

Impact of geographical factors on culture and cultural landscapes: An analytical study of Garhwal region

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Abstract

Human is a social animal. He lives in a society where he learns how to speak, eat and live. Every part of the earth surface is different from others which tends human group to accept such life style, food, customs and behavior that is different from others. Therefore, cultural diversity and unique cultural landscape emerge on the surface. The current research paper highlights how does Geographical factors such as landforms (mountain, plain, and deserts coastal region), climates, and natural vegetation affect the different cultures and cultural landscapes of Garhwal region. Due to the influence of geographical factors culture and cultural landscape of Garhwal region can be distinguishable from surrounding regions. An attempt has been made by the researcher that how following factors exclusively shapes cultural variations, landscapes, human actions and dynamic factors of cultural development. Geographical factors contributes drastically to cultural diversity and Cultural components. Following physical factors directly influenced to shape the culture and the cultural landscape as well.

Keywords: cultural diversity, cultural landscape, physical landscape, culture

1. Introduction

A unique method of functioning of any group which came out through the gradual development of life-style is called as culture. There are literally thousands of cultures on Earth today and each contributes to global diversity. One reason for existence of so many cultures is that there are so many ways by which they are adjusting with their environment. With over seven billion people on earth, there are thousands of different cultures each of which makes its own special contribution to Earth's wonderful diversity. When we analyse the world's culture it is observed that one culture is totally different from another. So the question arises why there are so many differentiations in one culture to another. Certainly there are some factors which are responsible for these differentiations. Geographical factors plays prominent role while analysing the culture and cultural landscape. Every environment has its own kind of limitations and facilities. Human lives in his unique environment and he develops his life style by using these limitations and freedoms. Humans adopt and response to the condition they encounter developing patterns of behaviour and customs to cope with dry desert, arctic cold, high mountain ranges or the isolation of an island. In turn, human interact with physical geography to change, enhance or destroy physical and ecological features. Sometimes, he have to adjust with these limitations and freedoms. Therefore, a new kind of life-style is developed through the adaption and adjustment with his Geographical conditions, which is called culture. In this research paper we have tried to through the light upon the geographical factors which affects the culture and cultural landscape of Garhwal.

The word culture derives from a French term, which in turn derives from Latin "colere," which means to tend to the earth and grow, or cultivation and nurture." The total way of life that characterizes a group of people is called as culture. Culture is the characteristic and knowledge of particular group of people, defined by everything from language, religion,

cuisine, social habits, music and arts. Human has developed a unique kind of life style to sustain his life, which is called as culture. It does not become in a single day, it develops gradually. One transfers his beliefs, behaviours and life style through the culture. The current paper highlights how geographical factors affect culture and cultural landscape across Garhwal.

2. Objectives

- 1) To analyse impact of geographical factors on cultural aspects of Garhwal.
- 2) To assess the impact of geographical factors on cultural heterogeneities.

3. Methodology

Unlike a scientific analysis, which is more amenable to a "cause and effect" analysis evaluating the sources of cultural and social aspects is much more complex since a number of factors are involved. Some may be empirical and objective, and others may be rooted in beliefs, myths and inherited value systems and therefore highly subjective but are not less real and important for those who lives their life for them. A composite method like literature review and interviews has been done. Secondary data has been used.

4. Study Area

Garhwal lies in the north- west region and administrative division of northern Indian state of Uttakhand. It extends from 77°33' to 80°60' E longitude and 29°31' N and 31°26' latitude. Lying in Himalayas it is bounded on north by Tibbet, in the east by Kumaun region, on the south by UP state and on the northwest by Himanchal Pradesh state. Garhwal has an area of 32450 sq. /km. it has been regarded as the holiest part of Himalayas because the holy Ganga and its tributaries have their source in the region. Garhwal has some highest peaks and passes, the steepest scarps and most precipitous ravines,

the deepest geoges cut by the swift rivers. The most highly diversified and sharply contrasted to Tundra in a brief span of

80 km. ecological region, covering a global range of climatic belts from subtropical

