Chapter 2

Geographical Profile of the Study Area
Chapter – 2

THE GEOGRAPHICAL PROFILE OF THE STUDY AREA

The Geographical personality of a region has a strong bearing on the socio-economic and functional structure of the population. It affects the personal and household characteristics of the people, their physical and human attributes, farming and agricultural productivity, utilization of the latest techniques and machinery in the field of agriculture and the overall development of the region. Therefore, an account of the physical, economic and social framework of the area is necessary.

2.1 PHYSICAL PROFILE

The district of Dehradun is located in the northwest region of the state Uttarakhand. It is surrounded on the north by Uttar Kashi, the east by the twin districts of Uttar Kashi and Tehri Garhwal. In the south lies the district of Saharanpur of U.P. and its extreme southern tip touches the boundary of the Bijnor district. Seen from Mussoorie the country around Dehradun appears to be well wooded especially at the southern extremity of the town.

Nestled in the mountain ranges of the Himalaya, Dehradun is one of the oldest cities of India and is recently declared as the provisional capital of the newly created Uttaranchal state in the month of November 2000.

The name Dehradun is a combination of two words, ‘Dehra and Dun’. The former is a corrupt form of ‘Dera’, which signifies a temporary abode or a camp. The term ‘Dun’ means lowland at the foot of a mountain range. As the bulk of the district lies in such a tract, the ‘dun’ part of the name is fully justified.

According to the central statistical organization the area of the district was 3,088 sq.km. in 2001. It lies between 29°58' to 31°2'30" north latitudes and 77°34'45" to 78°18'30" east longitudes at an altitude of 640 mts (2100 ft)
Source: Regional Office, Census of India, Dehradun District, Uttaranchal

Fig. 2.1(i)
above mean sea level Figure 2.1(i). The district comprises four tehsils (Chakrata, Vikas Nagar, Dehradun and Rishikesh) and six blocks (Chakrata, Kalsi, Vikas Nagar, Sahaspur, Raipur and Doiwala).

2.1(a) Physiography

The district comprises of two distinct sub divisions:

1. The Montane Tract
2. The sub-Montane Tract

The Montane Tract

It is roughly oval in shape with its major axis lying north and south. It consists of a succession of mountain and gorges and comprises of Jaunsar Bawar, the hilly *pargana* of the district. The most distinct feature of this tract is a ridge separating the drainage basin of the Tons from that of the Yamuna. The mountains are peculiarly rough and precipitations with few villages, making cultivation small and tedious. Presence of limestone gives it a massy and irregular character. The ravines are deep and sudden in their descent.

The Sub Montane Tract

Herein lies the Dun proper, which is an open valley bounded by the Siwalik hills in the south and the outer scarp of the Himalayas in the north. The Dun is an irregular parallelogram in shape with its longer axis lying northwest and southeast, and its existence as such is due to the presence of the Siwalik Hills as well marked range extending along the entire southwestern holder of the Dun.

2.1(b) Mountains

Dehradun comprises of the Himalayas and the Siwalik ranges. The term “Himalayas” means the range covered with eternal snow which the word ‘Siwalik’ was considered equivalent to ‘Sawalakh’ i.e. to say of 1,25,000 peaks.
1. **The Siwaliks**: They extend along the entire southern border of the district from the Yamuna to the Ganga, running parallel to the Himalayas. They consist of sharp, towering peaks nearly perpendicular precipices and a maze of little valleys. At the extreme southeast corner of the district where the range is pierced by ‘Ganga’ it expands into a mountain knot known as the Motichur hill. A number of long and high ridges run out in every direction, assuming a direction parallel to the main ridge. The Siwalik range is of a recent formation and is perhaps the most recently formed range of similar magnitude on the earth.

2. **The Himalayas**: On the north and north-east the horizon is rounded by the Mussorie range, which binds back and encloses a portion of the valley in an immense amphitheatre. This range forms here the outer scarp of the Himalayas system and culminates in the landour peak and Top Tibba. To the south, a number of minor ridges run towards the Dun.

