

Profile of Affected Districts

PROFILE OF AFFECTED DISTRICTS IN GARHWAL

The districts of Uttarkashi, Tehri Garhwal and Chamoli lie in the north-western corner of Uttar Pradesh, perched in the middle and upper Himalayas. They appear in a west to east triangular cluster, bounded by Tibet in the north, Himachal Pradesh in the west, Pithoragarh and Almora districts in the east and Dehradun and Pauri Garhwal in the south. Given below is a brief profile of the three districts, based on the latest data available from the Census of India (1981) and the District Administration.

UTTARKASHI

Topography

Uttarkashi district was created in 1960 out of the parganas of Rawain and Tehri Garhwal. It is located on the north-western corner of Uttar Pradesh, over an area of 8,016 sq. km. Most of the terrain is mountainous consisting of high ridges, hills and plateaus. Flat pieces of land are rare. The land in these areas is low in fertility due to large area of outcrops of boulders and gravel. Forest generally occur on the upper ridges that bound the valleys. On the sloping hill-sides lie a chain of sparsely populated settlements interspersed with terraced cultivation. Uttarkashi gives rise to the Yamuna and the Bhagirathi; which flows on to become the Ganga.

Climate

The climate varies greatly from tropical to severe cold depending upon the altitude of the area and the extent of exposure to the sun. The temperature drops below freezing point at high altitude during the winter and snow falls at as low an altitude as 1,200 m. above msl. The average annual rainfall is 130 cm., three fourth of which falls between June and September.

Forests

The bulk: 88% (695,784 ha.) of the total area is administered by the Forest Department, of which 3,91,525 ha. is covered with vegetation and the remaining is snow-covered or bare rock. Pine, Fir and Spruce, Kharsu, Birch and Juniper forests are also found at different elevations. Alpine pastures are found throughout the district apart from a rich variety of shrubs, grass and herbs that come up during June-September. A large number of the medicinal plants of great commercial value grow spontaneously in the forests.

Administrative profile

Uttarkashi comprises four tehsils viz. Puraula, Rajgarhi, Bhatwari and Dunda. These are further divided into six development blocks; 681 villages including 14 forest villages - 669 of which are inhabited. The distribution and total area of these villages is given in Table 1.1. There are only three towns namely Uttarkashi, Barkot and Bhatwari, which account for 7% of total population. About 22% of the total population belong to the Scheduled Castes and 23% to the Scheduled Tribes.

Table (5.1): Administrative Units & Land in Uttarkashi District (1981)					
Tahsil	Area sq.km.	Inhabited villages	% of cultivated area to total area	% of irrigated area to total cultivable area	Total rural population of inhabited villages
PURAULA	1711	172	8.5	11.4	40,367
RAJGARHI	1148	179	20.5	6.3	38,468
DUNDA	742	218	26.3	12.4	64,222
BHATWARI	4403	92	2.8	7.5	34,619
TOTAL	8016	661	8.5	9.4	1,77,676
Source: Census of India, 1981, Town and Village Directory, Uttarkashi.					

Bhatwari was the most sparsely populated tahsil with only 92 villages while Dunda was the most populated with 218 villages. Both these tahsils were extensively hit by the October '91 earthquake. Bhatwari and Paraula are largely forested with very low areas of land under cultivation: less than 3% in Bhatwari and 9% in Puraula. Dunda on the other hand has more than 26% under cultivation, with 12% under irrigation. In brief, the population is largely impoverished because of the marginal agricultural in the region.

Occupational structure

The economy of the area pivots on agriculture. Unavailability of cultivable land, a short agricultural season, low temperature, high altitude, smallness of land holdings and perpetual problems of soil erosion due to steep gradients are the factors inhibiting agriculture in the district. The cultivation in these areas is carried on by making terraces on the sloping hillsides. Where terracing and tilling cannot be done, owing to high gradients, the place is cleared by burning scrub and bushes and seeds are sown with the help of a hoe.

The bulk of the land holding (57%) are very small are below 0.5 hectares. The main Kharif crops are paddy, small millet and potato and chief Rabi crops are wheat and barely.

