

## Population exodus in Pauri Garhwal: Out-migration raising questions on existence of hilly state Uttarakhand

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### Abstract

Migration is a big problem facing by the people from hilly area of Uttarakhand. State has done fairly well in terms of economic growth, but the focus has been only on plain districts. People are now setting in these plain districts (intra-state migration) for better opportunities. The lack of job opportunities, suffering for basic amenities, education, water and health facilities, degrading land, and many more problems pushing people from mountains to the plains. The problem of increasing migration from the rural areas has posed a serious concern for the economy as the economy of the state has been termed as ‘money order economy’. These factors adversely affect the hill district. The rate of migration in Pauri Garhwal is highest in all the districts of Uttarakhand. The declining growth rate indicated the out migration of rural population. This paper aims to represent the major factors responsible for migration in Pauri Garhwal and solutions for population exodus.

**Keywords:** migration, intra-state migration, population exodus, money order economy

### Introduction

“No one leaves home unless home is the mouth of a shark”  
 -Warsan Shire

Rural Areas are the key sector in every nation’s economy. Their rapid development and modernization have gained the attention of policy makers and governments all over the world. Uttarakhand was ignored part of country before the year 2000. Its importance was only confined to religion. All funds of government were spent on Noida and Western UP. Migration in the 1980’s was the main driving factor for the Uttarakhand movement, demanding creation of a separate state. Therefore, Uttarakhand was carved out of Uttar Pradesh (UP) in 2000 precisely so that exclusive attention could be given to the development of its remote hilly districts. Everyone hoped that the new state will get economic boost and attract industries leading to better employment and education opportunities in the hills. This will arrest the need

for migration to plain cities in other states. Most of the economic opportunities tended to concentrate in plain areas of the State, leading to huge income inequalities across the hilly and plain districts of the State. Due to this lopsided development, the pace of out-migration could not slow down from the hilly districts of the State after its formation. The pace of out-migration is so huge that many of the villages are left with a population in single digit. According to Census 2011, Out of 16793 villages of Uttarakhand, 1053 villages are in the state that are uninhabited-“ghost villages” and another 405 have a population of less than 10. Pauri is witnessing large scale migration from the state’s hill parts. There has been a negative decadal growth observed in Pauri Garhwal district (-1.41%) which somewhat indicates the high rate of migration. The population in district fell by 9,807 persons between 2001 and 2011 is a testimony of huge out-migration. Government is unable to offer youngsters dignified jobs in the state and hence entire families have been migrated.

**Table 1:** Decadal change in population of Tehsils by residence, 2001-2011

Tehsil	Population						Percentage Decadal Variation 2001-2011		
	2011			2001			Total	Rural	Urban
	Total	Rural	Urban	Total	Rural	Urban			
Srinagar	53689	33574	20115	49800	30142	19658	7.8	10.2	2.3
Pauri	135718	109562	26156	146074	120737	25337	-7.1	-10.2	3.1
Thalisain	92286	92286	0	93409	93409	0	-1.2	-1.2	0.0
Dhoomakot	39230	39230	0	44010	44010	0	-10.9	-12.2	0.0
Lansdowne	77621	71954	5667	90005	82103	7902	-13.8	-14.1	-39.4
Satpuli	31494	31494	0	35536	35536	0	-11.4	-12.8	0.0
Chaubattakhal	38436	38436	0	44247	44247	0	-13.1	-15.1	0.0
Kotdwar	175232	119136	56096	142372	111394	36978	23.1	6.5	34.1
Yamkeshwar	43565	38896	4669	45625	45625	0	-4.5	-17.3	100.0
Total	687271	574568	112703	697078	607203	89875	-1.4	-5.7	20.3

*Source:* Census of India, 2011

In table 1, we can see that the decadal growth rate of the district is -1.4 per cent during 2001-2011. The growth rates for rural and urban areas of the district are -5.7 and 20.3 per cent respectively. Out of the total population of the district, 83.6 per cent lives in rural areas while 16.4 per cent lives in urban areas of the district. The proportion of urban population has substantially risen during the decade from 12.9 per cent in 2001 to 16.4 per cent in 2011 in the district. Pauri, Thalisingain, Lansdowne, Satpuli, Chaubattakhal, Dhoomakotand, Yamkeshwar have shown negative growth rate (Census of India, 2011).

Seventeen years have passed but the mountain districts of Uttarakhand are still short of basic facilities, especially in job opportunities, educational and healthcare facilities. There are no jobs to be had in districts and this is leading to large-scale migration to the plains, leaving entire mountain villages uninhabited. Farming, which used to be the principal occupation in the hills, is crippled by small land holdings and

a lack of government initiatives for agricultural activities makes it more serious. People living in the mountains have always migrated to the plain cities in search of white-collar jobs. The rate of migration was different in past. Only male family members use to migrate from mountains to plain. But now migrations to the plains involve entire families, either within Uttarakhand or to other parts of the country. This can be ensured due to the declining pattern of sex ratio in the district from 1106 females to 1103 female per 1000 males. Incidentally, people from the hills of Pauri have been found to usually migrate to the plains of Haridwar and Dehradun. Migration rate is so high in the hill district that 331 villages became uninhabited out of 3142 villages in Pauri Garhwal. The high number of uninhabited villages is visible in Kot, Ekeshwar and Pauri block. Pauri tehsil has highest number of uninhabited villages in district shows the continuous pattern of migration from this block.

