



# Dimensions Of Population Migration And Their Impact As Geo-Environmental Scenario: A Case Study Of District Pithoragarh

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## Abstract

*Population migration is one of the most difficult and emerging challenges for the state of Uttarakhand in the present scenario. Uttarakhand known as 'Dev bhoomi', in the lap of the Himalayas, holds an important place in the world with it's enormous cultural and geographical diversity. In the extreme eastern part of Uttarakhand lies a hilly district named **Pithoragarh**, surrounded by the boundaries of Almora, Champawat, Bageshwar and Chamoli districts. It covers an area of 7090 sq km, that forms about 13.9% of the state's total geographical area. Population migration and geo-environmental influences, and their outcomes have been studied in this research. Most of the population in Pithoragarh resides in rural areas, and comprises mainly of agrarian based society due to lack of other livelihood opportunities. In rural areas people have always remained connected with environment. In this context any sort of population migration impacts the entire geo-environmental balance of the place. For example, in last 10 years, a total of 31,789 persons from 589 gram panchayats have migrated on a semi – permanent basis (As per Rural development and migration commission Uttarakhand report on Pithoragarh dated Oct 2019). Lack of employment opportunities, underdeveloped education setup, downgraded infrastructure, vulnerability to periodic natural disasters, low agricultural productivity, dwindling forest resources and wildlife problems are main reasons behind this. There has been a dreadful link between natural disaster and out migration in Himalayan region. To add on to it, large land erosion by the regular landslides is also a reason which forces people to leave their habitats and relocate themselves for their overall safety.*

**Keywords:** Population Migration, Geo-Environmental, Semi Permanent.

## Introduction

Population is defined as the number of people living in a place. Population effects any place by its existence i.e the birth rate and death rate are responsible for change in density. Similarly, migration too has a cascading effect on the population, which has been going on since the beginning of human history. Migration showcases cultural distribution and social integration. It not only helps us to understand resettlement, but also highlights the genesis of a region and is also the main basis for environmental impact assessment on that place.

Out-migration from the hills of Uttarakhand is a major problem in the contemporary period. The main reasons for out-migration are poor economic conditions, lack of employment, low agricultural productivity, non-availability of market and lack of natural resources based entrepreneurship. Population migration is one of the critical factors which effects demographic changes in any country. It influences size, composition and distribution of population,

and on the other hand it also influences the social, political and economic life of the people. According to ‘lee’ a famous Geographer -“Migration is a permanent or semi permanent change of residence”.

### Review of literature

E.RAVENSTEIN (1885) highlighted the laws of migration, which included the following major laws. Some of the important features are -

1. Most migrants travel short distance, travelling in step migration.
2. Female migration is more as compared to males, but male population is more migratory over long distances.

As highlighted in ‘Climate change and rural out migration in Himalaya’ vide research paper published by P.C Tiwari & Bhagwati Joshi(2015), it is elaborated clearly, as to how changing climate conditions have stressed Himalayan agriculture and livelihood, and also affected the rural economy, environment and population migration.

**Research Methodology** Researcher has collected secondary data to understand the problem of migration by analysis and use of descriptive method. For the research study, Uttarakhand migration commission report, economic and statistics census report 2011, Rural development and migration commission Uttarakhand report and Pithoragarh district (October 2019) were taken into consideration.

### Objectives

1. To analyze the population migration pattern in Pithoragarh district.
2. To find out the major reasons of migration in district.
3. To find out geo-environmental influences and their consequences

**Study Area** Pithoragarh district and its 08 blocks i.e. Munsyari, Dharchula, Didihat, Kanalichina, Gangolihat, Bin, Munakote and Berinag are taken as study area. Location And Geographical Area Pithoragarh district situated at a height of 1645 mtr above sea level lies on the extreme eastern part of Uttarakhand. It forms about 13.29 % of the state’s geographical area, and has 4.80 % of the state’s total population. With 29.4 ° to 30.3 °N latitude and 80° to 81 ° E longitude, the Pithoragarh district is surrounded by the boundaries of Almora, Champawat Bageshwar And Chamoli Districts and extends over an area of 7090 sq km. Administrative Set Up Pithoragarh district has been divided into 11 tehsils, having its headquarter at Pithoragarh. There are 8 development blocks, 3 towns, 64 Nyaya panchayats and 670 gram panchayats. The total population of the district as per 2011 census is 4,83,439 of which the total rural population is around 85.69%.

