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Physio-Cultural Selting of the Sirmour (H.P.)

Abstract

Physio – cultural Seltnig of the Sirmour discussed very important part of the area. Physical landscape mostly discussed Geology, Drainage, Lakes. Mountains and valley forests and Alps, birds, animals, butterflies and flowers, all combine to make a sum of delight unsurpassed elsewhere. Cultural landscape like other resources human resources is also important in the development of a particular area. One can assess the quality and quantity of human resources. The religious, social and Cultural urges of the people of Sirmour find an expression in various fairs, which are in turn closely linked to the economic activities of the area.

Keywords: Physio, Cultural, Resources, Social, Development, Economic

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Introduction

Sirmour district falls in the South-eastern parts of himachal pardesh which constitutes a part of southern himachal Pradesh of himachal Pradesh Himalaya region. the district is further sub-divided into four sub-micro regions of upper sirmour forested region, Cis,Giri region,Sirmour Shiwalik and Kiardun valley. It lies between 30^0 27'30" and 31^0 02' 20" north latitude and 77^0 01' 12" and 77^0 49' 40" east longitudes. Shimla district bounds it in the north, solan district in the north-west, State of Haryana in the west and south while State of Uttrakhand and Uttar Pradesh make its eastern boundary. According to the surveyor General of India, the district has total area of 2825 km. It has 7^{th} position among districts in terms of area in the State. It has a total number of 976 villages, of which 968 are inhabited. The terrain of this district physiographically is predominantly mountainous with deep valleys lying between shiwalik ranges of varying elevations between 358 meters and 3544 meters above the mean sea level. The Kairdun valley in Paonta Sahib tahsil is flat and fertile and remaining areas of this district are mostly rugged.

Aim of the Study

1. Identify the aspects physical and cultural landscape of the area.
2. Infrastructure and Development planning and management.

Physical Landscape

Geology, Drainage, Lakes, Climate, Soil and cropping pattern, forest of the sirmour has been discussed

Geology

The greater part of the district lies on the rocks of tertiary age with beds belonging to the carboniferous system. The geological structure of the district is composed of shiwalik, Murree series, Krol series, Mandhali-chand pur groups and jutogh group. The geology of upper sirmour forested region consists mainly of jutogh group, Rampur, Banjar formations, Nagthat group, shillai-deoban and largi groups and Granites (unclassified) formations. Small tracts of krol series, shimla group and shiwalik structure are also observed in this region.the geology of Cis giri region is mainly formed of Murree series, Krol series and Balaini formations. Small tracts of subathu beds and Mandhali-chandpur groups and shimla group are also observed. The geological structure of sirmour shiwalik region is mainly of shiwalik formation and contains huge deposits of limestone. The geology of Kiardun valley region is mainly of composed of Shiwalik formation containing thick alluvium soil of brown and black colour.the formations of the distict generally belong to sub-himalayan and Himalayan group contains metamorphosed formation of pre-lertiary age ranging down to Achaeans.

Drainage

The district is drained by a number of rivers, rivulets and streams. Of these, river Giri is the biggest river in the district, which is a tributary of

river Yamuna. The main rivers of the district are Giri, Bata, Yamuna, Tons, Ghagghar and Markanda. Only Bata, Ghagghar and Markanda rivers rise in the district. The Giri River takes south-easterly course and merges in Yamuna river at Bata mandi. Bata And Yamuna rivers flow south-westerly directions. Tons river, a tributary of Yamuna river forms eastern boundary while Yamuna river forms its south-eastern boundary and they separate this district from Dehradun district of Uttrakhand. River Giri originates at Kupar Tibba in jubbal tahsil of Shimla district, passes through the hills of Kotkhai and Theog of Shimla district, and enters Sirmour district at village Mariog from north side. It flows almost in the middle of the district and merges with Yamuna river at Rampura Ghat. Jalal River, an important tributary of Giri River joins it on its right bank at Dadahu. In the sub-micro region of Upper Sirmour Forested region, the Nera river flows from west to east direction forming the boundary of Kamrau tahsil. Tons river enters in this region in east at Kharkan and flows from north to south direction and ultimately merges with Yamuna river in south. Tons river also forms its eastern boundary and separate it from Uttrakhand. Sainj river is a tributary of Tons river and joins it in this region. Giri River and its tributary Basari River form its north-western boundary and Giri river also makes its extreme southern boundary. The Giri River, the life belt of Cis-Giri region enters in north-west at Nalsar Anoti and flows almost in the centre of this region and then towards south-easterly direction.this river then leaves this region at Hiyon Nar and enters into Kamrau tahsil.the principal tributary of this river is Jalal river which originates in this region and flows between Sain Dharand Dharati Dhar and ultimately merges in Giri river at Dadahu. Other tributaries of Giri river are Pervi,Nait, Palor and Jagat nalas and they join the Giri river on its left bank while Kamali nala meets it on iright bank. Ghagghar river also originate in north-western part forming district boundary and flows in westerly direction. It leaves the district as well as this region at Prit Nagar and enters into Haryana state.

