

BSc. HONOURS SEMESTER V EXAM, 2020  
PRACTICAL

SUBJECT: GEOGRAPHY (GEOA)

PAPER: CC11 (RESEARCH METHODOLOGY)

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**UNIVERSITY OF CALCUTTA  
ADMIT**

**B.Sc. SEMESTER - V (HONOURS) Examination-2020  
(UNDER CBCS)**

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**MURALIDHAR GIRLS' COLLEGE**



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**SCHEDULE FOR EXAMINATION IN THEORETICAL PAPERS \*\***

Examination Day & Date	Examination Starting Time	Subject Code ++	Course Code	Number of Answer book(s) to be used	Signature of the invigilator on receipt of the answer script/s @
Monday	08-03-2021	2 P.M.	GEOA	CC11	1
Tuesday	09-03-2021	2 P.M.	GEOA	CC12	1
Wednesday	10-03-2021	2 P.M.	GEOA	DSE-A2	1
Friday	12-03-2021	2 P.M.	GEOA	DSE-B1	1

Signature of the Principal/TIC/OIC of the College with Seal

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Date 01/03/2021

## TO WHOM IT MAY CONCERN

This is to certify that Smt. AHELI NANDI,  
bearing Roll No: 183.044-11-0064, Registration  
No: 044-1211-0548-18 an examinee of B.A./B.Sc. Geography  
(Honours) Semester V, CBCS Examination, 2020 of the University of Calcutta, has  
successfully completed her field report on four villages of Pithoragarh District of Uttaranchal  
State, under my supervision.

Due to the outbreak of COVID-19 global pandemic, this year physical visit to the field  
was not possible. Hence this field report has been exclusively prepared by the examinee  
from the secondary data sources that have been collected from disparate sources, as per  
the University Guidelines.

This field report partially completes the Core Course Paper 11 of the Semester  
system of the CBCS Pattern of Geography Honours Course.

*Smt 01/03/2021*

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# ACKNOWLEDGEMENT

Due to COVID-19 situation, we were not able to go to the field in person to study the area and conduct a field survey. So the work we have done are all mainly based on the secondary data obtained from different sources as mentioned earlier.

I would like to express my gratitude to my supervisor for guiding and encouraging me to complete this project with great attention and care. Without her support it would have been difficult for me to prepare the paper.

I also want to thank my parents and friends who have helped me during the entire process of making this project within a limited time frame.

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## OBJECTIVE OF STUDY —

Geography just like some other subjects - botany, zoology, and anthropology is also a 'field science'. It is the subject which deals with the physical aspects like landform, climate, soil, water bodies, plants, animals, etc. and their relationship with the physical and cultural aspects like population, energy, resources, etc.

The development of human settlements, economic activities are purely controlled primarily by the environment. However with the progress of civilization man has acquainted himself with the laws of nature and has gained skills and technological concept regarding adjustment to adverse conditions of the environment. Thus the development of cultural landscape at the present day is not only related to the nature of physical environment but also to the degree of skills and man's adaptability under varying environmental conditions.

# METHODOLOGY —

Field study requires certain processes and methods which should be systematically followed in order to have an organized field report. The three important stages include —

(i) PRE-FIELD STUDY comprises of having an idea about the place before visiting it with respect to its location, geology, topography, climate, etc. It also involves the collection of base map and topographical sheet from National Atlas and Thematic Mapping Organization. The census data was collected from the census office and National Library.

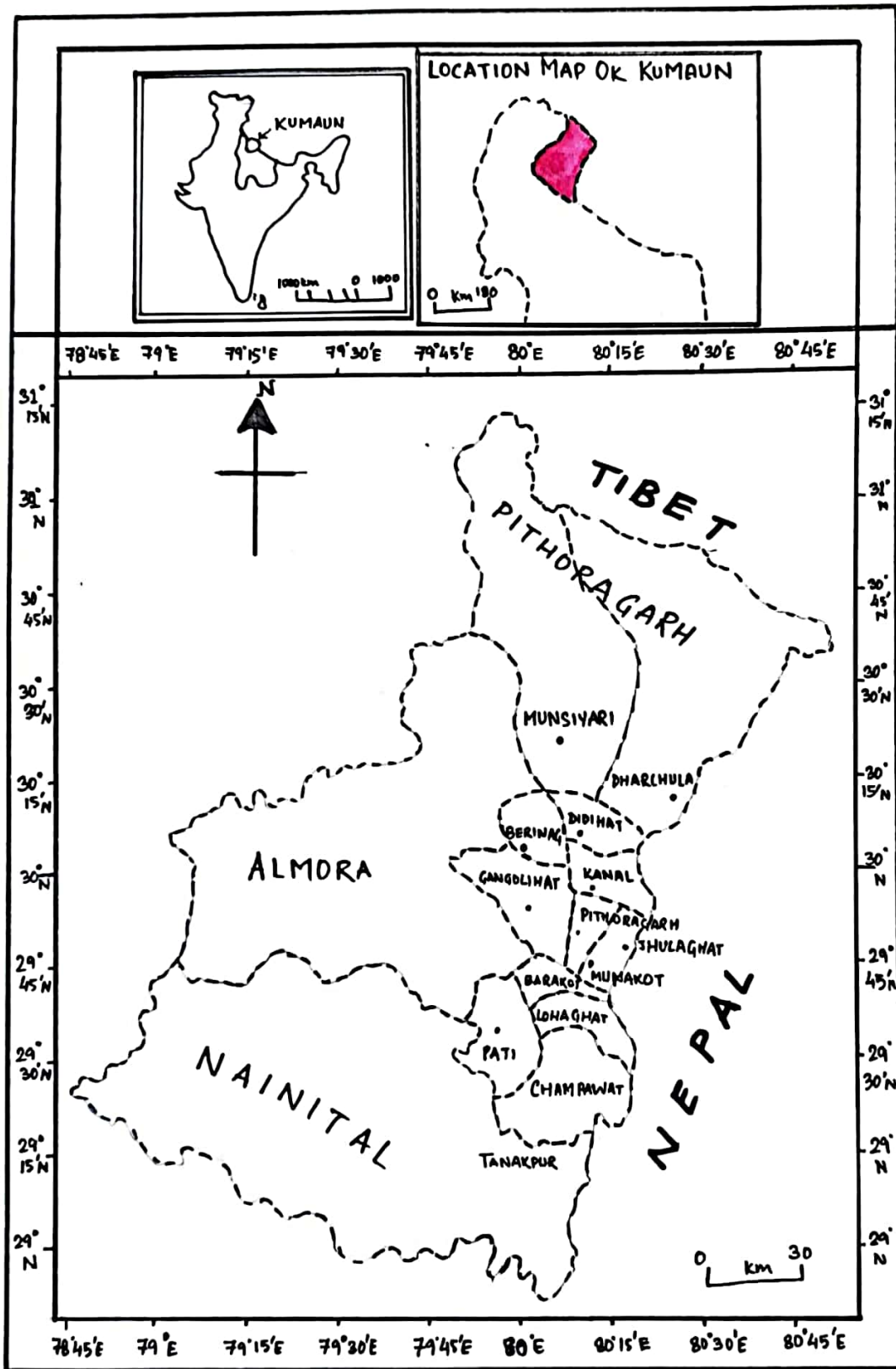
(ii) FIELD STUDY involves the work that is done in the field. It involves collection of both primary and secondary data, drawing maps and conducting market and traffic surveys and so on. Due to the COVID-19 situation, we were unable to go to the field survey in person so all the data regarding the socio-economic conditions of people are based on secondary data obtained. Secondary data was also collected from various offices like District Collector's office, Subdivisional office, land record office, etc. regarding the climate, economic and social conditions. The land use map for the villages studied were also collected for reference from the Land Record Office.

(iii) POST FIELD STUDY is the most vital part of the study. The huge data and information collected or obtained is processed and analyzed using various statistical and other techniques to arrive at the meaningful analysis of the study area.



PITHORAGARH (UTTARANCHAL)

# LOCATION MAP



SOURCE: NATIONAL ATLAS

LOCATION AND BOUNDARIES : The study area is located in the Pithoragarh district of north eastern part of Kumaon division of Uttarakhand and lies between latitude  $20^{\circ}27'N$  to  $20^{\circ}49'N$  and longitude  $79^{\circ}50'E$  and  $81^{\circ}8'E$ . The length from north to south being about 151 km at its maximum and the breadth from east to west reaching its maximum about 119 km. The altitude is 1645 m. It is bounded by Tibet on the north, Nepal on the east, district Almora on the south and the districts Almora and Chamoli on the west.

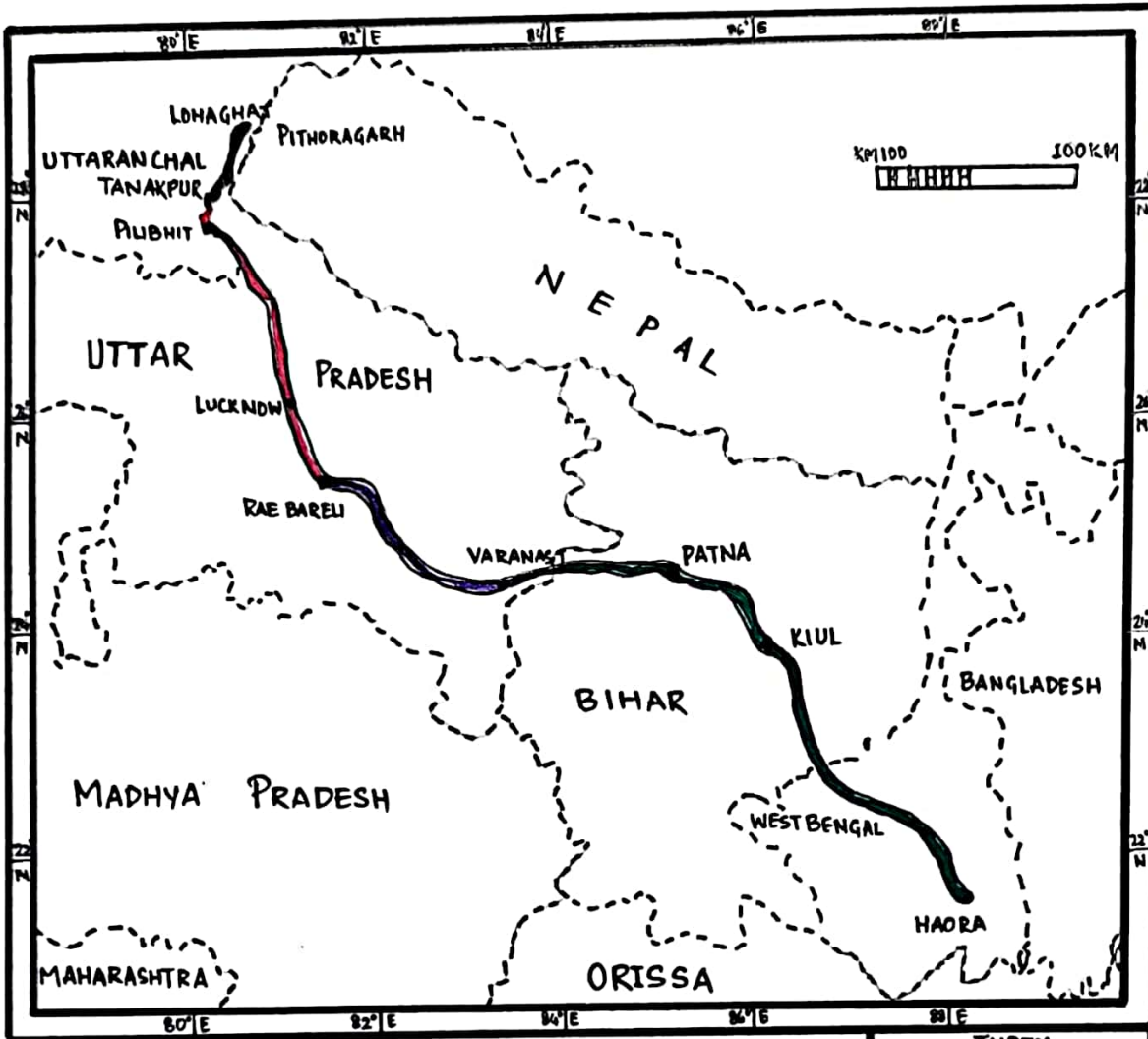
HISTORICAL BACKGROUND : The District of Pithoragarh came into being in February, 24th, 1960 when it was carved out from the district of Almora consisting of 32 patti's. The town of Pithoragarh was an important landmark of the Chand Rajas of Kumaon and was known as Soar Valley. The district has been divided into 4 subdivisions — Dharchula, Didihat, Munsiyari and Pithoragarh each forming a single tehsil of the same name.