**Table 2:** Block wise total no. of villages

C.D. Block	Tehsil	Total Village	Inhabited	Uninhabited
Khirsu	Srinagar tehsil	146	123	23
Kot	Pauri and some part of Srinagar tehsil	266	219	47
Pauri	Pauri and some part of Srinagar tehsil	214	177	37
Kaljikhil	Pauri tehsil	274	241	33
Pabo	Pauri tehsil	158	147	11
Thalisingain	Thalisingain tehsil	224	202	22
Bironkhal	Thalisingain and some part of Dhoomakot tehsil	267	249	18
Nainidanda	Dhoomakot tehsil	305	290	15
Dwarikha	Lansdowne tehsil	234	224	10
Dugadda	Kotdwar and some part of Lansdowne tehsil	280	268	12
Jaiharikhil	Satpuli tehsil	236	216	20
Ekeshwar	Satpuli tehsil	269	228	41
Pokhra	Chaubattakhal tehsil	137	123	14
Rikhnikhal	Lansdowne tehsil	190	184	6
Yamkeshwar	Yamkeshwar tehsil	240	225	15
Forest CD Block	-	33	26	7
Total	-	3473	3142	331

*Source:* Census of India, 2011

There has been slowing down growth in agriculture and allied activities in Uttarakhand. Himachal Pradesh earns more than Rs 15,000 crore every year from horticulture and agriculture because of its better government policies. Whereas, Uttarakhand government never focused on developing agriculture and that is why there is this deep decline. Lack of irrigation facility, menace of wild animals coupled with government apathy are forcing people in villages of Pauri district to migrate to others place for livelihood. 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. 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. Irrigation channels are in bad shape and hardly being maintained for irrigation purposes. The utter failures of hydraulic pump systems for irrigation show the callousness of

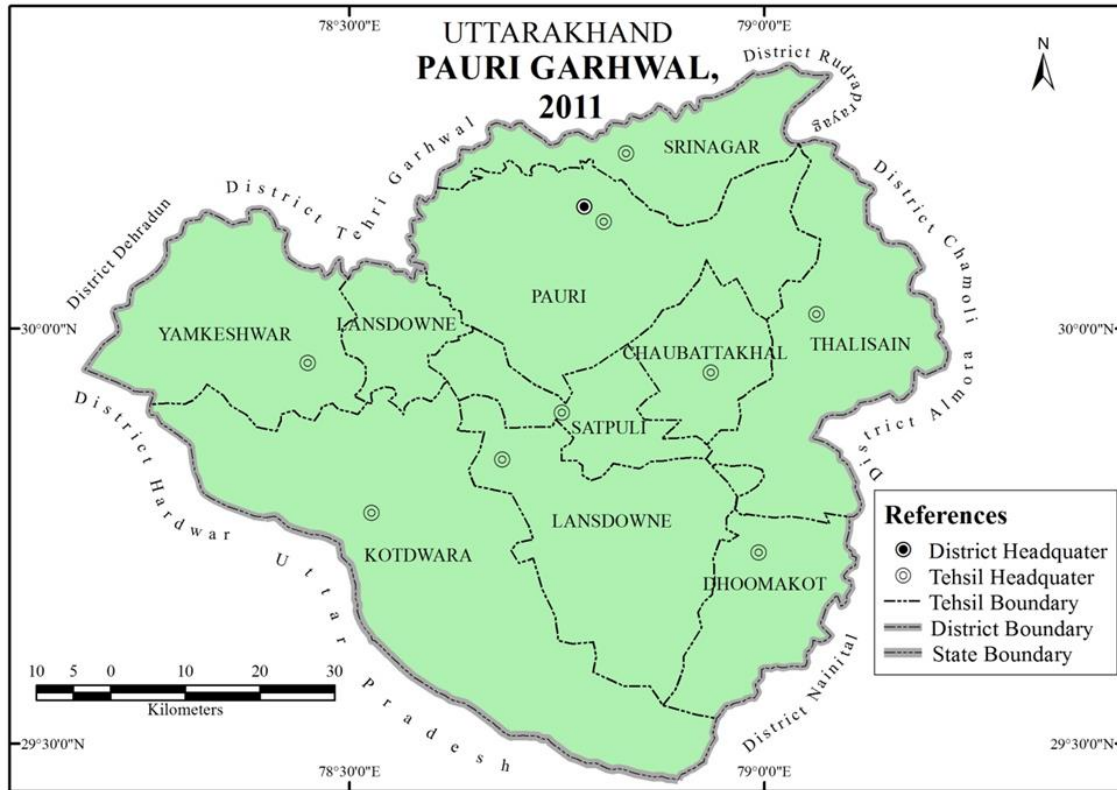
government towards infrastructure development for agriculture in Pauri Garhwal.

### Study Area

District Pauri is situated in the south-west of Uttarakhand. It lies between latitude 29°26' and 30°19' north and longitude 78°12' and 79°14' east. The maximum length from east to west is 103 km and the maximum breadth from north to south about 100 km. Total geographical area of the district is 5,329 sq km. The district is bounded by Dehradun and Haridwar on the west, district Bijnor of U.P. on the south, district Naini Tal and Almora on south-east, districts Chamoli and Rudrapur on north east and north and on north-west is Tehri Garhwal. District Garhwal is part of western Kumaon Himalaya; Siwalik and doons as per regional division's scheme. The average height varies between 500 and 2,600 meters from the mean sea level. The district is entirely mountainous. It consists of a succession of steep mountain ridges separated from each other by deep glens. The sub-mountain tract in the southern part of the district is known as bhabar (the belt of dry alluvial

soil north of the Terai). Being in the Himalayan region, the district of Garhwal contains little level ground. The slope of the hills is usually too steep for cultivation without terracing. Rainfall in the district has large variations. July and August are the rainy months when nearly 55 per cent of the annual rainfall in the district occurs. Average rainfall is 1,545.1 mm. The temperature varies considerably from place to place

depending on the elevation. Generally the end of May or the beginning of June is the hottest period. The mean daily temperature in the valleys (with elevation less than 1000 m) is around 36°C in the month of May and around 26°C at about 2000 m. and still lower at higher altitudes. On individual days the maximum temperature may rise to over 40°C in the valleys.