2.1(c) **Drainage**

The Dun is apparently a single valley but in reality it belongs to two great river systems, those of the Ganga and the Yamuna. Multitudes of torrents pour down from the Himalayan hills during the rainy season. They carry with them an immense volume of water, which continuously undermines their containing banks and thus the streambeds, widens until they cover a very large space.

The chief rivers of the district are:

1. **Ganga**: The Ganga touches the district at Rishikesh near which it receives Chandrabhaga nadi. It leaves the district near Hardwar after forming the boundary between Dun and Garhwal.

2. **Asan**: The Asan river rises in a clayey dip to the west of the Asarori-Dehra road, where it flows in a north west direction and finally plunges into the Yamuna. Tons is one of its chief tributaries which rises from the hill below Mussoorie.
Source: Regional Office, Census of India, Dehradun District, Uttarakhand

Fig. 2.1(ii)
3. **Suswa**: This river rises in a clayey depression near the source of the Asan to the east of the Asarori Dehra road. Then it flows a south east path and drains eastern Dun and receives during its course minor streams both from north and south. Suswa receives first the waters of Rispana Rao and then finally Song.

4. **Song**: This river, which originates in Tehri Garhwal, runs parallel to Dun in a northwest direction and then finally unite with Bindal. During its course it receives Baldi river, then Suswa and lastly Jakhan Rao. The portions of the eastern Dun north of these rivers present a network of streams and it is often difficult to distinguish the main rivers from their tributaries.

5. **Yamuna**: The Yamuna rises from Yamnotri. It enters the district about 20 km. due east of Deoband where it receives a small stream called the Riknar Gad.

6. **Tons**: This is the chief affluent of the Yamuna in the district. It rises north of the Yamnotri peak in the Harki Dun. First it meets Supin and later Rupin and from this point the united stream is called the Tons.

**2.1(d) Climate**

The climate of Dehradun is a moist and temperate one. The annual average rainfall is 2073.3 mm. The year can be divided into four seasons. The period from about the middle of November to February is the cold season. The hot season, which follows, continues up to about the end of June. The monsoon season is from July to about the third week of September. The following period, till the middle of November, is the post monsoon season.

The valley, on the whole, is peculiarly free from sudden extremes of heat and cold, especially from the heat blasts, which scorch the country lying below its southern boundary, but due to extensive deforestation and extension of cultivation in the western portion of the Dun hot winds now accompany the advent of the summer months. These are not scorching in their effects but they
AVERAGE MONTHLY TEMPERATURE IN DEHRADUN DISTRICT

- Mean Daily Minimum (°C)
- Mean Daily Maximum (°C)
- Mean Monthly Average Temperature (°C)
- Month Minimum (°C)
- Month Maximum (°C)

Fig. 2.1(iii)

AVERAGE MONTHLY RAINFALL IN DEHRADUN DISTRICT

- Normal Monthly Rainfall (mm)
- Average Number of Rainy Days

Fig. 2.1(iii)
gradually become more marked and prolonged and are doubtless the consequences of rapid clearances of forests. These warm winds were unknown in the region before. From its close proximity to the outer Himalayan range, the region is also generally cool, the cold weather commences earlier and lasting longer than in the plains. There are no special prevailing winds; a mild breeze during the warmer months renders the climate at this sultry season tolerable.

The relative humidity is high during the southwest monsoon season, generally exceeding 70 per cent on the average. The mornings are comparatively more humid than the afternoon. The driest part of the year is the summer season with the relative humidity in the afternoon becoming less than 45 per cent.

