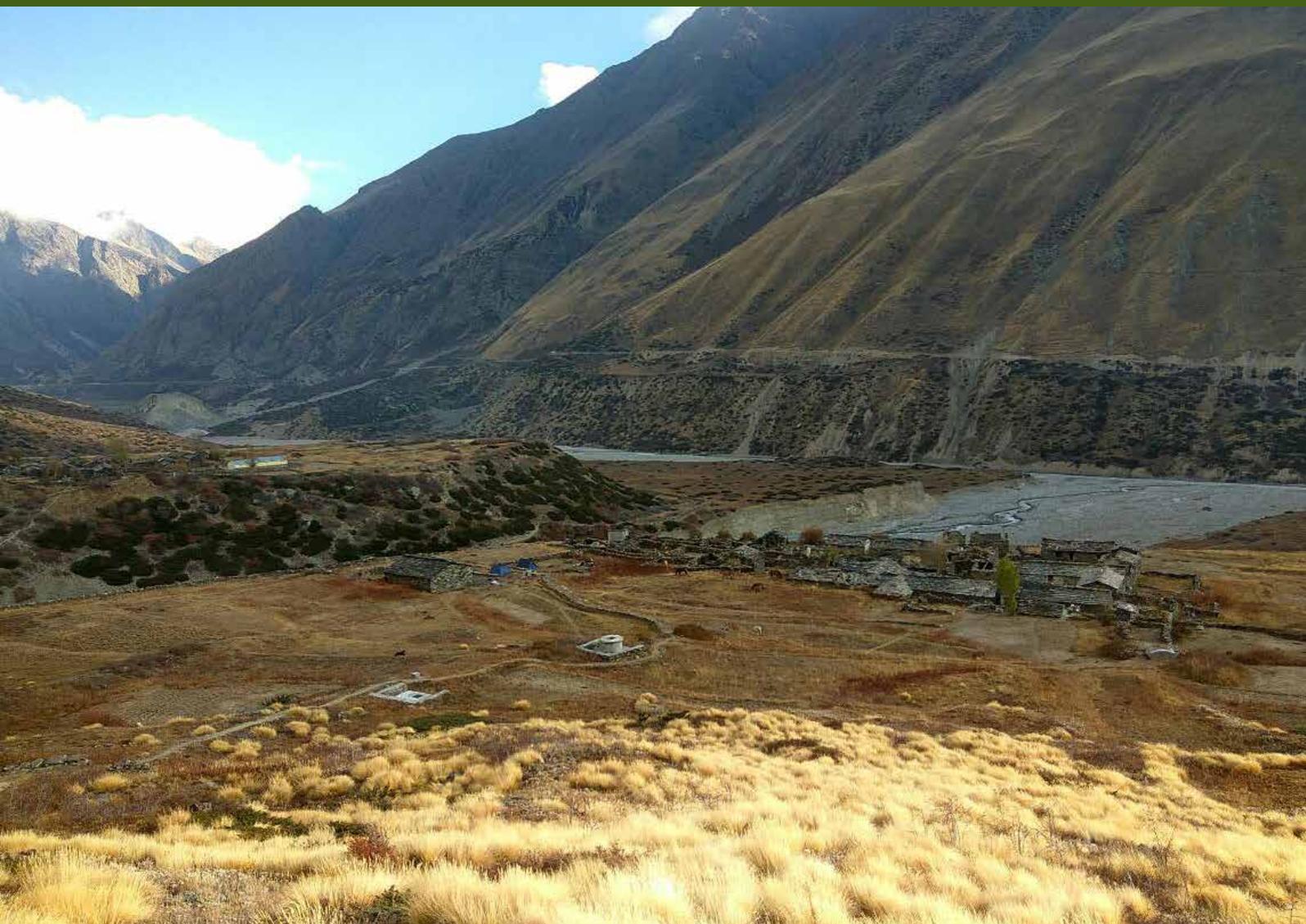


# De-Population Trends, Patterns and Effects in Uttarakhand, India – A Gateway to Kailash Mansarovar



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The International Centre for Integrated Mountain Development (ICIMOD), is a regional knowledge development and learning centre serving the eight regional member countries of the Hindu Kush Himalaya – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – and based in Kathmandu, Nepal. Globalisation and climate change have an increasing influence on the stability of fragile mountain ecosystems and the livelihoods of mountain people. ICIMOD aims to assist mountain people to understand these changes, adapt to them, and make the most of new opportunities, while addressing upstream-downstream issues. We support regional transboundary programmes through partnership with regional partner institutions, facilitate the exchange of experience, and serve as a regional knowledge hub. We strengthen networking among regional and global centres of excellence. Overall, we are working to develop an economically and environmentally sound mountain ecosystem to improve the living standards of mountain populations and to sustain vital ecosystem services for the billions of people living downstream – now, and for the future.



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The Kailash Sacred Landscape Conservation and Development Initiative (KSLCDI), which covers an area of 31,252 sq.km, is a collaborative programme being implemented across the borders of China, India, and Nepal. As such, KSLCDI transcends geographical boundaries, and has evolved through a participatory and iterative process into a transboundary initiative. It involves various local and national research and development institutions working in different capacities in various regions of the three countries.

The programme aims to achieve long-term conservation of ecosystems, habitats and biodiversity, while encouraging sustainable development, enhancing the resilience of communities in the landscape, and safeguarding cultural linkages among local populations.

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# De-population Trends, Patterns and Effects in Uttarakhand, India – A Gateway to Kailash Mansarovar

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# Abbreviations

AAA:	Askot Arakot Abhiyan
BPL:	Below Poverty Line
BRO:	Border Roads Organization
CRPF:	Central Reserve Police Force
DRDO:	Defence Research and Development Organization
GSDP:	Gross State Domestic Product
IDP -	Internally Displaced Persons
INR:	Indian Rupees
ITBP:	Indo Tibetan Border Police
JCO:	Junior Commissioned Officer
JRY:	Jawahar Rozgar Yojana
KMVN:	Kumaon Mandal Vikas Nigam
MGNREGA:	Mahatma Gandhi National Rural Employment Guarantee Act
MLA:	Member of Legislative Assembly
NCO:	Non-commissioned Officer
NHPC:	National Hydroelectric Power Corporation
OBC:	Other Backward Caste
PAHAR:	People's Association for Himalaya Area Research
SC:	Scheduled Caste
SIIDCUL:	State Infrastructure and Industrial Development Corporation of Uttarakhand
SPF:	Special Protection Force
SSB:	Sashastra Seema Bal
ST:	Scheduled Tribe
UP:	Utter Pradesh

# Executive Summary

The Kailash Sacred Landscape in India (KSL India) encompasses large parts of the Pithoragarh district and portions of the Bageshwar district. As KSL India is situated at the tri-junction of India, Nepal, and the Tibetan Autonomous Region of China, its northern and eastern boundaries have international significance, which makes this area politically sensitive as well. The government of India formed the Pithoragarh district in the state of Uttar Pradesh (now Uttarakhand) in 1960 to accelerate the pace of development in this border area. Like many of its neighbouring mountainous districts, Pithoragarh has a long history of migration.

Human mobility is an integral part of mountain livelihoods. Initially, mobility and migration took the form of community explorations to hunt, gather, and create settlements. Later, trade and pilgrimage routes were developed along the primitive trails through Himalayan passes. In today's modern industrial context, villages developed as a major source of human labour for industries and urban centres. Although migration has changed in form over the years, it has remained a constant livelihood strategy for mountain families over centuries.

Today, however, the picture is a little different. As worldwide human mobility rates continue to rise to unprecedented levels, migration from mountain areas like Pithoragarh has raised concerns about de-population, "permanently locked houses," and the formation of "ghost villages."

In this study, we use mixed methods to derive a clearer picture of migration trends, patterns, and drivers and the resultant socio-demographic changes. To do this we review historical documents on human mobility and migration in the study area from pre-colonial to recent times, and complement this data with the findings of five decadal survey tours (1974, 1984, 1994, 2004, and 2014). We analyse present migration based on participatory fieldwork conducted in November-December 2016, which included several focus group discussions and interviews with key informants from selected villages in all eight blocks of Pithoragarh district. We draw additional information from our notes taken at a 'Diversity Fair' (December 2016) that included sessions on identifying and discussing key social challenges and potential solutions for KSL India. Excerpts from relevant secondary data round out our study.

## Historical Patterns and Drivers of Migration

We start with a short profile of major drivers and their impact on migration patterns over time (including key events) – pre-colonial (before 1815/1816), colonial period (1815/16 – 1947), post-colonial period (1947-2000), and the twenty-first century (2000-2016). The migration history of Uttarakhand shows that until the independence of India, the government focused on the exploitation of resources, including human labour. Even after India's independence, national security priorities have overruled the development needs of the mountainous areas of Uttarakhand, including Pithoragarh. Following the Sino-India War of 1962, the traditional integrated livelihoods of people in Pithoragarh were severely disrupted, and, over time, slowly disappeared. Subsequent wars have provided significant income and employment opportunities in the district. As a result, youth began leaving subsistence integrated agro-based livelihoods to take defence sector jobs and salaried jobs in the public and private sector. Most migration in Uttarakhand, including Pithoragarh, is intra-state. But with increased education and widening migration networks, migration patterns are slowly shifting to become interstate. The stagnating agriculture sector has served both as a cause and consequence of migration and over the years resulted in large-scale land following.

## Present Migration Situation

After the formation of Uttarakhand in 2000, the state has witnessed impressive economic growth, consistently above the national average. However, the government's work to ensure a steep and steady economic growth did not include a focus on equitable pattern across the districts. As a consequence, most of the growth in industries and employment has been limited to the plains districts of Haridwar, Udham Singh Nagar, and parts of Dehradun and Nainital. Other hill districts have lagged far behind these standards. In the modern context this income and growth gap has become a driver for massive outmigration from the mountains to the plains.

We summarise the major findings about present migration trends in Uttarakhand:

- Shift underway from individual temporary labour migration to permanent family migration. This has resulted in the development of ‘ghost villages’ and ‘ghost houses’.
- For poor families still living in the villages, one or more male members are still involved in labour migration and send home remittances (between INR 3,000–6,000 per month), which are an important source of household income.
- Large-scale permanent following of agricultural land due to outmigration of entire families.
- Increase in human-wildlife conflicts that hinder subsistence farming and make poor farmers more vulnerable (triggering additional outmigration).
- In areas of high migration, social collectivism breaking down and stewardship of productive ecosystems inhibited.
- Migrants from outside the region bridge the labour shortfall in KSL, but introduce potential for social conflict.
- Low access to education and development weakens youth retention in the villages.
- Education and development of local youth can reduce outmigration, but only if improved and innovative employment, entrepreneurship and other economic opportunities become available in villages.

## De-population Challenges Facing Policy Makers and Ways Forward

Outmigration from local areas is a major driver of the socio-demographic change observed in KSL India, one that has challenged social collectivism and stewardship of local ecosystems and indirectly contributed to the degradation of society as well as ecosystems on which society depends. Reducing this trend is a major challenge facing the policy makers today. As our study reveals, lack of development in the mountains is a major driver for such massive outmigration from these areas. While the developmental needs of local people once focused on food and shelter, the scope has widened to include access to quality education and health care. In order to reduce the present migration trends, the governments of India and Uttarakhand need to draw a broad and abiding focus on sustainable mountain development. Without this, there is little reason to think that outmigration from KSL India will not continue unabated.

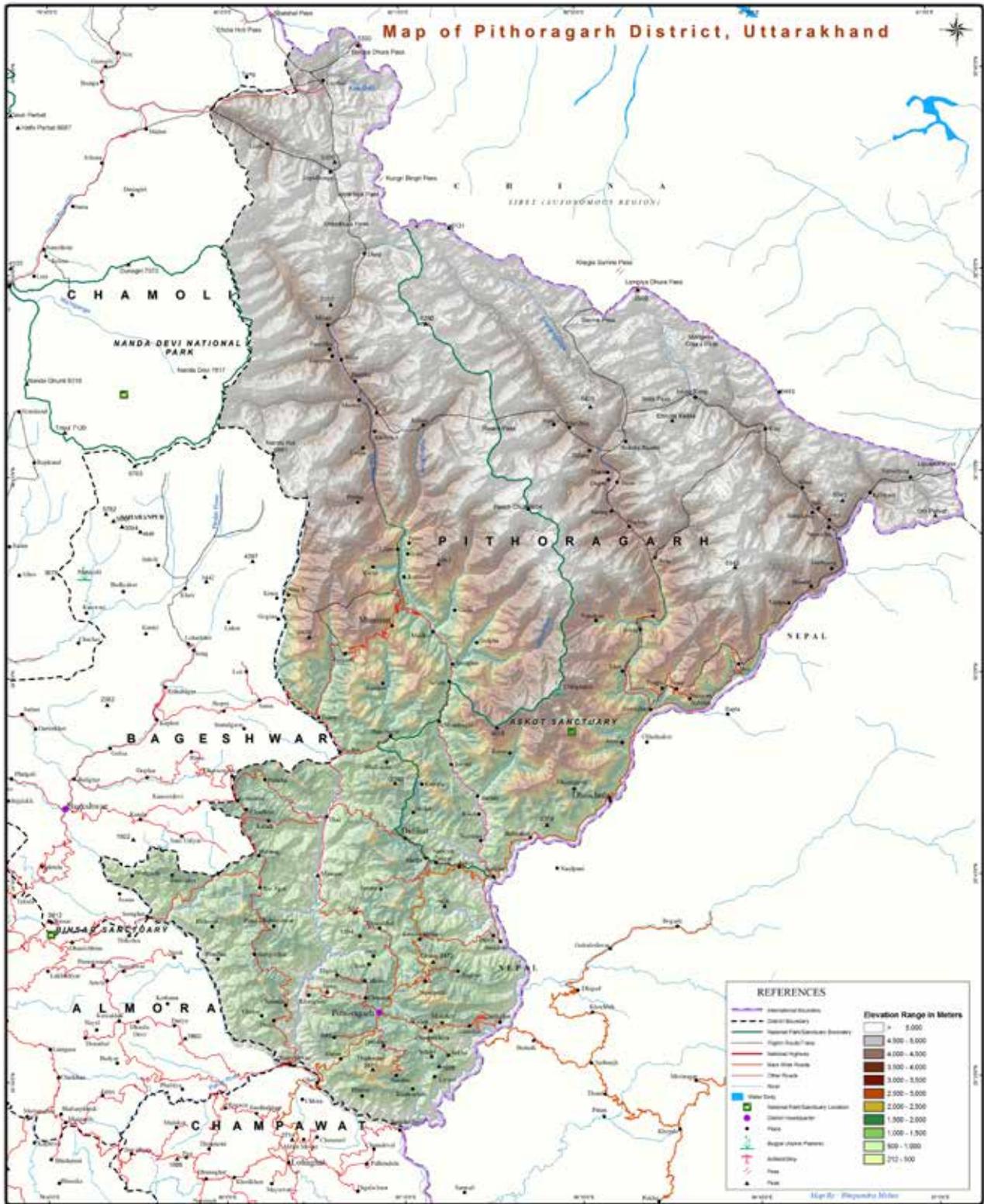
In this light, we offer some policy recommendations for addressing these challenges:

**Short run policy focus:** In the short term, policy should focus on meeting basic needs (food, health, education, and employment) and attracting individual migrants back home with improved employment opportunities. As one example, mountain niche products can provide potential for local economic growth. High-value non-timber forest products such as *yartsagunbu* (*keeda jadi*) have huge market potential for local development in the high Himalaya. In the lower ranges, small-scale commercial agriculture and its potential to add value through processing provide enhanced economic and employment opportunities, even to educated youth. However, the problems of small land holdings and human-wildlife conflicts need to be addressed before such programmes can succeed. Similarly, heritage tourism with equitable benefits is another potential area that could boost local development.