Source: Prepared by Researcher

Fig 2: Administrative Divisions of Pauri Garhwal

### Dimension of Migration in Pauri Garhwal

When a person is enumerated in census at a different place than his/her place of birth, she/he is considered a migrant. This may be due to marriage, which is the most common reason for migration among females-or for work, what is the case as generally among males, etc. It also happens that many return to their place of birth after staying out. To capture such movements of population census collect information on migration by last helps to understand the current migration scenario better. Opportunities in urban areas for employment, education, etc have been a pull factor attracting migrants from rural to urban areas and from smaller town's cities to larger urban areas. There is also migration in the opposite direction from urban to rural areas due to various reasons.

The excess migration from Pauri Garhwal also includes some benefits in monetary terms. The setback populations get remittance from people or family members who migrated into the various cities for the better occupations. The migration of a family member can result due to the support of the family in the expectation that the migrant would financially support the family after getting employment in the urban area. Remittances improve living conditions, education, and health

in the origin communities, and provide insurance against income shocks. Migrants acquire new ideas, skills and technologies from the host communities, which they carry back to their place of origin and act as powerful agents for transformation and social change. Migration is an important livelihood strategy for mountain people and has a significant impact on reducing poverty in the region. Lack of employment and income generating opportunities in the region, food insecurity due to low agricultural productivity, and poverty are the major reasons for migration. Lack of opportunities for skill development in the place of origin forces the majority of the unskilled mountain migrants into low paid jobs in the informal sector. Whenever the population rose to such an extent that people could no longer secure a livelihood, they migrated elsewhere. Even today, both poor and better off people pursue migration as a livelihood strategy from this fragile region. Choice of destination and levels of benefits and risks, however, vary significantly, according to the economic and social power of the migrant (Dhani and Negi, 2014).

Agriculture is the main source of livelihood in the hills. Many people may choose to stay in the hills and do agriculture but

they are still migrating. The fact is they are not really having too much hard work in agriculture and not much gain. Farming in Uttarakhand has traditionally been sustenance agriculture. The youth seeks alternate work with regular income and less risk. They migrate to other plain cities for odd jobs like cook or waiter in restaurants. The higher education infrastructure in the hills does not help much in building skills of the youth. The hills populations in villages live as communities and work as communities. If a part of population

starts migrating then it becomes difficult for the rest to stay back. There is a socio-economic pressure to migrated populace also help the others to settle in cities by providing help in seeking employment or temporary accommodation. Also agriculture becomes all the more difficult to manage with productive land scattered between the barren land left by the resettled population (The land turns barren after abandonment or covered with weeds and shrubs). Irrigation becomes difficult with water scarcity at alarming level.

**Table 3:** Distribution of workers by Sex in four categories of Economic activity in Pauri Garhwal, 2011

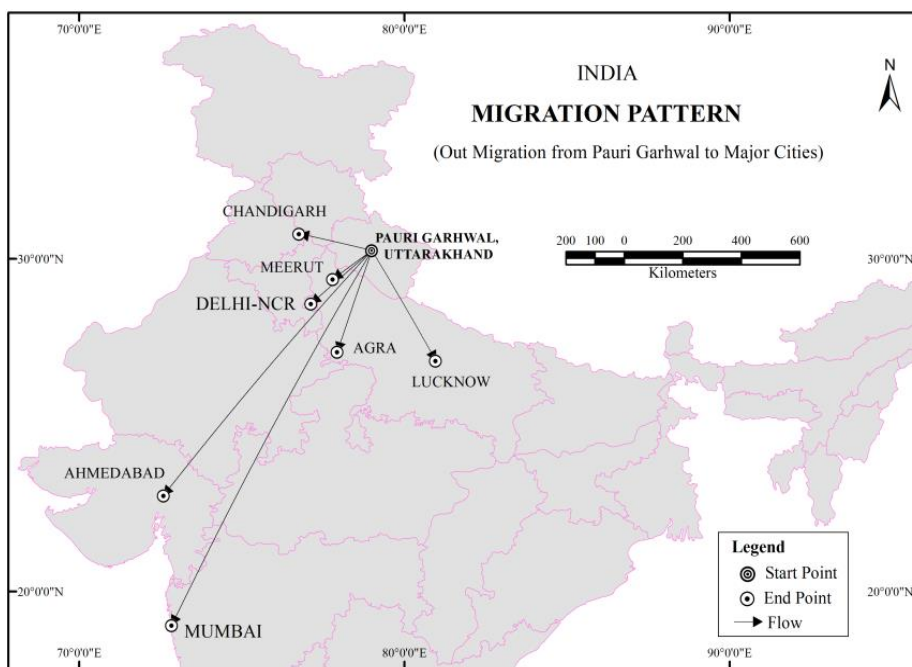
Category of Workers	Population (In percent)		
	Total Population	Males	Females
Cultivators	54.94	36.79	76.03
Agricultural Laborers	5.00	4.96	5.05
Household Industrial Worker	2.06	2.38	1.68
Other workers	38.00	55.87	17.24
Total	100.00	100.00	100.00

Source: Census of India, 2011

Pauri Garhwal district showed highest out-migration where 57.7 percent households reported mass migration out of the village. It is said that a literate person can help himself and the society in which he lives. But, due to lack of employment prospects and dearth of basic amenities, the youth, especially the literate ones, is moving out of his village in search of better prospects. The increasing literacy rate of the district is also increasing the number of migration. 33156 peoples migrate from 2011-2001 after increase in the 5.54 percent of literacy rate.

