no or low employment opportunities force people to migrate in order to eke out their livelihood (Sati, 2009). During 80's and 90's it was also said that there is a huge pressure on forest due to increasing population whereas after the separation of the state proliferation of migration has been observed. Since 2000 onwards, the rural has also adopted new livelihood options and more and more people have started using LPG instead of wood so the dependency on forest resources like leaf, litter, fodder, etc. has reduced simultaneously. Priorly, every rural household possess their own livestock (cow, goat, bullocks, etc.) now this trend has also been replaced by pet dogs. Moreover now the rural people have no affinity with forests as a result of it the problem of forest fire has increased and reduction in forest vegetation has been observed. Earlier state was experiencing outmigration since 1870s (Singh 1990) whereas with the change in time the increasing population pressure was affecting the carrying capacity of Himalayas leading to the out-migration of people (Skeldon 1985; Gurung 1989). But now this trend is also changing as more and more number of villages are getting vacant, rural population out-migrating to the plains which is creating a huge pressure on the plain areas of the state. Based on the last three decades census, a decadal change in the demographic profile of the districts covered in the study area is shown in table 2. Among the three districts of Garhwal, Pauri district is showing negative decadal change of -5.37% from 2.85% in 2001 census. In the year 1991, the census of district Chamoli has also shown negative decadal change of -14.5% which later on seems improved to 11.55% in the year 2001 but now it is again touching the mark of 0.19% in census 2011 which is not very far away from being negative. Another study district i.e. Tehri Garhwal has no other story to tell as 2011 Census report reflects the decadal change of 0.71% from 11.82% which is also at the edge of danger. The previous studies have shown that the districts Tehri, Pauri and Almora are well known for the out-migration since 1980s (Singh 1990). It has been observed that though the situations in all these three districts keep changing but it never got improved rather getting worst in terms of migration.

During 1972-88, about third/fourth of total families in the village were found migrated in Garhwal Himalayas (Maikhuri et.al. 1995). Whereas now a days when migration has become a common phenomena we hardly find families where no person has migrated. Rather it has been observed that the migration trend has now inverted as every third/fourth person from every single family of the village is migrating because of various push and pull factors like job, education, better livelihood opportunities, better facilities and so on. According to NSSO, a household member whose last usual place of residence was different from the present place of enumeration was considered as a migrant member in a household. The data so collected from the field revealed that there are two type of migration prevailing in Garhwal Himalayas i.e. temporary and permanent migration. The movement of people varies from cluster to cluster as people depending upon their capacity and capability to survive out-migrate from villages to foothills, valleys and townships. Foothill includes the mountain areas adjoining the plain regions of the state like Dehradun, Haridwar, Rishikesh, Haldwani and Udham Singh Nagar whereas valleys include the nearby small satellite town settlements near to the roads in the hilly regions only like Kirti Nagar, Srinagar, and market areas of Karnprayag, Rudraprayag, and Chamoli. Satellite towns are the dispersed towns in the hill region basically on the road connecting to the major towns of the state. Township includes the plain regions of the other states. The Census data of 2011 disclosed that Pauri has maximum number of uninhabited villages (331) followed by Almora (105) and Pithoragarh (103) whereas apart from Pauri our two other study areas i.e. Chamoli (76) and Tehri (88) is displaying homogenous results.