**Long run policy focus:** The aspirations of youth for a permanent and salaried jobs in defence, government, and the private sector has resulted from a lack of policy focus on the landscape context of KSL India. In other words, mountain perspectives are not properly considered in state and national policy making. It will take time to reverse these aspirations in young men as these notions are imbued with ideas of success and masculinity. Therefore, enhanced awareness campaigns such as ‘Nurturing Himalaya’ should be supported with key development investments that are youth-centric.

In order to achieve these short- and long-term goals, we suggest the following:

- Increased planning dialogue with stakeholders, including private sector and civil society representatives
- Adoption of a landscape approach in planning that combines stakeholder priorities and applied scientific knowledge to design long-term plans that strike a necessary balance between conservation and socio-economic development
- Introduce sustainable mountain development early in the academic curricula and vocational education in order to build the confidence, pride and creativity of youth
- Promote collective production systems for larger outreach through value chain approaches
- Incentivize absentee landlords and willing stakeholders to put ‘ghost villages’ and ‘ghost houses’ to use in local development efforts and the preservation of ecosystem services
- Introduction of intermediate technologies for making rural life a bit comfortable. These technologies can be introduced in agriculture, animal husbandry, horticulture, irrigation, water conservation, solar power and public transport including gravity ropeways for good and village products.
- Using the experience and expertise of diaspora.



# An Introduction to KSL India – District Pithoragarh

Pithoragarh district, which lies between 29.29° to 31.1° latitude North and 78.8° to 81.3° longitude East, is situated at the tri-junction of Tibet (TAR), Nepal and India. Since its northern and eastern boundaries are international it assumes great strategic importance and is, obviously, a politically sensitive area. Pithoragarh was created on 24 February 1960 to accelerate the pace of development in the border area. The district was divided into four subdivisions: Dharchula, Didihat, Munsyari and Pithoragarh, each forming a tehsil (Saxena, 1979). In May 1972, Champawat, hitherto under Almora district, was added as its fifth tehsil. Later, in 1996 a sizeable section of the southern sub-Himalayan tract of the district was formed as a new district named Champawat. Pithoragarh district is spread across the catchments of four rivers: the Kali (Kutiyanngti, Dhauli East, Lisseryangti, Ailagad); the Gori (Gunkhagad, Panchhugad, Ralamgad); the Ramganga East (Birthigad, Gorghatya, Kalpani and Salikhetgad); and the Saryu (Pungargad, Karmigad, Gomti, Kuloor, Jataganga and Panar).

The district, an integral part of Kailash-Mansarovar Sacred Landscape, comprises the three longitudinal physiographic divisions, namely the Lesser Himalaya, the Great Himalaya and the Trans-Himalaya. The Lesser Himalaya is suited for habitation and cultivation and tehsils Pithoragarh, Gangolihat and Didihat are spread out in this zone. Dharchula and Munsyari fall partly in the Lesser Himalaya and partly in the Great and Trans-Himalaya (Byans, Darma and Chaudans valleys of Dharchula and Malla and a part of Talla Johar of Munsyari). The Great and Trans-Himalayan regions have peaks, passes, glaciers and origins of the rivers. It does not have flat plains, though there are fertile valleys such as the Sor valley.

The district also has snow-covered peaks like Panchchuli (highest 2nd peak 6,904 m), Rajrambha (6,537 m), ChirigWe (6,569m), Nagalphu (6,410 m), Sutila (6,323m), Hardeol (7,151 m), Tirsuli (7,074m) and Nandakot (6,861m), with glaciers like Milam, Panchhu, Ralam, Balati-Panchchuli, Namik, Nalphu, Salang, Sankalpa, Kalabadan, etc. Snow-covered and grassy/forested mountains with steep and overhanging rocks, deep river valleys, widespread glaciers, and alpine meadows (*bugyals*) with valleys of flowers grace the district. The alpine environment is home to rare wildlife and the last refuge for endangered species like musk deer, snow leopard and snow cocks.

Human settlements are generally situated on undulated tracts of land along the valleys and gentle mountain slopes. Big frontier villages include Milam, Martoli, Pachhu, Ganghar (Johar); Bon, Filam, Baling (Darma) and Gunji, Nabi, Ronkong and Kuti (Byans) (Pant L, 1982). Pithoragarh town and many surrounding villages are located on the flat wide Sor valley (Pant R, 1991).

This is a district with many high Himalayan passes connecting the landscape across the border. Passes such as Lipulekh (5453 m), Limpia Dhura, Lawe Dhura, Kungri Bingri La, and Keogad open up to the Kailash Sacred Landscape region in western Tibet. The traditional pilgrimage route to Kailash-Mansarovar is documented in Manaskhand (part of Skand Puran), which passes through many ancient places in Pithoragarh district (Pranavananda, 1950). Pithoragarh, with a small part of Bageshwar district, comes under the Kailash Sacred Landscape (India) and has the first official route to Kailash-Mansarovar along the Kali River (since its reopening in 1981). These Himalayan passes were actively used by Bhotiya (*Shauka*) traders and pilgrims to enter the marts of western Tibet and pilgrim places like Teerthapuri and Kailash-Mansarovar before 1960 (Pranavananda, 1938, 1939).

## Demography and Other Descriptions<sup>1</sup>

The total geographical area of Pithoragarh district is 7090 sq.km. Champawat and Almora districts lie in the south and southwest, and Bageshwar and Chamoli districts are in the west. It has two international borders- Nepal in the east and Tibetan Autonomous Region of China in the north. Today it has twelve tehsils and eight development

<sup>1</sup> Data in this section is from Census 2011 <http://www.censusindia.gov.in/2011census/dchb/DCHB.html>

blocks with a total population of 483,439 with 114,730 families (average family size of 4.2) as per the census of 2011. Out of the total population, about 49.5 percent are male, about 25 percent Schedule Castes (SC) and 4 percent Scheduled Tribes (ST). The population density has increased from 65 persons per sq. km in 2001 to 68 in 2011, but it is still the third least populous district in the state after Uttarkashi (41) and Chamoli (49). The literacy rate is 82 percent (male 93% and female 72%). Sex ratio is 1020 (for under 6 years, it is 816).

Pithoragarh has 1675 revenue villages, 669 village panchayats and 1051 van (forest) panchayats. The number of van panchayats is highest in the state after Pauri (1684) and Almora (1543). Forest accounts for 30% of the total geographical area of the district and the forest cover has declined from 2104 sq. km in 2001 to 2094 sq. km in 2011. The forest cover is low (after Haridwar at 26% and Udham Singh Nagar at 21%) in the district as it lies in the higher Trans-Himalayan region. A large part of the district is under Askot Sanctuary and the northwest part touches Nanda Devi National Park.

The total number of government primary schools in the district is 1384, secondary schools is 366 and inter colleges is 232. There are six government colleges and one private engineering college. According to the census, there are three towns but it can be said that all tehsil headquarters have grown into towns though only some of them have been given the status of municipal boards. Actually these towns are the signs of local migration within blocks and tehsils. After the Indo-China war, as in other Indo-Tibet border areas, Indo-Tibet Border Police (ITBP) was established in Pithoragarh district.

The largest town and headquarter of the district is Pithoragarh with a population of 56,044 (52% male) with 14,036 families of mean size 4. But this population figures might be undercounted as often census population fails to capture the mobile/floating population. The total number of SC population in this town is 8067 and ST population is 1051. The sex ratio is 924 (third highest in the state) and sex ratio in the age group of 0–6 years is 705 (surprisingly lowest in the state). The literacy rate of the town is 81 percent, with almost equal rates for both male and female. The female literacy rate is thus very high, ranking just below Almora, Nainital and Ranikhet towns.

# History of Migration in the Region

Migration (in and out) and human mobility are as old as humanity itself. Movement of people was a natural social-economic activity in the Himalayan region. As a result, these frontier regions gradually became melting pots of different ethnic groups and points for trade and cultural exchange. Even today we can trace different social, cultural, linguistic groups who migrated into the region at various points in time. Human mobility and migration initially took the form of community explorations for hunting, gathering and settlements. Later, trade and pilgrim routes were developed on these primitive trails. In the modern industrial context, the hinterland or villages were the major source of human labour for industries and urban centres. Unequal growth and opportunities then led to further migration from un/under-developed to developed regions, from rural to urban, from agriculture and pastoral life to industrial urban life. The massive outmigration has now created a vacuum in the hinterland, leading to huge social-cultural loss.

## Pre-colonial Period

The Chands (and Mallas) ruled Kumaon and nearby (present-day Far West) Nepal from the 14th century onwards, consolidating and expanding their territory (around this time different groups migrated into this region from different corners of the Indian sub-continent). The Chands won the Bums (Sor), Mallas (Sira), Mankotis (Gangoli), etc. and shifted their capital from a corner of their kingdom (Champawat) to centrally located Almora in the mid-sixteenth century. During this period many communities/castes came to the Uttarakhand region from different parts of India, Nepal and Tibet. In addition, a section of the population from nearby villages of Champawat, Gangoli and other regions shifted to Almora town. Chands remained an important Himalayan dynasty till the Gorkha attack on Kumaon in 1790. The Gorkha rule continued till the beginning of East India Company rule in 1815.

At the end of Gorkha rule in Kumaon, this mountainous region had only two settlements that could be described as towns –Almora and Lohaghat. In the colonial period the next largest settlement was the far-flung village Milam. Later Pithoragarh emerged as the first town and became the tehsil headquarter.

The village economy was subsistence in nature, producing its own food, shelter, medicine, etc. It comprised diverse agriculture, rich animal husbandry (animals meant for manure, milk, meat, skin and transport) and cottage industries for wool, wood, bamboo, masala (spices) and medicinal herbs. Later potato, fruits and rajma (beans) also became saleable items. Other needs of the village were managed through barter trade locally or through Bhotiya traders (see Pangtey, 1992 for more on Bhotiya traders). Trade was carried out not only with Tibet but also with western Nepal. Main import items were grains, ghee, cheura gud, honey, pahari paper, sheep, goats, cows, buffalos, ponies (taghans) and export items were oil, sugar, gud (jaggery), local tobacco, utensils, cotton, and metal material.

The Bhotiya community engaged in Trans-Himalayan trade and commerce, practised transhumance and a semi-nomadic way of life. Bhotiyas enjoyed integrated livelihood consisting of cropping, animal husbandry, cottage industries, trade and seasonal migration to lower areas during winter (Chand, 1979). They became pioneers in Indo-Tibetan trade and later in pilgrimage to Kailash and Mansarovar region, thereby connecting Indian plains with the Tibetan plateau through the exchange of products. People from Johar valley crossed over to Tibet through Untadhura Pass (Rawat, 2009) and from Byas valley through Lipulekh Pass (Atkinson, 1882). This exchange not only fulfilled the needs of the communities living in between the foothills and mountains of Kumaon, and those in western Tibet and western Nepal, it also connected different communities across the region. For centuries Bhotiyas became the creative link between the plains and the Himalaya and they were assisted by *anwals* (shepherds), *bhurris* (servants) and *mirasees/tahluwas* (shilpkars) (Chand, 1983).

The barter trade continued with little obstruction during the Gorkha period, when the border communities had to pay to three sets of rulers – the Gorkhas, the Jumlis/Humlis and the Tibetans. But the trade and pilgrimage continued involving many others in the process. Gorkha oppression also had a negative impact on Indo-Tibetan trade during 1790 to 1815.

## Colonial Period

The history of colonial rule in Uttarakhand started with the Anglo-Nepalese War (1814-1816) and the Treaty of Sugauli (1816) between East India Company and Gorkhas (for details about the Nepal war, refer to Pemble, 1971; Pathak, 1987a, 1987b, 1999a). The border with Tibet remained same during the Colonial period, while Kali river became the international border with Nepal. The Pauranic 'Manaskhand' or the traditional Kumaon became the British Kumaon with parts of 'Kedarkhand' or traditional Garhwal added to it (Pandey, 1989; Nautiyal, 1994).

During the initial years of Company rule in Uttarakhand, some of the important undertakings by the officials included land settlement, Indo-Tibetan trade, pilgrimage and construction of the administrative and army settlements like Hawalbagh, Lohaghat and Almora (see Tolia 2009 for foundation of administration in Uttarakhand). George William Traill (1816-1836) played a very crucial role in shaping the pattern of colonial rule under East India Company. He was the founding father of colonial administration in British Kumaon. He conducted many land settlements including the 'sambat assi ka bandobast' (samvat 1880 or 1822-23 AD), which for the first time surveyed the agricultural land and fixed individual ownership and land revenue (*rakam*). He surveyed the whole Kumaon region, crossed over many high passes, established a 'mule core' to minimize the pressure of the coolie begar system (Pathak, 1987c, 1991) and systematized and re-organized the pilgrimage (Traill, 1828 & 1832).

By the end of East India Company rule in Kumaon, many tea gardens had been introduced (Batten, 1841), Batten's land settlement (1842-46) had been conducted and two new towns – Mussoorie and Nainital –had been developed (after 1825 and 1841 respectively) on the ridge above the Doon valley and along Naini lake in outer-Himalayan Gagar hills (Batten, 1851). Land ownership and land revenue had become more systematised. Henry Ramsay's tenure (1856-1884) saw many important events such as the 1857 revolt, the expression of which in Kumaon was controlled by Ramsay; new land settlement done by Becket and Ramsay (actual measurement of agricultural land was carried out); establishment of new cantonments in Ranikhet, Lansdowne and Chakrata; establishment of Kumaon Iron Company with Swedish support, etc. Henry Ramsay also built new roads in mountains and canals in Bhabar area.

Between the land settlement operations of Batten (after 1840) and Becket/Ramsay (after 1860), agricultural land also increased in the region. Under the scheme of '*nayabad*' (new land from forest, commons or pastures), land was given to pro-government (*sarkar parast*) and ordinary peasants together (Becket, and Ramsay, 1874). Most of the *sarkar parasts* were absentee landlords, so land ultimately came to the actual peasants. This increased availability of new agricultural land, enabled people to maintain livelihoods locally and reduced forced outmigration. Village activities like iron-smithing, weaving baskets and mats (*mosta*), making *chakki-gharat* (grindstones and water mills), and wool and wood related work also continued to provide employment.

After 1860 there were jobs available in Survey, Forest and Public Works Departments. The growth of settlements (hill stations and cantonments) and the building of *dak* bungalows, roads, bridges, canals (including the Upper Ganges Canal) and further development of tea gardens provided local population with work opportunities. The rise and growth of some towns and cantonments in the region also opened the gates for migration of able-bodied young people. Nainital, which was already the commissary headquarters, later became the summer capital of the United Provinces and headquarters of the Bengal Command (later renamed as Eastern Command), and this led to the creation of different kinds of jobs in this hill station. This period also saw the beginning of migration outside the region with the recruitment of young men in the army. The foothills of Kumaon were linked to railway after 1890. Haldwani-Kathgodam, Tanakpur, Ramnagar, Kotdwar, Haridwar and Dehradun became the gateways of British Kumaon, Tehri State and Dehradun. These developments created jobs and opportunities for villagers not only within the region but also provided the impetus for people in remote villages to move elsewhere for work.