The main river in Sirmaur Shiwalik region is Markanda which originates from the south-eastern part of Nahan tahsil and flows in south-westerly direction. It forms its own valley named Markanda valley in this region which is flat and fertile. It leaves this region at Kala Amb and enters into Haryana. Bata river takes birth in this region and takes easterly course. The Kiardun valley region is mainly drained by Bata river which enters this region in extreme west near Kolar and flows south-easterly direction before merging with Yamuna river at Bata Mandi. Giri river and Yamuna river have their own valleys in this region. Yamuna river enters the district as well as this region in extreme east at Majiri Paharuwala, taking south-westerly course and leaves the district as well as this region at Behral. Giri river which is a major tributary to Yamuna river meets it on its right bank at Rampur Ghat. All these rivers provide irrigation facilities to this valley.

Lakes

The only lake in the district is at Renuka. This is associated with Renuka Devi, mother of Lord Parshuram, an incarnation of God. This sacred lake slumbers in picturesque surroundings in the northern area of Giri Par. It is situated close to Dadahu mirroring in its still waters, the heavens and the mountain wilderness that surrounds it.

Climate

The district possesses a variety of climate varying according to elevation. Summer months are extremely and exceedingly hot in Kiardun valley and water is scarce. The hilly areas have a temperateclimate though Dharati range is hot. The Trans Giri tract, Pajota and Sain are cool even in the hot weather. In Trans Giri area, snow falls every winter while in Dharati it falls rarely. The climate of upper Sirmaur forested region is cool in summer and cold in winters. Maximum parts of this region receive snow fall in winter. In upper area of Cis-Giri region, the climate is cold in winters and mild in summer while lower areas are hot in summer and cool in winter. This region receives sufficient rain falls. Though Sirmaur Shiwalik region contains hills of varying altitudes it has hot and moist climatic conditions. The Kiardun valley region is exceedingly hot during summer months and has a considerable rainfall in this valley. The rainy season usually begins in the middle of June and lasts till the middle of September. A shower or two are received in April and May. The April and May rains may also bring hailstorms. The snowfall on higher ridges begin in December and lasts till March. Chur Dhar remains snow claded for major part of the year. During monsoon, rains are more active in the month of July and August. About 80 per cent of the rainfall is received by the district during July and August months. During the year 2009, the average rainfall was 905.9 m.m. The cold season starts from December to about middle of March. The hot season, which follows, lasts till the middle of June. Upto middle of September is monsoon season and October and November constitutes the post monsoon season. In cold, summer and post monsoon seasons, the air is dry particularly in the afternoon while during the monsoon season, the air is humid. Skies are generally clear or lightly clouded except during monsoon season when they are heavily clouded to overcast. Winds are light to moderate but during the monsoon season, they become stronger. In monsoon season, winds are from the directions between south-west to north-west, the westerly being more frequent. In post monsoon season, they are predominately from the north-east or east. Easterlies and south easterlies are common in the cold season. By the end of March, westerlies and north-westerlies appear and these predominate in summer. This Statement-A depicts average annual rainfall in m.m for three years w.e.f 2007 to 2009 of the district in comparisons to State Himachal Pradesh. The maximum rainfall 1,432.6 was received during the year 2008 in the district surpassing the maximum rainfall record of 1,141 m.m of Himachal Pradesh as a whole. The minimum rainfall of 905.9 m.m was recorded during 2009 in the

district, which almost equals the record of average rainfall in Himachal Pradesh. During the rest of years i.e 2007 the rainfall was quite adequate. The Statement-B shows maximum and minimum temperature in Celsius at nearest selected centre Nahan during the year 2010 from January to December. The maximum temperature of 35 degree C was recorded during summer month of May, 2010 followed by June (33.7 degree C) and minimum temperature of 7.4 degree C was recorded during winter month of December, 2010 followed by January (7.6 degree C). During the rest of months maximum temperature is almost uniform whereas in minimum temperature there is quite variation.