Tehsil Pithoragarh, forming the southwest part of the district is bounded on the north by the districts of Almora, tehsil Didihat, on the east by the Kali river which separates it from Nepal on the south and west by Sarju river.

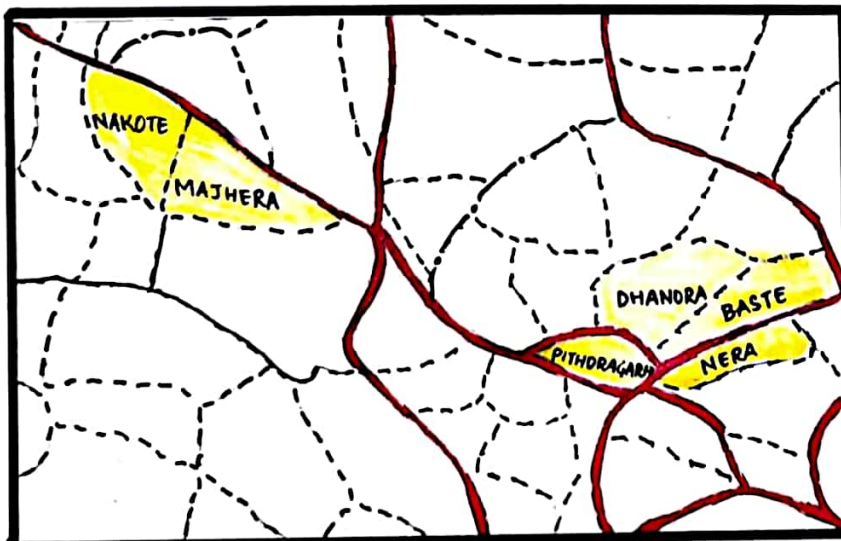
AREA : According to the Central Statistical Organization the district has an area of 7242 sq. km in 1961 and in size it occupies the tenth position in the state.

POPULATION : According to the 2011 census, the population of the district is 27,753. The northern part of the district is thinly

# ROUTE MAP



## STUDY AREA



INDEX	
	EASTERN RAILWAY
	NORTHERN RAILWAY
	N.E. RAILWAY
	ROAD
BOUNDARIES	
	NATIONAL BOUNDARY
	STATE BOUNDARY

RF-1: 18450

SOURCE: DISTRICT MAGISTRATE'S OFFICE, PITHORAGARH

populated because it is adorned with lofty, snow covered peaks like Nanda Devi, Trishul, Nandakhal and Panchuli group.

CLIMATE: The climate is quite diversified. Snowfall occurs in winter, heavy rainfall in monsoon. In summer while the valleys are hot, the mountainous regions remain cool. The annual average rainfall is about 36.7 cm.

STUDY AREA: Our study area includes Dhomora and Nakot to the north east Majhera and Nakot of the Districts of Pithoragarh. The local people are mainly engaged in the tertiary sector and some of them have subsidiary occupation as agriculture, lumbering, herding, etc.

The chief kharif crops are paddy, Thangora, Mardua, pulses potatoes and the chief rabi crops are wheat, barley, masoor, ginger and pepper are also grown in abundance in the district. Among vegetables, potato, onion, radish, palak, methi, brinjal, ladies finger, cauliflower are grown in abundance in the different parts of the district.

Among vegetable potato, onion are grown. Hemp grows wild in the wastelands and forests of the districts. Efforts were made to popularize tea cultivation in the region but the cultivation could not flourish. The district has an ideal climate for orchards like oranges and a chief one is Malta.

The houses are either made of stone or wood with cowsheds and in urbanized areas brick houses were also found. The main market is in the heart of Pithoragarh town fashioned in a linear pattern.

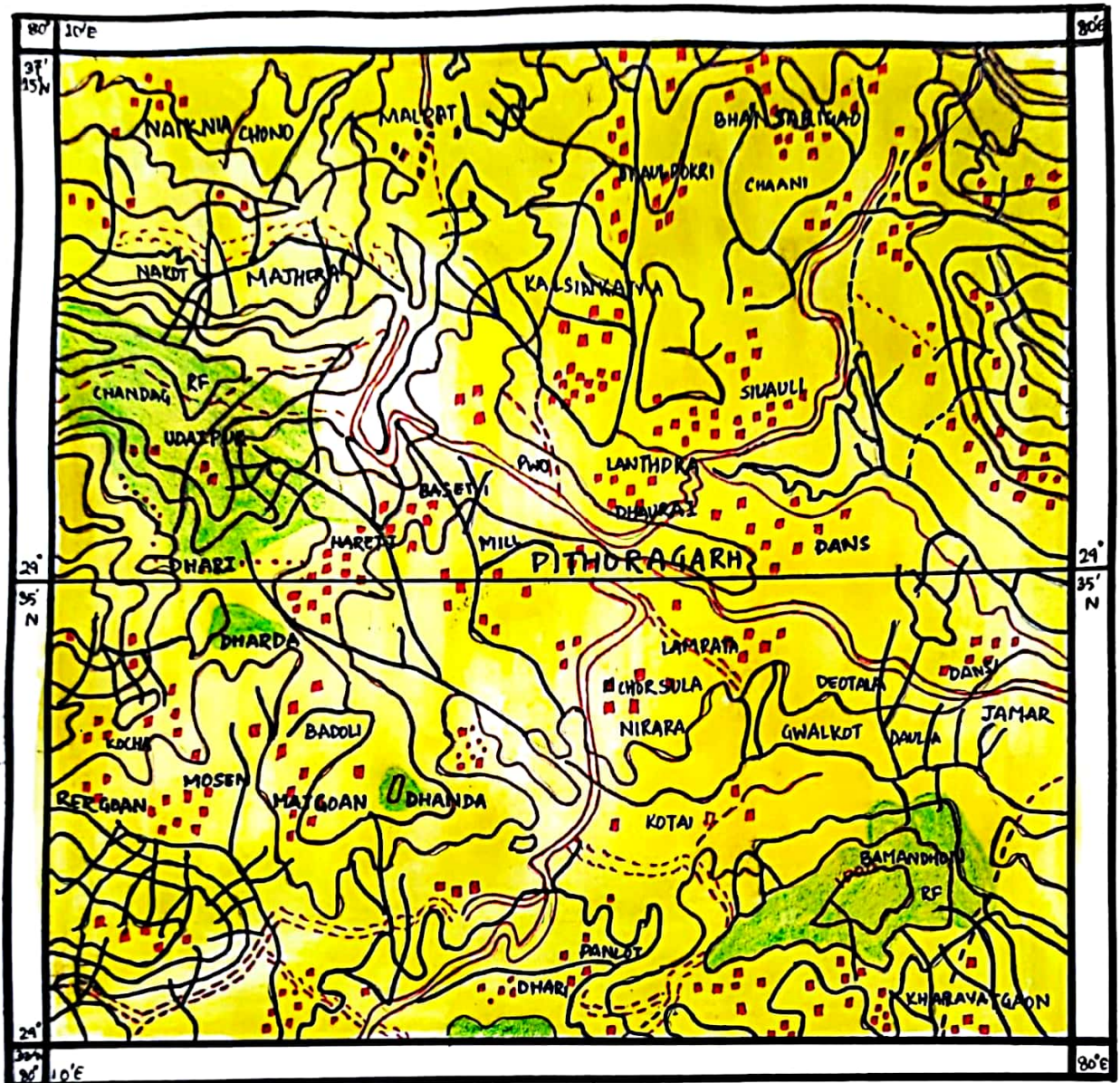
Population in the region is moderate and the literacy rate is high with prevalence of primary level of education. Hindi, Kumaoni and English are the main languages spoken.

The Pithoragarh is a treasure house for visitors, mountaineers, botanists and religious minded tourists. The Manasarovar Yatra route is a delight for trekkers and adventure seekers. Many rivers originate from the lofty Pithoragarh mountain thus providing ample scope of water sports. The four villages chosen near Pithoragarh are Nera, Dhanora, Nakote and Majhera. Of these Nera and Dhanora are the most economically developed areas and are urbanized area as they are situated near the Pithoragarh town and the other two situated far off like Nakote and Majhera are the rural areas. So we have surveyed two villages of each categories.

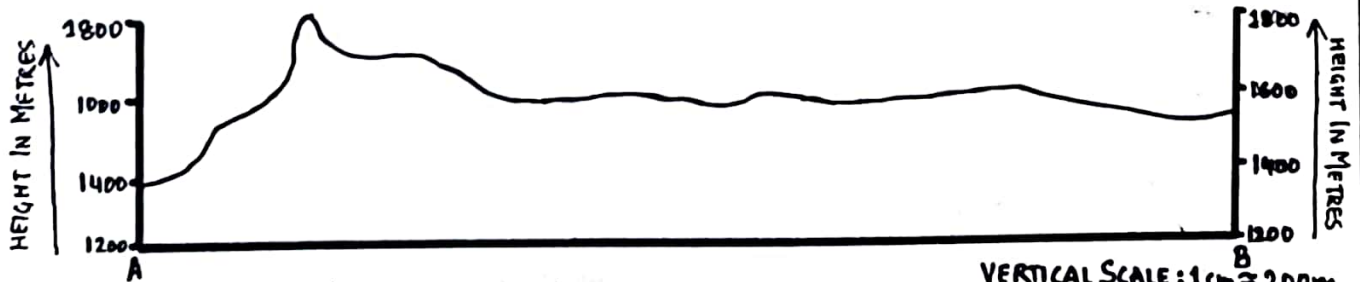
The dense forests around have a wide range of wild flowers and animals including peacock, elephant, tiger, musk deer and snow leopards. The charming and colourful people of Pithoragarh celebrate all festivals and religious ceremonies with great force and devotion.

# SKETCH MAP OF PITHORAGARH & ITS SURROUNDINGS

MAP No: 62 1/2



SOURCE : TOPOSHEET No. 62 1/2



LATITUDINAL EXTENT: 29° 35' 15" N  
 LONGITUDINAL EXTENT: 80° 10' E to 80° 15' E

VERTICAL SCALE: 1cm = 200m  
 HORIZONTAL SCALE: 1cm = 500m

# PHYSICAL SETTING



# PHYSICAL SETTING

## GEOLOGY:

Pithoragarh, the eastern hill district of Uttarakhand Pradesh in the hills of the Himalayas which are youngest mountains in the world and landmass now covered by them was by the great Tethys Sea, in the Mesozoic period. The probable commencement of the elevation of the Himalayas is about the close of the Mesozoic period.

According to geological formations of the district, it may be divided into four broad belts :-

### (i) The Innermost Siwalik Hill Ranges :-

The innermost hill ranges of Siwalik group lies in the southern part of the district. In the rock formation here sand alternates with clayey shales.

### (ii) The Lesser and Middle Himalayas :-

This belt contains sedimentary and low to medium grade metamorphic rocks such as lime slate, quartzite, phyllite and mica schist.

### (iii) The Inner Himalayas :-

This belt consists of crystalline metamorphic rocks and extends from near Dharchula.