**TABLE 2.1(i)**

<table>
<thead>
<tr>
<th>Months</th>
<th>Mean Daily Minimum (°C)</th>
<th>Mean Daily Maximum (°C)</th>
<th>Mean Monthly Average Temp.(°C)</th>
<th>Month Minimum (°C)</th>
<th>Month Maximum (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>5.80</td>
<td>19.40</td>
<td>12.60</td>
<td>2.30</td>
<td>23.00</td>
</tr>
<tr>
<td>February</td>
<td>7.90</td>
<td>21.90</td>
<td>14.90</td>
<td>3.70</td>
<td>26.60</td>
</tr>
<tr>
<td>March</td>
<td>12.20</td>
<td>26.70</td>
<td>19.45</td>
<td>7.20</td>
<td>31.50</td>
</tr>
<tr>
<td>April</td>
<td>16.90</td>
<td>32.30</td>
<td>24.60</td>
<td>11.60</td>
<td>37.00</td>
</tr>
<tr>
<td>May</td>
<td>20.50</td>
<td>35.80</td>
<td>28.15</td>
<td>16.00</td>
<td>39.90</td>
</tr>
<tr>
<td>June</td>
<td>23.00</td>
<td>34.90</td>
<td>28.95</td>
<td>18.70</td>
<td>40.00</td>
</tr>
<tr>
<td>July</td>
<td>22.50</td>
<td>30.50</td>
<td>26.50</td>
<td>20.00</td>
<td>34.60</td>
</tr>
<tr>
<td>August</td>
<td>22.00</td>
<td>29.50</td>
<td>25.75</td>
<td>20.10</td>
<td>32.90</td>
</tr>
<tr>
<td>September</td>
<td>20.60</td>
<td>29.70</td>
<td>25.15</td>
<td>17.30</td>
<td>32.40</td>
</tr>
<tr>
<td>October</td>
<td>15.90</td>
<td>28.50</td>
<td>22.20</td>
<td>12.10</td>
<td>31.20</td>
</tr>
<tr>
<td>November</td>
<td>10.40</td>
<td>25.10</td>
<td>17.75</td>
<td>7.00</td>
<td>28.00</td>
</tr>
<tr>
<td>December</td>
<td>6.80</td>
<td>21.30</td>
<td>14.05</td>
<td>3.60</td>
<td>24.50</td>
</tr>
</tbody>
</table>

Source: Indian Meteorological Department, Lodhi Road New Delhi.
In the Dun, winds in the post monsoon and in the mornings in the rest of the year, are variable in direction, though northerly to north easterly winds and sometimes experience during post-monsoon and winter mornings.

During the cold season, passing western disturbances affect the weather over the district, causing occasional thunder storms which also occur during the summer and monsoon season. Fog occurs occasionally during the cold season.

TABLE 2.1(ii)

AVERAGE MONTHLY RAINFALL IN DEHRADUN DISTRICT

<table>
<thead>
<tr>
<th>Month</th>
<th>Normal Monthly Rainfall (mm)</th>
<th>Average Number of Rainy days</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>51.60</td>
<td>3.80</td>
</tr>
<tr>
<td>February</td>
<td>48.10</td>
<td>3.20</td>
</tr>
<tr>
<td>March</td>
<td>51.30</td>
<td>3.60</td>
</tr>
<tr>
<td>April</td>
<td>17.30</td>
<td>1.40</td>
</tr>
<tr>
<td>May</td>
<td>36.20</td>
<td>2.90</td>
</tr>
<tr>
<td>June</td>
<td>225.00</td>
<td>9.60</td>
</tr>
<tr>
<td>July</td>
<td>718.60</td>
<td>21.20</td>
</tr>
<tr>
<td>August</td>
<td>734.00</td>
<td>21.50</td>
</tr>
<tr>
<td>September</td>
<td>321.70</td>
<td>12.10</td>
</tr>
<tr>
<td>October</td>
<td>47.50</td>
<td>2.80</td>
</tr>
<tr>
<td>November</td>
<td>11.30</td>
<td>0.90</td>
</tr>
<tr>
<td>December</td>
<td>23.20</td>
<td>1.60</td>
</tr>
</tbody>
</table>

Source: Indian Meteorological Department, Lodhi Road, New Delhi.