While collecting the primary data villagers were asked to respond reasons based on their experiences of migration in which the perception of the villagers regarding migration has been observed. About 80.31% of the respondent expressed that due to lack of job opportunities people are forced to out-migrate and get them absorbed in salaried jobs. Secondly, with 43.30% of the respondent replied education as the reason behind the migration in the region. They believe that at present most of the parent wishes to sent their siblings to the best schools so that in the coming years they do not face those problems which they have gone through. About 22.04% of the respondent sees infrastructure as the reason for migration. The vertical dimension along with the high altitudes limits the use of agricultural land and also makes it unsuitable for human settlements (Groetzbach, 1988). Therefore more and more people are migrating from inaccessible areas to accessible ones to obtain basic facilities particularly health, etc. (Srivastva and Sasikumar, 2003). There are 5.51% people who responded that due to lack of health facilities people are migrating as some villages. There are 1.57% of the respondent who feels poverty as their reason for migration where about only 0.78% of the respondent presumes market as the reason for out-migration And seeing all above factors only 1.57% of the respondents feels agriculture as a factor of migration since there is no livelihood option left in the villages (Table 3). However, people revealed that agriculture was common practice in the hilly region, but now as time has changed, land has lost its fertility and uneven rainfall pattern and wildlife is also seen as a reason of abandoning the agriculture as a major proportion of agriculture is rainfed (87%). Moreover, the uneven and unplanned house constructions all over the hill-region has resulted in depletion of wild food resources along with that the forest fires driving wild-animals to enter villages and farm fields in search food ultimately affecting the crops and sometimes threatening human life too.

Employment induced migration

With the development of the new state it is seen that the number of employment opportunities have come up in the tarai region of Uttarakhand. The increasing urban-rural interaction has shifted the employment pattern from farm to off farm activities. No doubt the tarai region has provided a good scope of earning to the people but on the other end it is a huge loss to the primary sector as people are more attracted to work with big firms leaving the elderly people alone at home. At many places it has also been observed that mostly old-aged people are staying in the villages as they do not want to leave their native homes and are taking care of their farms and house whereas the new generation do not want to stay in the villages. Soon after two or three years of marriage the male members are forced to leave the villages due to various social reasons like secured job, providing quality education to their children and health facilities but the actual reason behind this shift is the luxurious and comfortable life in the cities as new generation believes that if they will stay in the villages then they have to work on farm fields and have to take care of the livestock's which they considered as a pity and low standard job. Besides all this, no establishment of cottage and small scale industries in the state induced rural people to work in industries established in plain regions.

The income earning of the people plays a very important role in deciding various factors like their standard of living, quality education they receive, health facility they avail, and the type of house they are living in. According to the figures released by the Directorate of Economics and Statistics, the per-capita income in Uttarakhand has been estimated to Rs 1.03 lakh in the financial year 2013-14 which is Rs 11,158 more than the previous year's income of Rs 92,191 (Uttarakhand at a Glance 2014-15). Migration of the rural people might have raised the standard of living of the some people but not for all still there exists huge income disparities in the salaries or income that people are earning. As hilly regions have less option of employment opportunities and this condition is backed by low quality/pseudo educational background of the new generation therefore, providing a good force of educated youth to private sector in the plain regions causing a huge net loss to local economy of the region specially hilly region (Bora, 1996).

Education induced migration

The effective literacy rate of India in Census 2011, works out to 74.04% whereas Uttarakhand is among the states which has reflected a positive growth in literacy level above the national average i.e. 78.82%. No doubt, Uttarakhand has attained a remarkable literacy level in last two-three decades. The increase in educational institutions has made hill people more aware for the education of their siblings which they believe as very important thing to attain in order to obtain a secured life in cities (Mamgain, 2004). Therefore, the awareness of the people living in hilly regions has resulted in 37.05% increase in the number of literates during last decade (Census of India Report, 2013) further making state stood at 17th rank in literacy rate. From age old time few hilly towns like Nainital, Mussorie, Dehradun and Ranikhet was considered as education hub where student's from different states of the country gathers to attain quality education whereas now the quality of education particularly at primary and secondary level in rural and small townships has gone down. During field survey it has been observed that 21.16% of the children have been out-migrated to other place in order to obtain Nursery and Kindergarten education whereas 23.28% of the children have migrated along with their parents for primary education. A majority of 33.33% of children have migrated to other cities for pursuing secondary education. About 19.57% children are obtaining higher education by out-migrating with their parent. Only 1.05% of children have migrated for professional education whereas 1.58% of the children have been out-migrated to obtain technical education (Fig. 2). All the three districts showed increasing trend in literacy level of the persons during one decades in the region (Table 4). However, good growth in the education rate of both male and female sections of the society, besides this figure does not highlight the factors like lack of infrastructure facilities, shortage and absenteeism of teachers and deteriorating the quality education (Nautiyal and Nauriyal, 2001). As a result of it, these factors are promoting increased drop-out students rate or migration of people to other places in search of quality education.