The process of outmigration of able-bodied men suddenly accelerated due to the First World War (1914-1918), when a large number of young people were recruited in the army and taken to different cantonments for training and to the battlefields of Asia, Europe and Africa. A marble plate in Pithoragarh fort is evidence of this (see Photo 1). This trend of working in the defence sector has continued till date.

Around this time some of the motor roads were constructed connecting the last railway stations with nearby towns, hill stations and cantonments. This paved the way for people from isolated villages to explore the outside world for labour purposes, starting the so-called 'money order economy' that sustained rural life for the next few decades.

The number of skilled and unskilled labourers also increased with the exploitation of forests around the First World War, which continued until the end of the Second World War. Migration to Burma, Bombay and Nepal began in the last decade of the nineteenth century and first three decades of the twentieth century due to famines and the opening of new opportunities. Many families living along the Nepal-India border moved from India to other side of the border. Migration to Burma (now Myanmar) was initially slow but as some enterprising individuals<sup>2</sup> found success in business, and some others got recruited in the Burmese army and government jobs (like railway, postal, survey and forest departments), others soon followed them. However, this migration ceased and many returned after the Second World War with a variety of experiences and some prosperity, which they utilised in their own region (Valdiya, 2014).

The beginning of the twentieth century also saw increased recruitment in the army, survey department, forest department and employment in private sector for both educated and uneducated. Delhi and Bombay (now Mumbai) became a favoured destination for migrants to work in industrial and domestic jobs.

Recruitment in the defence sector during the two World Wars, employment in the survey and forest departments and the opening up of roads and railway links helped in diluting the idea of 'desh' (plains) as an 'alien territory'. Exposure to the outside 'world' (*duniya*) changed the traditional mindset of local people and introduced the 'labour migration culture' in the hills of Kumaon. The aspirations of youth (male) shifted in this period from agro-based livelihoods to salaried jobs.

Independence of India also saw a lot of in-migration in the Kumaon-Garhwal region. Independence came with the tragedy of partition, which turned a large number of people into internally displaced persons (IDPs). The IDPs were given shelter and land in the Tarai-Bhabar area. Around this time large areas in the UP Tarai were captured/encroached on for various reasons (Sanwal, 1969; Visharad, 1974). In the Kumaon foothills region, Pantnagar Agricultural University was established. These developments had indirect impact on the traditional livelihoods of mountain communities in the region. Lands that were encroached on in the foothills were the winter dwellings of people from the high and outer Himalayan region. Disruption in the internal seasonal migration led to loss of livelihoods of people in the Himalaya. Bhotiya community and other highlanders migrate to summer pastures (to Tibetan marts) during summer and to Tarai/Bhabar in the foothills during winter (Pant, 1935; Dabral, 1964). So the highlanders had 2–3 sets of villages to support the transhumance nature of their livelihoods, though the landholdings were not so big in the Bhotantik region. But this livelihood practice came to an end during the 1950s-1960s.

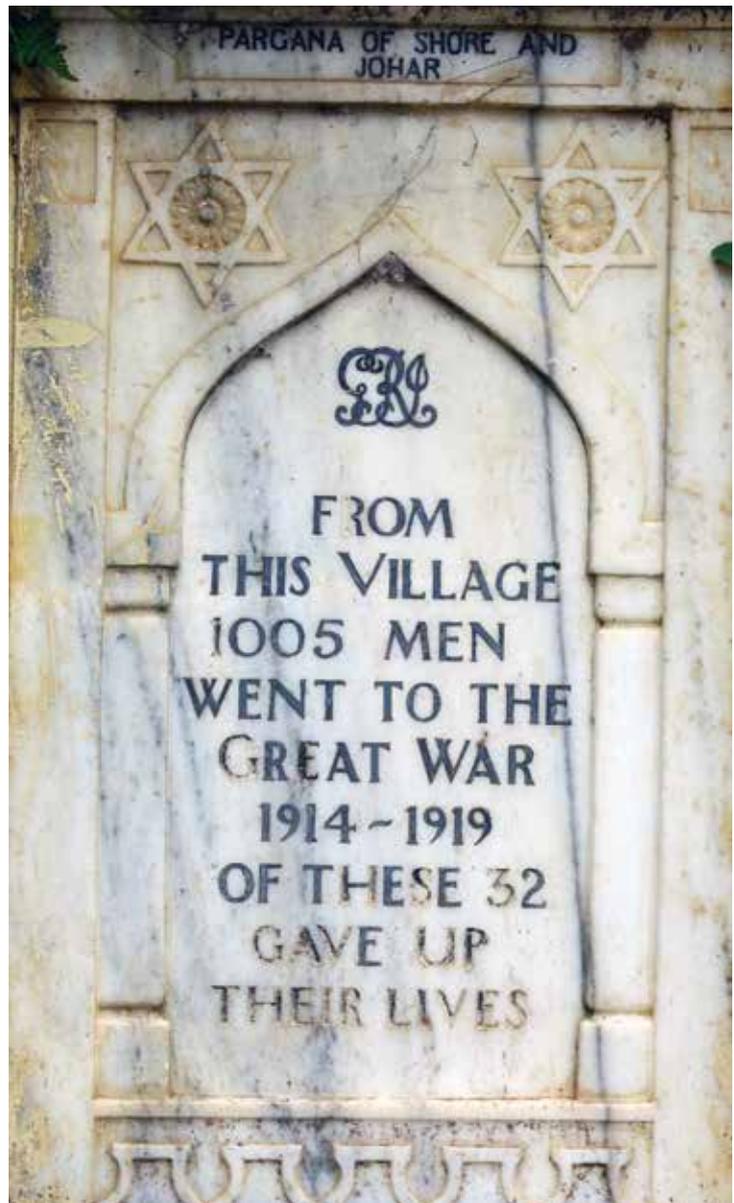


Photo 1: A marble plate on a wall in Pithoragarh Fort

<sup>2</sup> Contractors and traders like Kishan Chand, Ganga Ram Sharma, Lachhman Singh Valdiya, Jai Datt Patni, Amba Datt Kandpal, Ranjit Singh Bhandari, Sher Singh Bhandari, Dev Singh Saun, Indra Singh Bhandari, Kashi Ram Upreti, Jaman Singh Valdiya, Amba Datt Katiyal, H.N. Pandey, Bhagirath Pant and Ramesh Rai and their family members worked in Burma in the second to fourth decades of 20th century

## Post-Colonial Period

The independence movement was for freedom, respect, better livelihoods and identity. The country went through a lot of changes in the post-colonial period. But the Himalayan regions failed to attract the attention of the political leaders and policy makers and its requirements got lost amid other national priorities. Uttarakhand did not have any regional political party that could voice the aspirations of the people and the requirements of the region. There was dissatisfaction among its population over the state's attitudes surrounding land, forest, schools, alcoholism, communication, etc. The region drew the attention of the state and central governments after the uncertainties in Tibet, which culminated in the Indo-China war. Thus the developmental process and model for the mountains did not evolve naturally but was induced by the 'war psyche'. Until the war, the needs of the 'second line of defence' (local inhabitants) in the border areas were largely neglected.

### The three turning points: 1960, 1962 and 1967

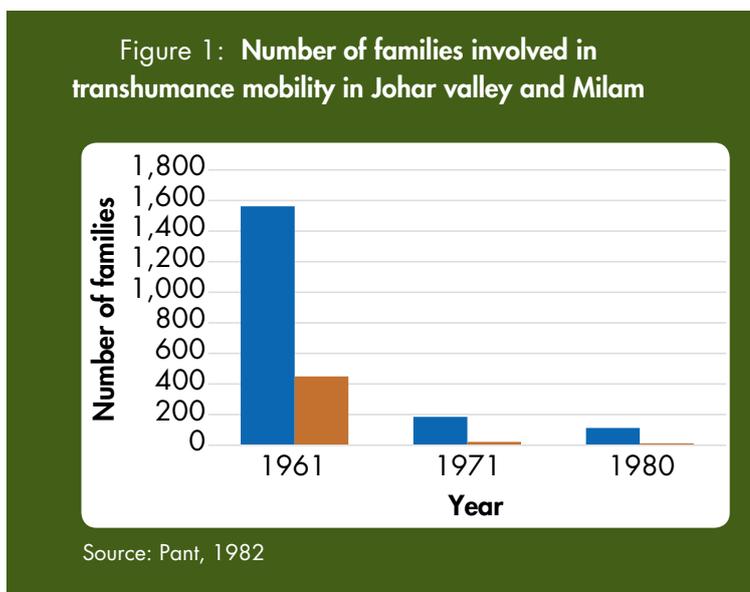
There were three 'turning points' in post-independence outmigration in Almora/Pithoragarh district:

1. The first was the closure of passes in Tibet for Indian traders in 1960, which ended the Sino-Indian agreement of 1954. The closure ended the centuries-old Trans-Himalayan or Indo-Tibetan trade. Cross border trade and animal husbandry were the major two components of livelihoods of Bhotiya and other highlander communities, which were negatively impacted by the closure of passes (see Upadhyaya 2015 for more detail on Indo-Tibet trade and its implication on livelihoods). This event also ended with many Tibetans migrating across the border as refugees. Initially these Tibetan refugees were given shelter at Teethladhar (Chaudans), which was shifted to Askot and later to Sandeo (Didihat) and finally it was abolished on January 1st 1966, when all its 749 Tibetan inmates were transferred to other states of the Indian Union (Saxena, 1979).
2. Another important event was the Indo-China war of November 1962. Though the 1960 events surrounding the closing of the Tibetan passes for Indians impacted the centuries-old trade, the war further added to the uncertainties in the border areas. Uttarakhandis were highly in demand in the defence sector. During the Indo-China war of 1962, many soldiers of Garhwal and Kumaon rifles died in the battle fields of Tawang (Assam/ Arunachal) and Chisul (in Ladakh/JK). Thus the events of 1960 and 1962 not only led to the loss of the Indo-Tibetan trade but also the loss of lives of young soldiers and irreparably damaged the livelihoods and cultures of the people in the Himalayan region.
3. The third important event was the granting of the constitutional status of Scheduled Tribe (ST) to five communities of the region in 1967, which included Bhotiyas and Banrajis from the district.<sup>3</sup> After the war there was no hope that Tibet would be opened for trade and pilgrimage. Considering the new realities, the Bhotiya community (also known as *Saukas*) started lobbying to obtain the constitutional status of Scheduled Tribe, which they finally got, along with four other communities (Banraji, Jaunsari, Tharu and Boksa) in 1967; Bhotiya and Banraji live in Pithoragarh district.

These three events or turning points collectively resulted in a shift in livelihood strategy and population dynamics of the entire district. For Bhotiyas and other highlanders, the livelihood was a complex mix of cropping, animal husbandry, handicraft and trade (Chand, 1983). Trans-Himalayan trade was an important component of their livelihoods and its disruption had a huge impact on their lives and well-being. Animal husbandry – the other important component of their livelihoods – was also impacted by this event. The animals were taken to Tibetan pastures for grazing during summer, which also came to a sudden halt. Animals in the Himalaya were not only a source of food, skin or wool but also used as a means of transport. After the trade route was closed and people could no longer make pilgrimage to Kailash-Mansarovar, the use of animals for transportation was severely disrupted. Overall, a culture built over thousands of years was suddenly at the crossroads and border communities confronted entirely unfamiliar and very difficult options (see Hoon, 1996 for more detail about Bhotiyas and their transhumance livelihoods).

<sup>3</sup> Bhotiya communities have different names based on their origin areas. In Pithoragarh district the Bhotiya communities live in four valleys and are named accordingly – Gori valley (Joharees), Darma valley (Darmees), Kali and Kuti valley (Byansees) and in Chaudans (Chaudansees). Bhotiya communities – Darmees, Byansees and Chaudansees – collectively identify themselves as 'Rang' (see Singh, 1983 for more about Rang). The Rang community still maintains a strong social network with their counterparts in Nepal

Among the Bhotiyas, the Joharees were better off as they had land/dwelling in all upper (summer pasture), middle (autumn pasture) and lower (winter pasture) parts of the district. So the decline in traditional transhumance livelihood was strongest among Joharees post 1960 and 1962 events (Pant J., 1977). As can be seen from Figure 1, in the Johar valley and Milam (one of the biggest villages of Malla Johar), there was a decline in transhumance livelihoods. Other villages like Burphu, Bilju, Mapa, Martoli and Tola also followed a similar trend. Some settlements like Sumdu, Rilkote, Poting and Lwan had turned into ghost villages by the 1980s.



This trend was also seen among Byansees and Darmees in Dharchula block but at a slower rate. Unlike Joharees, Rangas did possess lesser dwellings, so they were forced to continue their traditional livelihoods for a longer duration. The strong social network of Rang Bhotiyas with their Nepali counterparts also helped them maintain the Tibet trade link via Nepal. But as the costs were higher, this trade slowly died down. Darmees, Chaudansees and Byansees had their winter dwellings in small *kheras* (cluster of houses) in Dharchula town and at many places between Dharchula and Jauljibi, where they ultimately settled and started new livelihoods. By 1980, only 448 (49%) out of the total 942 Byansee families and 345 (59%) out of the total 580 Darmee families were following transhumance livelihoods (Pant, 1982).

This political development also led to the creation of three border districts in Uttar Pradesh – Pithoragarh, Chamoli and Uttarkashi on 24 February 1960. Pithoragarh was carved out from Almora, Chamoli from Garhwal and Uttarkashi from Tehri district. These three border districts came under new Uttarakhand Commissionary. The Special Protection Force (SPF) was formed within the U.P. Police meant for Indo-Tibet border in Uttar Pradesh. Later ITBP centres were also established. Establishment of these units provided employment opportunity to the people from Pithoragarh district in the defence jobs and later in other government jobs. Establishment of these units also led to displacement of people, particularly the Bhotiyas, as the land belonging to them were taken by the army and ITBP to build the necessary infrastructures. Such displaced people were resettled in plains. For instance, such settlements were seen in Bindukhatta, where people from Mirthi and Charma villages of the Didihat block have been resettled. Each family was allocated one acre of land in their new settlement. Same is the case of Sidha-Garbyang village in Sitarganj (Nainital).

Considering the strategic importance of border areas, more schools and hospitals were built in the districts with special pay and allowances for teachers and government employees. The Scheduled Caste (SC) and ST students from border areas ('border area students') were eligible for scholarships, hostel facilities in and outside the districts. Although there were no opportunities for these youth to use the skills they learned locally, education opportunities enabled them to compete for national or state government jobs, banks, insurance companies, railways, and most importantly, for recruitment in the army, navy, air force and paramilitary forces. Bhotiyas were able to take advantage of these provisions and shift their livelihoods. They were better educated compared to other STs<sup>4</sup> and were also a highly active, mobile, innovative and accommodating community. Their long experience in trade with Tibet and seasonal migration/transhumance mobility helped them adjust to their new realities much better and faster. Even before the reservation, some Bhotiyas had already qualified for government jobs. Pioneers such as Durga Singh Rawat, Kalyan Singh Pangtey, Rajeshwar Rawat, Gangotri Garbyal (Gangotri, 1997) and Surendra Singh Pangtey had paved the way for government

<sup>4</sup> At the beginning of the nineteenth century, schools were opened in Milam and Dharchula/Garbyang under the aegis of Pundit Nain Singh Rawat (Bhatt & Pathak, 2006). Padri Uttam Singh Rawat in the late nineteenth century, Ram Singh Pangtey and Kishan Singh Rawat in the early twentieth century and Durga Singh Rawat, Gangotri Garbyal and Bhagirathi Pangtey, Brijendra Lal Shah, Nain Singh Bonal, Sundar Singh Bonal and Dungan Singh Dhakaryal 'Himraj' in later periods became instrumental in spreading education and cultural awareness. Gangotri Garbyal also contributed in promoting girls' education among all communities (Gangotri, 1997). This education opportunity proved to be highly beneficial once the Bhotiyas got the ST status and reservation in government jobs.

and private services before the reservation. But with special facilities provided to ST, the aspirations of Bhotiya youth shifted from transhumance and trade based livelihoods to salaried jobs in the service sector, which paved the way for future labour migration from the region (Pant and Pant, 1979).