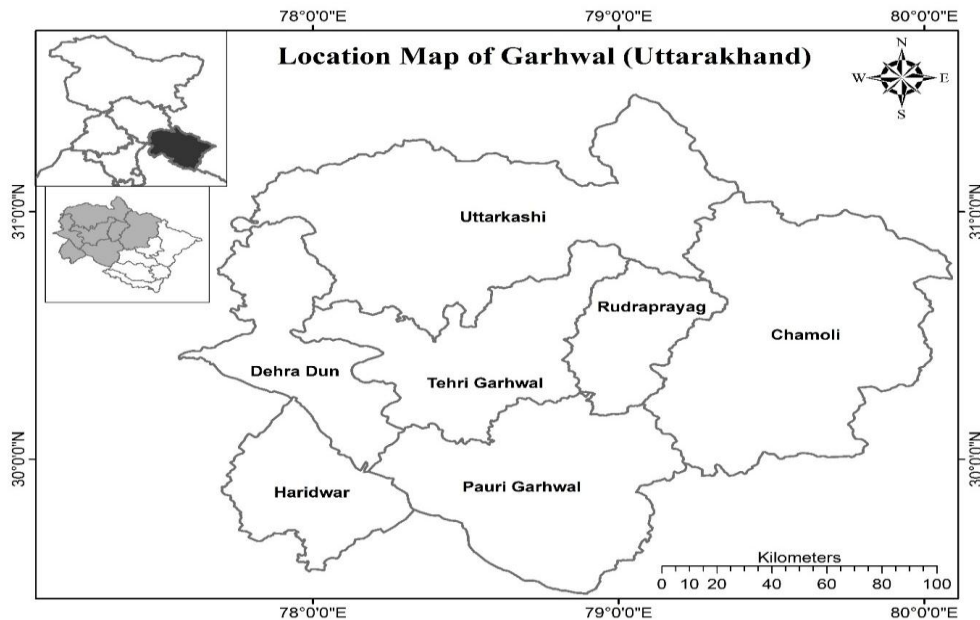


Fig 1

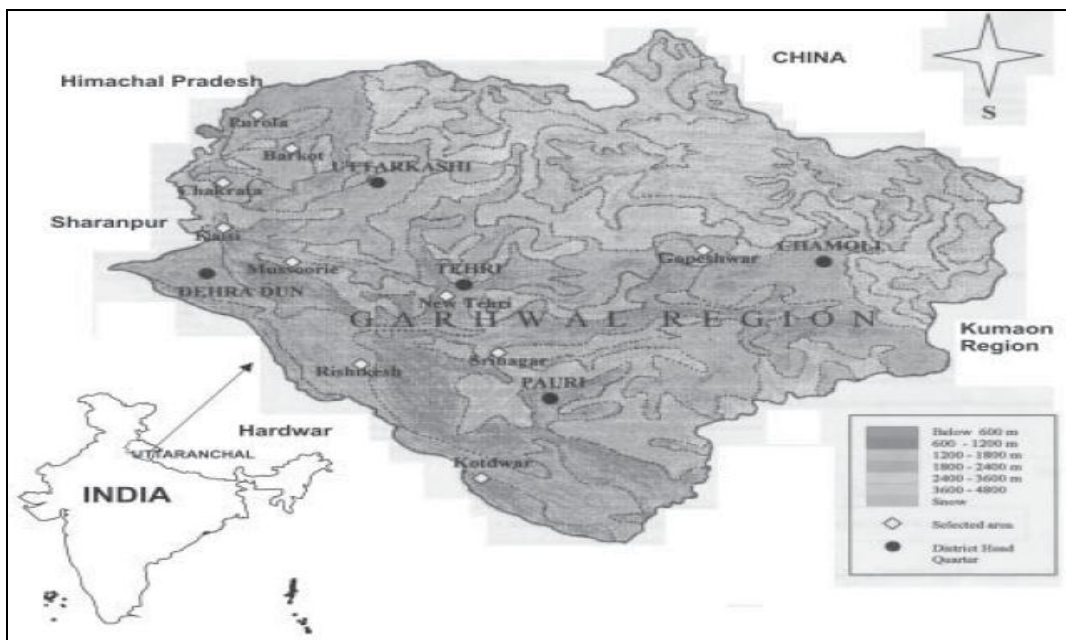
The Himalayan and landscape with its high relief, snow clad peaks, vast glaciers deeply dissected topography, antecedent drainage and complex geological structure is well represented in Garhwal Himalaya. The Himalayan ranges rise northwards from the foot hills to over 6000m within a short distance of 150 km and contains vast snow field. The majestic array of hoary peaks is visible from far and wide. Seen from a vantage point, the lower hills appear like waves of the story sea, suddenly arrested and frozen into stone. The lower valleys provide fascinating contrast with rugged lofty snow clad mountains. The region is crisscrossed by numerous mountain ranges and river valleys. There are three well recognised