2.1(e) Soils

The classification of soils differ in two separate tehsils of Dehradun district, namely Chakrata and Dehradun.
In Dehradun, soils can be classified into Kachiana (Kachiana plus and Kachiana), Goind (I and II), Dakar Raunshili and sankra and in Chakrata Kyari, Ukari and Khil types of soil are found.

Kachiana plus is confined to the town and precincts of Dehradun and is utilized for garden cultivation and is adequately irrigated. Kachiana is the soil in all plots whether large or small where irrigation is secure and utilized to the full. Kachiana plus and Kachiana are, however, not important soil classes, such they account for only 2.1 per cent of the total cultivated area.

The Goind I and II, the rich and heavily manured soil, is found in Dehradun tehsil, in small plots attached to each house. Dakar is good clay and in rich Dakar land unirrigated crops can stand even long breaks in the monsoon. The three sub types of Rausili (I, II and III) are also found in the Dehradun tehsil, and represent a good loam Sankara, an inferior loam or clay of little depth and mixed with stones. The area of irrigated Sankra is not large. Unirrigated rice is seldom a failure in the Dun unless it is grown on Sankra land.

In the Chakrata tehsil the soils found are Kyari (irrigated), Ukari (unirrigated) and Khil, which is considered to be a good soil. Irrigated land is mostly found in the valleys where rivers and streams flow. The other types of land are found in the hill areas where cultivation is carried on in terraced fields. Cultivation on unirrigated and unterraced steep hill slopes is called khil. The fields are seldom manured because the land regains its fertility from the ashes of burnt grass and shrub. These fields are left fallow to allow grass and other vegetation to grow again, to be burnt and utilized for manuring afterwards. Khil does not require any watch or attention and once the seeds are sown the cultivator has only to wait for harvest.

Ross with regard to the nature of the soil said, "The Dun is without doubt here and there very fertile and has some very fine land, especially in the eastern Dun, but it cannot called a good wheat country, there is something wanting either in the soil or the climate where there is irrigation there are few
crops, but the wheat is never equal to the plains. Where there is no irrigation, it is a perfect matter of chance what the yield is, or whether there will be any yield at all. The surface soil is as rule shallow, and below it there is grand subsoil, this dries off all the moisture from the thin upper layers very soon, and so spring crop dwindles down to nothing”.

2.2 ECONOMIC SETTING

2.2(a) Natural Vegetation

According to W.G. Moore, natural vegetation is the vegetation of a region as it exists or has existed before being modified to a marked extent by man e.g. through agriculture.

The study of natural vegetation of Dehradun can be made by broadly dividing the area into two-main natural vegetation region.

1. Natural vegetation of western part of tehsil Dehradun
2. Natural vegetation of eastern part of tehsil Dehradun.

1. The Western part of Tehsil Dehradun

The vegetation can be broadly classified into two botanical divisions.

a. Sal Forest

They occur over the Dun Valley up to the top of the Siwalik ridges in the south, and up to an altitude of about 1,300 mts in the north, Sal here is generally pure, but towards the top of the Siwalik ridges, mixture of miscellaneous species increases and, at some place, Chir is found mixed with Sal. The main associates of Sal to name a few are asna, haldu, bahera etc. rohini, chamror, bhilawa and maidalakari etc. are found between the top of the Siwalik ridges and lower parts. Some of the common shrubs such as Karu, gandela, binku or ban, bansa, besinga, bhang, bamboo, malijan, alga, alai, amarbel, kalidudhi are the commonly found climbers of this region.
b. Coniferous Species

The only coniferous species, which is found in the old reserved forests of Dehradun, is Chir. Few deodar trees are also visible. The associates of Chir are \textit{banj}, \textit{oak}, \textit{ayar}, \textit{burans} and \textit{mehal}. The undergrowth consists of \textit{silmora}, \textit{sakina} and \textit{hisala} etc. Near the streams sheltered localities are found with heavy growth of shrubs like \textit{kilmora}, \textit{dhaula}, \textit{thor}, \textit{bhilmora}, \textit{kuri} and \textit{satawar}. The commonly found grasses of this region are \textit{goria} or \textit{gorla}, \textit{kumaria}, \textit{nakli}, \textit{bhabar} and \textit{ringal}.