Pant (1982) found that out of 177 Bhotiya households studied, 73 (41%) have government jobs, 28 (16%) have private jobs, 32 (18%) were involved in other private occupations and 9 (5%) had family household businesses. This clearly shows their preference for government jobs. Most of those engaged in small business run shops in small regional marketing centres like Munsyari, Tejam, Kweeti, Dor, Thal, Madkot, Jauljibi, Muani-Dwani, Sama, and Bhainskot while some others are starting their ventures in established markets like Didihat, Bageshwar, Pithoragarh and Haldwani. The shift in the livelihoods also required a change in settlements. Many Bhotiyas migrated from the villages of their origin to areas within the district or to neighbouring districts. The study by Pant L. (1982) shows that of the 177 households, about 23 (13%) migrated to rural areas and 154 (87%) to urban areas. Details of the destinations are given in Figure 2. In general people were moving from rural to more urban centres.

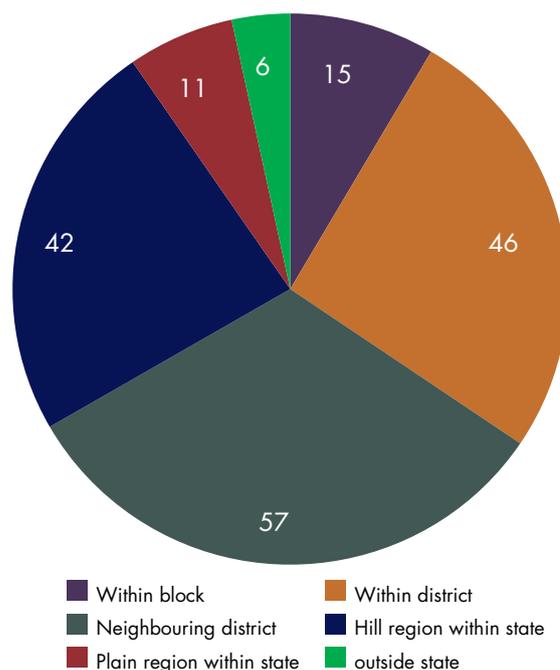
The massive outmigration of Bhotiyas affected the population dynamics of Munsyari block. During the period between 1971 and 1981, people from other castes out numbered ST population in Munsyari. This also indicates that most well-off Bhotiya community members (ST population) have migrated, leaving behind a less wealthy class of people who are unable to move or 'trapped' where they are.

### War induced migration

The wars of 1962 (India-China war), 1965 (India-Pakistan war), and 1971 (Bangladesh war), created a demand for services in defence sector which provided alternative livelihood opportunity (after destruction of their traditional livelihoods) for the people from Pithoragarh. Khanka (1988) revealed that, based on the statistics collected from the Army Recruitment Office, between 1977 and 1988 a total of 14,002 persons from Pithoragarh district were recruited in the army, navy and air force. This amounts to 60 percent of the total households of Pithoragarh district with one or more members (as per census 1981) serving in the defence service. At the national level, with the establishment of new defence institutions such as Indo Tibetan Border Police (ITBP), Sashastra Seema Bal (SSB), Cost Guards, Central Reserve Police Force (CRPF), Border Roads Organization (BRO), there is larger scope for employment opportunities in the defence service, a traditional niche area for the local population in the region and particularly in the district.

Khanka (1989) also reported that between the Jammu Kashmir war of 1947 and the Sri Lanka war of the mid eighties, out of 632 soldiers killed and 532 war widows belonging to the three districts (Almora, Nainital and Pithoragarh), 374 soldiers and 311 war widows were from Pithoragarh district. This clearly shows the disproportionate number of people involved in defence sector jobs from Pithoragarh district in the state of Uttarakhand. The families of the soldiers who sacrificed their lives are provided education opportunities in the towns and cantonments and scholarships for higher education. This has also helped the younger generation realize their new aspirations away from their villages as government employees, scientists, doctors, engineers, journalists, social scientists, actors, etc. Slowly even girls started to participate in this process of change. Many of these young people managed to succeed in their chosen fields and became role models<sup>5</sup> for future generations.

Figure 2: Destinations of Bhotiya families who migrated from the Himalayan region



<sup>5</sup> Some of the noted ones are Lt. General Gajendra Singh Rawat, Lt. General C.S. Joshi, Air Vice Marshal Dayanand Sharma Chilkoti, D.D. Pant, Gangotri Garbyal, Harish Pant, K.S. Valdiya, S.K. Joshi, R.C. Pant, Y.P.S. Pangtey (scientists/ educationists), Raja Roy Singh, B.D. Kharkwal, S.S. Pangtey, Manohar Pangtey, R.S. Tolia, N.S. Napolchyal, S.S. Garbyal (civil servants), Rajeshwar Rawat (international tourism expert) and H.C.S. Rawat, Hukum Pangtey and Chandra Prabha Aitwal (mountaineers and ITBP/foreign service/education).

People like Dan Singh Bisht expanded the family business of timber trade and diversified it with the opening of a sugar mill. C.D. Pant started his *ayurvedic* practice in Bangalore and Chandra Datt Dhariyal became instrumental in developing chemical industries in Gujarat after earning a Ph.D. in chemical engineering from Moscow University. N.S. Thapa, who fought on the Burma front during the Second World War, became a Bombay-based documentary film-maker after independence (Thapa, 2004).<sup>6</sup> These role models further motivated the younger generation to move out of their villages –to dream big and aim high – paving the way for a full-scale ‘money-order economy’. Migration is not limited to any particular caste or class. But Bora (1996) reported that a higher proportion (92 percent) of high caste (Brahmins and Rajputs) population is among the migrants from the district. This might be the trend in villages with predominantly high caste population. Unlike in the past, today migration increasingly entails crossing state boundaries. Bora (1996) also reports that in Jajoli village of Pithoragarh, 77 percent of the total migrants went to other states and the remaining moved within the state.

## Disaster induced displacement

Uttarakhand is prone to several natural disasters such as floods, landslides, land sinking, forest fires and earthquake. The region has faced many earthquakes in the twentieth century (1935, 1945, 1964, 1966, 1968, 1979 and 1980) of magnitude 5 to 7 Richter scale. Geologists report that the entire northern belt comprising Dharchula and Munsyari, along with western Nepal and Malla Danpur areas, falls under the ‘seismic gap area’ and is particularly vulnerable to earthquake damage (Khattri, 1987). The occurrence of these disasters is further accelerated by human interference such as unscientific road construction, building of dams and tunnelling (see Valdiya, 1993 for effects of high dams in the Himalays) and unplanned town development. Some of the massive disasters are the flood of 1970, Tawaghat landslides (1977 and 1978), Malpa landslide and flood (1998), La Jhakla cloud burst (2010), sinking of Garbyang village over the last half century, 2013 floods in all the rivers of the region (see Photo 2 for the destruction caused by 2013 floods) and landslide in Bastari village (2016). All these disasters have led to loss of life and land and displacement of families and sometimes entire villages. The two settlements, Siddha-Garbyang and Kalyanpur in gram sabha Kalyanpur, consist of people from different villages of Pithoragarh and Almora districts who were displaced by natural disasters. The villagers of the sinking Garbyang village (in Byans valley) and Dar village (in Darma valley) of the Dharchula tehsil were provided land in this area as their original villages faced the threat of sinking/landslide. The families from the villages around Almora Magnesite in Jhironi (district Almora) were also relocated in Siddha-Garbyang and Kalyanpur. For details of natural calamities before 1880, see Atkinson (1982).



Photo 2: Google earth image of Kanchoti settlement before and after 2013 floods.

<sup>6</sup> Interviews done with Pant, Dhariyal and Thapa by Shekhar Pathak in Bangalore, Ahmedabad and Bombay

## Migration in the Twenty-first Century

The twenty-first century began with the creation of the new Uttarakhand State in November 2000, after a century-old struggle and tremendous sacrifice by the people of the region (refer Pathak, 1999b for an analysis of Uttarakhand movement). People in the mountain region of the district had high hopes of their voices being heard and their aspirations being realized. Within one and a half decades of its creation, the new state managed to achieve high economic growth, but the growth was mostly limited to the plains – Dehradun, Haridwar and Udham Singh Nagar districts. New economic growth, health and educational opportunities have been developed in the plains, creating disparity in growth within the state. Majority of people in the mountains are struggling for a good quality of life and livelihood. This has increased outmigration from the mountains to the plains and beyond.

The massive outmigration from the hills to the plains is reflected in the 2011 census. Overall population growth rate in the state is 1.74%, but the mountain regions witnessed much lower population growth (0.70%) as compared to the plains districts (2.82%). The decadal rate of population growth is high in Dehradun, Haridwar and Udham Singh Nagar (over 30% in each of the three areas) and Nainital (over 25%); moderately high in Champawat (14.5 %) and Uttarkashi (about 12 %); low (5% or less) in Pithoragarh, Rudraprayag, Bageshwar, Chamoli, Tehri Garhwal; and negative in Almora and Pauri (Population Census Provisional Data 2011, cited in Bahuguna and Belwal, 2013). Almora and Pauri Garhwal have 17,868 people less in 2011 compared to 2001. Similarly, 33 villages vanished from the map of Uttarakhand between 2001 and 2011. The census also reveals that of the 16,793 villages of Uttarakhand, 1053 have no inhabitants and another 405 have single digit populations (Venkatesh, 2016). The number of 'ghost villages' is reported to have reached 3500 (Purnendu, 2012; Umar, 2012). Outmigration also impacted the demographic and social compositions of the mountain districts including Pithoragarh. Outmigration of certain caste groups from mountains to plains has resulted in higher proportion of schedule caste population in the hills (Mamgain and Reddy, 2015) and similarly male outmigration has resulted in feminization of society (Mamgain, 2004), though female labour force participation is still very low (only 19% of the total female population is employed) (DoESU, 2014).

The twenty-first century witnessed the growth of the 'permanent family migration' phenomenon in Pithoragarh district. This represented a departure from the earlier trend of 'individual temporary migration'. The trend of 'permanent family migration' is a cause for concern for reasons associated with national security, loss of culture, and unplanned urban growth. Border villages in Johar, Darma and Byans valleys of Pithoragarh district became partial 'ghost' villages due to the closure of the Indo-Tibetan trade, war with China and the granting of ST status to Bhotiya communities much before 1970. Post 2000, the trend of migration is more common among non-ST communities because of failed development in the mountain villages (which lack education and health services, road, communications and employment).

Though Pithoragarh district did not register a negative population growth rate, the situation at the sub-district (tehsil) level presents a more alarming situation. In Pithoragarh, tehsil Didihat lost its population by -4.6% and tehsil Munsyari by -0.05% between 2001 and 2011. The major reason behind the negative rate of population growth is the massive outmigration from these regions. If the present trend of leaving villages continues, tehsil Dharchula (7.54%), Gangolihat (2.21%) and Berinag (0.6%) would most likely also register a decline in their population in 2021 (Chand et al, 2016).

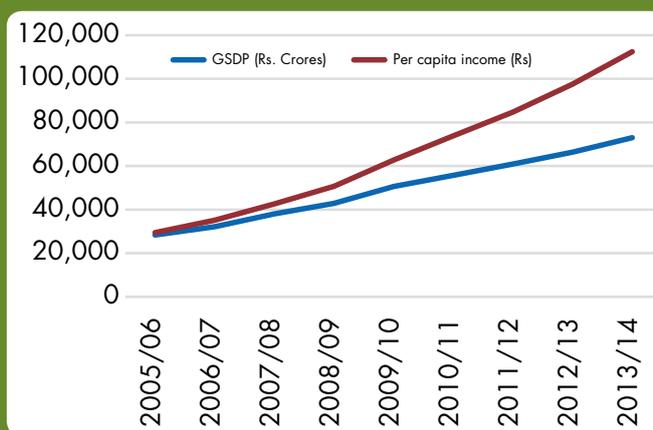
## Growth of Industrial Sector in the Plains

After its creation, Uttarakhand witnessed impressive growth in gross state domestic product (GSDP) and per capita income (see Figure 3 below). The per capita income has surpassed the national average since 2005/06 (DoESU, 2016). The percentage of poor decreased to 11% in 2011/12 from 33% in 2004/05 (DoESU, 2016). But income inequalities remained high across the state. Uttarkashi district has the lowest per capita income at INR 59,791, which is less than half compared to Dehradun (INR122,804), the highest per capita income district. Pithoragarh is in ninth position with a per capita income of INR 79,981 (DoESU, 2016).

In the twenty-first century, the process of globalization and privatization has shaped the economy and changed the structure of GSDP of the state. Impressive economic growth in Uttarakhand is mostly driven by the growth in the secondary and tertiary sectors. The share of agriculture in GSDP is in decline while that of secondary sector

has increased and tertiary sector has remained stable in between 2004/05 and 2012/13. Details of the contribution of various economic sectors to GSDP are given in Figure 4. In 2004/05, agriculture and trade, hotels and restaurants were the highest contributors (17%) while in 2012/13 trade, hotels and restaurants (23%) and manufacturing (21%) were major contributors. The credit for this impressive growth was given to the industrial policy of the state, which provided several incentives to attract private industries to the state (Mamgain and Reddy, 2015). New industrial units were established in Pantnagar, Sitargaj, Selakui (all plains) with special support in the form of (almost) free land and tax concessions. This period also saw the opening of new medical, engineering, management and other educational institutions/colleges and universities in the state (again in the plains). These educational institutions not only provided opportunities to local students but also attracted many students from outside the state. Both the industrial growth and education opportunities have helped promote economic growth and reduce poverty in the state.