Migration tends to focus around urban areas, close by towns. Waves of young people have left their village over the years to work in Rishikesh, Haridwar, Dehradun and Kotdwar within Uttarakhand. Among places outside the state, besides Delhi,

cities like Lucknow, Chandigarh, Ghaziabad, Noida, Faridabad, Mumbai and Ahmadabad etc. are the other preferred destinations. The worst thing about the migration from Pauri is that people doing pettiest of job for the most meager salaries because of the complete lack of option back home. Most of the people work either in factories or restaurants in these cities. They migrated as menial workers, hotel boys and domestic servants. After the 1962 Indo-China war and the ensuing defense build-up, job openings in the armed forces increased. The youth of Uttarakhand found that armed forces are easiest way to get government job. It is a popular belief that at least one person from each hill family is employed in the army.



Source: Prepared by Researcher

**Fig 2:** Out Migration from Pauri Garhwal

## Causes of migration in Pauri Garhwal

In order to create ways for stopping migration we have to first understand what is causing it in the first place. People have always moved in search of work, in response to environmental shocks and stresses, to escape religious persecution and political conflict. Lack of alternative employment opportunities, quality education and health services were driving people away from their homes. However, improved communications, transport networks, conflict over natural resources and new economic opportunities have created unprecedented levels of mobility.

### Economic causes

#### ▪ Disinterests in Agricultural activities

The major source of income in Pauri is cultivation as district serves subsistence agriculture but the gradual disenchantment with it triggered the migration. The interest of people in farming is continuously decreasing. Experts cite another reason for the decline of farming in the state extremely effective implementation of welfare schemes like the Mahatma Gandhi National Rural Employment Guarantee Act. Now farmers work under MGNREGA (National Rural Employment Guarantee Act) and use the money to buy food which is available at very low costs after the enforcement of the Food Security Act. Farmers now see agriculture as an activity not worth the effort.

#### ▪ Scattered landholdings

In the hilly areas, the agricultural land is small and fragmented. It becomes very difficult for the peasant to execute and manage any agricultural activity and processes to enhance the productivity. The joint family structure which has caused the landholdings to smaller in size through consecutive generations making it difficult to carry out large scale production. This kind of problem occur when family members migrates. Traditionally, joint families are better able to manage collective resources, such as cattle, due to the availability of labor.

#### ▪ Lack of Irrigation Facilities

Due to the lack of available water resources for irrigation; farming becomes difficult. Bilkhet village, which falls under Pauri assembly constituency, was once known for lush green files. More than half of its population has already left due to lack of irrigation facility and menace of wild boars and monkeys. Surprisingly, Bilkhet bagged the National Panchayat Raj award for being an ideal village in 2014. Only 10% of the fields in the village are cultivated. More than 50% of the families have already migrated to plains. An irrigation canal built during the British rule had broken down a few years ago due to which agriculture in Bilkhet is now dependent only on rain water. The uphill family diverts most of the water from the small stream in order to begin rice cultivation and downhill families suffer the consequence of significantly less water. Thus, availability of water to irrigate fields is a problem which further gives rise to problems of basic needs coercing people to move to other suitable areas.

#### ▪ Lack of investment inclusion in agriculture

The required support of agricultural extension services like

development of irrigation channels use of better seeds, tractor facilities, improved inputs, farm technology, marketing facilities and agricultural credit facilities etc. remain a major concern which disinterest farmer towards agricultural economy as a major economic activity.

#### ▪ Barren Landholdings

The villages that have witnessed migration in the past now have to deal with several plots of untended land. Untended land turns barren as it covered with resilient weeds and shrubs that are very difficult to clear. Moreover, such land is being increasingly managed by immigrants from Nepal. According to the Union Ministry of Agriculture, the net sown in area in the state has declined by around 10 percent, from 769,944 ha in 2000-01 to 701,030 ha in 2013-14.

#### ▪ Lack of job opportunity

The youth who migrate for education have no motivation to come back to the hills due to no satisfactory employment option. There is limited scope for jobs in the villages of Pauri as people those are not able to do hardcore physical labor goes for jobs in hotel and the youth either works in cities like Dehradun, Delhi and Chandigarh or they prepare themselves for armed forces. There are hardly any industries where these people can be employed. There is lack of self-employment due to the scarcity of government initiatives to promote tourism, agriculture and other small scale opportunities for art and handicraft in Pauri. The rest of the people who are unskilled do not have adequate finances to get skilled, ultimately finding no other way but to move to cities to acquire skill training and jobs. People majorly leave their ancestors home for the better livelihood opportunities in the cities. Dusa village, which comes under Kaljikkhal Development Block, was once a home of almost 150 households with the population of almost 700 peoples. More than half of its population has already left due to lack of job opportunities available in village or nearby area. According to 2011 census only 102 households are left in the village with the population of almost 410 peoples. Mostly peoples from this village migrated in Chandigarh, Haridwar, Kotdwar, Delhi, and Dehradun.

#### ▪ Poverty

Inhabitants of the hilly areas are deprived of the resources required for cultivation. The per capita income is very less and they are not much aware with the proper cultivation knowledge. The poor people's usually have the paucity of economic resources which leads them to migrate for better resources in city.

#### ▪ Lopsided economic development

One of the important reasons for the difficult outmigration is the inequality in the economic growth between the hill districts and the plains. Prior to being separated from Uttar Pradesh, revenue acquired by hill areas was used in the areas of Noida and Western Uttar Pradesh but after separate division of the state nowadays, Noida and Western UP have been replaced by Dehradun and Haridwar where the money generated from hill areas is levied in the plain areas. Under development in the hills owing the lack of infrastructure like

roads, irrigation and electricity by the shifted development from hills to plains resulted in the out-migration.