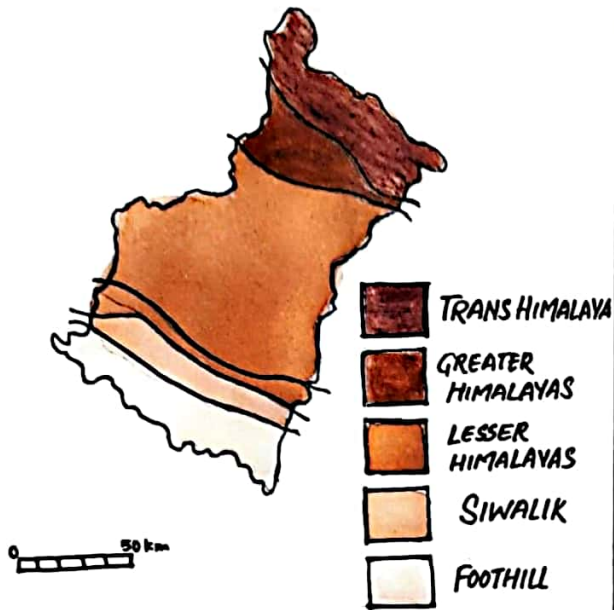
### (iv) The Inner Belt Bordering the Tibetan Himalayas :-

This belt contains more sedimentary rocks. Between the main boundary thrust and main central thrust which demarcate the boundaries of the Lesser Himalayan sub province. The terrain is mostly made up

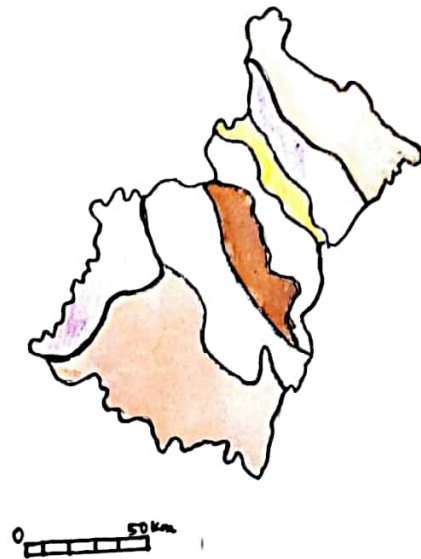
of three major lithotectonic unit.

- (1) The Autochthonous Zone of the Pre-Cambrian strata forming the larger part of the inner belt of the lesser Himalayas in Central Pithoragarh and Almora district.
- (2) The displaced or southward thrust succession of the late pre Cambrian to early Paleozoic Sedimentary rock formation forming the Krol Nappe in the Southern Pithoragarh and Nainital district.
- (3) The Precambrian infected with granite bodies forming the thick thrust sheet of Ramgarh and Almora units in the Central belt of Kumaon.

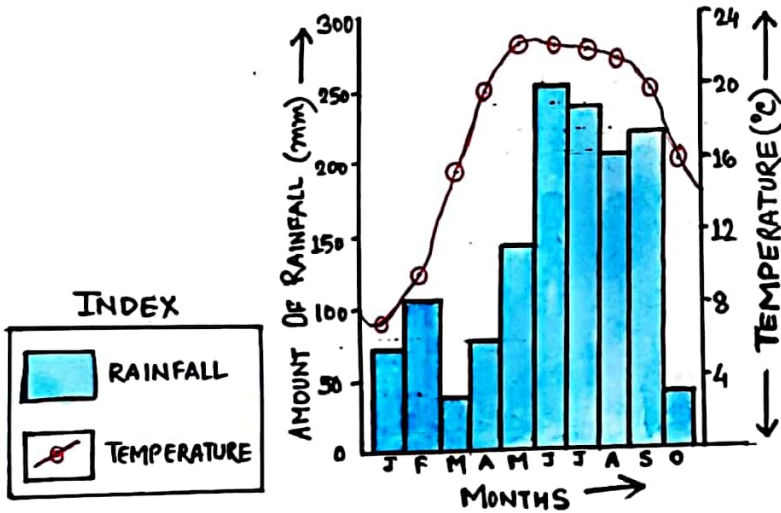
## RELIEF



## GEOLOGY



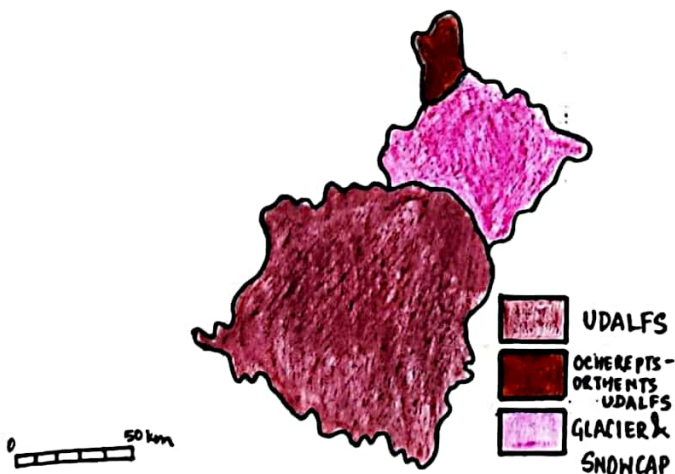
## TEMPERATURE - RAINFALL



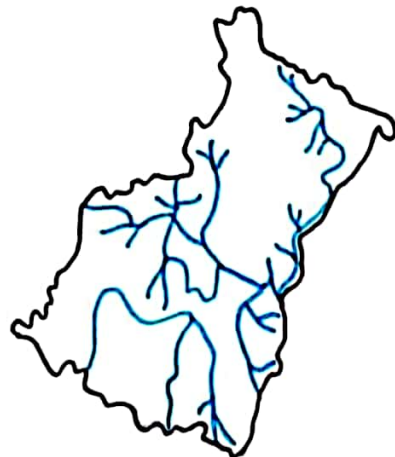
- UNCLASSIFIED MESOZOIC ROCK OF HIMALAYA
- GARBYANG SERIES PALEOZOIC
- MORVOLL SERIES UPPER PRE LAMBRIAN
- JAUNSER SERIES AND SIHLA SLATES
- LIIONG SYSTEMS AT OTHER TRIASSIC
- SIWALIK
- MIDDLE SIWALIK

HORIZONTAL SCALE: 1cm  $\approx$  1 MONTH  
 VERTICAL SCALE: 1cm  $\approx$  50 mm  
 1cm  $\approx$  4°C

## SOIL



## DRAINAGE



SOURCE: PITHORAGARH DISTRICT GAZETTER

# RELIEF & DRAINAGE

Kumaon is essentially a region of great physical diversities. Broadly features that is the Himalayas to the north and the narrow foothill belt of Terai and Bhabar to the south and with the range of altitude varying from 300 m to over 7000 m. In general advancing north wards from the submontane tracts the relief becomes more and more complex.

The four broad geological units of Himalaya - Siwalik, Lesser Himalayas, Greater Himalayas or the Central crystalline, the Tethyan zone, extending east west and recognized on the basis of evolutionary history, stratigraphic sequences and components rock units roughly corresponds to the geographical region also. In the south-north sequence, the distinct topographical regions are:

- (i) Bhabar and Terai: The undulating foot hill tracts consists of a number of ranges of low elevation exceeding about 600 m, their branches running parallel and lying between the valleys of small river.
- (ii) Siwalik: It is the southernmost zone and has a lower elevation. These ranges form more or less a continuous belt aligned NW-SW. It has characteristically conditioned the flow of all the rivers of Kumaon flowing from the north and other major rivers flowing downwards from the Lesser Himalayas. The best examples are the Kosi and the Gola.

- (iii) Lesser Himalaya or Himachal: This zone is delineated by the main boundary thrust in the south and the Central thrust towards the north. This extends northwest of Nainital upto the Kosi valley and towards northeast and east of Nainital including upper reaches of the Gola, Kosi and Panar Rivers. The north east tributary of Rani Ganga is also an important one.
- (iv) Himadri or the Greater Himalayas: This is the zone which lies north of the Main Central Thrust and includes the high altitude zone of the Himalaya with a proportion of land under perpetual snow. Some important glaciers take their rise from this area are Pindari, Sundardunga, Meghina.
- (v) Trans-Himalaya or Darwa Johar belt: This is situated to the north and north east of the main ranges of the Greater Himalaya which is a dry zone on the rain shadow of Himalayan ranges. Perpetual snow cover remains from where many south flowing rivers originate.

Thus nestled in a small valley 5 kms long and 2 km wide Pithoragarh has many glaciers, the main being Milam glacier, Ratan glacier and Sundardunga glacier.

The general relief and drainage of shaded area have been analysed through various morphometric techniques like:

a) Relative Relief — It has been done from Map No. 62 1/2.

It ranges between 100 to 400 m, thus it is a hilly region. In the western portion the relative relief is about 400 m and minimum in the eastern and central portion.

and is below 100 m.

- (b) Drainage Density — It has also been prepared by the same map, varying between 2 to 5 km per sq km. The extreme north-western and north eastern portion has the highest drainage density while the east-central portion has the lowest drainage density.

## CLIMATE

Climate plays an important role in influencing man's activities. In this region, the climate largely depends on altitude and varies according to aspect and elevation. Although, tropical heat wave can be experienced in the southern valley during the summer, the winters are severe.

RAINFALL: As most of the district is situated on the southern slopes of the Himalayas, monsoon currents penetrate through the deep valleys and the rainfall is at maximum in the monsoon season (June to September) particularly in the southern half of the district. The rainfall generally increases from the south towards the north. July and August are the wettest months and November is the driest month. In September, depressions Bay of Bengal affect the weather and in association with them, heavy rain may occur causing floods. During winter season, from December to March some precipitation occurs due to the passage of western disturbance areas across the region.

TEMPERATURE: As the insolation is intense at high altitudes, in summer temperatures are considerably higher in the open than in the shade. The cold stagnant air in the valleys cause the diverse range of temperature to be considerable. January is the coldest month with a mean maximum temperature of  $10^{\circ}\text{C}$  at heights of 2000 m above sea level, the mean maximum temperature being at the freezing point ( $0^{\circ}$ ). Cold waves makes winter condition rigorous. After January, both day and night temperature began to rise rapidly from March to May or June, the last two being the warmer months. The mean maximum temperature being  $25^{\circ}\text{C}$  at 200 m above sea level. With the onset of monsoon

towards the end of June, day temperature fall by about  $3^{\circ}\text{C}$  to  $5^{\circ}\text{C}$  and the withdrawal towards the third and fourth week of September, day and night temperature begins to decrease.

HUMIDITY: The humidity is highest during the monsoon months and particularly so during the rainiest months of July and August. During the winter months, it increases towards the afternoon at high altitudes.

CLOUDINESS: Skies are heavily clouded during the monsoon months and during the rest of the year, the skies are generally clear to lightly clouded.

WINDS: Owing to the nature of the terrain, local effects are pronounced, and when the general winds are not too strong to mark these effects, there is a tendency for diurnal reversal of winds which blows up the slopes during the day (Anabatic flow) and down the slopes at night (Katabatic flow). Katabatic winds can blow with considerable force.