Animal husbandry is an important source of supplementary income of the rural population. Bovine and sheep population accounted for almost a third each of total livestock. The production of milk per milch animal is very low. Sheep rearing is an important industry in the district. Yet none of these provide full time employment. Forestry, plays an important role in the economy of the district as it employs persons in preservation, propagation and exploitation of forests.

Various minerals are known to occur, as per stray geological surveys, but there has hardly been any industrial development in the district. There is only one registered factory and about 350 unregistered units in the district.

Infrastructure

Communication in the district depends solely on roads and pathways. A national highway does not pass through this district. There are metalled and non-metalled guls (channels) for irrigation. The ration of the area irrigated to the net area sown has almost doubled to 20% per cent over the 1971-81 decade.

Village land and amenities

The average area of a revenue village is only 120.6 ha. ranging between the maximum of 1,803 ha. in (Hudoli, Puraula) and the minimum of 2.83 ha. (Bhatsera, Dunda). The staple food in all the four tahsils consists of wheat and rice. The table (5.2) given below shows distribution of villages according to the availability of amenities :

Table (5.2): Distribution of Villages in Uttarkashi district according to the availability of various amenities (1981)							
Tahsils	No. of inhabited villages	Percentage of villages having one or more of the following amenities					
		Education	Medical	Drinking Water	Post & telegraph	Approach by pucca road	Power supply
Puraula	178	64 %	13 %	100 %	10 %	5 %	11 %
Rajgarhi	179	60 %	12 %	100 %	13 %	8 %	21 %
Dunda	218	61 %	9 %	100 %	16 %	8 %	21 %
Bhatwari	94	84 %	18 %	100 %	21 %	27 %	42 %
Total	669	65 %	12 %	100 %	14 %	10 %	21 %
Source: Census of India 1981, Village and Town Directory, Uttarkashi.							

Except for drinking water and education facilities, the rural areas of Uttarkashi are largely deprived of other amenities. The water supply infrastructure was badly hit during the earthquake. The build of the school buildings in the study villages were unserviceable and will have to be demolished and reconstructed or require heavy repairs. Funds will have to be released to undertake this during the summer of '92. These buildings could serve as good demonstrations of earthquake resistant technology and should not be constructed with techniques (e.g. RCC) that can not be replicated in village housing.

The most serious problem is that of access by road. This implies that the important and use of industrial materials (e.g. steel and cement) will have to be limited to very small catalytic amounts (e.g. vertical reinforcing steel bars, connectors) as the major form of transport is either on mule or by headloading. The lack of power connection to most villages implies that power tools can only be used in tahsils like Bhatwari. This would imply the setting up of mobile building production facilities with autonomous generator based power source on a small truck.

TEHRI GARHWAL

Topography

Tehri Garhwal is one of the western most districts of the Uttar Pradesh, located on the outer ranges of the mid -Himalayas. A major portion of the district is hilly. The plains are more fertile than the plateau area. The Bhagirathi, Bilangana, Balganga, Mandakini and Alaknanda rivers pass through the district apart from many other streams and rivulets.

Climate

The monsoon passes brings heavy rainfall to the district over the June-September period. The district receives an average rainfall of 161 cm. annually. The climate, from April to mid-June is warm with the northern hilly portions being cooler than the valleys in the south. Snowfall occurs in winter at the height of 1,200 to 1,500 m. while the valleys are shrouded in dense fog.

Forest

Forests make up about 69% of the total area of the district. Chir, Oak, Sal and deodar forests are very valuable besides various kinds of fruits found in them. Alpine flowers grow in the north-east and herbal plants all over the district.

Administrative profile

The district has been divided into three tahsils: Devaprayag, Tehri and Pratapnagar. There are ten development blocks and 2,005 villages of which 1,938 are inhabited. 13% of the district population belong to the Scheduled Castes. There are very few Scheduled Tribes households.

Table (5.3): Administrative Units & Land Use in Tehri Garhwal District (1981)					
Tahsil	Area sq.km.	Inhabited villages	% of cultivated to total area	% of irrigated to total cultivable area	Total rural population of inhabited villages
TEHRI TAHSIL	1,131	640	86%	6%	1,28,236
PRATAPNAGAR TAHSIL	1,720	450	89%	11%	1,39,647
DEVAPRAYAG TAHSIL	1,988	848	93%	6%	2,09,281
TOTAL	4,345	1,938	89%	7%	4,77,164
Source: Census of India, 1981, Town and Village Directory.					