**Social causes**

▪ **Lack of proper healthcare facilities**

The healthcare centers that have opened in different villages of Pauri district have severe lack of medical professionals. Most of the time patients referred to the hospitals in cities, such as Dehradun, Srinagar, and Pauri town even in Delhi. At the time of severe injuries many times the death of the patient happens on the way while taking to the hospital in Pauri town. Government also started the scheme of 108 ambulance services but arrival of the ambulance and taken to the hospital, the condition of the patient becomes worse. Medical officers posted in rural areas are either not regular or do not find suitable infrastructure to work. Lack of healthcare facilities in the hill districts induce migration of villagers to the plains leaving the elderly who are forced to follow the younger generation for better health opportunities. Most of the villages in different blocks of the Pauri districts are suffering for medical facilities (Table 4).

▪ **Scarcity of water**

The state faces a shortage of clean water and a way needs to be found to get clean water from the rivers and streams of the state. Old people have to walk over several km every day to fetch drinking water for their families in Khandoli village of Pauri district. This is not a story of only one or two villages.

Many of the villages don't have 24x7 supply of water as it is collected early in the morning for only two to three hours. Even after six decades of independence, there are villages in Pauri Garhwal district that lack access to safe drinking water, forcing the villagers, mainly youngsters, to migrate to other places such as Kotdwar, Rishikesh and Dehradun. Many villages such as Khandoli, Paali and Hatniya, in Jaiharikhal block, are now left with an ageing population, with many ailing elders having to walk more than 2 km, often navigating strenuous mountainous terrain, to reach the nearest source of water. The problem of water scarcity is most prominent in villages in Jaiharikhal, Dwarikhal and Dugadda block of Pauri district.

▪ **Lack of proper educational institutions**

Access to primary education has also improved significantly, with all hill districts having at least one primary school for every two three villages. But, similar growth is not visible in the number of high schools in hilly areas and not even the colleges. Villages of Pauri Garhwal have a dependency on Dehradun, Pauri town and Srinagar for good education. Villages do not have a good school system and a good quality education. Schools are too far away and it is very difficult to study there. The students do not pass their tenth grade examinations and ultimately move to cities in search of livelihood. Particularly Kot, Pauri, Nainidanda, Jaiharikhal and Yamkeshwar block not even have 50 percent of education facilities in villages (Table 4).

**Table 4:** Distribution of villages according to availability of different amenities, 2011

C.D. Block	No. of inhabited villages	Type of Amenity Available									
		1	2	3	4	5	6	7	8	9	10
Khirsu	123	70	56	123	16	122	30	2	0	24	122
Kot	219	94	44	218	27	211	41	9	2	53	219
Pauri	177	91	54	176	30	173	45	3	0	40	176
Kaljikhhal	241	135	60	237	42	142	53	10	8	55	241
Pabo	147	118	76	146	43	131	65	19	13	43	147
Thalisain	202	152	113	202	33	187	61	17	6	39	201
Bironkhal	249	159	221	248	50	227	85	11	11	41	248
Nainidanda	290	139	290	284	46	289	81	7	11	43	290
Dwarikha	224	144	181	223	27	183	30	5	9	38	221
Dugadda	268	148	135	268	32	268	56	7	12	109	268
Jaiharikhal	216	113	215	215	25	199	80	4	8	42	214
Ekeswar	228	124	228	228	32	201	86	3	5	52	226
Pokhra	123	70	78	122	12	104	65	1	3	51	122
Rikhnikhal	184	102	182	182	25	170	67	7	1	37	178
Yamkeshwar	225	128	71	219	33	190	29	6	4	48	224
Forest CD Block	26	4	9	23	5	21	11	1	1	9	22
Total	3142	1791	2013	3114	478	2818	885	112	94	724	3119

Key: 1- Educational Facilities, 2- Medical Facilities, 3- Drinking Water, 4- Post Office (post office, telegraph office and Post and telegraph office), 5- Telephone (Telephone, PCO and Mobile), 6- Transport Communication (bus service, rail facility and navigable waterways), 7- Commercial and Cooperative Banks, 8- Agricultural Credit Society, 9- Approach by Pucca Road, 10- Power Supply.

Source: Census of India, 2011

▪ **Lack of basic infrastructure**

The lack of transport connectivity, lack of water resources and inaccessible markets has further accelerated the process of migration of youth. Some villages in Yamkeshwar block not even have the basic infrastructural development. Many of the villages in Pauri Garhwal suffer for the transport facilities during 'Char Dham Yatra' as taxi owner shifts to Chamoli and

Rudraprayag districts. Not even taxis in the villages where two buses arrive throughout the entire day also decrease by GMOU and settle for only bus. Government data shows that around 2000 villages in hill districts are situated at the distance of 5 km or more from main road. Most of the villages in Pauri district have lack of transport connectivity which is clearly shown in table 4.

**Political causes**

▪ **Ineffective implication of Policies and Programs**

Government makes policies and programs for the development of the village in a piece of paper but they are unable or take time to implement it on the ground reality. Corruption is the one of the most responsible reason for not implementing policies and programs on ground level. For example under the Swachh Bharat initiative government allotted Rs. 5100 for the construction of toilets to each household but most of the villagers did not get full sectioned amount from government.

**Environment causes**

▪ **Wildlife threat**

The land pattern of the state shows that the forests occupy dominant proportion of the land and cover more than half of the reported area in the state. The risk of human-animal conflict creates a sense of insecurity among the inhabitants giving them another reason to migrate to the cities where they are safe. A lot many children die every year due to leopard prowling. Pine trees spreads and encroached wild in the fallow farms. The small amount of agriculture that is carried on also faces danger from the monkey menace that constantly destroys the harvest. Monkey settled themselves on these trees and began to destroy whatever crop they managed to grow, so did the surrounding forests wildlife like leopards, bears, wild boars, etc. Sila village, which falls under Chaubattakhal tehsil, is situated on the bank of Nayar River and once it was famous for growing up to 30 quintals of paddy in a season. The village, however, is facing disenchantment with agriculture due to menace of wild animals. Only 45 families are living in the village as more than 50% of people have already shifted to cities for earning a livelihood.