physiographic divisions from south to north.

4.1 Climate

Vast variations of altitude have given way to manifold climates in Garhwal Himalayas. In such an area of complicated relief microclimatic conditions are of greatest importance. The most important factors in determining the climate in this region are the altitude related relief, slope, aspect direction of mountains and their relative position with respect to snow clad mountain foothills. . Precipitation occurs in the form of snow, rain, hail, frost, snow and dew.

Following are the major physiographic regions of Garhwal-



Source: J Vect Bome Dis 41, March & June 2004

Fig 2

- Siwalik (Outer Himalaya)
- Himanchal (Lesser Himalaya)
- Himadri (Greater Himalaya)

4.2 Drainage system of Garhwal

In Garhwal, there has happened many mountain genesis processes in its geomorphological region. Consequently the whole area changed into the hilly terrain. It also affected the drainage system of Garhwal. The river of Garhwal represents the consequent streams pattern except antecedent stream system. The main rivers of Garhwal are Bhagirathi, Alaknanda, Yamuna, Tons. The drainage system of Garhwal can be divided into two.

- The Bhagirathi Drainage System
- The Alaknanda Drainage System
- The Ganga Drainage System
- The Yamuna Drainage System
- The Western Ramganga Drainage System

Alaknanda-Bhagirathi Drainage system is the vastest drainage system of Garhwal. Alaknanda is the biggest river rising from Alkapuri of Garhwal Himalayas. It is considered the tributary of Bhagirathi. It merges in Alaknanda with Saraswati, Dhauli Ganga, Virahi, Nanadakini and Pinder. Yamuna drainage system is the second important drainage pattern. Yamuna is the main river which flows through Dehradun and Uttarkashi.

5. Discussions

Geographical factors are circumstances associated with a physical location that affect humans living within a specific area. Behaviour, health, beliefs, income, occupation and education can be affected by geography. Following geographical factors play an important role to determine culture and cultural landscape. To understand the shape of the cultural landscape, it is important to analyse the geographical factors and its impact on Human being.

Following Geographical factors play a vital role to command and decide cultural attributes and landscape-

6. Impact of climate upon culture

Climate is more effective rather than other factors of natural environment. Climate affects the culture and climate is affected by altitude. So it is more convenient and practical to base the climatic regionalization on altitude to show its relation to culture.

6.1 Sub-Tropical Climate (300- 900 m)

Sub-tropical climate is characteristic of valleys and doons in particular. This zone covers large areas in the lower basin of main rivers. The climate the river valley can hardly be called good at any time of year. Heat is excessive during summer season due to reflection of summer rays from two steep hill sides which as a rule shut the valley on either side. Poor air drainage in the afternoon makes the weather suffocating. In the lower valley of Alaknanda and Bhagirathi rivers such summer conditions prevail July and first half of the August. Rain shadow conditions during Monsoon season leads to crystal clear mornings and starry heights at Srinagar for the most part.