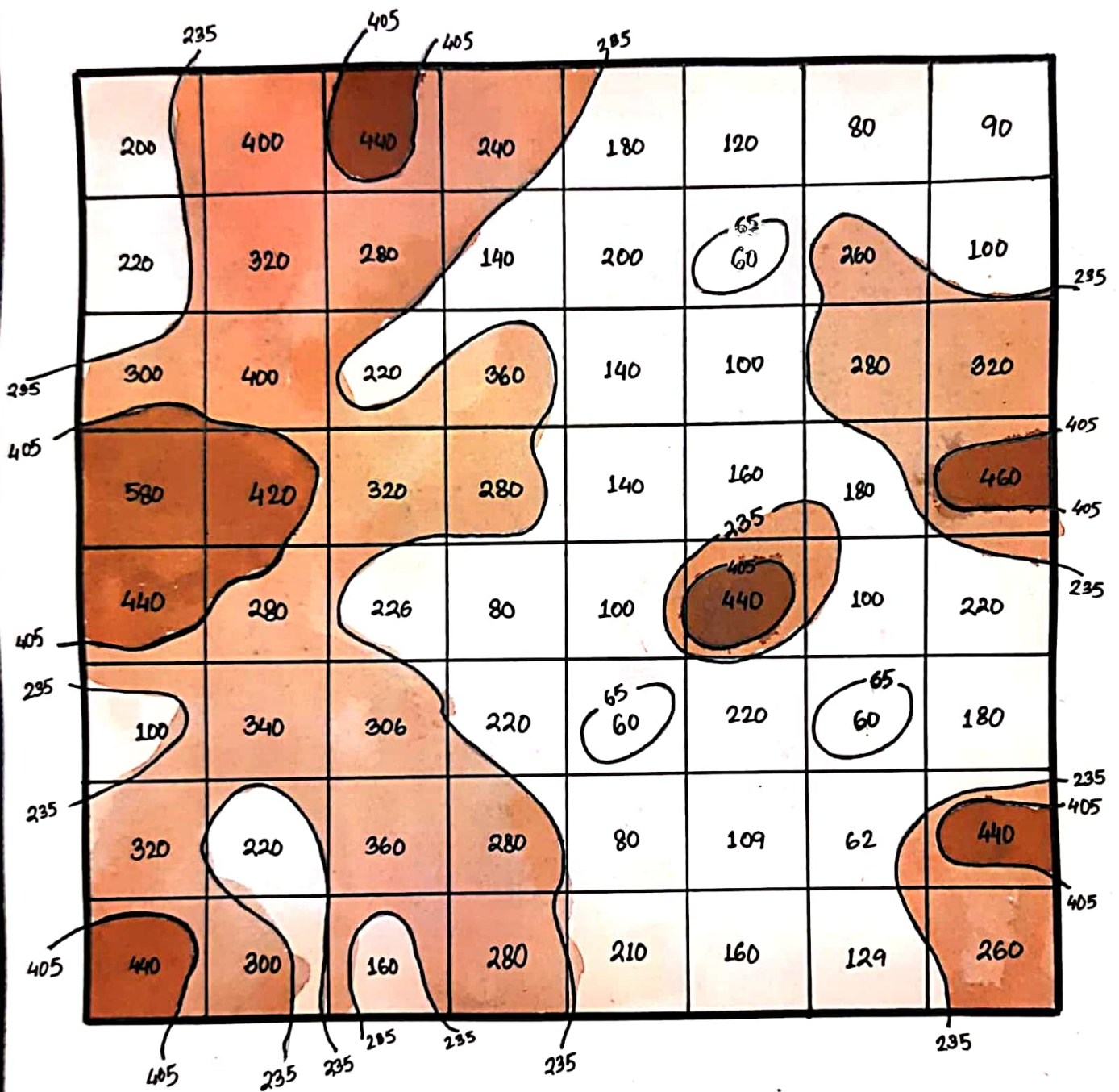
## TEMPERATURE AND RAINFALL

In this graph, we can see the rainfall and temperature of the area from January to October using bar and line graph.

Here, we can see that the highest temperature reported is  $23.6^{\circ}\text{C}$  i.e. in June and the lowest temperature is  $7.7^{\circ}\text{C}$  which is in January. Similarly, from the same graph we can make out that the highest rainfall was in June, i.e.  $267.5\text{ mm}$  and the lowest rainfall was in March i.e.  $35.5\text{ mm}$ .

So we can say that the month of the highest rainfall is also the month with the highest temperature which means all the ~~the~~ evaporated water caused the highest amount of rainfall during June, whereas, during the winter season both the rainfall and temperature generally remains stable.

# RELATIVE RELIEF



$$\begin{aligned}
 \text{RANGE} &= \frac{580 - 60}{3} \\
 &= 173.33 \\
 &= 70 \text{ (approx)}
 \end{aligned}$$

INDEX	
(in m)	
D	> 405
C	235 - 405
B	65 - 235
A	< 65

## Relative Relief

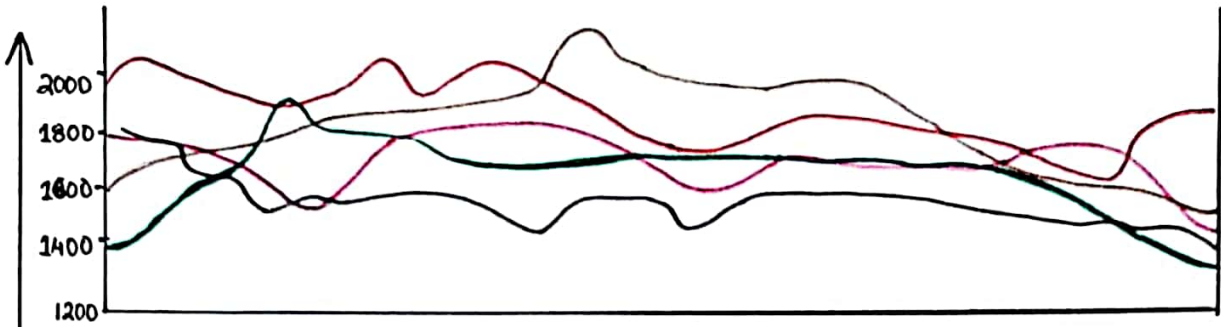
Relative Relief map was prepared from an extract of 16 X 16 cm box from the toposheet no. 62 ½.

Relative Relief represents the actual variation of altitude in a unit area with respect to its local base level, basically it is the difference in height between the highest and the lowest points in a determined surface grid areas.

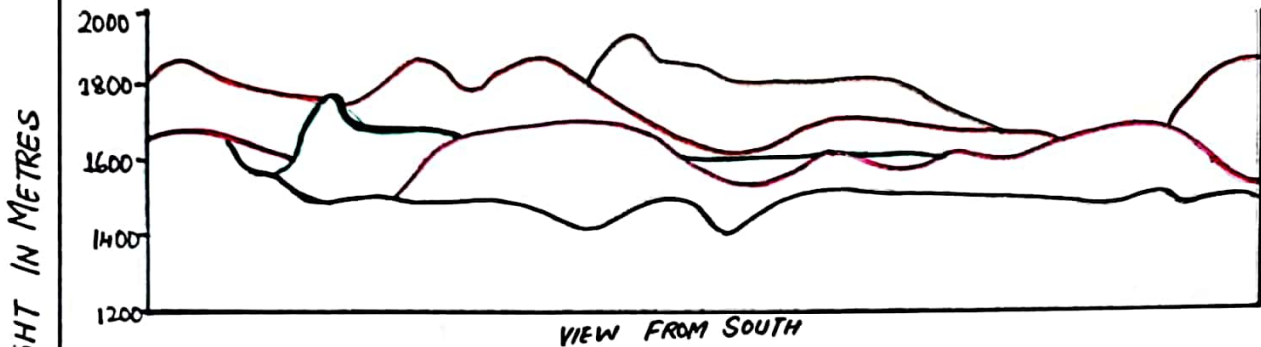
Here the highest value is 580 metre whereas the lowest value is 60 metre. The variations of the contours are present all over the map. Very few places have low relative and more higher relative relief in the area so we get to know that the map is of a hilly region.

Here, we have used isopleth lines to separate places of area having low to high relative relief. We have divided the zone into 4 regions with 3 isolines drawn in an interval of 170 m. The zone A is of very low relative relief (<65), B has a low relative relief than the zone C which has a medium relative relief (235-405) and Zone D has the highest relative relief according to the 4 regions and they are coloured with different shades of brown from high to down. The highest relief is shown using dark brown whereas as the zone with lowest relief is shown by the lightest brown colour.

## SUPERIMPOSED PROFILE

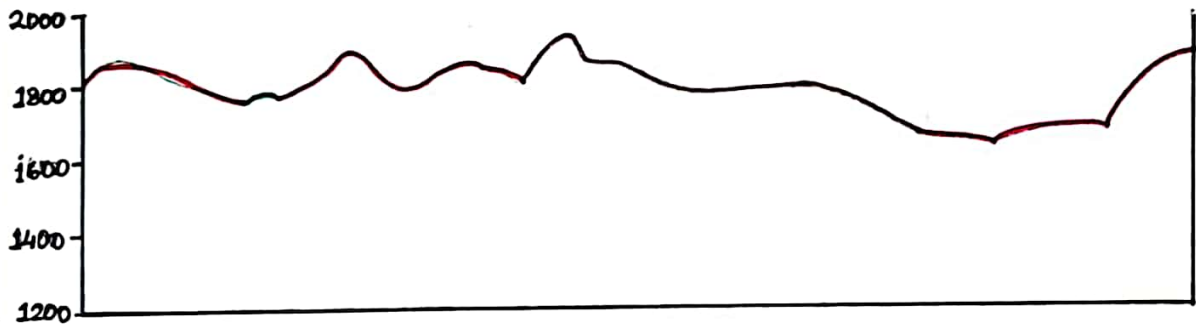


## PROJECTED PROFILE



VIEW FROM SOUTH

## COMPOSITE PROFILE

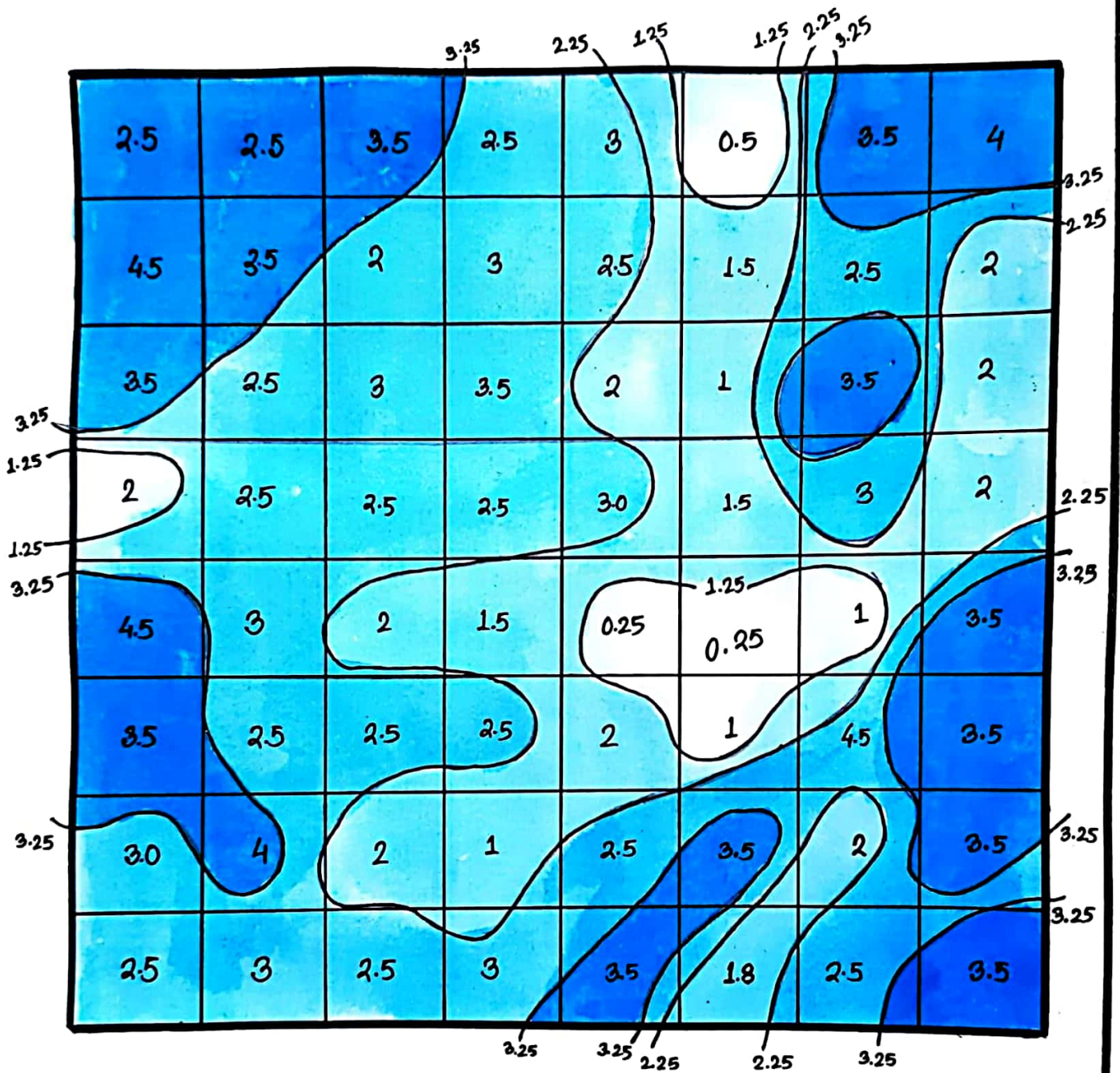


PROFILES	SYMBOLS	LATITUDINAL EXTENT	LONGITUDINAL EXTENT
A <sub>5</sub> to B <sub>5</sub>	—	29°33'10"N to 29°33'10"N	80°10'E to 80°15'E
A <sub>4</sub> to B <sub>4</sub>	—	29°34'8"N to 29°34'8"N	80°10'E to 80°15'E
A <sub>3</sub> to B <sub>3</sub>	—	29°35'15"N to 29°35'15"N	80°10'E to 80°15'E
A <sub>2</sub> to B <sub>2</sub>	—	29°36'23"N to 29°36'23"N	80°10'E to 80°15'E
A <sub>1</sub> to B <sub>1</sub>	—	29°37'25"N to 29°37'25"N	80°10'E to 80°15'E

HORIZONTAL SCALE : 1cm  $\cong$  500m

VERTICAL SCALE : 1cm  $\cong$  200m

# DRAINAGE DENSITY



$$\begin{aligned} \text{RANGE} &= 4.5 - 0.25 \\ &= 4.25 \end{aligned}$$

$$\begin{aligned} \text{No. OF ISO LINE} &= 4.25 / 3 \\ &= 1.4 \end{aligned}$$

INDEX	
(in km/Sq km)	
D	> 3.25
C	2.25 - 3.25
B	1.25 - 2.25
A	< 1.25

## DRAINAGE DENSITY:

We have done a drainage density map from topographical map no. 62 1/2. We have demarcated the area by 16 x 16 cm boxes.