2. Eastern part of the Tehsil Dehradun

The flora here may be divided into fourteen botanic divisions.

a. \textbf{Moist Siwalik Sal Forests} : The Sal trees growing here are of very low quality.

b. \textbf{Moist Bhabar Dun Sal Forests} : The forest cover an area of 160 sq.km. Sal is the dominant species, and its associates are \textit{sain} and \textit{dhauri}. The other varieties found are \textit{sande}, \textit{dhaman}, \textit{rohini}, \textit{chamror}, \textit{amaltas}, \textit{jamun}, \textit{Machilus}, \textit{sarunda}, \textit{chemeli} and \textit{gaujand}

c. \textbf{West Gangetic Moist Deciduous Forests} : They represent closed forests of medium to good height. The species are as \textit{safed siris}, \textit{behera}, \textit{jhingan}, \textit{kharpat} and \textit{dhauri}, \textit{karaunda}, \textit{vasica} and \textit{jharberi}.

d. \textbf{Low Alluvial Savanna Woodland Forests} : The tree growth is generally poor and scattered consisting of \textit{ambara}, \textit{semal}, \textit{saijana}, \textit{kharpat}, \textit{dhauri} and \textit{siris}.

e. \textbf{Sub-Montane Hill Valley Forests} : The species occurring are \textit{gular}, \textit{gutel}, \textit{jamun}, \textit{tun}, \textit{safed siris} and occasionally \textit{semal} and \textit{khair}. The underwood consists of \textit{kala a tendu}, the undergrowth comprising \textit{cane} and \textit{ardesia solanacea}.

f. \textbf{Dry Siwalik Sal Forests} : These forests occur on the higher slopes of Siwalik, here it is the predominant species in the overwood, its main associates being \textit{sain}, \textit{bakli}, \textit{pipal}, \textit{Kachnar} and \textit{guiral}. 
g. **Northern dry Mixed Deciduous Forests**: In the plains these forests consist of *semal, khair, kanju, bahera, amaltas* and *bel*. In the hills the common species found are *bakli, semal, jhingan, bahera, khair, rohini, genthi, khini, mandara, chamror, chilla* and *harsingar*.

h. **Dry Deciduous Scrub Forests**: These forests represent a degradation stage of the dry deciduous forest. The main species of trees found are *jhingan, khinni, mandana* and *amaltas*. Common shrubs are *harsingar karaunda, mainphal, gandhera* and *bindu*.

i. **Khari Sissoo Forests**: These forests occur on gravelly alluvium of streams and rivers, *Khair* and *sissoo* occur mixed but the latter generally predominates. The undergrowth consists of *basingha, gandhela* and *ber*.

j. **Sub-tropical Siwalik Chir Forests**: These forests are mixed with dry mixed deciduous forests and Sal forests. The pines stand singly or in-groups.

k. **Sub-tropical Himalayan Chir Forests**: These forests occur in local and in small patches.

l. **Himalayan Sub-tropical Scrub Forest**: The tree species mostly occur along moist ravines and mullans and consist of *fieus renburghil, burans ban* and *Pyrus pasnia*. The shrubs usually consist of *Indigofera, Rubus ellipticus, vibrum* and *Euphoribea species*.

m. **Banj Forests**: These forests occur almost performing a somewhat open canopy of sapling and poles of coppies growth in Thano forest range.

n. **Himalayan Temperate Secondary Scrub Forests**: They represent a degradation stage of banj forests. The common shrubs are *kilmora, Rubus ellipticus* and *surai*.