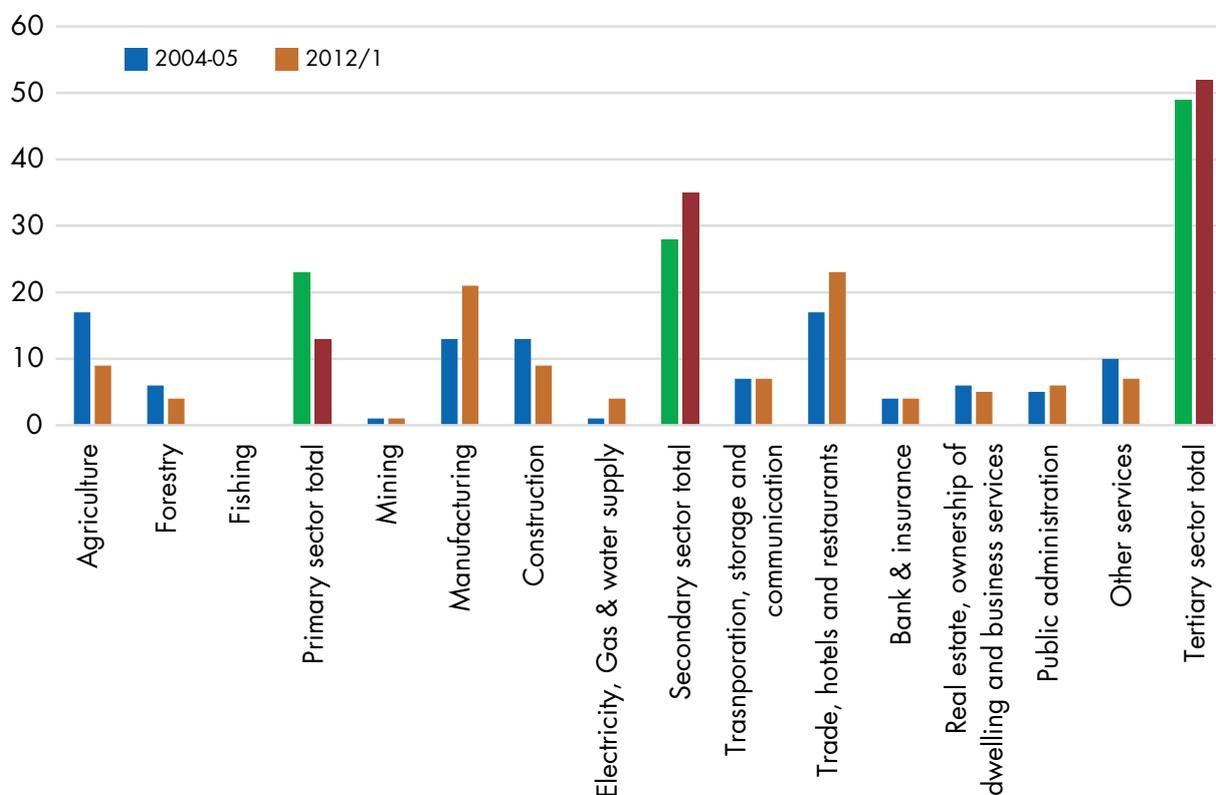
Figure 3: Growth of GSDP and per capita income in 2005/06–2013/14



Note: GSDP at 2004/05 constant prices and per capita GSDP at current prices

Source: DoESU (2014)

Figure 4: Percentage share of sectors of the economy in GSDP (2004/06 and 2012/13)



Note: Figures of 2012/13 at current prices  
Source: DoESU (2014)

Though the growth of secondary and tertiary sectors is impressive, it is limited to a few plain districts and plain areas of some hill districts. The four districts Haridwar, Udham Singh Nagar, Dehradun and Nainital (two plains districts and two that lie partially in the plains) account for 63 % of the enterprising establishments<sup>7</sup> and 72% of the people hired by these establishments in the state (DoESU, 2014). Pithoragarh only accounts for 5.7% of the establishments and 3.63% of the people hired by these establishments. This clearly shows the lack of employment opportunities in the district. Overall the industrial policy has failed to attract the industries in the mountain areas or mountain specific industries, which are still dependent on subsistence crop-livestock integrated agriculture. So the effects of globalization and privatization have not only increased outmigration, but also led to further marginalization of the mountains (Chand and Leimgruber, 2016). Hydropower projects and road construction projects that do not follow the standards for mountain conditions have created havoc for the local environment and the consequences were seen in the 2010 and 2013 floods (Chopra, 2015). High economic growth in the plains (Bhabar, Tarai and Dun areas) and lack of growth in the mountains has thus accelerated the rate of outmigration from mountain districts like Pithoragarh. The granting of the Other Backward Caste (OBC) status to non-ST/SC population in Dharchula and Munsyari blocks helped these communities get (state) government jobs, which again triggered outmigration from rural mountain areas.

### Stagnating Agriculture Sector in the Mountains

Agriculture remained subsistence in the mountain areas. Agriculture sector accounts for about 51% of total workers (34% for female workers), out of which 80% are cultivators (at the national level it is 45%) and only 20 percent agricultural labourers (DoES 2016b). About 36% of the cultivators have less than one hectare of land holding at state level, which is much higher in mountains (75%) than in the plains (67%) area (DoESU 2016). Interestingly, though land is scarce, about 5% of cultivable land is fallow, which is higher in the hills (about 6%) and lower in the plains (about 1%). The trend in Pithoragarh district is similar to that of other mountain areas, with almost 89% cultivators having less than one hectare and about 5% cultivable fallow land (ibid).

The traditional rich multiple and multi-local livelihood has been lost due to various undergoing changes, but mountains are yet to find a sufficient alternative to their lost livelihoods. 'Green revolution' that transformed India's agriculture sector was focused on the plains. There is yet to be a 'mountain focused' agricultural revolution. The spread of irrigation has been poor with only 50% of sown area under irrigation, with huge discrimination between the mountains (about 20%) and plains (96%) areas (ibid). Similarly, the outreach of other services vital for mountain areas with highly uncertain climate and road access has been poor in Uttarakhand. For instance, only about 4 percent of the total sown area is covered by insurance (as against 22 percent at the national level), and the cold storage capacity is only 89,689 metric tonnes (as against 32,729,271 metric tonnes at national level) (DoES, 2016b). All this has resulted in people abandoning subsistence farming. Overall, the number of agricultural cultivators at the state level has declined by about one percent between 2005/06 and 2010/11, because of high negative trend (2.6%) in the mountain areas despite a positive trend in the plains (4%) (DoESU, 2016). There has been marginal increase in the yield of major foodgrains in the state (ibid). Agricultural performance in Uttarakhand has been even poorer than in other mountain states such as Himachal Pradesh and Jammu and Kashmir. The average monthly income per agriculture household in Uttarakhand is INR 4701 as compared to national average of INR 4923 and that of Himachal Pradesh at INR 8777 (Mamgain and Reddy, 2015).

In Pithoragarh district, the livelihoods of farming families have been further affected by the loss of large chunks of agricultural land to various defence units, education institutions, roads and rampant urbanisation. As the planned land settlement due for 2000-2004 was not conducted, there is no data on agricultural land use change in the district.

The performance of the agriculture sector is further constrained by the increasing human-wildlife conflict and invasive species. Damages caused by monkeys, wild boars, porcupines and leopards are growing over the years. Similarly, invasive weeds are taking control of farm terraces and controlling them is becoming increasingly difficult and expensive. Animal husbandry has also been negatively impacted by fodder constraint with much of the forest out of bounds for grazing. Water, which is vital for agriculture, has been an extremely scarce resource in the

<sup>7</sup> It refers to units engaged in production and/or distribution of goods and services that are not for the sole purpose of consumption, excluding crop production, plantation, public administration, defence and compulsory social security.

mountain areas and the changing climate has further impacted this resource. Due to the erratic rainfall pattern and increasing temperature, the climate is changing in the mountain areas and it has become difficult for farmers to continue traditional agricultural crops and practices. As a farmer said during the field trip, *"This field was very suitable for growing oranges, but with changing temperature now the climate is more suitable for growing mangoes instead of oranges, and we do not know what to do anymore."*

# Findings from the Askot Arakot Abhiyan<sup>8</sup>

In this section, the observations of the decadal study tours known as Askot Arakot Abhiyan (AAA) organized by PAHAR in 1984, 1994, 2004 and 2014 are presented. These study tours start from Pangu (Chaudans) and goes through different villages of Kali, Elagad, Gori, Baramgad, and Ram Ganga East valleys in Pithoragarh district. The AAA team found less migration from Chaudans villages than from Byans and upper Darma villages. The upper Johar was deserted after 1962 but lower Johar, Gorifat, Didihat and Thal areas remained populated. Dharchula and Munsyari emerged as the largest towns in these valleys. Didihat, Askot, Thal are also growing fast. Migration from Bhotiya regions is obviously related to the end of the Indo-Tibetan trade, rise in education and introduction of ST reservations.

The AAA team found that the Scheduled Castes (SCs) are much poorer, lack access to education and are also less migratory. Their traditional vocational skills, which have been their major source of livelihood, have failed to meet the requirements of the new economy, thus affecting their livelihoods. Loss of their traditional crafts and lack of access to education and new skills has made it difficult for SCs to meet their basic needs. Many SCs were dependent on the social protection programme of the government (food rations for below poverty line families). SCs are thus trapped in poverty in the rural villages. Due to their lack of education, they are unable to take advantage of reservations/quotas in the government jobs. The other cause is that the administration is not sensitive enough towards them. Non-ST and non-SC sections of the society often harbour ingrained prejudices against SCs and STs regarding the support provided to them by Indian Constitution. The story of Gagan Singh Rajbar, twice elected to the State Assembly, shows a clear prejudice among the non-ST population against the Bhotiyas.

In the non-Bhotiya villages migration to tehsil and district headquarters was found but the degree was small. A large number of people from these areas are recruited in the army, air force and paramilitary forces. Both Bhotiyas and non-Bhotiyas were found to be working with ITBP, Kumaon Mandal Vikas Nigam (KMVN), National Hydroelectric Power Corporation (NHPC) and BRO as contractors, labourers, drivers, and house owners etc. Due to different constructional activities in the area, small shops and hotels have also been developed. The reopening of pilgrimage to Kailash-Mansarovar and trekking to Chhota Kailash after 1980 has helped the local communities to work as porters, cooks, guides, drivers and some of them have managed a number of horses and mules for riding and transportation. In an indirect way cottage industries related to wool etc. also got some boost. It is true that local wool has become scarce but Nepali and Tibetan wool is still coming to this side of the border.

The AAA team found the villages full of life and self-sufficient (with subsistence economy) in 1984 and 1994, but in 2004 and 2014 the villages were increasingly integrated into the market economy. Packed foods were slowly penetrating local economy with the building of roads. This has an impact on the local products and local economy. The market economy was slowly destroying smaller jobs in the rural areas, like ironsmithing, basket making, tailoring, aata chakki etc. Everything from flour to clothes came to the market readymade.

As compared to 1984 and 1994, girls' access to education had improved and toilets were found in the remotest villages in 2004 and 2014. It should also be noted here that the creation of Askot Musk Deer Sanctuary (spread over an area of around 600 sq. km) was instrumental in curtailing the grazing and forest rights of the villagers in the large area spread between the Kali and Gori rivers. The sanctuary starts from the left bank of the Gori river. Due to this there was decline in animal husbandry, pastoral activities, wool production and agriculture.

Mountains also saw a new economic opportunity in the collection of *yartsagunbu* or *keeda jadi* (*ophiocordyceps sinensis*). The *yartsagunbu* costs INR 10 to 15 lakhs per kg in the market, so it brings a very high income. But this sector could not benefit the local population as it was mostly unregulated. No concerns were raised regarding the sustainability of harvest, and the destruction of biodiversity in the higher regions continued. The decadal trips also showed increase in illegal wildlife trade and forest fires.

<sup>8</sup> Refer to Askot Arakot Abhiyan Survey reports, Visual and Audio Collection. PAHAR. Nainital

The AAA team did not see any indication of decrease in the migration trend despite the economic growth and opportunities provided by *yartsagunbu*, as it was mostly found in protected forests where its collection is illegal. So the benefits of *yartsagunbu* were mostly enjoyed by middlemen and not by the local population. The earnings that locals sometimes made from *yartsagunbu* were spent on migrating out of the area. Though the AAA team could not find any 'ghost village' along the route of the study tour in Pithoragarh district, they found many 'ghost houses' and near 'ghost village'. Photo 3 of Milam village in Johar valley taken in 1980s and 2001 shows how the village has turned to near 'ghost village' in the duration. Locked and collapsed houses are seen in different villages but new and cemented houses are also being built.



Photo 3: Milam village in Johar valley in 1980s and 2001.

In 2004, four years after the creation of the Uttarakhand state, one of the villagers in the Gori valley near Baram told the AAA team, when enquired about the 'money order economy', that the village now receives very few money orders as people who migrated have settled in the plains with their families. He said, "*Ab to 'manni' nahi 'runni' order aata hai*" (these days we receive not 'money orders' but 'running orders' or constant request by the children to leave the village and join them in the towns/cities). The new place could be within the district, region, state or elsewhere in the country. This shows that the migration pattern has shifted from individual temporary migration to permanent family migration.

Migration has become a common and established culture in the region. Some migrate to the road heads, others to tehsil or block headquarters; fortunate ones move to the district headquarters and those with more education or skills migrate out of the region or even out of the country. The destination and type of migration they choose depends on their financial and other capacities, but almost everybody migrates. Those who can afford it migrate permanently with their entire family and others still follow 'individual temporary migration'. The idea of 'nativity' lives inside the migrants but in a globalized world, maintaining 'local identities' is extremely difficult and requires strong belief. This 'emotional link' to the place is the only link that remains for permanent migrants. This may encourage them to innovate, to develop enterprises based on the local resources and folk culture of their place of origin in their adopted towns or countries.

# Current Migration Scenario

Our research team travelled in different parts of Pithoragarh district in November and December 2016 to understand the current reasons, trends and patterns of migration in Pithoragarh district. The first phase consisted of fieldwork in several blocks of Pithoragarh district from 22 November to 2 December 2016. In the second phase of the fieldwork the team travelled to destination villages and towns in Bhabar area (Udham Singh Nagar and Nainital districts) and spoke with the migrants from Pithoragarh district between 19 and 22 December 2016. Within a short time the team was able to visit villages located in different blocks. In the third phase villages of Munakot-Pithoragarh and Gangolihat were surveyed. Panturi, Marh (Saun Patti) and Badalu (Naya Desh) villages of Munakot block and villages around Gangolihat and Bering towns/ block headquarters were selected for the study.

The villages covered in the first phase were Ogla, Kanchoti, Sirkha, Sirdang, Rung, Chhoribagadh, Bangapani, Balthi, Naya Basti, Birthi, Bhandari Gaon, Dor, Dashauli, Madhanburi, Kulekh, Peepaltadh, Tharkot, Balkot, Chudiyar, Hat, Pathqurs, Baurani, Rawal Gaon and Bankot. They also discussed the aspects of migration to different towns in Pithoragarh, Didihat, Dharchula, Munsyari, Thal, Berinag and Gangolihat.

This new field survey has brought to light some new trends in migration in the district and their impacts, which are highlighted below.

## Shift from Individual Temporary Migration to Family Permanent Migration

The field study revealed that the new trend of 'permanent family migration' has become a norm rather than an exception. In the past, mostly individual members of the family migrated for employment, with the rest of the family staying back in the villages. The migrant member sent remittances home to meet household expenses. Thus the term 'money order economy' was coined. Even people in the defence sector returned home to the village after retirement and engaged in some kind of economic activity. They become leaders and knowledgeable persons of the village. However, post independence there was a shift in the migration patterns, with retired army people preferring to settle in the district headquarters or Khatima and Haldwani instead of returning to their villages in the hills. Some settled further away in Delhi, Dehradun, Roorkee and Lucknow. This change in migration pattern started post independence but has increased manifold since, turning the settlements into 'ghost villages' and many houses with permanent locks and dilapidated houses (see Photo 4). Bora (1996) reported that in the household survey conducted in Pithoragarh and Tehri districts, almost 45% of the migrants were non-workers (women and children), indicating an increase in family migration. We also saw this trend in many villages. In Panturi village, only 8 out of 59 families are now living in the village. Similarly, in Marh village only 70 out of 140 families are in the village. In many villages of Gangolihat and Berinag area, the study found that 50 to 80% of families have migrated elsewhere. Very few families are left in villages like Pali, Pokhari, Agrun, Kharik, Chitgal, Uprara, Chhina, Piplet, Jajut, Sunauli, Kothera, Basai, Gartir, Pathqura, Bana, Sagnoli, Kirauli, Bhattigaon, Belkot, Barsayat, Kaptola, Masmoli, Dholikuda, Dhanauli, Devrari Pant, and Kunalta (predominantly Brahmin villages).