The character of the drainage density configuration of a given region is more or less similar to the relative relief. The demarcated area has the highest density of 4.5 km/sq km and lowest density of 0.25 km/sq km. The lowest areas are demarcated by 1.25 km/sq km isohyde i.e. located in the central part of the map. The highest density areas are demarcated by 3.25 km/sq km isohyde which is present almost all over the map in small patches.

Due to the large number of rivers present along the slopes of the hills in this region, here the drainage density is relatively high.

Differences in geological material, and variation in land or slope, etc are mainly the external factors that are generally responsible for the regional differences in the drainage density.

## MINERALS:

A number of minerals are found in the district and brief moment about them are given below:

- i) Copper: Copper ore is found to occur, as dissemination in crystalline, dolomite and as segregation in quartz veins traversing the former. Chalcopyrite, Melachile are said to have been found in the mine of Agar, Barabisi and South of Askot.
- ii) Magnetite: Magnetite ore associated with the dolomite and limestones. They are found at Dewal Thal, Chomdak, Pandyari, Oxail, Ramkot, Burga, etc.
- iii) Soapstone: Several small deposits of soapstones occurs in associating or with magnesite at Dewal Thal and Chomdagh.
- iv) Oxerite: Oxerite deposits exists near Munsyari. They are reported to be available in scattered fragments on the moraines of the Shunkalpa glacier.
- v) Sulphur: This mineral is found in the bed of Ramiganga and in Tehsil Munsyari.
- vi) Kyanite: At Gurgaon (South of Malpa) there is a main layer of Kyanite.
- vii) Graphite: Graphitoid pigmentation in schistose rocks is found near village Sebala and Dar in Kauli valley.

viii) Slate: Slate require to exist throughout the district and it is utilised locally for building purposes.

ix) Limestone: Though vast reserves of limestones exists in the district, they are dolomite and appear to be fit only for ballast.



## NATURAL VEGETATION

The district has rich floral wealth in the form of forest as the region experiences cool temperature climate. The forests are mainly confined to the river valleys and the southern parts of the district. An area of about 2,80,403 hectares or 38.71% of the total area was covered with forest. Of the total forest area Tehsil Pithoragarh contains 11,523 hectares. Due to differences in the altitudes and climatic conditions the forest of the district may be divided into four:—

- (a) SAL FORESTS — These forests occur in the southern part of the district and the chief tree sal is found upto a height of about 1220 m. Other associated trees also grow in these forests are Hardu, Kain and bhynl, this being an excellent fodder for building purposes. Upto a height of about 900m trees are common in the plains, vizually, the mango, pipal, banyan and sisoo.
- (b) CHIR FORESTS — The chir is the principal component of forests upto altitudes of about 1800 m growing between 500m and 2200m. Chir trees are usually found alone for they appear to have the power of driving away all the other vegetation from the tract where they are found. It is the staple building timber in the hills. Torches are cut of the living wood. Resin is also extracted and their seeds are eaten.
- (c) OAK FORESTS — The principal varieties of oak found in the district are *lamj*, *tilong* and the *Kharou*. Each occupying a more or less distinct altitudinal zone. *lamj* grows at a height of 1200m above sea level. Its wood being

hard and is used for agricultural implements and fuel. *Telona* is the chief species of the oak forests and *Kharsu* is the dominant tree.

(d) CONIFEROUS FORESTS — Between the altitudes of 3250m and 4000m, the dominant species are the conifers. The chief species are the blue pine (*Chil*), the yew (*thomer*), the rogha (Himalayan silver fir). The wood is considered equivalent to that of the *chir*, it is hard, tough and durable.

## EXPLOITATION OF FORESTS

There is indiscriminate felling of trees. There is a great demand of timber for building purposes, making furniture and for firewood.

CONSERVATION: The forest conservation methods are —

- i) maintenance of environmental stability through preservation and restoration of ecological balance.
- ii) Conservation of natural heritage
- iii) Check on soil erosion and denudation in catchment area of rivers, lakes and reservoirs.
- iv) Check on extension of sand dunes in desert and coastal areas
- v) Substantial increase in forests/trees cover through massive afforestation and social forestry programmes.
- vi) Increase in productivity of forest to meet the national needs.
- vii) Steps to create massive people's movement with involvement of women.

An increased demand for forest products has led to increasing destruction and degradation of our forests which causes heavy erosion of top soil, erratic rainfall and frequent devastating floods. We are destroying our forest resources so ruthlessly and quickly that large forest tracts are degrading leading to hazards.

We have failed to release the fact that destruction of forests is an irreversible process. The rate of afforestation has barely crawled to the 2 million hectares falling short of the target set by the National Wasteland Development Board.

## SOIL

The soil of the region is affected by altitude and climate. The soils are more or less young as the soil horizon is not distinctively developed. The soil found here is mainly of 3 types:

i) Inceptisols

ii) Alfisols

iii) Entisols

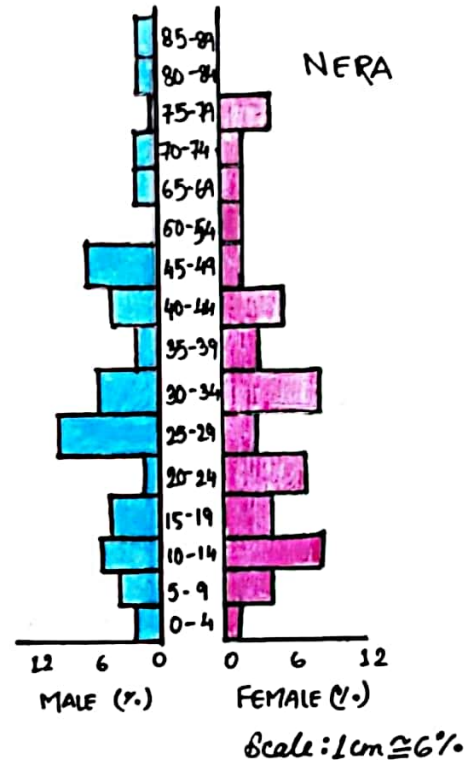
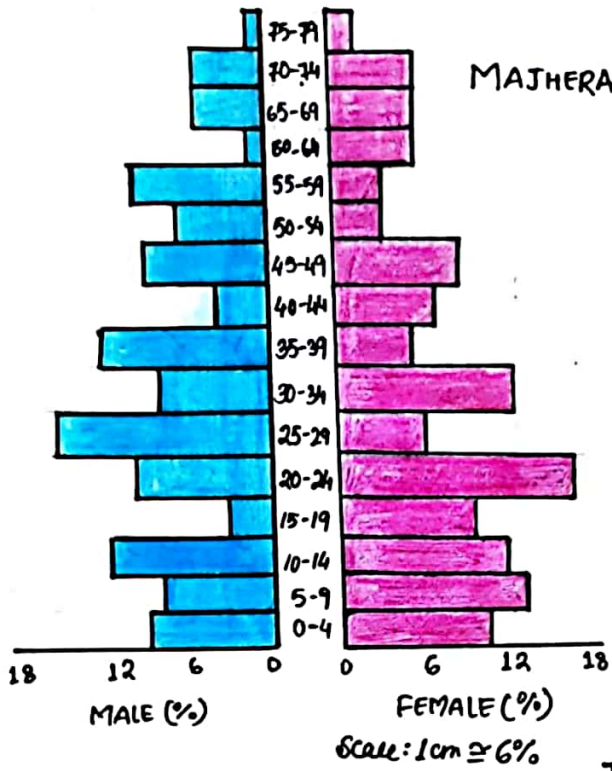
i) Inceptisols — Soils with weakly expressed horizons found in humid environment and on comparatively young surfaces. No evidence of significant illuviation / illuvation of extreme weathering. This soil is found in the forest of Tundra and alpine meadows. One of the most important sub division of the inceptisols is archrepts which are shallow and have conspicuous light coloured surface horizons.

ii) Alfisols - These are soils of humid and semi arid climates with an illuvial B horizons of over 35% base saturation. It is mainly found in temperate latitudes but includes fresh volcanic soils in the humid tropics. It is subdivided into Udalfs which is a moist alfisols.

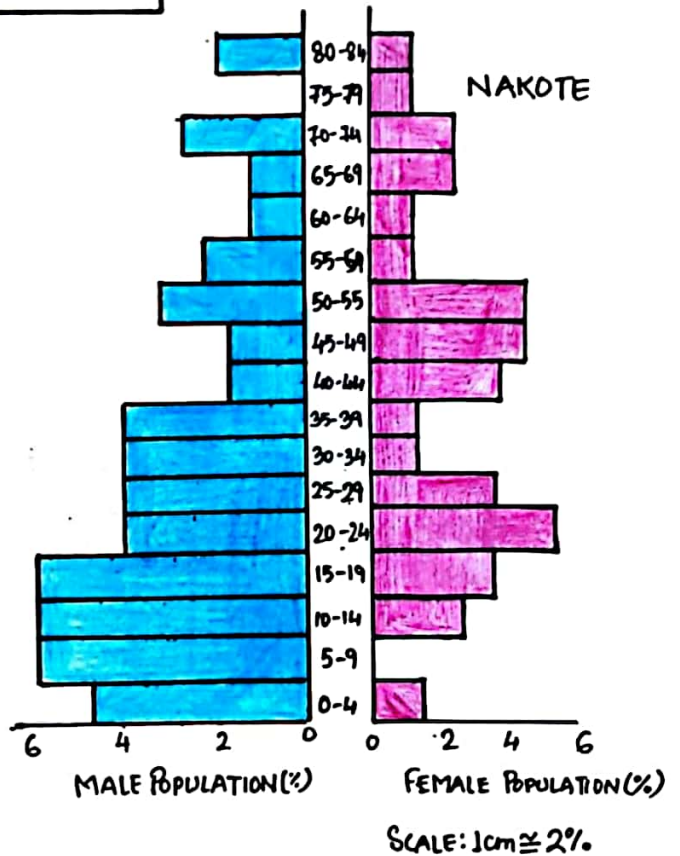
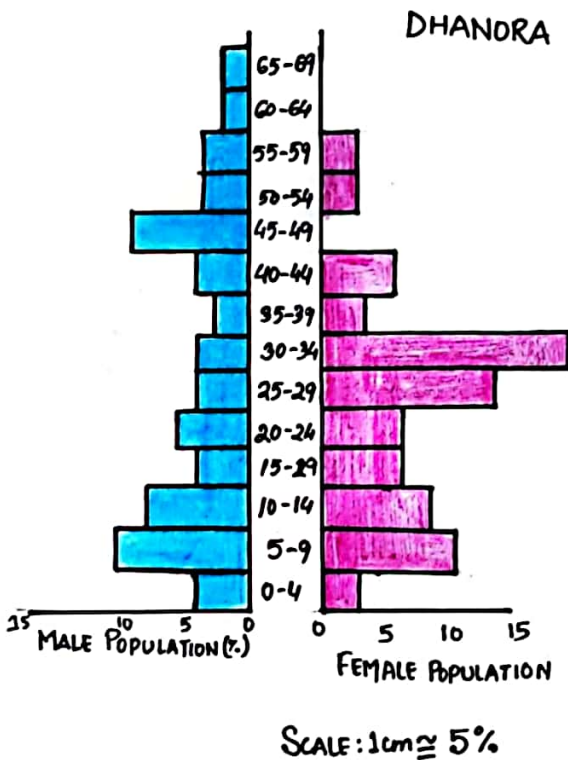
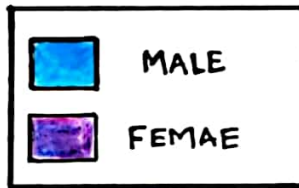
iii) Entisols - These are poorly developed soils of all climates with unconspectuous horizons. It includes the azonal types such as lithosols, regosols and certain alluvial and water logged soils. And one important subdivision of Entisols is finer grained outcrops or unconsolidated parent material or compact rock.