Policy induced migration

In most of the studies only mountain specificities and various social factors were seen as the reasons behind out-migration. No matters the various agricultural, rural development, education and so on policies are framed for the overall development of the state. But while collecting primary data we find that along with the above mentioned factors the state government framed development policies and programmes were not implemented properly and unable to provide jobs to the people and thus responsible for provoking out-migration in the region. The hill agricultural policy was laid with an objective of bringing zoom in the agriculture all over the hill districts by emphasizing on high-yielding varieties, use of pesticides and insecticides. But it resulted in decline in traditional agricultural practices and declined soil fertility. Moreover, the frequent visit made by wild animals on farm land destroys not only the flourishing crops on field but also the hard efforts of the farmers. So, hardly any rural farmer is interested to work on fields. Besides this the governmental Public Distribution System (PDS) of providing cheap ration to below poverty line (BPL) and above poverty line (APL) classes through PDS shops made the scenario worst. However these policies instead of making people work hard made them lazy by creating a comfort zone for them. Most of the migrated respondent (50%) from the study area admitted wild animals destruction, scarcity of water and their negative interest (18%) and lack of manpower (14%) for abandoning agriculture fields (Fig. 3). In order to provide employment to the rural youth the industrial policy was framed but till date no such change has been observed as nobody wants to take risk of establishing enterprises neither government took any interest of establishing small scale industries in hill areas.

V. DISCUSSION

Uttarakhand is held at 20th position among Indian states with a population of 10.09 million (Census, 2011). According to population census (2011), nearly 70 percent of population lives in its rural areas 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; it has showed a moderate growth in its population (1.74 per cent per annum) between two censuses (2001 to 2011), which is comparatively higher than the national average. Moreover, the hill region of the state witnessed much lower growth in population (0.70 percent) as compared to plain districts (2.82 per cent). Much of this growth in population in plain districts is contributed by out migration from the villages of hill districts. Overall, the migration of hill region in the plains population has increased substantially by about 5 % between 2001 to 2011 (Census 2011). As majority of the people are moving out from the state due to the problems like poverty, low agricultural production, climatic variability natural calamity, lack of basic facilities viz., transportation, electricity, drinking water and poor quality of education, so on and so forth. The census report, 2011 reveals that 446 villages are at the verge of getting vacant due to the less population at the village level. The study reveals the strong reason behind the migration is gradual change in climatic condition. At several places in the mountain region change in plant growing period, phenology, invasion of invasive species and change in soil characteristics affecting the agriculture production along with the wild resource production has been noticed.