Chand and Taragi (1996) noted a similar trend in their study of migration history of 106 villages in the Kalpanigad basin near Pithoragarh town. This basin comprised 106 villages spread over 110.6 sq. km. with a total population of 20,081 and 3678 families.



Photo 4: 'Ghost village and abandoned dilapidated houses

By 1989-90, a total of 619 families (16%) had permanently left the villages. Outmigration was not uniform across all villages. In Maudi and Kharkdoli villages (which were farther from Pithoragarh market areas), about 57% of the families had left their homes whereas in Digtoli and Chandak villages (which were on the periphery of Pithoragarh market), less than 10 percent of the families had left their homes.

The general trend involves migrating from the village to the nearest town such as Pithoragarh, Wadda, Almora, or Nainital in the first generation, then moving farther within the state to places like Haldwani, Dehradun, Haridwar, and then to cities outside the state such as Delhi, Bombay, or Lucknow in successive generations. A few youngsters from these villages have also moved abroad with their families after getting employment in multinational companies (MNCs).

## Migration by Caste and Class

The study also reiterated the general difference in migration trend and pattern between various castes. Bora (1996) reported in his study of sample villages in Tehri and Pithoragarh districts that Brahmin and Rajputs were more mobile compared to SCs and OBCs, as shown in Table 1.

**Table 1: Migration among various caste groups**

Caste	Total households (number)	Migrant households (number)	Migrant households (percent of total)
Brahmin	72	42	58
Rajput	348	233	67
SC	95	33	35
OBC	9	2	22
Total	524	310	59

Source: Bora (1996)

The upper castes (Brahmins) are the most mobile population followed by Rajputs, and SCs are the least mobile. Brahmins have a long history of migration. Before independence, their mobility was restricted to nearby towns but post independence they went further in increasing numbers to Haldwani, Dehradun, Bareilly, and Haridwar. After the 1990s members of the new generation have entered All India Services, IT, management, medical, journalism, engineering and higher education including universities, thus moving

beyond state boundaries. People from the newest generation have already crossed national boundaries and are working in Europe, USA, Australia, and countries in the Middle East and Africa. Only the teaching community, from primary school teachers to postgraduate government college lecturers remains in the state, but mostly in towns rather than in villages. Another trend that has come up entails living in towns and serving the villages from there.

Apart from Brahmins, Bhotiyas are also highly mobile. In contrast, Banrajis, the other ST in the district, are highly immobile. Lack of education is a major constraint for their mobility. Field visit revealed that among the males, the most educated persons in Madhanbori and Kulekh have finished eighth grade and tenth grade respectively. There were 2–3 girls in these villages who had graduated from college.

The evolution of Aultari village gives a clear picture of how development and migration has shaped its present situation. Aultari is a small village with mixed population in *patti* talla Askot of Kanalichina block. Residents are mainly Brahmin, SCs (Tamta, Parki, Lohar) and STs (Banraji) and have their *toks* (subsidiary settlements). The village has fertile agricultural lands, most of which are owned and cultivated by Brahmins. Two high-yield crops are cultivated on the land. The area is famous for fruit (banana, guava, mango, papaya and apricot), honey and vegetable production. Aultari was a prosperous village with a subsistence agriculture-based economy. Initially a few people entered the teaching profession. Soon almost 50% (12 out of 24) heads of the families became teachers and the remaining working male population also shifted towards the service sector, as six joined the army, two entered business, and the other four took up various kinds of jobs. This shift in livelihoods undermined the subsistence integrated crop-livestock economy. Today, out of 46 Brahmin families, 32 are in the service sector, 4 are in business and only 10 families are continuing agriculture-based livelihoods. Only 4 economically poor Brahmin families still live in the village while the remaining families have already outmigrated permanently. Even the least mobile Banraji families have started to move out of the village. Out of the 15 Banraji families, 8 have shifted to Kulekh citing better access to education for children and health care facilities. Similarly, SC families are also leaving the village in search of employment. Aultari is on the path to becoming a 'ghost village'.

An energetic Gram Pradhan described the situation thus: “The villages have only three D’s left – *Dalits*, *Dariddar* and *Devta*.” He said that due to limited access to education, lack of social network and systemic apathy, Dalits are trapped in the villages. The *dariddars* (losers) are those of other castes who are unable to migrate but have also failed to improve their lives in the villages. Thirdly, the *devtas* (folk gods) cannot move outside so they are also left behind.<sup>9</sup> For the families that remain in the villages, labour migration is still an important part of their livelihoods, and they continue to send one or more family members out of the village for labour migration. Most people migrate to the towns of Pithoragarh but some also move to Nainital, Haldwani, Dehradun, Delhi, Mumbai and Bangalore for various kinds of work.

## Remittances: Trends and Capacities

The word ‘money order economy’ was coined in the 1970s when individual migrants were sending their savings home through money order. In those years unskilled labour was able to remit INR 45 per month for family expenditure where as skilled white-collar migrants were able to send an average of INR 80 per month. In the case of NCO’s, remittance amounted to an average of INR 100 per month and commissioned officers were remitting INR 250 per month.

In today’s scenario, unskilled migrants are able to remit INR 3,000 to 5,500 per month and low-paid house servants are able to send only INR 1,000 to 1,500 per month. Skilled migrants transfer their money through banks at the rate of INR 7,500 to 8,500 per month. In the case of army personnel, the majority of families have migrated to educational centres (district/block HQ) for their children’s education and the family members receive remittances through bank transfers. As per our finding, the JCOs send an average of INR 10,000 to 12,000 per month and NCOs an average of 8000 to 12,000 per month.

Another popular semi-skilled work is driving. Those employed in this job settle themselves and their families near the block or tehsil headquarters at the road head site where facilities like school (private and government) and health care centres are available. They prefer to settle their families along their driving route. But sometimes they are also found to commute between their workplace and residence. These drivers mostly drive Max, Commander, Mahindra Bolero, Alto, etc. In Munsyari block they are living in Birthi, Chori Bagad and Banga Pani. In Dharchula block they are mainly living in Shirkha and Didihat. Their salary is approximately INR 4,000–5,000 per month with free food and accommodation. Some of them own the vehicle but most of them are just paid a monthly salary. Some of these drivers work along the route between the village and the city, such as the Bhotiya Padav (Haldwani)-Munsyari, Shitarganj-Dharchula and Khatima-Pithoragarh routes.

The other section of the migrant population is associated with the hotel and restaurant industry. There are three types of migrants working in hotels: First, those who work in hotels and restaurants as cleaners and earn INR 1,000 to 2,000 per month with free food and accommodation. Second, local chefs who work in district to state level *dhabas* (small roadside eateries) and earn INR 3,000 to 10,000 per month with free food and accommodation. Third, professionals trained in hotel management and related areas who have moved to other cities or foreign countries for work. Their income varies depending on the location but is significantly higher than that of other migrants.

<sup>9</sup> Interview with Girish Joshi, Gram Pradhan, Village Jajut, Gangolihat, District Pithoragarh: 29 December 2016 and 2 January 2017

# Depopulation and Its Effect on the Socio-ecological Systems at Origin

As the AAA team noted in their decadal trips, there has been a shift in migration and the remittance situation in the present day. As migration pattern has shifted from individual/temporary to permanent/family migration, the village economy has changed significantly. Like in many other mountain districts, people in Pithoragarh district depended on remittances (money sent by migrant members of the family) to meet their household requirements. As with expansion of postal services, remittances were sent through 'money order', a money transfer service in the old days, the term 'money order economy' thus became synonymous with mountain economy. For over a century remittances were an integral source of income for families in the mountains. Though it only partially helping or supporting the family.

But in the beginning of the twenty-first century this economy is also undergoing change. Now instead of sending money home, families increasingly tend to leave their home village. Migrants put pressure on those left behind (mostly parents who are reluctant to leave their village) to join them in their new destination. This shift from 'money order' to 'running order' has led to increased numbers of 'ghost villages' and 'ghost houses'. The de-population of villages and loss of remittances have multiplier impact on the village economy. Some of these impacts are highlighted below, though it is important to conduct a detailed analysis to gain a deeper understanding of this phenomenon.

## Land Fallowing

With permanent family migration in rise, there is also a rise in land fallowing. A detailed analysis is not possible due to lack of data, but field interactions and observations clearly indicated that huge areas of agricultural lands had been left fallow over the years. This is particularly true for rainfed agricultural lands. Photo 5 shows the terraced farming in Panturi village in 1990, which has turned into a 'ghost village' and the terraces are now abandoned. In areas with adequate irrigation facilities, agriculture is thriving with little land fallowing. Areas with profitable agriculture such as Sera in the Saryu valley, areas near Kimkhola, Dyora and Hansheswar near Peepli, Amtadi sera, Kanari and Semu (near Jhulaghat) and villages near Pancheswar (all in the Kali valley) also have lower migration rates. Here, as per our study, the rate of outmigration is only 20–25%. But without a detailed study it is difficult to confirm whether the profitability of agriculture is the reason for lower migration or whether the lack of migration opportunities have led to improvement in agriculture practices. Further investigations needed to find out whether commercial agriculture can reduce the current migration rate.

Mountains, unlike the plains, are land scarce, with per capita land of less than one hectare (0.68 hectare). One projection is that in Pithoragarh district the total agricultural land is around 6% of the total geographical area and in Dharchula and Munsyari blocks it might be even less (about 3%) than that

Photo 5: Terrace farming in Panturi village in 1990



(see Pathak 2009 for details). Despite having little agricultural land, mountain villages enjoy more common lands in the form of *panghat*, *gharat*, *gochar*, *izar* and *van pachayats*. Traditional agricultural practice of mountains is integrated with animal husbandry (for manure and drought power), and forest (for manure, fodder and water). So the common lands provided critical resources needed for agriculture. These commons were managed jointly at the community level, which is difficult in a 'running order' situation with a declining village population. This collapse of the community-based natural resource management system has also negatively impacted traditional agricultural practices, with increase in invasive species, increased human-wildlife conflict, drying up of water sources and increased calamities – both natural and human induced.

Over the years, the government has also claimed agricultural land for infrastructure purposes such as road, cantonments, dam building etc. For instance, in Pithoragarh town, some of the best agricultural land was used to build offices, residential quarters, a stadium, the ITBP campus, Panda Farm of Defence Research and Development Organization (DRDO) and an airstrip. After 1962, an army brigade was deployed in Pithoragarh, which acquired about 20,800 *nali* (or 500 hectares) of agricultural and pasture/forest land (8,000 *nali* of *nap* and 12,800 *nali* of *gochar-panghat*, forest area). In the process, villages like Kasni, Lelu, Kusauli, Munakote, Bharkatiya, Kumdar, Simalkot, Bin, Chainsar, Suakote, Ruina, Kotali, Rikhai, Daula and Devat lost their prime land. ITBP had purchased 45 *nalis* of land from villages like Jajerdeval, Khuna, Gaithana, Orh Matha, Naini-Saini, Marh, Siloli and Urg and acquired 40 *nalis* of government and *gochar-panghat* land of Panda village near Pithoragarh town. The Panda Farm of DRDO was built on the agricultural land and common land of the village.

Similarly, large-scale construction of institutional buildings such as the NHPC, BRO, SSB and ITBP campuses took place in Dharchula and Didihat-Mirithi. In Dharchula the army has acquired the most fertile and high-value land by invoking Clause 29 of the Defense Land Acquisition Act. The total land acquired was 2,720 *nali* 15 *mutthi* (classified as *talaun* 475, *abbal* 1,655, *doyam* 579.9, *ijran* 11.6 *nali*), from villages Binkana, Deval, Manakhet, Bagicha, Haat, Tarhkote and Gwalgaon. In the process 290 families lost their valuable fertile agricultural land.<sup>10</sup>

Similarly, much of the agricultural land in Bageswar (especially Mandal sera), Gangolihat, Askot, Kanalichhina and Munsyari towns has been converted for building purposes. In the absence of data it is not clear how much agricultural land has been converted. The last land settlement was completed in 1960-1964 and another one was planned for 2000-04 but is yet to take place. Still, looking at the growth of infrastructure, roads and towns, it is clear that a significant portion of agricultural land has been converted for non-agricultural purposes since 1962. An assessment of agricultural land use is very important as this is the major livelihood source in mountain areas and thus vital for planning.

If land is a scarce commodity in the mountains, why are absentee families leaving their land fallow? Several factors contribute to this dilemma, such as – increase in human-wildlife conflict, encroachment of land by invasive species, climate change impacts, subsistence nature of farming with a low profit margin (or even no profit sometimes), lack of market for agricultural produce, lack of sufficient labour, etc. For instance, for ploughing land people still use animal power but the number of bullocks is declining in the village. This decline in livestock impacts the organic farming practices of the farmers. Also, in the absence of commercial potential, there is no land market (for renting in and out), so land belonging to absentee families has remained mostly fallow. In villages with a strong social network and sufficient population, land belonging to absentee families is being cultivated by the remaining family members, relatives and neighbours, but without paying any rent for land. To improve the livelihoods of families still living in the villages, it is important to understand the extent of land fallowing, causes and potential usage, which is beyond the scope of this study.

Animal husbandry is an integral part of agriculture in the mountains. It is a source of manure, drought power, wool, skin, meat and also transportation. With access to road, animals (sheep, horses and mules) have lost their value as transporters. Import of cheap Chinese and Korean wool has replaced the use of local sheep wool. The loss of pasture land has made large-scale sheep and goat keeping difficult. Similarly, lack of interest in cropping has reduced the number of large rudiments. Overall, there is a steep decline in animal husbandry in the district, which can be a challenge to the organic agriculture policy of the government.

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<sup>10</sup> Based on interviews done by Lalit Pant

## Ecological System – Human-wildlife Conflict and Invasive Species

The fabric of village life is based on 'common interests' and 'common goals'. Changes in the economy have altered the social collectivism of the village, as families do not share common interests. Earlier, village livelihoods were integrated and interlinked but now there is diversity in livelihoods. For instance, earlier all villagers depended on farming to feed themselves. People took joint initiatives to control invasive species and protect their crops against wild animals. But now the importance of farming is not uniform across the village. For many families who depend on remittance, farming is not a priority. Such families are reluctant to put efforts into community management. Massive outmigration has led to a breakdown of community spirit and stewardship of productive ecosystems. Land left fallow by absentee families has become good habitat for wild animals and invasive species. Through a short study, it was difficult to establish the positive/negative effects of declining community management of common resources, but two challenges – human-wildlife conflict and invasive species - came up in every discussion, which is explained below.

Over the last two decades the human-wild life conflict has increased in the district. Human-wildlife conflict is manifested in two ways – a) destruction of cereals, horticulture and vegetables by porcupines, wild boars, monkeys and other wild animals, b) killing of domestic animals and even humans by leopards (*guldars*). This is not a new phenomenon in the mountains and people have developed mechanisms to deal with this problem. But these mechanisms were rooted in community initiatives and management, which is challenged by permanent family migration from the villages. As a *Van Sarpanch* said, "Earlier each family had at least one dog, so when the monkeys entered the village, all the dogs were let out to chase the monkeys. But now the dog population in the village has reduced considerably due to families leaving and even the ones remaining find it a hassle as they are not dependent on their farms for their livelihoods."