**Consequences**

Rural out-migration may also have adverse impact on the place of origin in terms of loss of human capital resources required for the farm and non-farm activities. The problems of unemployment and poverty have begun to emerge in towns and cities, along with other problems, such as, overloading of housing and social services, increased crime, pollution, and congestion.

**Consequences of Migration on Pauri Garhwal**

▪ **Benefits from Remittances**

Lots of villages in Pauri get remittance from family member who migrated in cities. Remittances sent by migrants can be used to use for improve education and health facilities by family lives in villages. Most of the money earned by the migrants isn't spent in the immigrated town or city and sent back to the villages.

▪ **Loss of Human Capital**

Due to the migration, there is a lack of youth in the place of origin. Working populations that work as a human capital migrated to cities. Loss of young workforce with skills moves to the cities, which slow down the economic development.

▪ **Increase in the no. of Dependency Ratio**

Lots of young population migrates out from villages which increase the dependency ratio. Move out of the workforce population resulted into the increased in depended population.

▪ **Loss of Cultural Traditions**

Migration of families can cause a loss of cultural traditions and a ritual by a community which was celebrates by whole village.

▪ **Policy Making**

Due to the lack of people in any village, there is no proper implementation of different policies issued by the government. A gram Sabha of two three villages formed when either one of village have less population. These less populated villages majorly seen unaware about different government policies.

**Poll issue:**

Migration from hills is also affecting the political parties during elections in Uttarakhand. The hills are losing their political importance in the state, in view of increasing migration from the region and the resultant into fall in the number of voters.

**Table 5:** Voting Percentage in State General Assembly Election, Uttarakhand

District Name	Voting Percentage in Assembly Election		
	2007	2012	2017
Uttarkashi	71.69	72.99	69.28
TehriGarhwal	59.67	58.52	55.76
Dehradun	58.76	67.16	63.81
Haridwar	65.67	75.35	76.19
PauriGarhwal	59.08	58.08	53.91
Rudraprayag	62.19	61.69	62.11
Chamoli	61.47	61.12	58.62
Bageshwar	66.65	61.54	60.83
Almora	60.09	55.42	52.90
Nainital	65.77	68.09	66.48
Udham Singh Nagar	72.42	76.84	76.27
Champawat	61.73	60.89	61.58
Pithoragarh	63.45	61.69	59.97
Total	63.72	64.56	62.90

Source: Election Commission of India

▪ **National Security**

Uttarakhand shares its northern border with China and eastern border with Nepal. The problem of intrusion is often greater in empty village's sharing border with China and Nepal. Sometimes these intruders live in empty villages and commit bayonet crime like theft and murder in nearby villages.

**Consequences of Migration on the Immigrated area**

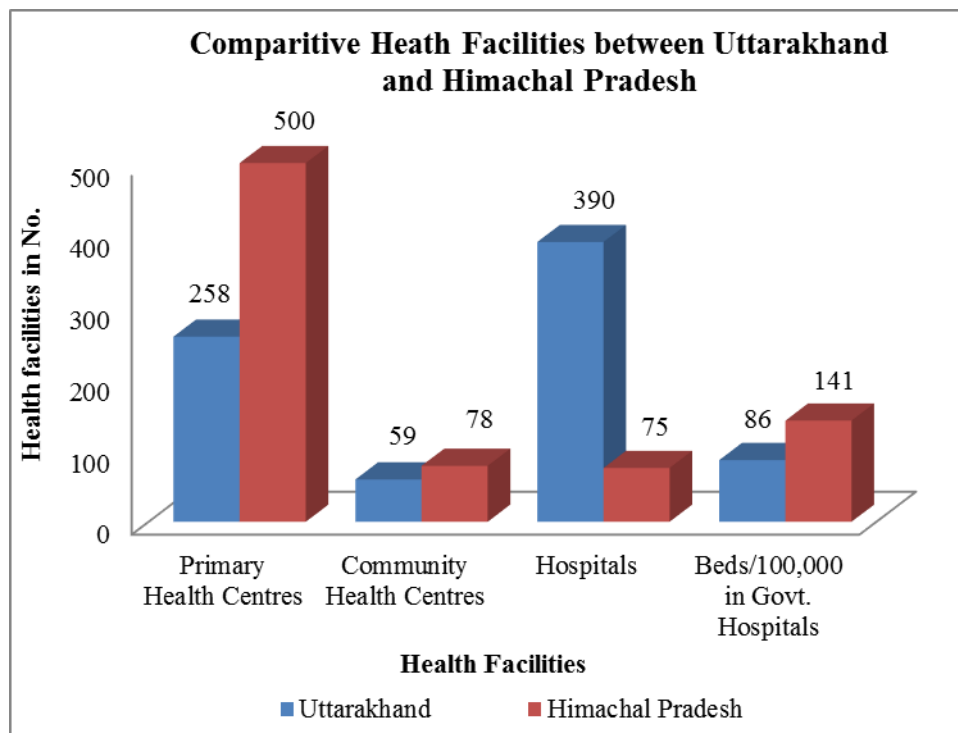
- Migrants take up less desirable, menial jobs in the immigrated cities and do pettiest jobs.
- These immigrated cities can gain skilled and cheap labor.
- People those who are migrated from village's lives better standard of life in comparison to their villages.
- More people increase the pressure on resources and services such as availability of jobs, education and health care systems.