### Illustration 1- Pithoragarh District- Tehsils And Blocks

| S No | Tehsils      | Blocks       |
|------|--------------|--------------|
| 1    | Munsyari     | Munsyari     |
| 2    | Dharchula    | Dharchula    |
| 3    | Didihat      | Didihat      |
| 4    | Gangolihat   | Gangolihat   |
| 5    | Pithoragarh  | Bin          |
| 6    | Berinag      | Berinag      |
| 7    | Ganaigangoli | Munakote     |
| 8    | Bangapani    | Kanalichhina |

|    |              |  |
|----|--------------|--|
| 9  | Thal         |  |
| 10 | Kanalichhina |  |
| 11 | Dewalthal    |  |

Source - Rural development and migration commission uttarakhand report pithoragarh district , oct 2019)

### Dimensions Of Population Distribution

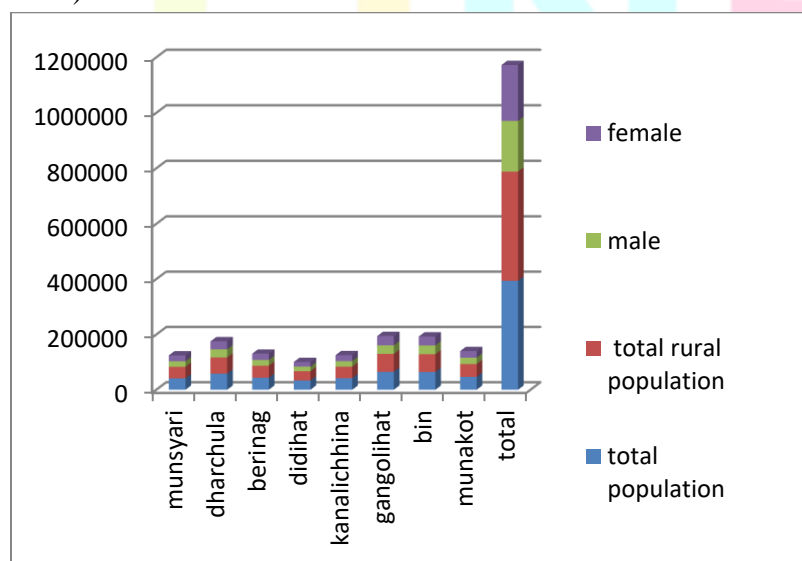
#### Illustration 2- Pithoragarh District- Population Distribution (Block Wise)

| Year/block   | Area sq km | Total population | Rural population |        |        | % change in Rural Population |
|--------------|------------|------------------|------------------|--------|--------|------------------------------|
|              |            |                  | Total            | Male   | female |                              |
| 1991         | 7217.7     | 416647           | 380950           | 189216 | 191734 | 11.25 %                      |
| 2001         | 7090       | 462289           | 402456           | 194810 | 207646 | 5.65 %                       |
| 2011         | 7090       | 483439           | 394359           | 193002 | 201357 | -2.01 %                      |
| Munsyari     | 2617       | 41412            | 41412            | 20237  | 21175  | -11.03                       |
| Dharchula    | 2884       | 58413            | 58413            | 29320  | 29093  | 14.48                        |
| Berinag      | 193        | 43502            | 43502            | 20792  | 22710  | -13.71                       |
| Didihat      | 209        | 33505            | 33505            | 16741  | 16764  | -5.97                        |
| Kanalichhina | 352        | 41652            | 41652            | 20143  | 21509  | -7.77                        |
| Gangolihat   | 307        | 64808            | 64808            | 30815  | 33993  | -7.90                        |
| Bin          | 169        | 64200            | 64200            | 31836  | 32364  | 12.21                        |
| Munakot      | 198        | 46557            | 46557            | 22949  | 23608  | 1.14                         |
| Total        | 6929       | 394049           | 394049           | 182833 | 201216 | -2.07                        |
| Forest       | 114        | 310              | 310              | 169    | 141    | 362.61                       |
| Rural        | 7043       | 394359           | 394359           | 193002 | 201357 | -2.01                        |
| Urban        | 47         | 89080            | -                | -      | -      | -                            |
| Total        | 7090       | 483439           | 394359           | 193002 | 201357 | -                            |

Source – DES, pithoragarh

The above data shows that the population of the district has been on a declining trend since 1991 census. The table shows block wise population figures, with Gangolihat having the maximum population whereas , Didihat having the lowest population.

#### Illustration 3 - Bar Graph Reflecting Population Of District Pithoragarh As Per Census 2011 (Block Wise)



## Population Migration

Migration can be defined as shifting of people from one place to another for betterment of their life with the intention of setting permanently or temporarily in a new location. Population migration is influenced by push and pull factors which are directly linked with internal and external migration.

**Semi - Permanent And Permanent Migrants** The effect of migration in Pithoragarh has been shown in this study which emphasizes it's socio-economic effects. In the last 10 years, a total of 31,789 persons from 589 gram panchayats have migrated on a semi-permanent basis and like to come to their villages for a short period . 9,883 permanent migration have been reported from 384 gram panchayats. This data indicates that there are more semi-permanent migrants then permanent migrants in nearly every district of the state.