Impact upon dresses- sub-tropical zone covers Sahaspur, Doiwala, Yamkeshwer and Kotdwar blocks. Cotton clothes dominates in zone except the four months of winter when woollen clothes are used. This zone is nearer to the plain hence it is more influenced by the western type of clothing and modern fashion than the middle Garhwal and high valley where its impact is felt in the residents of the towns and service centres or among the educated personnel. Males put on *trousers, shirts, bush shirts, coat and pant*. The females wear *blouse, loin clothes, dopatta and shawl*. The impact of altitude through its impact on temperature is pronounced on the types of dress than any other natural elements in Garhwal. The ratio of woollen clothes and duration of their use increases with the in altitude. Impact upon diet- different altitudinal zone represent different climates. Each has developed with the resources of his environment a food supply which has become typical, distinctive, growing, more and more with habitual use. Diet is a sensitive indicator of cultural differences and many ingredients of diet have importance as symbols of cultural identity.

Diet are one of the important factors of culture when we examine diets from a geographical point of view, they appear in a dual guise as expressions of the environment.

Diets in Lower Valleys, Doon and Bhabar – in this region wheat and rice are major crops. So they form the chief items of the diet of inhabitants of the area.

Diets In *Jaunsar-Bawar*- the diet and routine of *Jaunsar Bawar* is slightly different from that of Garhwal so far as its nomenclature is concerned but in substance they are somewhat similar.

Rice and wheat are the chief food crops, supplemented by coarse grains like *mandua, jhangora, maize* and *kauni*. As a matter of fact Jaunsari have a custom of taking coarse grain preparation in the morning and bread of wheat in the evening. The poor cannot afford milk, curd and butter nor superior grains. The upper and middle classes take wheat and rice preparation daily while poor take them only on festivals days and special occasion. Meat is not commonly taken except on festivals or when a goat is sacrificed for the propitiation of some angry deity or some goat has died of an accident.

Dietary Routine- three and four meals a day is prevalent both in summer and winter. The meals are known by local names shown below together with their timing.

- Kaliyary- morning meal or breakfast.
- Dopahary-(midday meal or lunch) it is generally served in the field where one is working.
- Tinoli- (afternoon meal) it is taken at noon 4 pm when one returns from the field or jungle.
- Byai or Bias-(night meal) it is the dinner or

Impact upon Agriculture- The agriculture of Garhwal is greatly affected by the climate and climate is affected by the altitude of the area. The cropping pattern of Garhwal reflects the varying conditions of Garhwal. We have divided Agriculture according to altitude. The height of 300-1200 is suitable for. Altitude is affective through its control over temperature which sets definite limits to different crops in different altitudinal zone. We can divide sub-tropical zone in three parts according to its height.

Table

Sub-Tropical zone	Altitude in meters	Chief Crops
1. Lower doon and bhabar	300-60	wheat, rice, sugarcane
2. Upper Doon and Lower Garhwal	600-900	Wheat, Rice, Madua, Chua, Maize,
3. Middle Garhwal	900-1800	Wheat, Rice, Madua, Chua, Cheena, Kauna, Potato, Gahat, Barliey, Biflorous, Bhat, Chhemi (Rajmah)

When we analyse this agricultural products according to their heights it is find out that Sugarcane is only found at the altitude of 600 meters. There are some reasons that that it is found only in only in the limit of 600. Sugarcane is a tropical plant, therefore requires a year warm weather to reach maturity. But it is well known fact that as the height increases the temperature begin to decrease. So above the height of 600 meter the temperature is not suitable for sugarcane, on the other hand *Madua, Jangora, Chua, Maize* is grown here. This shows that agriculture have great impact of climate in Gargwal.

Impact upon House Types – house types of any region reflects the influence of topography, climate, economy, culture and indigenous technology. House types of Garhwal also a product chiefly of local environment and so varies in construction and form with the heterogeneity of environment which is highly accentuated with great altitudinal range. Different forms of dwelling represents responses to varied physical environment along with interplay of physical economic and cultural factors. The house of Garhwal represents the harmony of man and nature. The primitive and peasant builders made these house by collaborating with the nature to deal with climatic problems and to use minimum resources for maximum comfort.