CULTURAL ENVIRONMENT

# AGE-SEX PYRAMID



## INDEX



# CULTURAL ENVIRONMENT

## POPULATION :

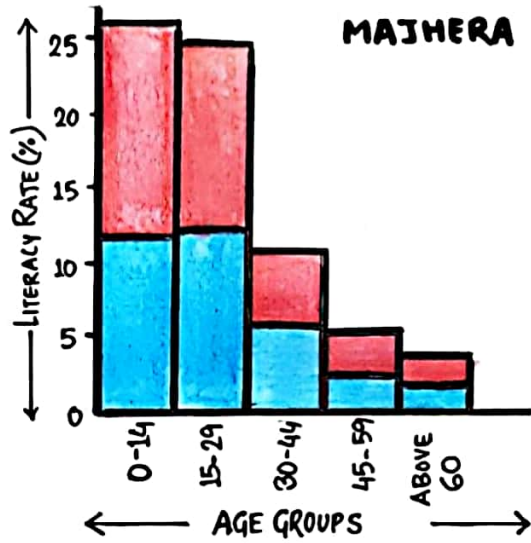
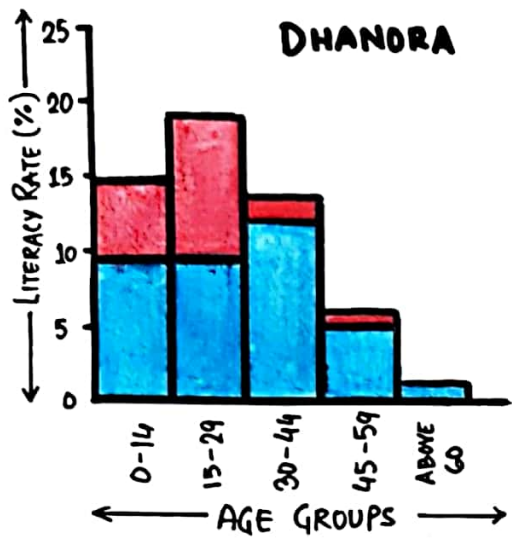
An analysis of the population structure of Nera, Majhera, Dhanora and Nakole villages have been made. Here both age sex structure of sample population has been shown on the basis of the data obtained. Observing the age-sex structure of sample population it can be said that the total population of Majhera is higher than other villages. The female population is slightly higher than the male mass in the Majhera and Dhanora village whereas in Nera and Nakole male and the female population are more or less the same.

The age sex pyramid is showed with the help of horizontal bar which clearly shows that in Majhera maximum number of persons are in the age group of 20-24 years for female and 25-29 years for male. Person in the age group of 0-19 years follows next. The total population above 60 years is higher among the female members since their life expectancy is higher than the male.

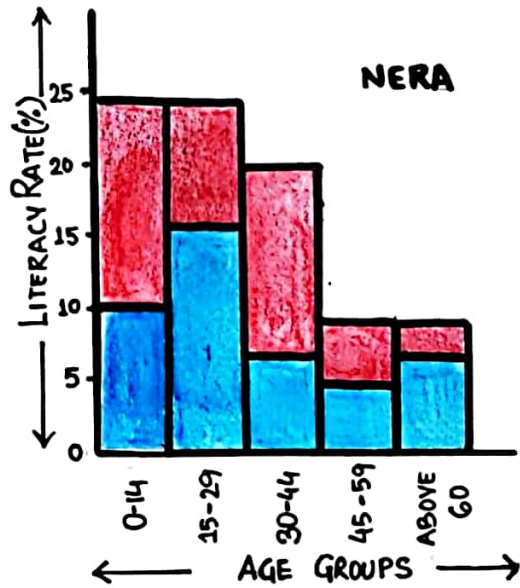
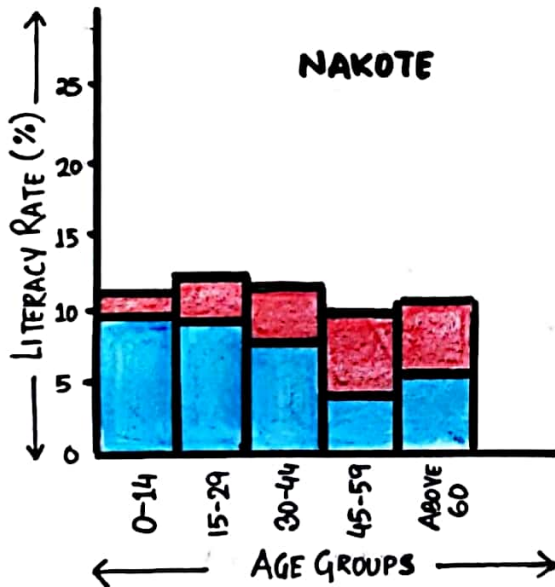
Similarly in the case of Dhanora female population is higher between the age group of 30-34 years whereas male population is higher for 5-9 years.

In the village of Nakole population is more or less same for both the sex whereas in Nera male population is highest between the age group of 25-29 years and 10-14 years for female population for about both the sex child population is very low from the age of 0-4 years.

# LITERACY RATE

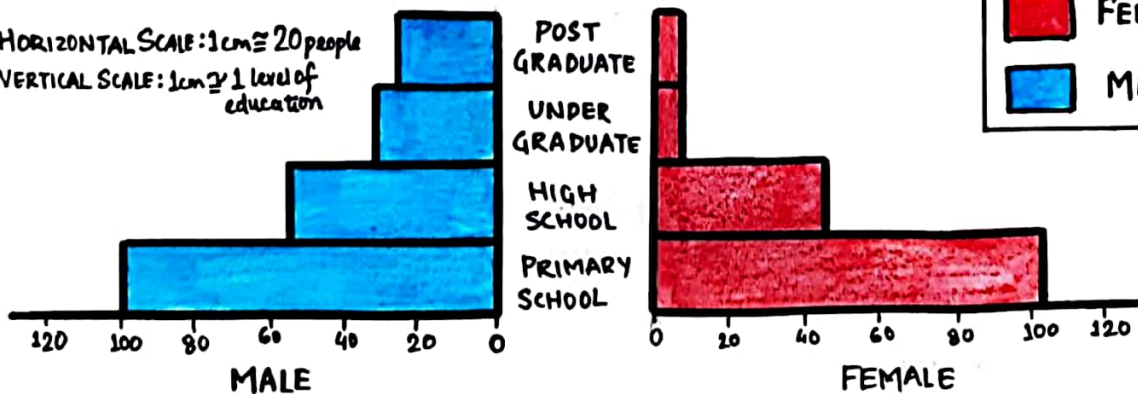


HORIZONTAL SCALE: 1cm  $\cong$  1 AGE GROUP  
 VERTICAL SCALE: 1cm  $\cong$  5%



## LEVELS OF EDUCATION OF FOUR VILLAGES

HORIZONTAL SCALE: 1cm  $\cong$  20 people  
 VERTICAL SCALE: 1cm  $\cong$  1 level of education





## LITERACY RATE

Literacy rate in Majhera village is very high followed by Dhamora, Nera and Nakot. Most of the Majhera people go to the University of Kumaon, Nainital, Patna for higher studies. In Majhera nearly 45% of the population between age group 15-29 years are literate. About 22% of the male population are literate while 23% of the female population are literate. This is the only village where the female population has higher literacy than the male literacy in all the age groups.

In case of Dhamora, Nera and Nakot male literates are higher than the female literates where in Dhamora we find literacy among the male population above 60 years.

## LEVELS OF EDUCATION

The levels of education as found in four villages reveals that primary education is highly developed among the both male and female population. On the contrary, female literacy has declined to a great extent as compared to the male literates for high school, undergraduate and post graduate levels of education indicating that the females are more confined to the domestic and household works.

# LAND USE



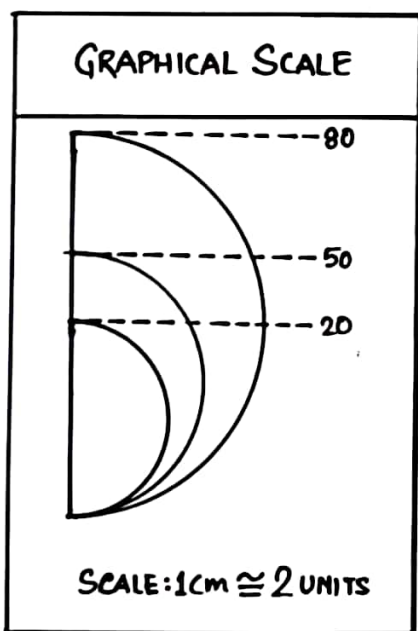
1. DHANORA



2. MAJHERA



3. NAKOTE



INDEX	
	CULTIVATED AREA
	UN-CULTIVATED AREA
	COWSHED
	METALLED ROAD
	NON CULTIVATED AREA
	FOREST
	UNMETALLED ROAD
	FALLOW

## LAND UTILIZATION:

The villages of Dhanora, Majhera, and Nakole was chosen for this field report. These villages are located in the Pithoragarh district of Uttarakhand Pradesh. Though the people of these villages are engaged in tertiary sector yet agriculture is their main subsidiary occupation as revealed by the land use pattern. Cultivation is carried on in all the villages in both Kharif and Rabi season.

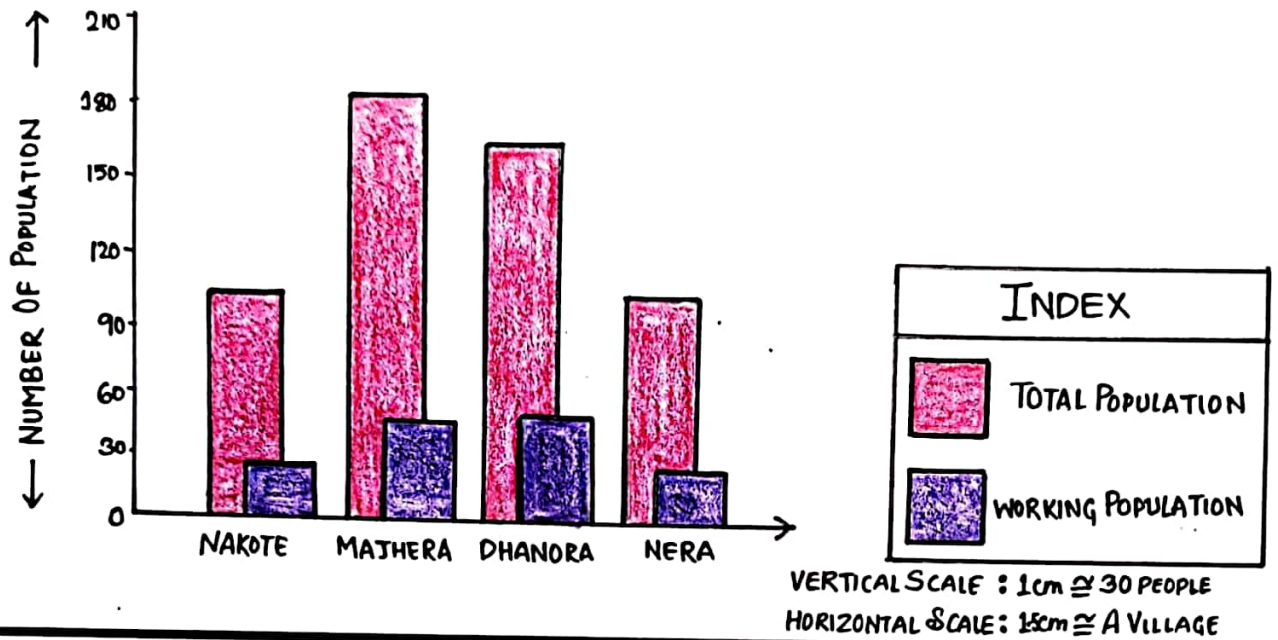
Agriculture is a seasonal activity as it is mainly dependent to monsoon. Although during the rainy season different crops are cultivated in both the villages, the main crops cultivated in the villages are wheat, barley, masoor, Ginger, etc.