**Illustration 4: District And Block Wise Migrants In Last 10 Years From Gram Panchayats(Gps)**

| S No  | District    | Block name   | No of groups (with semi permanent migration) / Short term migration | No of migrant over last 10 years(semi permanent migration) | No of groups with permanent migration | No of migrant over last 10 years(semi permanent migration) |
|-------|-------------|--------------|---|--|---------------------------------------|--|
| 1     | Pithoragarh | Berninag     | 77  | 4,307  | 68                                    | 2,248  |
| 2     | "           | Dharchula    | 57  | 6,330  | 8                                     | 465  |
| 3     | "           | Didihat      | 69  | 2,210  | 60                                    | 1,394  |
| 4     | "           | Gangolihat   | 58  | 1,713  | 27                                    | 443  |
| 5     | "           | kanalichhina | 91  | 3,779  | 90                                    | 2,660  |
| 6     | "           | Munakot      | 75  | 5,801  | 44                                    | 1,052  |
| 7     | "           | Munsyari     | 77  | 4,822  | 38                                    | 566  |
| 8     | "           | Bin          | 85  | 2,8,24   | 49                                    | 1,055  |
| Total |             |              | 589   | 31,789   | 384                                   | 9,883  |

**Source – Rural development and migration commission uttarakhand report on Pithoragarh district , oct 2019)**

The above data shows that in Pithoragarh district, permanent and semi-permanent migration has taken place in last 10 years. On studying the total migration of the district, it is known that most of the semi permanent migration has occurred from Dharchula(19.9%), Munakote( 18.2%), Munsyari(15.1%) and Berinag (13.5%), unlike permanent migration which has taken place from Kanalichina(26.9%),Berinag (22.7%),Didihat ( 14.1%) and Bin (10.6%).Among these most of the semi permanent migrants chose to live in close proximity to the district headquarter, while others migrate from villages to places outside district or state.

**Geo-Environmental Influence:** Geo-environment is closely related to humans . Wherever a person leaves a place in search of new habitat, it has socio-economic, as well as geo-environmental impact at both the places i.e the place he leaves and the new place where he settles down. Taking this into consideration we can foresee how human beings are impacting the earth. Because of them mother nature is facing problems such as land degradation, decrease in agriculture land, environmental pollution, to state a few.



Here researcher is connecting how geo-environmental impact can influence population migration. Due to land degradation and land slides, most of the people have been forced to abandon their residence. In Pithoragarh alone, many villages have faced the problems of land slides and cloud bursts. There are some villages which are live example of this problem, as stated below:-

**Illustration 5: Natural Hazard In District Pithoragarh**

| S No | Year        | Area                    | Triggered cause               | casualties                          |
|------|-------------|-------------------------|-------------------------------|-------------------------------------|
| 1    | 14 Aug 1977 | Twaghat ,Dharchula      | Heavey rainfall               | 44 people died,including 25 soldier |
| 2    | 17 Aug1998  | Malpa,Dharchula         | Havey rainfall and land slide | 207 people died                     |
| 3    | 27 Jul 2001 | Khet gaanv, Pithoragarh | Cloud burst                   | 05 people died                      |
| 4    | 2007        | Bram , Munsyari         | Heavy rainfall                | 15 people died                      |
| 5    | 8 Aug 2009  | Laa-jhekla , Munsyari   | Cloud burst,land slide        | 43 people died                      |
| 6    | 01 Jul 2016 | Bastadi, Pithoragarh    | Cloud burst                   | 29 people died                      |
| 7    | 2018        | Dharchula, Munsyari     | Landlide and cloud burst      | 19 people died,19 injured           |

**Source** : Disaster management office Pithoragarh

**Pictures showing the heavy toll on human lives due to Disasterous effect of Landslides and Cloudburst in District Pithoragarh**

**Illustration 6- La Jhekla Village (Munsyari)**



**Illustration 8- Kwiri Jimiya Village (Munsyari)**



**Illustration 9 - Madkot Village ( Munsyari)**



**Main Reason Of Migration-** Study shows that the main reason behind migration is due to following:-

1. 42.81 % (lack of livelihood employment)
2. 19.52% (lack of education facilities)
3. 10.13 % (lack of medical facilities)
4. 4.97% (lack of infrastructure i.e road, electricity, water etc)
5. 4.66% (low farm production and natural disasters)
6. 4.08 % (loss of farming caused by wild animals)
7. 2.36% (Emulating families, relatives etc)

**Source-** rural development and migration commission uttarakhand report October 2019

**Conclusion\_-** There is a close relationship between population and environment. Pithoragarh district has a scenic beauty, which attracts many tourists every year, who come for hiking, trekking, mountaineering and sightseeing. After studying block wise population migration data pertaining to District Pithoragarh it is found that, Geo-environmental issues to include Natural disasters have made life difficult for human beings, because of which they are forced to migrate, which has further impacted the land use pattern and caused a catastrophic increase in the level of pollution. To add on to misery, geographically Pithoragarh is placed under the category of very sensitive area. For this reason, the incidents of excessive rain and cloudburst, landslides keep happening here. All these reasons mentioned above have pushed people to abandon their native land.

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