2.2 (b) **Land Utilization**

The district of Dehradun can be divided into three main agricultural divisions:

a. The Dehra plateau
b. The riverian land

c. The Sub-montane tract

The Dehra plateau is the best suited for cultivation out of the three, and best quality wheat is grown here. Next comes the riverian land where Dehradun’s famous Basmati rice is grown. Lastly comes the submontane tract which is dry, stony and unprofitable, yielding rain crops only, which are good or bad, as the rains are abundant or scanty.

According to 2001 census the area under forest was 201831 hectares accounting for about 54.26 per cent from total reported area Table 2.2(i).

**TABLE 2.2(i)**

**LAND USE PATTERN IN DEHRADUN DISTRICT (2001)**

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Percentage to the Reported Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest</td>
<td>54.26</td>
</tr>
<tr>
<td>Area under non agricultural land</td>
<td>6.17</td>
</tr>
<tr>
<td>Barren and uncultivable land</td>
<td>0.54</td>
</tr>
<tr>
<td>Permanent Pasture and other grazing land</td>
<td>0.07</td>
</tr>
<tr>
<td>Land under miscellaneous tree crops and groves not included in net area sown</td>
<td>4.34</td>
</tr>
<tr>
<td>Culturable waste land</td>
<td>16.88</td>
</tr>
<tr>
<td>Fallow lands other than current fallows</td>
<td>1.58</td>
</tr>
<tr>
<td>Current fallows</td>
<td>1.90</td>
</tr>
<tr>
<td>Net area sown</td>
<td>14.25</td>
</tr>
</tbody>
</table>

Source : Census of India 2001, Dehradun, District Statistical office.

2.2 (c) Agriculture

Agriculture is practiced in the Dun valley in the same fashion as in plains but here hard labour and skill is required. Canals and rivers provide abundant facilities for irrigation but this area lacks in manure. The hills have very little level ground and hence terraced cultivation is practiced. Cultivation
in the hill tract of Dehradun tehsil and throughout the Jaunsar, Bawar is
generally regular and intermittent. Terraced fields form the backbone of hill
cultivation. These fields are lavishly manured and when water is available and
when rains are good production of crops is also good. Small patches of hillsides
are cleared of shrubs and grasses and then they are cultivated for a year or so
and then left fallow. This type of cultivation disintegrates the hillsides and
causes slips and this in turn damage the terraced fields at the foothills.

In Dehradun crops are grown both in Kharif and Rabi seasons. The chief
crops of Kharif are rice, mandua, jhangora and sonk together with, pulse
specially urd and kulath. Another important crop is tor (arhar); Cholai, a Kharif
crop. is peculiar to the hills.

The Rabi crops grown here are barley, wheat and mustard. Sugarcane is
also grown.

Among the fruit grown here are mango, guava, peach, grape, strawberry,
pear and lemon.

All kind of vegetables are grown in the district, potato being the most
important crop. The common vegetables grown here are brinjal or egg plant,
raddish, lady’s finger, carrot and various beans, pumpkins, gourds, melons.

2.2(d) Industry

The district has 97 registered factories engaging 8,751 persons. The
value of the product is 455.39 million rupees annually. There are two heavy
industries in the district. The Indian Drugs and Pharmaceuticals Ltd, A
Government of India undertaking was established with Soviet Collaboration at
Virbhadra for manufacturing antibiotics. The Sturdiac chemicals Ltd., which
produces calcium carbonate, another heavy industry in the private sector was
established in 1963. Woolen and synthetic tops, woolen cloth, sugar, cotton
yarn, wheat products, medicines and miniature bulbs are manufactured in seven
large-scale units. They are Sri Janki Sugar Mills Co. Ltd. Amitash Textile Mills
Ltd. Miniature Bulb Industries of India Ltd. Bengal Immunity Ltd., Doon
Valley combers (P) Ltd., India woolen Textile Mills (P) Ltd. and Raj Narain Floor Mills Ltd.