- The increase of population due to large scale migration from different villages of Pauri increase population pressure on cities like Dehradun, Haridwar, Delhi, Mumbai etc.

**Suggestions and Possible Solutions for combating migration**

The rural-urban migration may be reduced by interventions increase cultivatable land, equalize land or income distribution, or decrease fertility. On the other hand, migration appears be stimulated by interventions which increase access to commercialize agriculture, strengthen rural-urban

integration, raise education and skill levels (Rhoda R, 1983). Although it's unfair to compare Uttarakhand and Himachal Pradesh because of different historical development aspects but the strong and strict government policies and its implementation makes Himachal just ahead of Uttarakhand. The better accessibility, infrastructural development, commercial horticulture and consolidation of land are the major factors that create difference between them. The allocation of more funds for facilities like health and education sector is necessary for Uttarakhand Government because these factors are also responsible for the large scale migration after lack of job opportunity.



Source: Prepared by Researcher

Fig 2: Health Facilities in Uttarakhand and Himachal Pradesh

Successive governments in the past 16 years have expressed their concern about the issue of migration from the hills but failed to arrest causes behind it. Both the political parties; BJP and Congress were in government in 2007 and 2012 respectively but the change in government did not bring change in the lives of villagers. Government can launch small and micro enterprises in the hills, create jobs in forest sector, pushing tourism by building better roads and bridges, promote organic farming and focus towards commercial horticulture. Uttarakhand CM Trivendra Singh Rawat ensures that his government will soon create a separate ministry for employment generation and skill development in order to tackle the growing problem of migration from hill villages under senior cabinet minister Satpal Maharaj. The government endeavor is not just to provide employment to the youth but also social security. To combat migration from Garhwal we need to develop an inclusive and holocoenotic approach towards agriculture and rural development. There are some important ways listed below that can help to curb migration:

**Cooperative farming**

The farming is done by the community jointly and the profit is shared in the ration of owned land. This way resource can be shared and money can be pooled. This will also reduce the efforts like safeguarding the crops from animals in the night. The barren land left can also be redeveloped and farmland can be consolidated. This can be extended to horticulture (Herbs and aromatic plants have huge demand), fish farming, poultry and vermiculture. The crops could also be diversified with focus on cash crops which requires less irrigation like mushrooms. The idea of cooperative farming is slowly gathering steam in rural Uttarakhand as a viable alternative to traditional individual farming. The collective makes use of new technologies like hand-held power tractors to increase efficiency in the farms. Marora, situated at an altitude of 1,300-1,395 m, the government is experimenting with collective farming to reclaim land that has gone barren. Pooling together 8 ha held by 48 farmers, the government is encouraging plantation of horticultural crops such as



pomegranate.

### **Better Connectivity**

Road connectivity to remote villages will improve access to markets for farm and non-farm produces. It will also boost village tourism (niche tourism for domestic and foreign tourists). It will improve access to education centers and healthcare services. A wide network of railways to all districts should be developed as a strategic defense initiative also generating employment.

### **Water and forest management**

Rainwater can be harvested to prevent water shortage. Forest fires should be prevented and its vast timber and non-timber resources can be utilized by locals for fuel or to make goods. 65% of the total forest area is covered in thick vegetation due to which the government finds it difficult to carry out development activities. Also, due to the Forest Conservation Act, almost 200 projects are awaiting clearances. The Hydro power potential is also unable to be exploited. So, methods should be found so that the environment and the ecology should peacefully co-exist with the humans.

### **Education Infrastructure**

Good quality higher education centers should be opened. Local skill development centers should be opened for training the youth. Better education should be provided at the government schools till the secondary level and the foremost focus should be on reducing the drop-out rates at the school. Also, efforts should be taken to provide the students with vocational courses at the school level itself. It should be ensured that each and every one is benefitted by the National Skill Development Corporation.

### **Local Employment**

Cottage industry and small scale industries should be encouraged which utilize the local resources as raw material and labor. Also local businesses especially tourism sector should get support from government. It is going to take the government, NGOs and locals help to make this work. First of all we should change the mindset that in order to grow you have to migrate to plains. By generating better living conditions and employment opportunities, the focus should be on reverse migration.

### **Consolidation of land holdings**

Efforts and steps as undertaken by Project Chakbandi should be implemented for better and more profitable utilization of the land. Ganesh Singh 'Gareeb' was the pioneer for this project who realized the importance of land consolidation and through his continuous efforts, when Uttarakhand became a state. Prepared by the Parvatiya Chakbandi Salhakar Samiti, the draft has spelt out a well laid out plan for undertaking consolidation of scattered land holdings and revitalize barren agriculture in the hill districts of the state. After the Bill becomes an Act, it will be implemented in the hill districts of the state, excluding Haridwar, Udham Singh Nagar, plain areas of Dehradun, Tehri, Pauri, Nainital, and Champawat. The basic premise of the chakbandi exercise is to amalgamate and redistribute fragmented land holdings scattered in

different corners in the hilly districts. Revival of agriculture would play a key role in curtailing the exodus and bringing the people back to their native land. The government is in a process of bringing an act on Chakbandi (land consolidation), which would be effective in bringing the greenery back to villages

### **Enhancing land productivity**

Agricultural and allied development, despite receiving high priority in terms of resource allocation, operated on the underlying assumption of the planners that hill areas could never become agriculturally self-sufficient. Thus the major thrust for the development of agriculture was on increasing productivity per unit of area by increasing the intensity of cropping and changing cropping patterns. This was to be achieved through adoption of high value crops, diversified agriculture, improved agricultural practices and technology, adequate inputs and extensive support. The role of horticulture, plantations of medicinal herbs, cultivation of vegetables and cash crops was given prominence in this connection. The shift to production of high value crops like soyabean, potatoes, and oilseeds etc. and seasonal vegetables which might have an agro-climatic advantage and open up the possibility of export.