In Dhanora, nearly 34.37% of the land is cultivated area 38.55%. In Majhera, nearly 31.66% is under cultivation and 47.35% is non cultivated area. Forest covers 17.96%. In Nakole, 46.67% of the area is under cultivation, 38.60% is fallow land.

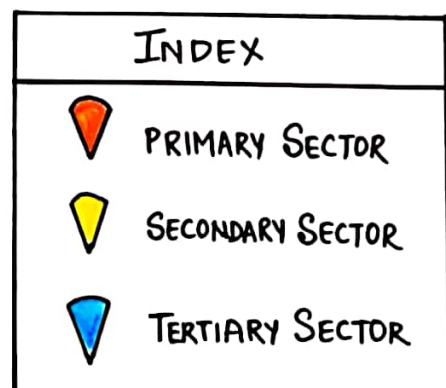
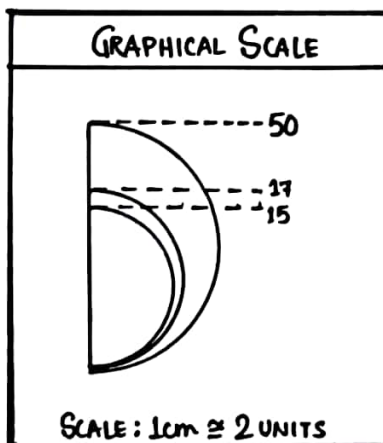
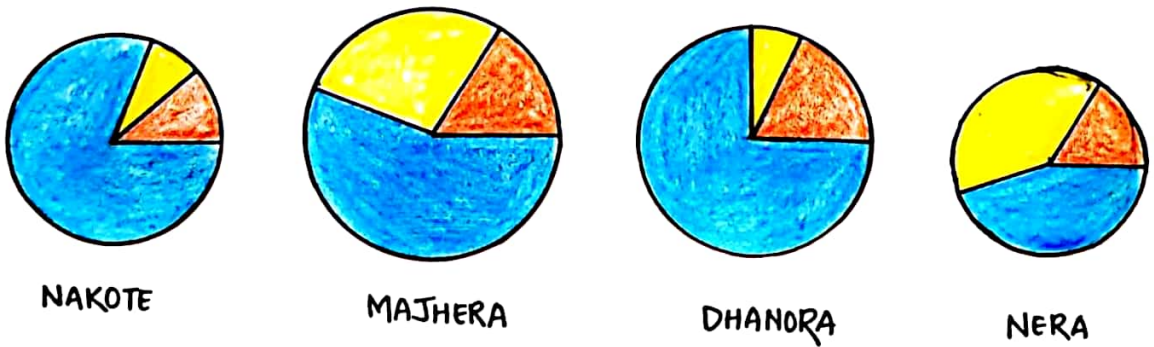
In Dhanora, 26.50% of the land is maintained for cowshed, while in Majhera only 1.88% is maintained for cowshed.

0.5% of the land is contributed for the building of roads in Dhanora while in Majhera it is 46%. In Nakole, 92% of land is devoted for the construction of metalled road. 0.68% for Majhera, 1.26% for Nakole are under unmetalled road. This shows that the region being a hilly area, construction and maintenance of roads are not possible.

# TOTAL POPULATION AND WORKING POPULATION

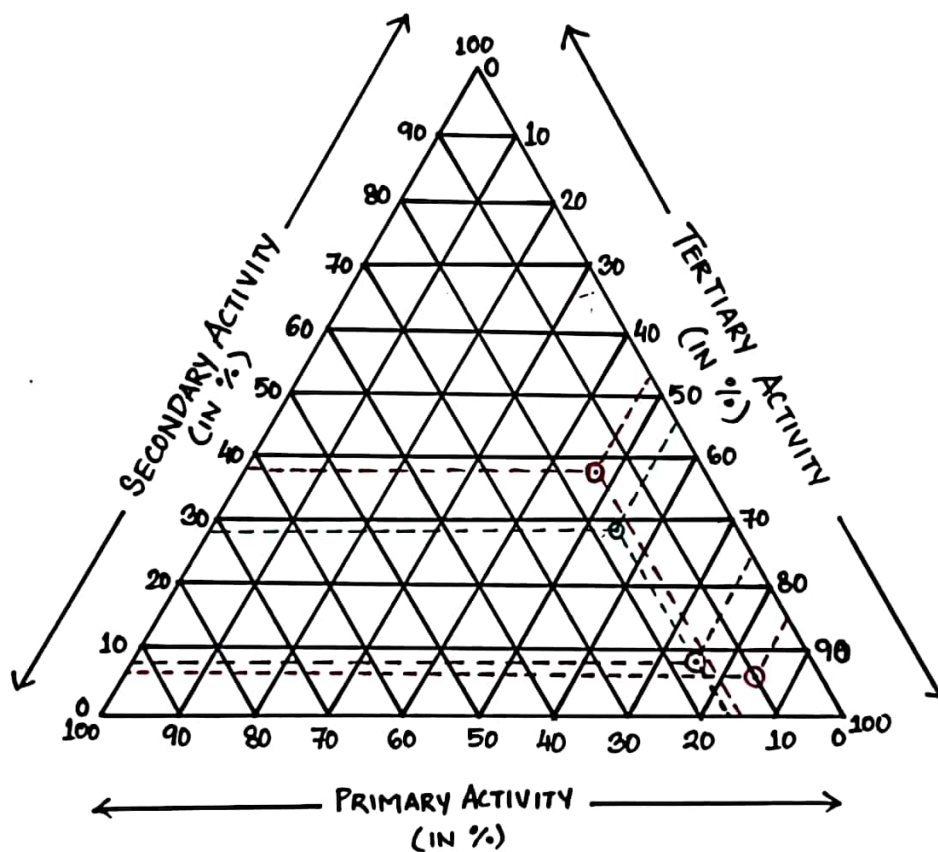


# OCCUPATIONAL STRUCTURE



# TERNARY DIAGRAM

SHOWING  
DIFFERENT TYPES OF ECONOMIC ACTIVITIES



INDEX	
SYMBOL	VILLAGE NAME
⊙	NERA
⊙	MAJHERA
⊙	DHANDRA
⊙	NAKOTE

# OCCUPATIONAL STRUCTURE

Studying the cultural landscape, it becomes essential to analyze the occupational structure as it shows the livelihood patterns of the people.

The occupational structure of the villages — Nera, Nakote, Dhanora and Majhera have been represented by ternary diagram and pie diagram.

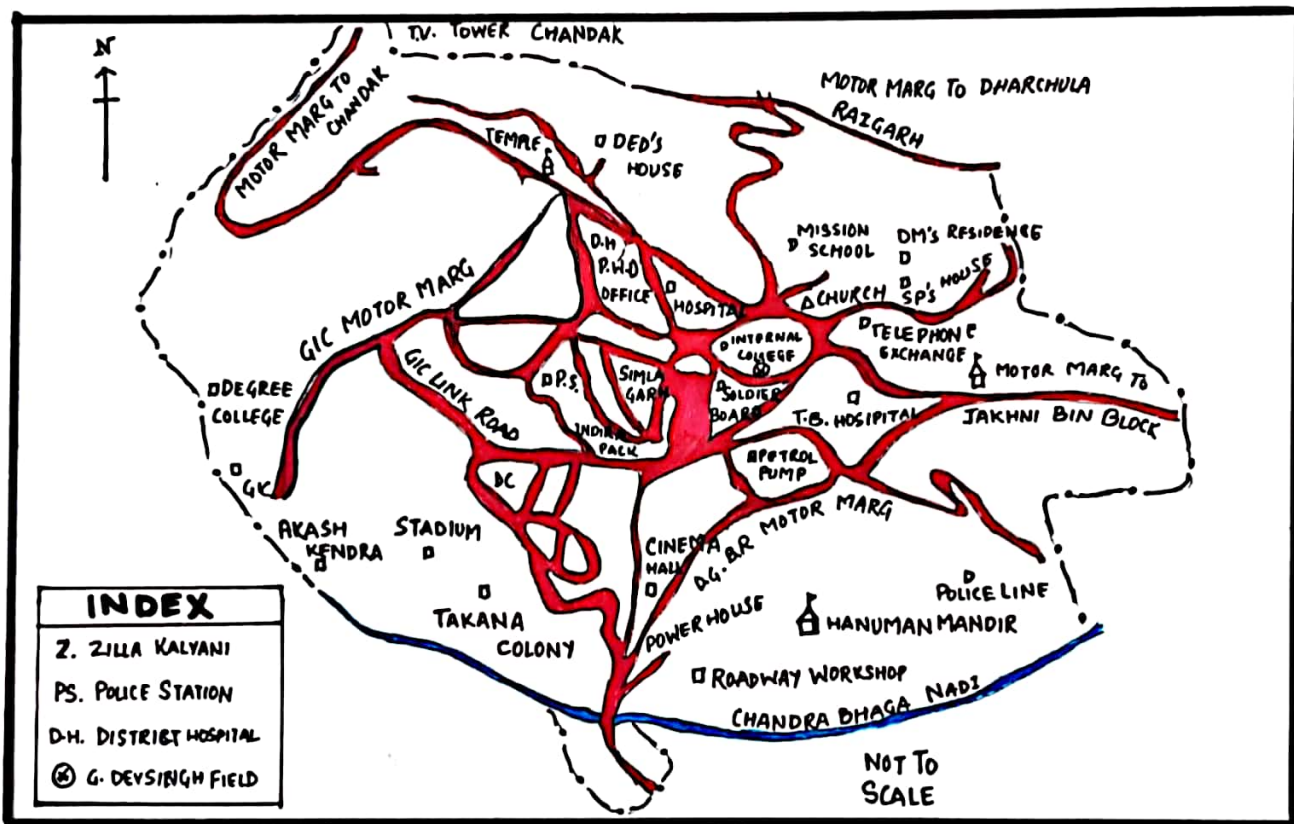
The ternary diagram shows that the people of the villages are mostly engaged in tertiary sector where the primary activities are moderate and secondary activities are very low.

As mentioned in the data, we have analyzed that the working population is much higher in Majhera and Dhanora in comparison to that of Nakote and Nera. The working population is highest in Majhera, i.e., 43 and the lowest working population is shown in Nera i.e., 20 while comparing the total population Majhera and Nera are highest and lowest respectively.

It is seen that the primary sector has the lowest population in Nakote and Majhera whereas secondary sector has the lowest population in Nera and Dhanora.

The tertiary sector is the most engaging occupation of all the four villages and plays a dominant role in the economy.