Soil and Cropping Pattern

The soil in the district varies from light sandy to heavy clay and in Paonta Sahib Valley it ranges from sandy to sandy loam. The soils are essentially derived from different rocks and climatic conditions which shows variation in texture and structure. They vary from deep black soils in the river valleys to shallow maroon red or grey in the hilly areas. Reddish brown soils are found on hilly slopes and in undulating areas in heavy rainfall region of the district. These are residual soils and are usually structureless and sandy loamy in texture. Deep black soils occur particularly in areas having assured rainfall. This is clayey texture and granular to crumb structure. These are fertile soils highly retentive of moisture and yield good crops. Medium deep soils occur in the areas where the rainfall is low. They are reddish brown in colour and have clayey texture and granular in blocky structure. Shallow soils are light brown to reddish brown in colour. They are loamy sands to sandy clay in texture and usually Structure less. Deep soils occur in low rainfall areas. They are dark brown in colour and have a sandy Loamy texture and blocky structure. As classified by the N.B.S.S. & L.U.P. (I.C.A.R.) Nagpur, the district has Udalfs and Udalfs-Ochrepts types of soils cover in south and eastern parts and in remaining parts Ochrepts -Orthents soil cover. The soils in Upper Sirmaur forested region are mainly categorized as Ochrepts- Orthents type and Udalfs Ochrepts type found in eastern and southern parts. The agro-climatic conditions are suitable for cultivation of apples, stone fruits as well as off-season vegetable crops. Cis-Giri region contains mainly Ochrept. Orthents soil cover while soils of Udalfs type occur in eastern portion and Orhrept-Orthents type in western part of Sirmaur Shiwalik region. This valley contains almost flat and fertile area and agriculture is the mainstay in this region. Maize, wheat and paddy are main crops. Ginger is main cash crop. The geology of Kiardun valley region is mainly composed of Shiwalik formations containing thick alluvium soil of brown and black colour. The soils are Udalfs and Udalfs - Ochrepts type. Agriculture is the main occupation of the people in this region. High quality of paddy, wheat and sugarcane are the main crops grown in this region on commercial scale. The agro-climatic conditions are quite suitable for tropical and sub tropical fruits.

The Statement-D depicts the land utilization patterns in the district for three years 2006-07, 2007-08 and 2008-09. The maximum land utilization is under cropped areas which is maximum 75.9 (In'000 hectare) during the year 2007-08 followed in the year 2006-07 with 75.6 (In'000 hectare) and had reduced to 74.6 (In'000 hectare) during the year 2008-09. After cropped areas 57 (In'000 hectare) are permanent pastures & other grazing lands followed by forest land 48.3 (In'000 hectare). The others land utilized types are marginal.