### **Focus on Indigenous crops**

Government and villagers should cultivate the indigenous crops of Uttarakhand which can lead to a boom in traditional agriculture sector. Government should motivate cultivators to convert the area under the production of "low valued inferior crops" like 'mandua' and 'jhangora'. Families in the village have started cultivating mandwa (a traditional foodgrain) and mushroom on a collective basis and have been reaping the benefits. The effort has been so successful that even families who have migrated have begun asking that their fields, now gone barren, be included in the cooperative. The government can export indigenous crops, such as jhangora, kafal, mandwa, tejpatta and jakhya after giving them Geographical Indications tag.

### **Reviving the Ancient Art Forms of Hilly Regions**

A civilization's traditions, culture and customs are its founding stones. Music, dance and various other forms of art and craft exude the most creative and awe inspiring characteristics of a society. So, efforts should be taken to revive ancient art forms and train the youth and the women in these, almost lost arts, which have a huge demand in the international market and thus these would provide the base for setting up small scale and cottage industries providing employment as well as a self-sustainable system to these people.

### **Awareness about better Agricultural Practices**

Latest technology and easy accessibility of raw materials should be provided which will result in an increase in soil fertility. Villagers should be aware about various farming techniques importantly organic farming. Focus should be on reviving agricultural practices and employing better techniques, such as the Baranaaja or Twelve Grains. We need to think in a manner of 'PCSDS' Model. This model basically

understands by increasing the agricultural *Productivity, Commercialization, Specialization, Diversification and Subsistence* respectively. It is a unique version of poly cropping in the Garhwal region which is growing a number of crops, mixed randomly on the same field that optimally tapped the soil and solar energy along with working as a defense against pests. The Beej Bachao Andolan which raised awareness on how the new practices of using high yield varieties of seeds was fickle and even with higher investments the greater yield does not last long, thus, became a stepping stone to the Twelve Grains Movement. Practices such as these should be better campaigned and promoted throughout the state.

### **Agro-food Park**

Agro-food Park is a network innovation system of agro-production, processing, logistics, marketing, and training and extension services. It's a kind of agri-business which integrates various agriculture activities and rural transformation services. The Patanjali mega food parks in Haridwar and Himalayan Food Park in Udham Singh Nagar are the two food parks in Uttarakhand but these parks are setup in the plain area. Agro-parks aim to revitalize the rural economy by increasing the farm incomes and creating more productive jobs in agricultural sector. It will make agriculture more remunerative for farmers as well as provides health benefits for the consumers. Agro-food parks will bring about a positive change in the rural community and therefore can prove beneficial to restrain migration from hill areas. This can be setup in Kotdwar tehsil (Duggada-Kotdwar area), Lansdowne Tehsil (GwariGaon-Manpur area), Satpuli Tehsil (Bilkhet-Banghat-Kakarwari area), and Pauri Tehsil (PayalGaon-Nankot-Gagwarsun Area). Agro-park is envisaged as a planned agribusiness system in which all activities are geared towards sustainable development based on agro economic model (Ge L *et al.* 2011)<sup>[3]</sup>.

### **Effective implication of government policies**

Government should implement policies like 'fasalbima Yojana', 'Ujjwala Yojana gram JyotiYojana' and 'Saubhagya' scheme effectively.

### **Small Scale Industries**

Herbal medicinal plants and other natural juice manufacturing industries can be set up in hilly districts, keeping in view the climatic conditions and the availability of natural resources. The Ayurvedic medicines plants can be setup in Pauri Garhwal in terms to generate job opportunities. Household Ayurvedic products like soap, shampoo etc can be manufacture along with the homeopathic medicines.

### **Commercial Horticulture**

Mango, Apple, citrus, walnut, malta, pear, litchi, peach, and plum are the major horticultural crops which can be produce on the commercial level and earn a huge amount as Himachal Pradesh did.

### **Promotion of Tourism**

Government should promote tourism in Pauri Garhwal too. Due to the presence of various exotic tourist spots in other districts including Chardham, Pauri Garhwal does not have

much revenue related to tourism. The ghost villages should be opened to the tourists and the public and promoted as adventure tourism. Medical tourism and Ayurveda should be promoted.

### **Smart Villages**

With the inclusive development of social, economic, political and environmental aspects, increasing role of information and technology can leads to the smart village's concept. According to this model villages should includes smart society, smart people, smart economy, smart social and smart environment, and smart politics.

### **Conclusion**

The Uttarakhand government needs to have proper employment opportunities to stop intrastate and interstate migration from the hilly districts. It also needs to revive its dormant health and education system in the hills. In Pauri Garhwal, lack of employment and low education facilities in villages emerged as the strongest motive for migration among the respondents. Major prominent personality like NSA Ajit Doval, RAW head Anil Dhasmana, state chief minister; Trevender Singh Rawat, Uttar Pradesh chief minister Yogi Adityanath, Army Chief Bipin Rawat all are belongs to the different villages of Pauri. Growing lack of interest in agricultural work was observed and large number of youth indicated that they had no interest in working in agriculture and were looking for alternative livelihood opportunities (Dhani and Negi, 2014). Livelihoods intervention programmes, such as the Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS) is the major policy to mitigate the migration but lack of continuous and regular work makes a loophole in it. The occasional work under MNREGA supports many families economically. The villagers should aware next generation for various other opportunities available in hill. At the same time, governments will have to take better steps to prevent migration, otherwise the mountains will be empty due to excess migration and question mark will prevail on the state's existence.

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