House types in Upper Garhwal- Wattle-and daub huts, generally without a plinth and often adjoining an irrigation channel are the commonest form of habitation in the doon. The neat little homesteads of substantial occupancy tenant or Gorkha pensioner, with small and well-kept compounds planted with fruit trees, cattle sheds and hedges of wild flowering shrubs, from a pleasing picture of rural prosperity.

The Gorkhas constructs three types of houses –(1) *Ghumaun ghar* (single-storeyed),(2)*Bangale ghar* (double-storeyed middle class house),(3)*Pakhe ghar* (usually two-storeyed but sometimes three storeyed rich class masonry house). Thatched roofs are being replaced by tin roofs. An average Gorkha house comprises two or three rooms with a veranda and Kitchen. Every house has an attached shed for cattle and a place of worship a separate room meant for it.

Gujars inhabit the doon forests during the winter season. They construct temporary rectangular or circular huts. The roof is heavily thatched with paddy stalks, branches and leaves. The door faces east. They keep fire burning constantly four twenty four hours.

6.2 Warm temperate Zone

The zone of 900 to 1800 covers middle valleys and slopes of lesser Himalayas. The climate of this zone more equitable and free from extreme conditions. This is the zone of maximum precipitation. Most stations with annual rainfall above 200 cm lie in this zone. After the altitude of 1800 to 2400 meter is the

zone of healthy climate in Garhwal. This is called cool temperate zone.

Impact of warm temperate climate on dresses- Dudhatoli plateau lies in Gairsain and Thalishain blocks. Its height ranges between 2400 to 3000 meters. Pastoralists known as Khadwal graze their cattle on this plateau. They put on *Dokha* or *Tyonkha* (it is fastened each side of the chest with skewers chain together), a type of sleeveless unstitched gown reaching just below the knee. It is made of goat's wool. They use it in migrations. Males put on *Sutti Vani* (Cotton Shirt) and *Gati* (a type of blanket made of hemp fibre). The ladies wear *Kurti* (Shirt), *Tigra* or *Pagarh* (A long cloth tied round the waist. The pastoralists of Dodhatoli plateau use *Bhangola* clothes to a greater extent than the pastoralists of other region.

In the middle Alaknanda Valley, people use wool, hemp and cotton for their clothing. The males put on *Dhokha*, close fitted trousers and *Achkan* (buttoned up long coat). The ladies put on *Angari* (blouse), *lava, chadar and Pagarh* (a long cloth tied round the waist. In lower Alaknanda valley and Nayar basin the males put on trousers, shirt white loin cloth and cap. The ladies wear blouse, loin cloth and chadar and shawl. *Lava* is not used in Pauri excepting Dodhatoli plateau.

In the middle Bhagirathi valley (Dunda and Pratapnagar Tahsil) wool is used in outer clothing and cotton in the inner clothing. The same practice is more or less prevalent throughout the lower valleys of middle Garhwal. The males put on close fitted trousers, buttoned up long coat and cap. The females wear *ghagri* (skirt), *angari* and *Dhantu* (a scarf like cloth tied around the head). In the Bhilangana Valley, clothing is more or less same as in the Bhagirathi valley. The only difference is that here male put on *angrakha* a type of long coat tied by strings instead of buttons.

In the upper Yamuna valley (Purola and Naugaun blocks of Uttarkashi district) clothes used are generally of woollen. The males put on *sutan* (trousers), shirt, buttoned up coat and *Sikoli* (cap). The females wear *cholde* (blouse), *ghaghre* (skirt), *Khika* (a type of coat), loin cloth and *dhantu*.

Impact upon diet in the middle Garhwal- The climate of middle garhwal is of warm temperate type which is at the height of 600-1800 and 1800-2400. It comes under the cool temperature zone which is more suitable for the crops like wheat, *Jhangora*, and *Madua*. The diet of this region is deficient in the protein, fat, minerals and vitamins. On the other slopes wheat, *Jhangora* and *Madua* are main crops. Hence they form the main element of the diet. *Jhangora* is boiled like rice and eaten with *urd* and *gahath*. When it is boiled in buttermilk, it is called *chhanchhera*. Among pluses, *chhemi*, *urd*, *gahath*, *sunth* and *masur* are important and all are locally grown. Among fruits, orange, apple, pear, apricot are now available from the recently developed orchards but the

quantity inadequate and so is the intake. People of this zone take their food thrice daily breakfast, lunch and dinner.