Forest

Forests play a vital role in shaping the climatic conditions of the area. The forests provide valuable timber, medicinal herbs and raw materials for large and small scale industries, provide employment and also play a vital role in conserving the soil and ensure timely and sufficient rains. The forests range between scrub, sal and bamboo forests of the low hills to the fur and alpine forests of the higher hills situated at higher elevations. The statement 'O' shows classification of forests area by legal status for the year 2007-08 and 2008-09 in sq.kms .The area is same for both the years. Total forest area in the district is 1843 sq.kms with classification as reserve forests 1,065sq.kms; demarcated protected forests 57sq.kms, unclassified forests 32 sq.kms and others forests 689 sq.kms. The district has the maximum of reserve forests followed by other forests. According to "Forests types of India and Burma" by H.G.Champion, the belt and patches of forests that can be recognized in the tract are Dry Shiwalik Sal, Moist Shiwalik Sal, Moist High Level Alluvial Sal, Sub-Tropical Pine (Chir Forests) Khair-Sissu Forests and Ban Oak Forests. Dry Shiwalik Sal is ill distributed and is met with all over the Shiwalik in sand and conglomerate out-crops at an elevation of 1,000 to 2,500 feet. Moist Shiwalik Sal also occurs mainly in Shiwaliks where the soil and moisture conditions are better. This type is found at altitudinal range of 1,000 to 2,500 feet. Moist high level alluvial Sal is found mainly on deep, rich and old soil of the Dun and is well represented by forests like Gorakhpur, Rajban Lamotua, Kukron and Bias. Khair Sissu forests are found along all the big rivers like Yamuna and Giri on new sandy or alluvium soil. Ban Oak forests occur at an elevation of 5,000 to 6,000 feet. There is a wide overlap in sheter wood places with sal and in spurs with Chir at altitudes from 300 to 5,000 feet. Chir pine forests are found on the Dharati ridge, which runs parallel to the Sain Dhar in the south. Chir pine by its nature forms almost pure forests of its own. In shady places, low-level Oak Casia fistula, Ano – grassius latifolla and other broad-leaved species are found, though its universal associates are carrissa – spinarum and Adhatoda Vasica. To the south of Chur Dhar, high-level forest containing, Oak, Fir, Yew, birch and blue pine form a belt of about 32 kilometres length and of width varying from 2 to 8 kilometres. They provide some grazing pastures for the buffaloes of the right holders. Deodar forests mixed with Kail, Oak and Chir pine are found to the south of the alpine forests and to the north of the Giri river. Sain Dhar forests are situated between

Giri river in the north and Jalal stream in the south. The spur is generally denuded to the valuable forests and is covered with scrub jungle, Chir pine being found in small patches. The timbers mostly in demand are Sal, Sain, Chir, Sissu, Tun and Khair. In Dharati ranges and the Cis-Giri area, Chil and Pine forests are of great value for extraction of the resin. The resin extracted from the cheel forests is supplied to the Himachal Resin and Turpentine Factory, Nahan. Other minor forests products are bhabbar grass, gum, hides, horns and munj grass. Forests need to be managed properly, scientifically in order to ensure proper Ecological and environmental preservation and to cater to the economic needs of the people. Various Departmental programmes/schemes have been implemented for raising plantations thereby creating Permanent assest. Soil conservation measures have also been taken to arrest soil erosion in the catchment areas of the important river basins.

Cultural Landscape

Like other resources human resource is also important in the development of a particular area. In the high altitude areas like Himalaya man and his labour input make an important pace in the developmental process. By studying population, one can assess the quality and quantity of human resources.

Distribution of Population in Rural-Urban Areas

According to the 2011 Census, the total Population of Sirmaur district is 5,29,855 comprising 2,76,289 males and 2,53,566 females. This Population of the district forms 7.7 per cent of the State population and ranks at 5th place among the districts. Out of the total population of the district, 89.2 per cent lives in rural areas while 10.8 per cent lives in urban areas. Rural population of the district is distributed among 10 tahsils/subtahsils and the urban population is spread over in 3 towns. The urban population in the district is 57,165 comprising 30,114 males and 27,051 females. The total rural population comes to 4,72,690 comprising 2,46,175 males and 2,26,515 females as recorded in 2011 Census. The rural population is distributed in 968 villages. Out of total 976 villages in the district, 968 are inhabited villages while 8 villages are uninhabited. The concentrations of villages are mainly on undulating slopesand valleys of rivers/streams.

Population Growth

According to the Census 2001the total population of the district was 4,58,593 which rose to 5,29,855 as per 2011 Census. There has been net addition of 71,262 during 2001-2011. The decadal growth rate of district comes to 15.5 per cent. The growth rates for rural and urban areas of the district are 15.0 and 19.9 per cent, respectively. The growth rate in urban population is high in the district due to development in the industrial field.