# INTERNAL ROAD MAP OF NAGAR PALIKA PITHORAGARH

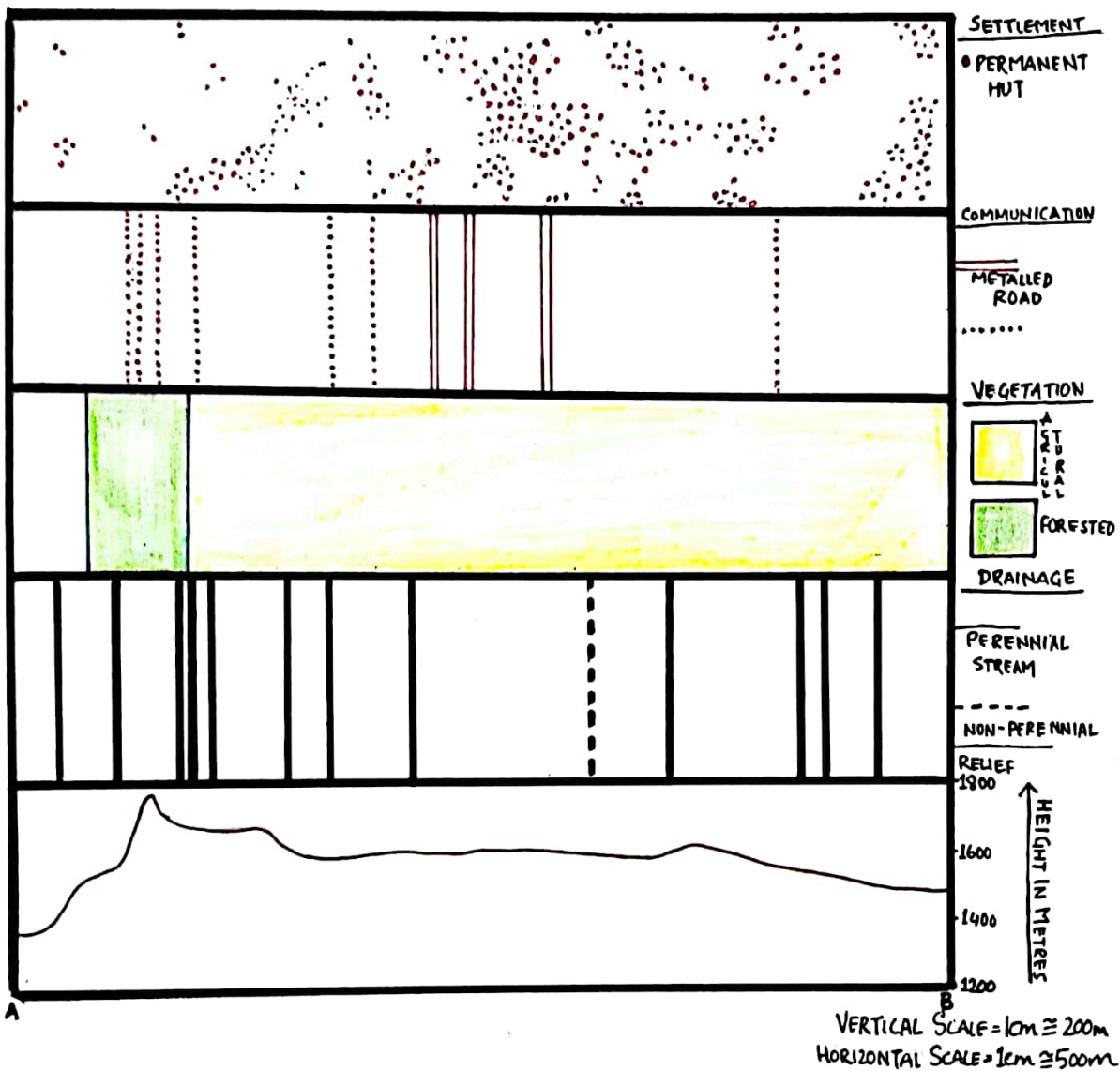


SOURCE : DISTRICT MAGISTRATE OFFICE, PITHORAGARH

# TRANSECT CHART

SHOWING RELATIONSHIP BETWEEN PHYSICAL AND CULTURAL ASPECTS

MAP No: 62 1/2



SOURCE: TOPOSHEET NO - 62 1/2



## TRANSECT CHART :

To study the co-relation between the physical and cultural aspect a transect chart has been drawn from an extract of map no. 62 1/2. By studying this transect chart we see that the relief is quite high which ranges between 1200 and 1800 m. The relief in the western part is about 1800 m and it gently slopes towards the east upto a height of 1500 m.

The region being situated in the Himalayan region varies perennial snow fed rivers are shown in the transect chart mainly in the eastern and central portions. In the western portion, non-perennial rivers are found. The whole area is mainly dominated by cultivated area and the narrow stretch of forest is seen in the western part.

Mainly metalled roads are found connecting Pithoragarh with the nearby villages. Several foot-paths are seen because of the rugged terrain in the western side.

Settlements are mainly of compact type.

## CONCLUSION

The town of Pithoragarh has profound influence on its surrounding and the four villages — Nera, Nakote, Dhanora and Majhera comes under its direct impact. The people of these villages are mainly engaged in tertiary sector and take up agriculture as their subsidiary occupation.

The living condition is more or less urbanized in the four villages because of its situation nearer to the town of Pithoragarh. The metalled road network serves as a good network in these villages connecting Pithoragarh town and the other areas.

Medical facilities, banks, educational institutions and other public amenities like water supply, electricity, etc are fairly accessible to all the villages due to the nearby location of the district headquarter.

Literacy is quite high but general education level rarely exceeds graduation.

Pithoragarh being situated in Lesser Himalayas exhibits typical Himalayan topography and climate whose impact is felt on their cultural life.

# APPENDIX

## TEMPERATURE AND RAINFALL

MONTHS	MEAN	MONTHLY
	TEMPERATURE (°C)	RAINFALL (mm)
JANUARY	7.7	71.5
FEBRUARY	9.8	108.5
MARCH	13.8	35.5
APRIL	18.2	82.0
MAY	22.0	146.5
JUNE	23.6	267.5
JULY	23.3	241.0
AUGUST	23.3	213.0
SEPTEMBER	22.5	229.0
OCTOBER	20.5	43.0

SOURCE : PITHORAGARH DISTRICT GAZETTEER

# AGE SEX PYRAMID

AGE GROUP	DHANORA		NAKOTE		MAJHERA		NERA	
	MALE(%)	FEMALE(%)	MALE(%)	FEMALE(%)	MALE(%)	FEMALE(%)	MALE(%)	FEMALE(%)
0-4	3 (0.6)	2 (0.4)	5 (2.5)	1 (0.5)	8 (1.3)	7 (1.1)	1 (0.1)	1 (0.1)
5-9	9 (1.8)	8 (1.6)	6 (3)	0	7 (1.1)	13 (2.1)	2 (0.3)	3 (0.5)
10-14	6 (1.2)	5 (1)	6 (3)	2 (1)	9 (1.5)	11 (1.8)	4 (0.6)	7 (1.1)
15-19	3 (0.6)	4 (0.8)	6 (3)	3 (1.5)	2 (0.3)	9 (1.5)	3 (0.5)	3 (0.5)
20-24	4 (0.8)	4 (0.8)	3 (1.5)	4 (2)	9 (1.5)	17 (2.8)	1 (0.1)	5 (0.8)
25-29	3 (0.6)	11 (2.2)	3 (1.5)	3 (1.5)	15 (2.5)	5 (0.8)	7 (1.1)	2 (0.3)
30-34	8 (1.6)	15 (3)	3 (1.5)	1 (0.5)	5 (0.8)	9 (1.5)	2 (0.3)	6 (1.0)
35-39	2 (0.4)	2 (0.4)	3 (1.5)	1 (0.5)	9 (1.5)	4 (0.6)	1 (0.1)	2 (0.3)
40-44	3 (0.6)	3 (0.6)	1 (0.5)	3 (1.5)	2 (0.3)	5 (0.8)	2 (0.3)	6 (1)
45-49	7 (1.4)	-	1 (0.5)	2 (1)	6 (1)	7 (1.1)	4 (0.6)	2 (0.3)
50-54	2 (0.4)	1 (0.2)	3 (1.5)	2 (1)	5 (0.8)	2 (0.3)	0	4 (0.6)
55-59	2 (0.4)	1 (0.2)	2 (1)	1 (0.5)	6 (1)	2 (0.3)	1 (0.1)	1 (0.1)
60-64	1 (0.2)	0	1 (0.5)	1 (0.5)	1 (0.1)	3 (0.5)	1 (0.1)	1 (0.1)
65-69	1 (0.2)	0	1 (0.5)	2 (1)	3 (0.5)	3 (0.5)	0	1 (0.1)
70-74	-	-	3 (1.5)	2 (1)	3 (0.5)	3 (0.5)	2 (0.3)	3 (0.5)
75-79	-	-	-	1 (0.5)	1 (0.1)	1 (0.1)	2 (0.3)	0
80-84	-	-	2 (1)	1 (0.5)	-	-	-	-
Above 84	-	-	-	-	-	-	-	-

# LITERACY

AGE GROUP (IN YEARS)	DHANDRA		MAJHERA		NAKOTE		NERA	
	Male	Female	Male	Female	Male	Female	Male	Female
0-14	15(9.68)	7(4.52)	20(11.17)	26(14.53)	15(9.68)	2(1.3)	9(9.68)	13(13.98)
15-19	15(9.68)	14(9.03)	22(12.3)	22(12.3)	14(9.03)	4(2.6)	14(15.05)	8(8.6)
30-44	18(11.61)	3(1.94)	10(5.6)	8(4.47)	7(7.22)	4(4.12)	6(6.45)	12(12.90)
45-59	8(5.16)	1(0.65)	4(2.23)	5(2.8)	3(3.09)	6(6.19)	4(4.30)	4(4.30)
ABOVE 60	3(1.94)	—	3(1.68)	3(1.68)	5(5.15)	5(5.15)	6(6.45)	2(2.15)
Total population	155		179		97		93	

# LEVELS OF EDUCATION

LEVELS OF EDUCATION	MALE	FEMALE
PRIMARY SCHOOL	99	102
HIGH SCHOOL	58	44
UNDER GRADUATE	32	7
POST GRADUATE	25	7
TOTAL	214	160

# LAND USE

LAND USE (IN HECTARES)	DHANORA	MAJHERA	NAKOTE
TOTAL AREA	51.42	76.42	23.04
CULTIVATED AREA	17.67 (123°43')	24.14 (113°43')	10.75 (167°58')
UN-CULTIVATED AREA	19.82 (138°46')	—	—
COWSHED	18.63 (95°25')	1.48 (6°58')	—
METALLED ROAD	0.30 (2°6')	0.35 (1°38')	0.21 (3°16')
NON-CULTIVATED AREA	—	36.11 (170°6')	—
FOREST	—	13.70 (64°32')	2.89 (45°9')
UNMETALLED ROAD	—	0.53 (2°29')	0.29 (4°31')
FALLOW	—	—	8.89 (138°54')
TOTAL	51.42	76.42	23.04

	DHANDRA	MAJHERA	NAKOTE
TOTAL AREA	51.42	76.42	23.04
$r = \sqrt{\frac{\text{TOTAL}}{\pi}}$	4.046	4.932	2.708
SCALE: 1cm $\cong$ 2units	2.023	2.466	1.354

GRAPHICAL SCALE :

	HIGH	MEDIUM	LOW
TOTAL	80.00	50.00	20.00
$r = \sqrt{\frac{\text{Total}}{\pi}}$	5.046	3.989	2.523
Scale: 1cm $\cong$ 2units	2.523	1.994	1.261

# OCCUPATIONAL STRUCTURE

Calculation for Radius :

TABLE 1 :

VILLAGES	Primary	Secondary	Tertiary	Total working Population	Radius $\sqrt{T/K}$	Radius acc. to Scale (cm)
Nera	3 (10%)	2 (6.67%)	25 (83.33%)	30	3.09	1.54
Majhera	8 (17.39)	13 (28.26%)	25 (54.35%)	46	3.82	1.91
Dhamora	7 (17.07%)	3 (7.27%)	31 (75.61%)	41	3.61	1.80
Nakole	3 (15.79%)	7 (36.84%)	9 (47.37%)	19	2.45	1.22

Scale: 1cm  $\cong$  2 units

Calculation for degree value :

Table 2 :

VILLAGES	PRIMARY	SECONDARY	TERTIARY
Nera	36°	24°0'43"	299°59'60"
Majhera	62°36'144"	101°44'0"	195°39'36"
Dhamora	61°27'7"	26°10'0"	272°11'45"
Nakole	56°50'38"	132°37'0"	170°31'55"

Calculation for Graphical Scale :

Table 3 :

Total working Population	Radius $\sqrt{T/K}$	Radius according to Scale (cm), 1cm $\cong$ 2 units
50	3.98	1.99
17	2.32	1.16
15	2.18	1.09



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