Impact upon Agriculture- Climate is one of the most important ecological factors and it is primarily by the altitude in Garhwal has been divided into the altitudinal zone. These zone offer favourable conditions for certain specific crops only. In the middle Garhwal wheat, barley, potato, *chhemy*, *chua*, *cheena*, *phaphra* are the chief crop and forms an important item in the diet of region. Climate affects these crops greatly. Climate affects these crops greatly for example- rice, *kauni* and *jhangora* would not grow above 1950 m, *kodo*, grows upto 2400 m. *Uva* or naked barley is a crop of cool temperature. Pluses are not grown above 1800 m.

House type of middle Garhwal- house types in lower Yamuna valley- in Jaunsar Bawar, house types of are generally constructed three stores. There exists a balcony. Balcony have windows which can be closed when required. During cold winters they used a big hearth (angiethi) of iron in which charcoal is brunt to keep the room comfortable warm. The hearth has three openings at the top to conserve fuel which is so scarce in these areas. The house remains comfortably warm when it is intensively cold outside. Windows face east to get sun ray in the morning hours.

House types in Lower Bhagirathi and Alaknanda valleys- The houses are built of stones and roofed with slates which are cemented with mud. A hole is made by cutting ringle or split chir pine to keep a sliding slate in the back part of the roof. By sliding the slate the hole is opened to get light in the day and kept close during the night. The whole roof construction over the wall is completely adequate to cope with the climatic extremes of the heat and dryness in summer with violent rainstorms and with heavy snow in winter. Windows are there but shutters are kept wide open only in good weather to let in the sunshine for light and warmth.

These house have no chimney for releasing smoke but it slowly escapes through doors, windows and old cracks around the roof. It helps in keeping the house warm. This climatic region is suitable for the agriculture of oranges, peaches and plantains, so it is frequently planted in the country yards so that the narrow strip of land in front of the chawk is devoted to the kitchen garden.

6.3 Alpine zone of Garhwal (300 to 4200m)

The season of summer, spring and winter occur with the short compass of 5 months from May to September. Intensity of winter chill is mitigated in spring which lasts for the short time in May. Because of high altitudes even the summer rains are accompanied by the snowfall, blizzard and hail. Winter depressions cause heavy snowfall. A major part of heavy valleys is inhabited by the Bhotias and the alpine pastorals like Gujjars and Gaddis. The Bhotias generally put on woollen clothes which they themselves spin and weave because, the region experiences cold climate all the year round. The dress of man consists of trousers and over them loose gown, girl round the waist with a woollen cloth called *patta* and on the head a cap all of wool. The women wear a loose long shirt with embroidery work of Kashmeer type, close fitted trousers and long cloth to cover the head of silver buttons of shirt, necklace, nose ring, ear ring and anklet.

Diet in upper Garhwal- the common diet of Bhotias who inhabit high valleys is sield- a sort of liquid preparation comprising fload of phaphar and wheat boiled in water. Green

leaves of *phapha* and *chuva* are also mixed with it. A type of tea known as *jhya* is quiet popular among Bhotias. Here water is boiled, the bark of yew is dropped into it. Instead of tea leaves curd or butter and salt are added to it after it is sufficiently boiled. They churn it with a bamboo cylinder known as *dooga* (*dongm* or *dhoma*). Generally Bhotias drink about twenty cups of tea in a day. Occasionally, flour of buckwheat and *phaphar* is also mixed it. This type of tea gives resistance against severe cold. Another chief of Bhotia's diet s meat. For preserving them cut meat into small pieces and dry it in the open in the form of garland. On account of severe cold, wine is drunk by the old and young ones alike. Chief varieties of wine are known as *Sura*, *Dura*, *Vakli*, *Marda* and *Jhang*. They consume large quantity of wine on festivals. They eat coarse grains like barley, *uva*(naked barley), *Jhangora*, *Madua*, and *phaphar*. They make a special type of *madua* by filling it ground pluse of *gath*. It is eaten with butther, milk or curd.