Density

The density of population in Sirmaur district comes to 188 persons per Sq.km. against state average of 123 persons. At tahsil/sub-tahsil level Nahan tahsil ranks Ist with 293 persons per Sq. km. Nohra tahsil ranks 10th in term of density of population occupying the lowest position with 127 persons per Sq. km. among the tahsils/sub-tahsils in the district. The density of population varies between 293 persons to 127 persons per Sq. km. In rural areas the density of population works out to 168 persons per Sq. Km. while in urban areas it comes to 2,990 persons.

Sex Ratio

There are 918 females for every thousand males in Sirmaur district. The sex ratio in rural and urban areas of Sirmaur district comes to 920 and 898, respectively. It is observed that the proportion of females in rural areas is slightly higher than that of urban areas. Sex ratio in the age-group of 0-6 years comes to 928 in the district as a whole. In the rural and urban areas the ratio comes to 934 and 873, respectively.

Work Participation Rate

The work participation rate is defined as percentage of total workers to total population. In the same way it is defined for main-workers and marginal workers. According to 2011 Census, the total workers including main and marginal workers constitute 52.9 per cent of the total population of the district, as a whole. Of the total workers, the share of the main workers is 36.6 per cent and the marginal workers come to 16.3 per cent. The remaining 47.1 per cent of the population belongs to the category of non-workers. According to Census 2011, the participation rate of male main workers in the district comes to 48.8 per cent and that of females is 23.2 per cent. The percentage of male and female marginal workers is 12.5 and 20.4 per cent, respectively. The proportion of female marginal workers is higher than that of males, as the females have engaged themselves in one or more economic activities in addition to their daily household duties to improve the family economy. The percentage of main workers among males is 48.9 per cent while in case of females it is 24.5 per cent in rural areas. The proportion of male and female main workers in urban areas is comparatively low which comes to 48.3 and 13.0 per cent at district level, respectively.

Literacy

A person who can both read and write in any language with understanding is taken as literate in Census. As per Census 2011Sirmaur district has reported 3,62,645 persons as literates constituting 78.8 per cent of total population excluding the population of age-group of 0-6 years. The literacy rate of males is much higher than that of females resulting in wide gap of 14 points between male and female literacy. Total literacy rates of rural and urban areas are 77.3 and 90.7 per cent, respectively. The proportion of male and female literates in rural areas is 84.6 and 69.3 per cent while in urban areas this 58 proportion is 93.4 and 87.8 per cent, respectively. The difference between male and female literacy rates in urban areas is 5.6 points as against 15.3 points in rural areas. Thus, it is clear that the females in urban areas are better educated than their counterparts in the rural areas of the district.

Agriculture

The district can be divided into three distinct regions from agriculture point of view. One, the hilly parts of tahsils Pachhad, Rajgarh, Renuka and Paonta Sahib. Two, Nahan Tahsil, which can be divided in Dharthi range and valley of Nahan and Paonta Sahib. Third, Kiardun valley. In the high elevation, maize is the predominant crop. Apart from this, the ginger and turmeric are grown in summer. Still in higher elevations, potato and wheat are grown. The Kiardun valley is known for wheat and quality rice. At one time poppy used to be grown in the district, which has been banned by the government, by law. Agriculture is the mainstay of economy in the district and about eighty per cent of the population is mainly dependent on the agriculture. Sirmaur district has about eighty-five per cent small and marginal farmer families and the holdings are very small and scattered. The yield of crops is below the norm. Major food crops are grouped in three categories namely cereals, pulses and other food crops like chilies, ginger, sugarcane and turmeric. Non-food crops are of two kind's viz. oil seeds and other crops such as cotton, tobacco etc. During the decade 2001-2011, the agriculture production of various crops has increased two to three folds. Maize, potato and off-season vegetable crops have become popular in the district. With a view to increase the production of wheat, maize, paddy, gram, lentil, sugarcane, soyabean, sunflower, toria, til etc., their high yielding varieties have been introduced in the district. The cultivation of vegetables like peas, tomato, cabbage, cauliflower and potato has become more popular in the district. Improved varieties of peas, tomato and potato have been introduced. Besides, various schemes have been taken up for insect and pest control. The district has earned a name for itself as producer and supplier of ginger. In order to encourage the cultivation of sugarcane in the district, the state government has started a Khandsari plant at Paonta Sahib to provide market for the sugarcane product and regulated marketing committee, which was established at Paonta Sahib in 1973 to ensure fair return to the cultivators. There are five seed Multiplication Farms at Bhagani and Daula Kuan in Paonta Sahib C.D.block, Bagpashog in Pachhad C.D.block, Andheti in Sangrah C.D.block and Hubi in Nahan C.D.block.