Moreover, it has become increasingly difficult to find labour for ploughing of fields, leading to very high charges of agricultural labour in many villages even for limited landholdings. This has again dissuaded villagers to cultivate their land. The farmers are willing to diversify their farm production to improve their income, but the support required by the agricultural department, irrigation department and other line department remains a major concern. As a result, almost all farmers are willing to leave their highly non-remunerative agriculture, provided they get other alternative livelihoods. According to the farmers, due to the unavailability of wild resources for wild animal's consumption in the forest, the menace of wildlife like monkeys, bores and bears have become more frequent and widespread in the villages. In farmers opinion to make wild-animals run away is emerging as the most difficult task rather than managing irrigation from different sources. The age of migrants in the state mainly belongs to the working age group (22-45 years) and analysis showed that livelihood related migrants have contributed higher percentage of migrants in the state. Besides this, in the hills younger generation is showing their more interest in living comfortable life rather than working on agriculture farmlands. It has also been noticed that in the year 2006-07 the GDP of the state grew by 10.15 percent and the manufacturing sector grew by 17 percent, but side by side there was decline in the share of the primary sector by 2.7 percent (UDES, 2007). However, the state has lost 4,211 ha of cultivated agriculture land between 2001-2012 due to selling of agricultural land and abandoning of agricultural land (Dept. of Agriculture, Uttarakhand). Over the 90 percent of respondents attribute that low levels of agriculture productivity coupled with increased fragmentation of land holdings in every generation as one of the important reasons for out migration. A recent National Sample Survey Organization (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). Although with the passage of time and the problems faced by the villagers have made them aware towards the education for their upcoming generations. Therefore, most of the people are seeking good quality education for the defined future of their children. Most of the youth migrants from Uttarakhand do not have quality education due to which they found difficulty to get a satisfactory job. Many of the migrated people work in hotels, shops, small factories or road-side dhabbas in order to earn their livelihood without realizing that they are made to work more and are less paid at the cost of their health. Many of them want to return back to their native place but as they do not have any stable employment available at home they are unable to return. The income that the migrants earn is negligible as they are unable to save a good amount out of it many of them invest most part of their income in paying for house rent, three time meal, clothing and medical expenses (Mamgain, 2004; Awasthi, 2012). No doubt by moving out in search of better job prospects have improved the standard of living of the hill residents but as per the surveyed data it has also been observed that by being not well educated or well versed with various skills migrants are paying a lot at the cost of their health. If they would have been working by being at their native places even at lesser amount or at the same amount would have paid them well. Therefore, there is a need to add skill based subjects in the curriculum right from the school level so that after completing school if a student cannot afford obtaining graduation then should be capable enough to get self-employment at village level. It is seen that most of the policies framed are meant to control, regulate or limit the mobility (Skeldon, 1997) but as hilly areas have number of mountain specificities and challenges which demands for separate hill policies to support micro-development strategies for the region. Employment in mountain region is the issue that has been prevailing right before the establishment of the state. Uttarakhand state comes under special category status and initiate several policy measure and programmes for hill development in 2002 by planning commission of India. The industrial policy provided about 2,843 incentives to set up industries in the state under Factories sector Act which provided employment over 8.4 times from 40880 to 342385 between 2001 to 2011(CSO, ASI 2013). Unfortunately, the industrial development policies remained confined to the tarai plain areas lead the reason of migration to downwards. A separate Hill Industrial Development Policy was announced in 2008 for attracting the industries and investment in the State but it was not implemented on a desired level. Along with it, Micro, Small and Medium Scale Enterprises (MSME) establish for the creation of over 3000 micro units for small scale industries viz., food processing units, MAPs cultivation, floriculture, handicraft and handlooms units, pharmaceutical unit, mineral water and steel fabrication unit based on available resources in state. Some units (763 units) were opened upto 2013 but it raised several basic issues such as improper roads, infrastructure facility, electricity supply, etc. which hinders the policies to be implemented (CSO, ASI, 2013).

Apart from the central government, state government launched the Veer Chandra Singh Garhwali Paryatan Swarozgar Yojana, Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) Swarnjayanti Gram Swarozgar Yojna (SGSY), National Livelihood Mission (also called Aajivika Mission), Uttarakhand Livelihoods Improvement Project for the Himalayas (ULIPH); Integrated Livelihood Support Project (ILSP); State Rural Livelihood Mission, etc was implemented by the government to create self-employment to rural areas to stop migration, however, such interventions are not widespread and could hardly make major impact on improving income levels of rural households in Hill Region. The policy framework for hill region has almost remained ineffective for attracting investment to hill areas of the State, needs to be relooked and made more effective industrial growth in hill and plain areas. Agriculture extension services such as horticulture, fishery, dairy, mushroom cultivation need to be strengthened to improve their outreach and effectiveness in the state. The tourism policy of the State need to be modify in a potential capacity of the area. This will create large number of employment opportunities at village level and reduce migration. Similarly, providing quality education and skill training to the youth would enhance knowledge and develop opportunity for several small industries like IT firms in the state. Hilly region are very sensitive and fragile ecosystem which require extra attention to promote existing policies like forest policy, agricultural policies, MSME related policies, Hydropower generation policies etc and amended accordingly to the grassroot level for the betterment of the people in the rural landscape. These policies still require an in-depth intervention and more pro-poor and mountain specific policies need to be framed. The government needs to initiate to set up small scale industries through available bioresources and promote the traditional handicraft industries at local level in order to stop migration. A concerted effort to provide productive employment will not just uplift the people standard of living and livelihood opportunities but will also bring about faster growth and development of the state. The programmes or policies should be such that can utilize the untapped potential of the state for the development of the region and could also check the prevailing problem of migration.