A variety of items are produced in small scale units of industries like dairy, canning and preservation, bakery, chocolate, khand sari, tea, malt, textiles, cardboard boxes, printing, timber goods, steel furniture, liquor, ayurvedic medicines, rosin and turpentine, tubes, leather products, musical instruments, optical lenses, miniature bulbs, medical instruments, automobile industries, agricultural implements, utensils and hospital equipments, weigh bridges, sewing machines, metal goods and plaster of paris etc.

In the rural area of the district a number of cottage and village industries like wool industry, handloom cloth, power loom, dairies, tailoring, oil, gur, rice, apiary, baskets, cots and mats, walking sticks, pottery brick kilns, Smithy, leader flourish etc.

Under the Sericulture scheme the Government control silk farm was established at Prem Nagar in the district. The farm distributes healthy mulberry trees to the silk warm rearers in the district and a good amount is earned from the production of cocoons.

2.3 SOCIAL PROFILE

Dehradun, supporting a population of about 1282143 persons with an average density of 415 persons per sq.km. is one of the densely populated districts of Uttranchal. The highest density of 585 persons and lowest of 289 persons per km is found in blocks Doiwala and Sahaspur respectively. Out of the total population, 53 percent were male, while 47 per cent were female. Rural population accounts 47.06 per cent of the total population (2001 census). The district with an average literacy index of 68.35 per cent ranks 2nd highest in the state the literacy percentage among the male is 57.66 per cent while it is 42.33 per cent in case of females. The percentage of literate persons also varies from block to block. Block Raipur ranks first in this field, while block Chakrata
occupies the lowest place. The district is inhabited by the people of various castes and creed Table 2.3(ii).

2.3(a) Population

The population of Dehradun was 1282143 (2001 Census). Table 2.3(i) reproduces data from population census taken at regular interval from 1901.

**TABLE 2.3(i)**

**POPULATION GROWTH IN DEHRADUN DISTRICT**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Variations</th>
<th>% of Variations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>177465</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1911</td>
<td>204534</td>
<td>+27069</td>
<td>+15.25</td>
</tr>
<tr>
<td>1921</td>
<td>211877</td>
<td>+7343</td>
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<td>1931</td>
<td>229850</td>
<td>+17973</td>
<td>+8.48</td>
</tr>
<tr>
<td>1941</td>
<td>265786</td>
<td>+35936</td>
<td>+15.63</td>
</tr>
<tr>
<td>1951</td>
<td>361689</td>
<td>+95903</td>
<td>+36.08</td>
</tr>
<tr>
<td>1961</td>
<td>429014</td>
<td>+67325</td>
<td>+18.61</td>
</tr>
<tr>
<td>1971</td>
<td>577306</td>
<td>+148292</td>
<td>+34.57</td>
</tr>
<tr>
<td>1981</td>
<td>761668</td>
<td>+184362</td>
<td>+31.93</td>
</tr>
<tr>
<td>1991</td>
<td>1025679</td>
<td>+264011</td>
<td>+34.70</td>
</tr>
<tr>
<td>2001</td>
<td>1282143</td>
<td>+256464</td>
<td>+25.00</td>
</tr>
</tbody>
</table>

Source: Census of India 2001, Dehradun District Statistical Office.