The Bhotias consume large quantities of food because at this height they need much more carbohydrate to cop up with climate which is very cold. They eat flesh half raw or cooked and are fond of boiling goat or sheep with rice.

Impact of climate upon agriculture - The temperature of the region is very low. On the sunny aspects the zone of two crops a year can extended up to 2700 m. Wheat, barley, potato, *phaphera*, *chua*, *kauni*, *ogal* or *koto*, *uva*, *beans*, *chemi* are not grown above 3000 m. the winter crops of the lower zones become summer crops in this zone and are sown in June and harvested in October.

Impact of climate upon House types - In the Mory block, the roofs of the houses are always made sloping as it facilitates the sliding down of snow and rain. The important fact about the house of this area is that the doors are very small and low, ventilation is bad but there is always a chimney for letting out the smoke out in the interior of *fatehparvat* and *panchain*. *Patti's* fire is kept burning for 24 hours as far as possible.

In the upper Tons Valley there is found kitchen garden in the courtyard and two plots are devoted to opium and tobacco cultivation.

In the upper Bhagirathi valley, the houses are of multi-storey. The ground floor has no window and almost invariably used as cattle shed. People kept their in house because it provides additional heat as well it easier to look after them in cold snowy weather without going outside. The house are rectangular in shape with roofs sloping at about 40 degrees so snow can easily slide down from the roof.

In the area of Vishnu Ganga and Dhauli Ganga the village is situated above the timberline so the roof and houses both are made of stones. The houses are so situated that only their upper storey is visible. Their lower storey lie in a depression to avoid adverse effects of snow blasts, the doors are made very small and there are whole like openings in the wall for windows.

In Dhauli valley houses are built of stones with sloping roofs. In each apartment of the house has a single door and a window both facing the sunny sides. In the lower Dauli valley below *Reni* where rainfall is heavy in comparison with upper Dauli valley, the roof is more steeply inclined but I gradually becomes less inclined in higher villages.

7. Impact of topography upon culture

Garhwal is place which is inaccessible for the people due to its

topography, so their developed their own kind of dresses. In the towns and villages near the motor able roads people are fast changing over the western type of dresses. In the interior regions of dhudhatoli plateau people still put on clothes made of hemp (bhang). Fibre. It is called bhangola. There is found difference in Garhwal according to altitude of Garhwal for example- Bhotias of upper Garhwal put on woollen clothes. The dress of man consist of trousers and over them loose gown, girt round the waist with a woollen cloth called patta and a cap all of wool. Woman wear a loose undergarment instead of trousers. Ladies generally put on woollen skirt (Ghagra) or black loin cloth shirt (lava) and Sadri (a type white woollen waistcoat).

At the height range between 2400 to 3000 pastoralists known as Khandwal put on dokha or tyonka, a type of sleeveless unstitched gown reaching just below the knee.

At the height of 300 to 600 eters cotton clothes dominates. Males put on trousers, shirt, bush shirt, coat and pant. The females wear blause, loin cloth dopatta or shawl.

Dietary Regimes of Garhwal becomes as the altitude changes. In the high valleys, it is is non vegetarian/ meat dietary regime because above 2400 m there is found very low temperature. So most of the land is not fertile. Which results lack of crops. And due to low temperature people need more calories which is supplemented from the non-vague and liquor is used to fight with cold.

At the altitude of 1800 to 2400 the crops like wheat, *Jhangora*, and *Madua* are grown. The diet of this region is deficient in the protein, fat, minerals and vitamins. On the other slopes wheat, *Jhangora* and *Madua* are main crops. Hence they form the main element of the diet. *Jhangora* is boiled like rice and eaten with *urd* and *gahath*. When it is boiled in buttermilk, it is called *chhhanchhera*. Among pluses, *chhemi*, *urd*, *gahath*, *sunth* and *masur* are important and all are locally grown.