Horticulture

The topography and agro-climatic condition of the district are quite suitable for the raising of various fruits. The topography of the district can be grouped into three categories namely, high hill areas located at higher elevations, mid hill areas and low lying valley areas. Fruits of different varieties depending upon the terrain, climatic conditions and soil, ranging from apples in the higher slope areas to mango, lichi, mandarins, sweets oranges, lime, lemon and guava in the lower hill and valley areas are grown in the district. Some fruits like almond and walnut are grown in the mid hill areas. Apple cultivation has made tremendous progress during the last four decades. Rajgarh tahsil has acquired a dominating position not only in the district but in whole of the state for growing different varieties of apples like royal, golden and delicious royal. Plum is being grown in Rajgarh as well as in Pachhad tahsils, popular variety being cantra-roza and marri-roza. Walnuts are grown all over the district and of late commercial varieties of walnuts have found great favour. Paonta Sahib area grows Kagzi lemon which has been further propagated in lower areas of Nahan and Pachhad tahsils particularly Dun valley has taken up the cultivation of Kagzi lemon in a big way. Orange cultivation has also not lagged behind and the popular variety being Kinnow. The Dushehri and Langra varieties of mango have also found favour with the people in the valley. Wherever there is no assured irrigational facilities in Nahan, Paonta Sahib and Ghinni areas of Pachhad, mango cultivation received a boost by resorting to inside method. With a view to provide assured remuneration to the orchardists, three fruit canning units at Dhaula Kuan, Bagthan and Rajgarh have been set up by the government. In addition, three privately run fruit processing units at Rajgarh, Sarahan and Paonta Sahib are also functioning. The horticulture department has initiated various measures like providing technical knowhow, subsidies, loans, horticultural inputs etc. to the farmers so that the pace of horticultural activities does not slow down. Bee keeping and mushroom plantations are also being encouraged because of favorable conditions for their growth in the district. The Statement-L depicts the areas under productions of fruits for the years 2008-09 of the district. The peach has the highest fruit production of 8,578 tonnes followed by Mango with 2,323. The other main fruit productions are apple, plum and walnut within production of 776, 795 and 927, respectively. The other fruits such as apricots, almonds, kinnow, galgal, pomegranate and malta/mausami are grown in lesser quantities.

Animal Husbandry and Poultry

Livestock is the chief wealth next to agriculture only to the predominant population of the district. Every house invariably keeps a few cows or buffaloes, sheep, goats, pigs and ponies. Some people carry out the rearing of different animals and poultry on commercial lines. Besides rearing of animals by the individual households, a large number of sheep and goats etc. are added to the existing stock of animals in the district which are brought by inhabitants of Kinnaur and Chamba districts during winter months when these districts become snowbound as provision of fodder becomes extremely difficult due to unfavorable weather. In addition, Gujjars who mostly are migrants also bring large flocks of buffaloes and cows to the Dun valley and adjacent areas of Nahan during the winter months. The livestock census shows that the growth of livestock is gradual and steady. According to livestock census in 1966 there were 3,89,889 animals including mules and camels in the district. This number according to 1991 and Census 2001 rose to 4,37,668 and 8,75,336, respectively. The improvement of breed livestock is the main concern of the department of