VI. FIGURES AND TABLES

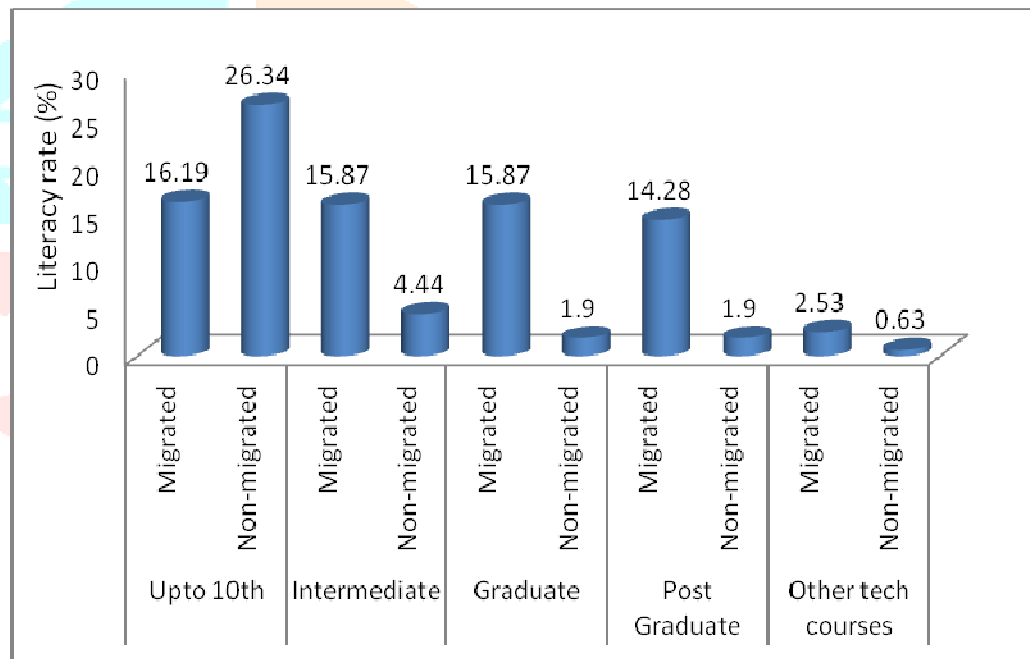


Fig.2 Educational qualification of the people in the three village clusters

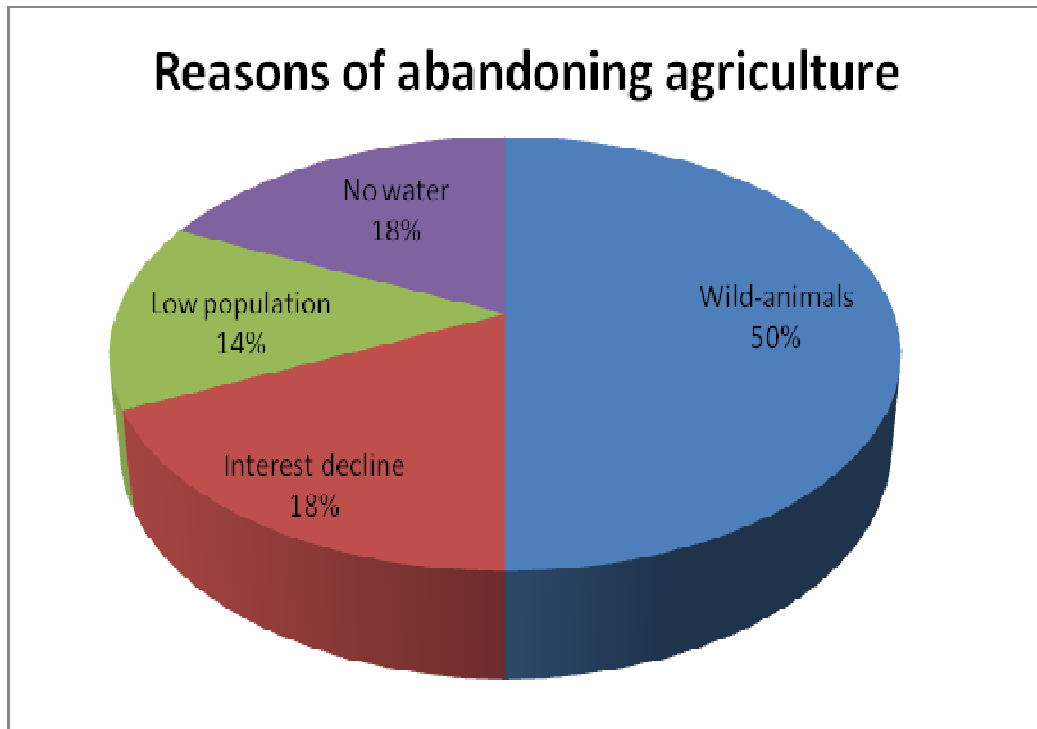


Fig.3 Agriculture abandoning reasons

Table 1. Brief Profile of Uttarakhand (2011)

Districts	Geographic area (sq. km.)	Total Population (Lakhs)	Decadal Change (in %)	Sex Ratio	Literacy rate (in percentage)
Uttarkashi	8016	330086	11.89	958	75.81
Chamoli	8030	391605	5.74	1019	82.65
Rudraprayag	1984	242285	6.53	1114	81.30
Tehri Garhwal	3642	618931	2.35	1077	76.36
Dehradun	3088	1696694	32.33	902	84.25
Pauri Garhwal	5329	687271	-1.41	1103	82.02
Pithoragarh	7090	483439	4.58	1020	82.25
Bageshwar	2241	259898	5.15	1090	80.01
Almora	3144	622506	-1.64	1139	80.47
Champawat	1766	259648	15.63	980	79.83
Nainital	4251	954605	25.13	934	83.88
Udham Singh Nagar	2542	1648902	33.44	920	73.10
Haridwar	2360	1890422	30.63	880	73.43
Uttarakhand	53483	1,00,86,292	18.81	963	78.80

Source: Census 2011

Table 2. Demographic profile of decadal change

Years	Percentage change in population		
	Tehri	Pauri	Chamoli
1991	2.13	7.05	-14.5
2001	11.82	2.85	11.55
2011	0.71	-5.37	0.19

Source: Census 2011

Table.3 Perception of villagers for migration (in percentage)

S. No.	Attributes	% of total respondents
1.	Job	80.31
2.	Education	43.30
3.	Health	5.51
4.	Infrastructure	22.04
5.	Market	0.78
6.	Poverty	1.57
7.	Agriculture	1.57

Number of respondents n=127

Table.4 Decadal change in literacy rate (in percentage)

Years	Tehri			Pauri			Chamoli		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1991	72.06	26.34	48.47	67.67	41.26	54.1	81.15	39.74	60.59
2001	85.33	49.42	66.73	90.91	65.7	77.49	89.66	61.63	75.43
2011	89.76	64.28	76.36	92.71	72.6	82.02	93.40	72.32	82.65

Source: Uttarakhand Statistical Handbook

ACKNOWLEDGEMENT

The author wish to acknowledge the Director, G.B Pant National Institute of Himalayan Environment and Sustainable Development, Kosi Katarmal, Almora and Garhwal Unit for providing necessary facilities and funding for this study. Sincere appreciation goes to the local inhabitants of the villages for their cooperation and help.