Other traditional measures to keep monkeys away from the fields included sowing fruit trees and crops inside the forests. Similarly, to keep wild boars away from the field, people burnt bore dung, hung sarees at the village boundary, planned biofencing using thorny plants, hung bells around the fields and even kept vigils at night during harvesting season. Success of such measures depends on the entire village participating in them together. Loss of population as a result of outmigration makes these traditional methods ineffective. The solution to the problem of human-wildlife conflict is proposed in an appeal made by *Uttarakhand Mahila Manch* to the political parties in the upcoming Assembly Election 2017.<sup>11</sup>

The leopard menace is also on the rise. Leopards are threat to domestic animals and are becoming visible in towns as well. During our field trip, a leopard was spotted in Pithoragarh town. It took the veterinary rescue team a couple of hours to capture and return the leopard to the nearby jungle. To better understand the problem and find a solution, a multi-disciplinary research of transboundary nature should be carried out, as the animals cross the border as they move. One can analyse the stories of Jim Corbett related with man eating leopards and tigers in Kumaon.

## Declining Vibrancy of Village Economy

With de-population, the villages have lost their vibrancy. Outmigration has resulted in the loss of certain classes of people and livelihoods, which has negative impact on other sections of the community. The impact is most clearly seen in the decline in traditional occupations.

The *lwar* (blacksmiths), *odh* (stoneworkers) and *mistry* (carpenter) were integral to the traditional village system. Traditionally, iron implements (*datula*, *dataliya*, *badyath*, *basula*, *bankata*, *hall ka fall*, *danela*, *kasi*, *khukri*, *datkhoch*, *chimta* and a variety of implements for cutting wool, wood, grass and bamboo) and iron vessels (*bhadyali*, *kadhai*, *dadhu*, *panyola*) were made by the lower caste groups (both men and women) for landlords in exchange for foodgrain. The decline in agriculture and village population, along with the import of cheap products, has reduced the demand for these implements. This has resulted in the new generation giving up their traditional occupation. In addition the new generation tends to rebel against the feudal system. Increasingly the youth prefer to migrate temporarily to tehsil or district towns to look for other labour options. The educated youth applies for jobs. This situation was observed in Chhori bagar, Peepaltar, Baurani and Nayabasti villages.

<sup>11</sup> Leaflet released by Uttarakhand Mahila Manch, 'Vidhan Sabha Chunab 2017: Hamare Muddey', 18 January 2017.

Masonry is another traditional occupation of some groups (SCs, STs and Rajputs) and is still practised in the villages. People are still engaged in stone, wood and slate (building houses) work in some villages, though such materials are increasingly being replaced by concrete. The ban on stone and slate mining has also hampered the traditional vocation of these groups. As masons are skilled labour, they can easily find work locally and are reluctant to migrate. Their labour mobility is limited to the tehsil and district level and is individual and temporary in nature. This was the general trend in most of the villages visited by the team.

The cutting and selling of dry grass (*gajyo*) from *mangas* (protected grasslands) has traditionally been women's work in the villages. This grass is used as fodder for animals during winter. A big bunch costs between INR 6 and 25 depending on the availability of grass. Women from the Banraji community were also actively involved in collecting, drying grass and selling it to high-caste groups in Khetar Kanyal and Pokhariya villages. But with increased outmigration and lack of interest in subsistence farming among the families left behind, animal rearing has declined, consequently reducing the demand for dry grass. This situation was observed in Kanchoti, Birthi, Dor and Kulekh.

Banrajis were famous for their woodwork (Sherring, 1906; Joshi, 1983; Pant, 1982), but the study team found that they have now abandoned this occupation. The Banrajis now work for wood contractors to saw wood at the rate of INR 35/feet (*takhta*) and INR 25/feet (*balli*) (see photo 6).

Bamboo weaving (*tokri*, *mosta-mat*, *basket*, *doka*, *soop*, *putka*) is a main traditional occupation of SC groups. It has now become a part-time supplementary occupation. In 2000 the cost of a soop was INR 60 and in 2016 it costs INR 120, but according to villagers in Nayabasti and Gandhinagar, the profit margins are too low and weavers cannot make a living from this occupation.

Overall, most traditional occupations have suffered a severe setback after the villages became linked to outside economies. Most of the traditionally made items could not compete with new products and the vocations are slowly dying. Given the integrated nature of demand and supply of goods and services in the village, the changes brought about by massive outmigration have negatively impacted these vocations.

Another phenomenon seen during field visit was the growth of 'ekal parivar' (single family) in the gram sabhas. Ekal parivar is a family with only an old couple, a widow, or a *parityakta* (a married woman separated/divorced from her husband and living in her maternal family). In each of the villages visited, such people make up about 10% of the village population. Given the complex social structure, findings made during a short field visit are not enough to explain the changes. A further detailed investigation is needed.

## In-migration: Transboundary and from Other States

It was interesting to observe during the field visit that the exodus of people from the mountains has created space for other migrant workers to gain employment. Mining and quarrying activities have increased in Uttarakhand since 2000 and the demand for labour has increased accordingly. But the local population does not prefer this work as it involves high risk and pays low wages. The mine owners have been found to hire cheap labour from areas in Far West Nepal such as Jumla, Bajhang, Dailekh and Baitadi. Most migrant workers from Nepal are seasonal or temporary with their families back home. But the team also found some migrant workers from Nepal who have settled in Uttarakhand. They were living in villages in Thanga, Raitoli, some villages in the Berinag block and also in Bageshwar district. Nepali migrants also work in the construction and transportation sectors in the border areas, where they have to bear heavy loads. Some work in restaurants in Pithoragarh town, Nainital and Dehradun.



Photo 6: Banrajis at work in Kulekh

Apart from Nepalis, migrant workers from Jharkhand, Bihar and Uttar Pradesh are also involved in construction work as masons, carpenters. Some of them have earned recognition as experts in welding and have opened automobile workshops. They were also found to be working as vegetable vendors, mechanics, butchers and barbers in Khan Colony in Ghantaghar, Pithoragarh and also in Dharchula, Gangolihat, Berinag and Thal. They also work as daily wage labourers in BRO. Some of these labourers were with their families while others came individually with contractors. Thus the vacuum created by outmigration is being filled by migrant workers from the nearby states and across the border from Nepal. As the field visit was short and in-migration was not a focus of the present study, not much information was collected on in-migration, but the study team’s observations indicate there is need for a deeper understanding of this phenomenon.

## Unplanned Rapid Urbanisation

The exodus of people from villages to road heads and towns is reflected in the rapid growth in urbanisation. Cities and towns such as Vikasnagar, Dehradun, Haridwar, Kotdwar, Kashipur, Haldwani, Rudrapur, Khatima and different district headquarters have seen massive growth over the last two decades. People who migrate to these cities and towns fall into two categories. The first includes people who come to the towns after selling land in their village or leaving the village altogether. The second is made up of people who have settled in towns after retiring from their jobs in Uttarakhand or elsewhere. The temporary individual migrants, consisting of individuals whose family stay in the village also forms an important proportion of urban population.



Photo 7: Google earth image of Pithoragarh township between 2004 and 2016

In the context of Pithoragarh district, towns such as Pithoragarh, Gangolihat, Berinag, Thal, Nachni, Munsyari, Madkot, Didihat, Narayannagar, Askot, Jauljibi, Baluakot, Dharchula, Muwani, Kanalichhina, Devalthal and Jhulaghat have seen massive growth in the last two decades (see Photo 7 for growth of Pithoragarh township).

Pithoragarh (Bin), Dharchula and Charma cantonments and ITBP/SSB centres at Pithoragarh, Dharchula and Mirthi have also witnessed population growth as a result of migration from nearby villages. Many former villages like Pandegaon, Bajeti, Hureti, Takari, Bhadelbhara, Aincholi, Kirgaon, Kumaorh, Chainsar, Daula, Rai, Dhanaura, Panda, Jajerdeval, Silpata, Puneri have undergone urbanisation. The growth rates for some of the major towns in Pithoragarh district are provided in Table 2.

Table 2: Growth in Pithoragarh, Dharchula and Didihat towns

Year	Population		
	Pithoragarh	Dharchula	Didihat
1881	255 <sup>a</sup>		
1901	325 <sup>b</sup>		
1930	500 <sup>c</sup>		
1941	1,519	-	-
1951	1,844 (+21%)	-	-
1961	declassified	-	-
1971	11,942	-	-
1981	17,657	3,086	2,044
1991	27,708 (+57%)	4,475 (+45%)	3,514 (+72%)
2001	44,964 (+62%)	6,324 (+41%)	4,806 (+37%)
2011	56,044 (+25%)	7,039 (11%)	6,522 (+36%)

Note: a - Atkinson, 1882; b - Pant, R., 1991; c - Kala, 1974  
Source: Compiled from various censuses

# Lives and Livelihoods in Destination

In the second phase of the study in December 2016, the study team also visited the villages and towns of Udham Singh Nagar and Nainital districts, where many migrants from Pithoragarh districts have settled. Many migration studies cover either origin area or destination areas and fail to cover both ends of the migration journey. In this study, effort has been made to cover both sides of the migration channel. The major objective of the visit was to speak with the migrants from Pithoragarh district about their present livelihood situations and their connection with origin villages. The areas visited included Bastiya, Banbasa, Chakarpur, Jhankat, Khatima, Siddha-Garbyang, Kalyanpur, Bindukhatta, Lalkuan and Bhotiya Padhao (Haldwani).

People who migrated from the mountain villages to Bhabar settlements have accommodated themselves and learnt new ways of social struggle, economic activities and political manoeuvring to get recognition and stability. Though they try and maintain links with their mountain villages, they have had to adapt themselves to the new realities and have also developed new cultures and identities. Major findings from the fieldwork in the destination areas are presented below:

## Importance of Social Capital and Network in New Destinations

The new settlements in the Bhabar region show that social network plays an important role in migration decisions as well as destination choices. During the field visit it was observed that families from the same or neighbouring villages tend to settle in the same or neighbouring villages at the destination as well. Sometimes this social network is based on caste or even work background. For instance, many people retiring from defence work have settled together in the Bhabar region. This could also be due to land allocation from the government for the retired army personnel or for the families of those who lost their lives in the line of duty. For instance, in Nadanna village of Chakarpur, in Khatima, and in Banbasa many migrant residents are from the army background, either retired or current army personnel.

In the case of Bastiya, several migrant settlers were returnees from Burma. These families had left their villages due to war and famine and migrated to Burma. But after the Second World War and subsequent political changes in Burma, they returned to Uttarakhand in the early 1960s and settled in Bastiya. Most of these families belong to the SC group. Similarly, in Banusi village about 25 families have migrated from a single village (Bora-Bunga) of the Didihat block. Likewise, in Kalyanpur gram sabha, of the 400 families, about 50 are from Jumma, 200 from Khela and 100 from Sankuri villages near the landslide prone Tawaghat area.

To settle easily in the new destination and strengthen one's bargaining power, it is important to maintain social capital and network. In Khatima, out of 100,000 voters around 40,000 voters are pahari (migrants from the mountains). The local MLA Pushkar Singh Dhami also belongs to an ex-army family from the Kanalichhina block in Pithoragarh district.

## Fading 'Trans-village Ties'

Many of the migrant families are struggling to find ways to maintain links with their origin village in the mountains. But with each new generation the 'trans-village ties' are getting weaker. Many migrant families have retained religious/cultural ties with their origin village. The native/family *devtas* (gods) are still in the village and families make a trip to do *puja* annually or every few years. A person in Banbasa who migrated from Salla Chingri (Munakot block) said that though his grandfather had migrated from the village in the 1940s, they still continue their traditional occupation of playing the drum (*damua*) and visit their village during the main annual *puja*. In some cases even the *pundits* (priests) have migrated and continue their occupation in the new destinations. For instance, in Bindukhatta, *pundits* and *jagariyas* from the mountain villages have continued their traditional occupation in the new settlements. In other cases, the communities have replaced their old *pundits/jajmans* with new *pundits/jajmans* in the new settlements. In Chakarpur *jajmans* were changed after they migrated to the Bhabar area and new *jajmans* included Thapas (Dhami) of Marh Manlay. People are using improved communication channels to keep the 'trans-

village links' alive. For instance, in one village in Chaudans (Dharchula), those who do not come to the village for the annual *puja* (*kul devata puja*) are subject to a fine of INR 1,000. But some communities have lost the connection over time. This lack of connection with the original village is almost total with even local *devtas* being removed from the original village and established in new settlements. Such a situation is rare but was observed in Bastiya.

With the opening up of the Kailash-Manasarovar pilgrimage and Chhota Kailash trekking routes, some families, particularly youngsters, have managed to improve links with their original villages. Some of the younger men work as guide, cook and porters in Kailash/Chhota Kailash yatra. Around 12 families have maintained a dual dwelling system, sowing the lands in the plains but living in the mountain villages for most of the year.

## Struggle for a New Identity, Culture and Livelihoods

Migrant families from the mountains continue to struggle for identity, culture and livelihood in their new settlements in the plains region. While some families have adjusted to their new realities and prospered, others are still struggling. As a person in Siddha-Garbyang explained, "*Hum na upar ke rahe, na neeche ke, ab beech mein latke huye hain*" (We belong neither to the upland, nor to the lowland, we are just hanging in-between.)"

### Struggle for land continues

Private land holding is scarce in the mountains but the availability of large public/community land makes up for this. A family can survive easily even with small land holding in the mountains. But in the plains, there is hardly any common land and private land holding is too small to allow people to depend entirely on land-based livelihoods. In many cases even these small land holdings are not registered in their names. Such cases were reported in almost all the places visited – Bastiya, Chakarpur, Banusi, Siddha-Garbyang, Kalyanpur and Bindukhatta. In Banusi village, it was reported during the interaction with local people that although *paharis* make up the majority of the population, only 10 percent land is registered in their names.

In Bastiya, many migrant settlers came before *bandobast* (Bhabhar Land Settlement of 1960-64), so they did not face the problem of registration. Those coming after the *bandobast* continue to face the problem of land registration. Similarly, in Bhotia Padhao, the lands were the winter dwellings of Joharees (Bhotiyas). After the collapse of the Tibet trade in 1960, families from Milam, Burfu, Bilju, Ganghar, Panchhu, Tola, Martoli, etc. settled in this new area. Later they were joined by Bhotiyas from Darkot, Sarmoli, Jainti, Suring, Darati and Dhapa. These families do not face the problem of land registration either.

The land registration problem is most severe in Chakarpur and Khatima, where the migrants have purchased land from Tharus (STs). Legally tribal land cannot be sold or transferred, so the issue of land registration remains contentious and a source of potential conflict in future.

### Loss of old identity and creation of new identities

It was interesting to note how *paharis* are forming new identities in the new settlements. The case of Siddha-Garbyang shows how new cultures are being created. The local *devta* of families in Garbyang village is Namjung/ Hya Gabla but they have adopted a new *devta*, Siddha, in their new settlement. The new settlement was renamed Siddha-Garbyang in 2004 to reflect both the old and new cultures/ identities (photo 8 shows the entrance



Photo 8: Entrance gate to Siddha-Garbyang

gate with new name); earlier this area was known as Sheeshambagh. They have also hired a pundit (from Almora) for Siddha baba, who is paid INR 3,500 per month and provided accommodation. Similarly, in Kalyanpur, the migrants have adopted Purnagiri Devi as their new main *devta*; back in their mountain village their main *devta* was Chhuramal.