Infrastructure

Tehri Garhwal is not connected by rail and being both hilly and with densely forested, the existing road network, is not only unsystematic but insufficient. Over 10% of the villages in the district are electrified. The main sources of irrigation are canals, gul (channels), hauz (tank) and hydrams. The total irrigated area is a mere 10,816 hectares.

Economy

This district suffers from weak infrastructure and an almost insignificant level of industrial development. There are only four registered factories and 104 cottage, village and small scale industries. Manufacturing of wooden toys and weaving of woollen garments, rugs and carpets, lime, footwear and battery plate manufacture are a few of the local village and small scale industries.

Agriculture

Most of the people (92 %) earn their livelihood from agriculture, inspite of the high hill gradients. About 13 percent of the total area is used for agricultural purposes. Wheat, paddy, millet and potato are the main crops. Most of the agricultural holdings are scattered and uneconomical. According to the Agricultural Census 96 % of the holdings were less than 3 hectares.

Animal husbandry plays an important role in supplementing the income of the farmers as well as providing draught power for agricultural operations. There were 4,29,191 heads of live-stock (over two-thirds buffaloes and the rest goats and sheep) in the district as per the livestock Census of 1977. The quality of live-stock is poor in the area and the average milk yield very low.

Village land and amenities

The rural areas of the district have 2,005 revenue villages (1,938 inhabited) and 15 inhabited forest villages. On an average, a revenue village occupies an area of 88.8 hectares. The largest village in area in the district is Bhutgaon (Tehri) over 706.2 hectares. The two villages of Megwalgaon, Malla and Nawapani (Pratapnagar) which are the smallest, in the district, cover a mere 1.21 hectares each.

Table (5.4): Distribution of Villages in Tehri Garhwal District according to the Availability of various amenities (1981)							
Name of taluqs	No. of inhabited villages	Percentage of villages having one or more of the following amenities					
		Education	Medical	Drinking Water	Post & telegraph	Approach by pucca road	Power supply
Tehri	645	35%	7%	100%	11%	9%	13%
Pratapnagar	454	56%	7%	100%	17%	19%	11%
Devaprayag	854	41%	6%	100%	14%	8%	10%
Total	1,953	43%	6%	100%	14%	11%	11%
Source: Census of India 1981, Village and Town Directory, Tehri Garhwal.							

Tehri Garhwal reports a hundred per cent provision of water supply to its villages. The level of provision of educational (43%) and medical facility was lower than Uttarkashi. The rural power supply provision was also less than other districts (11%). The water supply infrastructure in many villages was partially damaged during the earthquake. A number of school and community buildings were damaged but are repairable. The access by road and availability of power are major constraints to the reconstruction process, as in other parts of Garhwal.

CHAMOLI

Topography

Chamoli district has a varied landscape extending from lush valley to tall Himalayan peaks with perennial snow and glaciers. This region is densely forested with sparsely populated areas on the forest edge. The Alakananda along with its tributaries, the Nandakini and Pindar are the chief rivers of the district.

Climate

The lower valleys, generally, have a pleasant climate but winter brings bitter cold, especially at elevation about 2,000 metres. The monsoon sets in by the middle of June and extends to September. The annual rainfall is to 102 cm. Serious soil-erosion occurs during the rains and snowfall occurs at 1,100 m. during winter.

Forests

Forests account for more than 54 percent (526,936 ha.) of the land, the rest of the land is in use for cultivation, or is covered by snow-clad peaks and bare rocks. Pine, Seral, Banj oak, Cypress, Kharasu forests are found at various elevations. Deodar forests are not common in this district. Between June to September, rich varieties of grass, shrubs and herbs of great medicinal importance grow in Alpine pastures. Over 120 species of ferns, on mossy rocks and tree-trunks, inhabit damp ravines.

Administrative profile

Chamoli has been divided into 4 tahsils, 9 development blocks and 1,503 inhabited villages. The distribution and total area of these villages is given in Table (5.5). On an average, a revenue village occupies an area of 114.8 hectares. 17% of the population belong to the Scheduled Castes and 2.5 % belong to the Scheduled Tribes.