Rice and wheat are the chief food crops, supplemented by coarse grains like *mandua*, *jhangora*, *maize* and *kauni* in the lower valleys.

The topography of Garhwal is of hilly type so there is found lack of plain land which gives birth to the doon's and alluvial terraces, craggy precipitations ranges hardly leave an even patch of land of any considerably size in Garhwal, hence Terrence cultivation is the rule. Terrace present a variety of size and shape depending upon the gradient and character of the terrain.

On account of the highly rugged terrain, most of the field are in the shape of narrow strips parallel to the counter. Altitude is effective through its control over temperatures which sets definite limits to different crops in different altitudinal zone. The aspect is still of greater importance for land with a north aspect naturally retains moisture better than land exposed to the force of the monsoon rains is usually thicker and richer on northern slopes. But the sunny aspect is much more favourable for the ripening of crops than the shady aspects

Impact of Vegetation- Garhwal has variety of vegetation like Alpine, temperate, sub-tropical and tropical, which have different kinds of trees in them like pine, *Banj*, *Moru*, *Kharsu*, *oak*, *fir*, *deodar*, *blue pine* etc. the impact of this vegetation can be easily seen on the culture.

House have two to five storey in upper tons valley (morri Block). The third storeys is made up of the deodar wood. The first storey (ground floor) is called *obra* and its walls are made up of stone which is framed and tightened by the logs of

deodar. The roof is constructed of wooden planks. The second floor is called *manjia* whose walls are made of stones framed with wood just as in the *Obra*. The third and uppermost storey is called *baur* and is made up of deodar wood.

In Jaunsar bawer there is a balcony found in all the uppermost storeys of house. This balcony and partition are made up of wooden planks. The Jaunsari place thin sleepers instead of ringal or split pine below slates. It reflects easy and plentiful availability of timber in this region, which has facilitated ample use of wood as building material in floors, walls and ceiling by Jaunsaris. In lower Bhagirathi and Alaknanda valley doors and windows are often of delightfully shaped and simply carved woodwork using *Tun*, *Mour*, *Pine* or *Deodar*.

Garhwal is a rich storehouse of forest resource. these forest supplies large amount and varied types of timbera along with ragin which is extracted from pine tree, moreover this region offers a wide variety of medical plants like *Jatamansi*, *Kuti*, *Dioscorea*, *Costus*, *Ephedra*, *Podophyllum*, *Hyscyamus*, *Digitalis* and others. Ayurvedic medicines are produced in six units of Dehradun.

In Indian Drugs and Pharmaceuticals factory at Veerbhadra where antibiotic medicines are manufactured. The most important product of Garhwali forest is resin and turpentine which is manufactured of lisa, the sap of pine tree. Tilwara (chamoli) region and Turpentine (Tehri) factory has been set up by GMVN.

8. Impact of soil upon culture

The differing properties of the soils of different zones affects directly yields of crops. The soils of doons are fertile alluvium loom, clay loom zone are gravelly and mostly acid. However in many localities the soil developed from limestone are very fertile and suitable for cultivation of hill rice and wheat. Podzolic soils of the coniferous zone are leached and poor in fertility. These podzolic soils are suitable for potato and food gardening particularly for apples. Alpine zone soils are stony and glacial and acidic. They are suitable for such crops as Potato, Phaphra and naked barley.

9. Conclusion

The main geographical factor is topography of Garhwal. This is the topography of Garhwal which gives birth to the other geographical factors like climate, temperature, soil, and drainage system. Where, there is high altitude found cold climate in response people begin to wear woollen clothes. Hilly region changes the agricultural pattern and found the contour agriculture. Due to mountainous terrain there is inaccessibility in the inner part of Garhwal so the uniqueness of a particular group is maintained which gives birth to the rich diversity of culture in Garhwal.

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