2.3(b) Principal Communities

Of the total population of the district 84.71 per cent are Hindus (2001 census). Second in hierarchy are Muslims who constitute 139197 persons and are 10.85 per cent of the total population of the district. The percentages of other communities are 0.39 (Jains), 0.58 (Buddist) and 0.80 (Christians) in the year 2001.
### TABLE 2.3(ii)

**RELIGIOUS COMPOSITION OF THE POPULATION IN DEHRADUN DISTRICT 2001**

<table>
<thead>
<tr>
<th>Religion</th>
<th>Total Population</th>
<th>Percentage of total population</th>
<th>Percentage decadal growth 1981-91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindu</td>
<td>1086094</td>
<td>84.71</td>
<td>24.16</td>
</tr>
<tr>
<td>Muslim</td>
<td>139197</td>
<td>10.85</td>
<td>40.96</td>
</tr>
<tr>
<td>Christian</td>
<td>10322</td>
<td>0.80</td>
<td>15.35</td>
</tr>
<tr>
<td>Sikh</td>
<td>33379</td>
<td>2.60</td>
<td>9.74</td>
</tr>
<tr>
<td>Buddhist</td>
<td>7499</td>
<td>0.58</td>
<td>-10.14</td>
</tr>
<tr>
<td>Jain</td>
<td>5018</td>
<td>0.39</td>
<td>20.65</td>
</tr>
<tr>
<td>Others</td>
<td>166</td>
<td>0.01</td>
<td>-26.22</td>
</tr>
<tr>
<td>Religion not stated</td>
<td>468</td>
<td>0.03</td>
<td>515.79</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1282143</strong></td>
<td><strong>100.00</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Census of India 2001, Dehradun District Statistical Office.

### 2.3(c) Occupational Structure

### TABLE 2.3(iii)

**OCCUPATIONAL STRUCTURE IN DEHRADUN DISTRICT (2001)**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>District</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td><strong>Cultivator</strong></td>
<td>61619</td>
<td>42031</td>
<td>19589</td>
</tr>
<tr>
<td></td>
<td>(18.31)</td>
<td>(12.49)</td>
<td>(5.82)</td>
</tr>
<tr>
<td><strong>Agricultural Labourers</strong></td>
<td>11775</td>
<td>9863</td>
<td>1912</td>
</tr>
<tr>
<td></td>
<td>(3.50)</td>
<td>(2.93)</td>
<td>(0.57)</td>
</tr>
<tr>
<td><strong>House hold Industry</strong></td>
<td>7496</td>
<td>6808</td>
<td>1688</td>
</tr>
<tr>
<td></td>
<td>(2.23)</td>
<td>(1.72)</td>
<td>(0.50)</td>
</tr>
<tr>
<td><strong>Other workers</strong></td>
<td>2555614</td>
<td>226584</td>
<td>29030</td>
</tr>
<tr>
<td></td>
<td>(75.96)</td>
<td>(67.33)</td>
<td>(8.63)</td>
</tr>
<tr>
<td><strong>Total Main workers</strong></td>
<td>336504</td>
<td>284276</td>
<td>52228</td>
</tr>
<tr>
<td></td>
<td>(100.0)</td>
<td>(84.47)</td>
<td>(15.52)</td>
</tr>
</tbody>
</table>

Source: Census of India 2001, Dehradun District Statistical Office.
OCUPATIONAL STRUCTURE IN DEHRADUN DISTRICT
2001

TOTAL

Cultivators
Agricultural Labourers
Household Industry
Other workers
18.31%
3.50%
2.23%
75.96%

RURAL

Cultivators
Agricultural Labourers
Household Industry
Other workers
39.20%
7.11%
2.50%
51.19%

URBAN

Cultivators
Agricultural Labourers
Household Industry
Other workers
0.46%
0.70%
1.99%
96.85%

Fig. 2.3(i)
The working population has been divided into four major categories, viz cultivators, agricultural labourers, household industry, and other workers. Cultivators occupy about 18.31 per cent of the working population but uniformity is not observed in their distribution (Table 2.3(iii)). There is a lot of variation at the Block level.

Agricultural labourers constitute about 3.5 per cent of the total working population. The population engaged in household and other manufacturing activities make 2.23 per cent of the working population. The person engaged in other services include the person working in services, transport, trade and commerce and in any other economic activity than the above three categories forming about 75.96 per cent of the working population.