REFERENCES

- Awasthi, I.C. (2012), *Livelihood Diversities in Mountain Economy: Constraints and Opportunities*, Concept Publishing Company Pvt. Ltd., New Delhi.
- Bora, R.S. (1996), "Himalayan Migration: A study of the Hill Region of Uttar Pradesh", New Delhi, Sage Publications.
- Bora R.S. (2000), "Out-migration: Some Policy Implications for Uttarakhand", New Delhi, Indus Publishing Company.
- CSO (2013), *Annual Survey of Industries*, New Delhi
- Groetzbach, E.F. (1988), "High Mountains as Human Habitat" In NJR Allen et al. *Human Impact on Mountains*", New Jersey: Rowman and Littlefield.
- Gurung, H. (1989), *Regional Patterns of Migration in Nepal*. Papers of the East West Population Institute Number 113. Honolulu, East West Population Institute.
- ICIMOD, (2011), *Labour Migration and Remittances in Uttarakhand*, Case Study Report, ICIMOD, Kathmandu, Nepal.
- Mamgain, R.P. (2015), "Outmigration from Hill Region of Uttarakhand: Magnitude, Challenges and Policy Issues", International Conference on Labour and Employment Issues in the Context of Emerging Rural-Urban Continuum: Dimensions, Process and Policies, Hyderabad.

- Mathur, Ashok and Mamgain, Rajendra P. (2002), “Technical Skills, Education and Economic Development in India”, The Indian Journal of Labour Economics, Vol. 45, No. 4.
- Maikhuri, R.K., Saxena, K.G., and Rao, K.S. (1995), Experiences in developing a village agroforestry project in Garhwal Himalaya, India, International Tree Crops Journal 8:213-221.
- Nautiyal, R.R. and Nauriyal A.K. (2001), “Human Resource Development in Uttaranchal: Challenges and Opportunities”, in Pandey et al. (eds).
- Papola, T.S. (1996), “Integrated Planning for Environment and Economic Development in Mountain Areas”, Discussion Paper Series No. MEI 96/2, ICIMOD, Kathmandu.
- Sati, V.P., Rawat, M.S.S., and Bisht, Rakhi (2009), “Migration and Agrarian changes in Mountain regions- A case study of the Pindar Basin of Uttarakhand Himalaya, India”, Annals of NAGI, Vol.29 No.1:20-33
- Singh, OP (1990) ‘Population dynamics and pressure in the Uttar Pradesh Himalayas.’ In Ahmad, A; Clarke, JI; Shrestha, CB; Trilsbach, A (eds) Mountain Population Pressure. New Delhi: Vikas Publication Pvt. Ltd
- Skeldon, R. (1985), “Population Pressure, Mobility and Socioeconomic Change in Mamgain, Rajendra P. (2004), Employment, Migration and Livelihoods in the Hill Economy of Uttaranchal, Ph.D. Thesis, Centre for the Study of Regional Development, Jawaharlal Nehru University, New Delhi.
- Mountainous Environment: Regions of Refuge in Comparative Perspective: Mountain Research and Development.
- Planning Commission (2013), Press Note on Poverty Estimates, 2011-12, July, New Delhi.
- Skeldon (1997), “Migration and Development – A global Perspective”, Longman, Harlow (Essex), p. 4
- Srivastava R., Sasikumar S.K. (2003), “An overview of migration in India: its impacts and key issues”, Paper presented at Regional Conference on Migration, Development and Pro-Poor Policy Choices in Asia, at Dhaka.
- Tiwari, P.C., Joshi, Bhagwati, (2015), “Environmental changes, rural out-migration and social dynamics in Himalayas”, Studia Obszarów Wiejskich 2015, volume 38, pp. 77–96
- UN (1993), Readings in Population Research and Methodology, The United Nations Population Fund, New York.

Websites:

- <http://des.uk.gov.in/>
- <http://censusindia.gov.in/>
- <http://www.unesco.org/culture/languages-atlas/en/atlasmap.html>
- <http://eci.nic.in/delim/>
- www.ukhfw.org