During our field visit in Bastiya, we also observed that some migrant families have changed their surnames in their new settlements. SC families who have migrated from Sooni (Kanalichhina block) and Patait (Didihat block) villages have adopted new surnames – Tamtas are now called Vishwakarma and Laapadh. Although they have created new identities, the loss of old identities still hurt the migrant community. As a *Rang* said, “Though we are originally from Garbyang, we cannot enjoy the facilities provided to border people anymore as we are now settled in Sitarganj.”

Some communities, such as the Johar community in Bhotia Padhao (Haldwani) have organized themselves into groups to retain their cultural identity. They have established an organization called Johar Sangh. This organization is aimed at preserving and promoting the religion, language and culture of the Johar community in their new settlements.

## Transitioning from Traditional to Modern Vocational Skills

Another interesting finding of the field visit is how the migrant households have been expanding their livelihood base. Some migrants still continue their traditional vocation such as blacksmith (*lwar/aphar*), agriculture and animal husbandry in the new destination. Migrants in Bastiya and Bindukhatta have continued with agriculture and animal husbandry as their main source of livelihood, though they have slightly modified the practices followed in the mountain village. The land is fertile and so households can make a good income by selling vegetables and milk. So the inclination is towards small scale commercial farming with higher input and outputs (see photo 9). Some families have also started small enterprises (shops) as their main occupation. This trend is seen in Banusi and Banbasa. In Khatima, many youngsters prefer to follow the path of their elders and join the army, navy, air force or paramilitary services. It is also reported that even girls from the Bhotiya community in Siddha-Garbyang are trying to join the police and CRPF. Another source of employment is contract-based jobs in SIIDCUL, army and government.



Photo 9: Canal-irrigated agricultural fields in Bastiya

# De-population: Challenges and a Way Forward

To slow down the current rate of de-population and reduce the problem of rapid unplanned urbanisation, there is a need to develop policies from a mountain perspective. Migration from a harsh to warm climate, from an under developed economy to a developed one, from rural to urban is natural. It is very important to understand that unless people can meet their basic needs for food, shelter, education, health care and livelihood locally, they will keep seeking these services elsewhere and the present trend of outmigration will continue. So there is a need to improve the local population's access to education, health services and care for their agriculture and forestry to ensure that they stay in their villages.

## Need for a Policy Shift – from Protection to Sustainable Local Development

The development of mountain districts of Uttarakhand has been over-ruled by border security concerns. In the last one and a half century, there has been no concrete focus on sustainable mountain development. As a result of this policy failure, migration has become a culture in the mountains. Even now the policy is primarily focused on border security and social protection rather than sustainable development. Distribution of free rations to the BPL families, JRY and the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) programmes all have a strong social protection features. All these programmes have successfully ensured food security but do not address other basic needs such as health and education, communication and entrepreneurship.

Further, during the field visit, community members repeatedly said that these programmes have made people dependent on free goods and killed their innovation and entrepreneurship. Mountain communities have always been highly innovative, adaptive and enterprising but since independence there has been little policy focus on promoting these inherent mountain traits. Social protection programmes have also made subsistence farming an unattractive venture, as families can easily afford to buy food with money earned from programmes like MGNREGA.

Community consultations also highlighted another unintended negative impact of the free distribution system – alcoholism and gambling. The study team witnessed in many villages groups of men sitting and playing cards in the day time. Interaction with women's groups further revealed that this menace has also increased gender-based violence. This in turn has become a reason for migration in the present day. During group discussion with women, they said, "We would rather our husbands left the village and worked elsewhere. At least he sends some money home and does not spend his time drinking and gambling here. This has also made my life easier as I do not have to face his abuse (sexual and physical) after a long day of hard work." The extent of this social problem can be measured from the recently released appeal by the *Uttarakhand Mahila Manch* (Uttarakhand Women's Forum) to the political parties for the upcoming election 2017. Number one on the list of their demands is that Uttarakhand be declared an alcohol free zone.<sup>12</sup> A study on this social problem (gambling and alcoholism) and its solution needs to be conducted as it has a strong gender dimension and overall impact on local development.

## Short run policy focus: meeting the basic needs of people

The policy focus in the short run should be to provide quality life to the families still staying in the village. This can be done through improving their access to all basic needs such as food, education and health. The other target group in the short run should be low-skilled temporary migrants from the villages. One or more members of the family, mostly men, migrate either within the state or outside the state (to places like Delhi, Mumbai, Bangalore, etc.) to work as low-skilled labourers such as drivers and hotel workers. Providing sufficient economic opportunities in the villages through agro-based and handicraft-based livelihoods would be important to retain this labour force.

<sup>12</sup> Vidhan Sabha Chunab 2017: Hamare Muddey', 18 January 2017. Leaflet released by Uttarakhand Mahila Manch.

Mountains offer several livelihood opportunities for the local inhabitants. In the absence of such opportunities, there would not have been prosperous communities in such harsh climate and terrain. Mountains are home to some high-value niche products such as non-timber forest products, medicinal and aromatic plants, particularly in higher altitudes. *Yartsagunbu* or *keedajadi* (*ophiocordyceps sinensis*) is one such high-value mountain product with immense potential for improving local livelihoods and promoting sustainable local development (Negi et al, 2014; Askot Arakot Abhiyan, 2014). Legalized and regulated collection and trade of such high-value products can provide sufficient livelihood opportunities to mountain families. Appropriate policies should be developed to make the local communities the custodians, collectors and beneficiaries of such high-value products but on a regulated way. Uttarakhand could build on the lessons learned in other Himalayan countries such as Bhutan and Nepal.

In the medium altitudes, mountains are home to several agricultural products - fruits, cereals and vegetables. Mountain agriculture has scope for improvement as the yield, input and technology are at low at present but it also faces several challenges. For instance, unlike in the plains, it is difficult to achieve economies of scale in the mountains. Developing policy that promotes collective/cooperative production systems might be a solution. The recently drafted land consolidation bill (*chakbandi*) is a move in this positive direction. The objective of this bill is to bring economies of scale in mountain agriculture by consolidating small and scattered holdings including barren agricultural land holdings. Social capital is very high in the mountains, which would make such initiatives possible, as reported in Gaurikot village in Pauri, Uligram Panchayat and Marora (Venkatesh, 2016).

Considering the perishability of the agricultural and horticultural products and the uncertainties in the road network, it is also important to develop storage and processing facilities. A value chain approach in agriculture development is hence very important. For instance, the Uttarakhand state government has initiated organic agriculture promotion. However, this will only be successful if there is also a parallel programme to promote livestock keeping and access to forest litter, as manure and litter is important for promoting organic agriculture. The biggest hurdle in agro-based development is water scarcity, human-wildlife conflict and the spread of invasive species. During our field trip, these three problems dominated every discussion related to agriculture in the village. For instance, in Jajurali village, women are interested to expand commercial production of vegetables (which is very profitable) but are unable to do so as they cannot protect the vegetable fields from wild animals. Unless these problems are solved it will not be possible to commercialise agriculture in the mountains. Solving this problem will need a transboundary multi-disciplinary approach. Traditional systems have failed and so far there have been no successful efforts to develop new systems to cope with this problem.

The beautiful landscape of Pithoragarh district itself provides opportunities for pilgrimage and tourism. The opening up of the Kailash-Mansarovar pilgrimage route, a sacred site for various groups, is another opportunity yet to be seized. During the field visit, the team interacted with domestic tourists from Mumbai and Kolkata who were visiting Patal Bhubaneswar. They said they had no idea of this location when they began their trip, and added that this site would be of interest to many others not only because of its religious importance but also because of the majestic views of the Nanda Devi, Pancha Chuli and other mountains. Another important potential clientele includes the Uttarakhandi diaspora itself. Many diaspora families are interested in exposing their children to their *pahari* culture. Development of cultural and heritage tourism could attract the diaspora community apart from other domestic tourists. Care should be taken to ensure that the benefits of tourism are enjoyed by the local communities and not only by elites from outside as was seen in Uttarkashi. Equitable and sustainable tourism development will also help revive and transfer traditional vocational skills such as iron smithing, carpentry, bamboo weaving and stone masonry as well as traditional practices such as meditation and yoga.

As discussed in the earlier section, army personnel, disaster displaced people, people displaced by the construction of army cantonments or dam sites etc. are allocated land in the plains, which has also accelerated the pace at which people are leaving their villages. At present, people who have retired from the defence sector find jobs in the private sector and continue to work. Such jobs are concentrated in the plains areas, which pushes people to migrate to the plains. One way to attract people to the villages and reverse the trend of outmigration could be to allocate sufficient land in the villages and provide a package for making productive and profitable use of such land. As jobs in the defence sector is a preferred career choice for people from the region, allocation of land in the mountain villages as part of the retirement plan could be an effective approach. Incentivizing mountain development is important to prevent the de-population of mountain villages.

Thus, although there are opportunities for local development in Pithoragarh district, policy makers face immense challenges because realizing those opportunities would entail reversing the policy direction of the last one and a half century.

### Long run policy focus – Promotion of new inspirations and aspiration among youth

For more than a century, the youth have aspired to leave the village and work outside and improve their livelihoods. With the rapid economic development of India, spread of education, and deterioration of traditional livelihoods, this aspiration has been growing. To reduce migration, it will be also important to change the aspirations of the youth.

Between the 1920s and 1970s, Pithoragarh witnessed efforts by six outsiders to change the livelihoods of the local communities. These six eminent personalities were Narayan Swami, Swami Pranavanand, Mary Reed, Laurie Baker, Elizabeth Baker and Sarala Behn. Their efforts were geared towards providing basic services (income, education, health) to the local people. Narayan Swami founded the first school, mobile dispensaries and supported the hospital at Pithoragrag, in the Dharchula and Didihat regions. Narayan Nagar inter college was the first in the area and he encouraged young people from Bhotiya and other communities to pursue education, entrepreneurship and social work (Garbyal, 2008 & 2009). Narayan Swami also worked to make pilgrimage to Kailash-Mansarovar more systematic (Pant L, 2009a). Similarly, Swami Pranavanand, who had made more than two dozen visits to Kailash, Manasarovar and Teerthapuri areas through different high Himalayan passes of Uttarakhand, played a key role in inspiring many Indian and foreigners to visit these areas. He also helped promote Pithoragarh as an ideal place for *sadhana* and *hathyog* (Pant, 1992).

Mary Reed and Elizabeth Baker played an important role in the health sector. While Ms. Reed opened a lepers' home in Chandak (Upreti, 2009), Ms. Baker, a doctor, helped open a hospital (. Both these women helped improve the communities' access to health services in remote mountain villages. Mr. Laurie Baker, husband of Ms. Baker, who was an architect, promoted vernacular architecture in local buildings such as Mission Inter College, Gorangchaud School and NWS School (Baker 2007, Pant L. 2009b). Sarala Behn, a woman of German-English origin, played a crucial role in promoting girls' education (Devi, 2009). She founded Laxmi Ashram at Kausani, which was instrumental in spreading education among girls from poor families (Devi, 2010). Later these girls would themselves devote their lives to social causes. Sarala Behn also worked for environmental protection and inspired many in the area (Devi, 2010).

All these champions working in different fields were united by a common goal: to encourage youth to dedicate their efforts to social causes. In recent times there have been no such champions in the area. Some have found success in various fields but mostly outside the village and they are removed from social causes. This inspires youth to leave the village and find jobs and start enterprises elsewhere. Changing this trend is a difficult task. However, as not all youth can compete in urban economies, youth who do not perform well in school or do not wish to live in cities should be provided reliable alternative means of livelihood locally and respected and acknowledged by the community. It is important to develop role models to inspire youth to find respectable livelihoods locally and contribute to the local development.

Also in the long run, it is important to provide employment and economic opportunities to highly skilled people at the local level. Relying solely on people's social attachment to the villages will not help reduce or reverse the phenomenon of migration. For this institutions that focus on mountain development are necessary. Developing enterprises for mountain niche products will help improve economic opportunities. Similarly, it is important to develop industries to provide employment.

To achieve the above short- and long-term goals, there is also a need to change the planning approach. To ensure that the plans take into account the needs and aspirations of people from all classes and geographic areas, the following points should be considered:

- Increase planning dialogue with stakeholders, including the private sector, civil society representatives and Uttarakhandi diaspora;
- Adopt a landscape approach in planning so that the needs of diverse landscapes such as the plains and mountains are properly addressed and synergies promoted;

- Adopt a mixed approach that combines stakeholder priorities and applied scientific knowledge to design long-term plans that strike the necessary balance between conservation and socioeconomic development;
- Introduce sustainable mountain development early in the academic curricula and vocational education in order to build the confidence, pride and creativity of youth.

## Conclusions and Recommendations

Based on a review of the long history of outmigration and three recent field trips, we can conclude that migration in Uttarakhand, particularly in Pithoragarh district, is on the rise and has become a culture. However, the trend and pattern of migration as well as reasons for migration have changed over the decades. Whereas earlier war and related destruction of traditional livelihoods was the major driver of migration, at present globalisation and its impact is the predominant driver. Globalisation and liberalisation have transformed mountain economies from subsistence agro-based to monetary economy. Small landholding, a stagnant agriculture sector, increase in human-wildlife conflict and invasive species, and climate change impacts make it difficult for the families in the mountain villages to continue agro-based livelihoods locally.

There has been little industrialisation in the mountain villages to provide sufficient livelihood opportunities to meet the ambitions of the youth. As a result an increasing number of people have migrated in search of employment. Education has emerged as both the cause and effect of migration. Families prioritize investment in education to secure a future for their children; education is one of the sectors prioritized for remittance investments. Education provides few opportunities inside the village but many opportunities outside the villages; thus it serves as wings for moving out. More educated and skilled families are migrating permanently from the villages. As a result the number of 'ghost houses' and 'ghost villages' is rising.

Land and other livelihood resources are scarce in the mountains. These resources cannot support the growing population, so migration also provides an alternative for reducing the burden on mountain resources. But rapid de-population, as seen at present, poses a huge challenge in maintaining the cultural heritage and managing the mountain ecosystem, as people have played a crucial role in this over the centuries. A crucial question facing policy makers at present is: how can we maintain the balance between human and natural resources in the mountains?

The study shows that the current extent of migration needs to be reduced in order to maintain the human-natural resource balance. Rapid de-population has raised concerns about national security, loss of cultural heritage, maintenance of natural resources, unplanned rapid urbanisation, etc. in many mountain villages. Massive outmigration also adversely affects the livelihoods of the section of society that lacks the capacity (financial and social) to move out of the villages. Overcoming these challenges would require policy re-orientation towards sustainable development of mountain areas and a complete shift from earlier policies that neglected the mountains. There is need for policy and programmes that not only meet the food requirements of the mountain population but also the health, education, employment and entertainment requirements. For this, there should be a multi-sectoral integrated development approach with strong institutional and policy coherence and strong support from civil society to build alternative aspirations (apart from city-centric salaried jobs) among the mountain youth. Apart from the primary sector, secondary and tertiary economic sectors such as tourism, education and other service sector should be promoted in the mountain areas to meet the changing aspirations of the educated mountain people.

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