animal husbandry in the district, which indeed has taken a considerable stride in its improvement. For the first time in December 1960, central poultry farm was established by the Animal Husbandry Department with a view to rear-improved breed/strains of poultry birds and distribute these birds to the farmers of the district. It is fast emerging as an important activity for enhancing nutrition and providing employment in the district. One central poultry farm at Nahan and one poultry extension centre at Paonta Sahib is functioning in the district in addition to six poultry farms located at or around Nahan, Paonta Sahib, Kolar, Moginand, Sarahan and Rajgarh area. Before the opening of the hatchery at Nahan, the farmers were solely dependent on hatcheries of the adjoining states of Punjab, Haryana and Union Territory of Chandigarh. Training in poultry farming is also imparted at Nahan and Paonta Sahib. The statement 'Q' depicts the number of live stocks and poultry in the district during 2007 in comparison to state of Himachal Pradesh. Total Cattle strength in the district is 2,62,398 out of which 1,19,988 are indigenous cows and 97,032 are indigenous bulls, crossbreed cows are 36,656 and bulls are 8,722 in numbers. Buffaloes are 49,829 in number, of which 5,289 are males and 44,540 are females. Sheep, Goats and Horse & Ponies strength is 40,217, 40 1,68,427 and 856, respectively. The goats strength is quite high in the district. Total other livestock is not significant in the district. Poultry strength is 36,209, which is quite less as compared to state strength of poultry.

Industries

The district indeed has not much of industrial past and a few industries were introduced during the time of Raja Shamsher Singh, one of them is the Nahan Foundry Ltd. which was set up for the first time in 1875 A.D. which has now been taken over by the Himachal Pradesh Government in 1964. The main items of the production of this factory are cane, crusher, cast iron and black sheets panes, flourmills; centrifugal mono blocks pump sets and other agricultural implements and accessories. But this factory was running into losses due to old and obsolete plant and machinery. The state Govt. decided to convert it into H.P.P.W.D. & I.P.H. state workshop and transferred all operational assets within factory premises to the said workshop in 1988. Resin and turpentine factory in Nahan is another oldest factory, which sets its raw material from the extraction of chil trees, which are in abundance in the district. This factory was opened in 1945 and come into operation from 1949 onwards. The control and administration of the factory has been completely taken over by the State Government in 1957. The cement corporation of India has set up cement factory at Rajban with an installed capacity of 600 metric tonnes per day that has generated an employment to about 750 persons. Other important factories being Himachal Mineral and Chemical, Paonta Sahib, Himachal Shoddy Mill Ltd., Paonta Sahib, Nahan Ceramics, Paonta Sahib, Farm Fresh Fruit Pvt. Ltd., Bata Mandi, Paonta Sahib, Himachal Pradesh Surgical, Paonta Sahib, Govt. Ayurvedic Pharmacy, Majra, Himachal Turpentine Products Ltd., Kala Amb, Himachal Mine Quartts, Bata Mandi. There are numerous units in the district registered with the Industries Department which includes industries like saw mills, leather units, utensil repairs and making, weaving and atta chakkies etc. To provide technical skill in industrialization amongst the youth, the government has started training institutions at various places so that the pace of industrialization can be accelerated in the district. There is an Industrial Training Institute at Nahan which imparts training in various fields like fitter, turner, electrician, radio, T.V., Mechanic, draughtsman etc. The Government has set up sericulture centres farms at Dhaula Kuan, Devinagar, Katesan Devi, Parduni, Karonda Wali Ghatti, Sainwala and Puruwala. The Government with the intention to popularize silk farming provides subsidy and loan to the individuals forrearing cocoon. The traditional cottage industries indeed play their vital role in the rural economy, which are ban making handloom weaving, basket making etc.The statement 'R' shows number of registered factories and workers in the district in comparison to state of Himachal Pradesh for the years 2007, 2008 and 2009. Number of factories in the district are 314 with 25,234 workers during the year 2007. 387 factories with 30,144 workers reported during the year 2008 and 442 factories with 33,884 workers during the year 2009. This shows that there is gradual increase in the number of factories and workers during the succeeding years.

Transport

The district is not connected with any railway line and the nearest railway stations are Dehradun and Ambala from Nahan and Poanta Sahib. The road transport is the life line of the economy of the hills, because potentialities for the development of railways and other means of transportation are very meager. The district has been extensively linked with the roads where the regular buses ply. The transportation of goods is entirely in the hands of private operators while the State Transport Corporation controls the passenger transport. Buses of the other State Transport Corporations and to some extent, the private owners also ply on various routes in the district. The State Tansport Corporation Operates its buses to link the district with national capital, other states and district headquarters as well as the interior parts of the district and tahsil/sub-tahsil headquaters. The statement 'T' depicts number of motor vehicles registered during the year 2009 in the district in comparison to state of Himachal Pradesh as a whole. 47 buses, 256 trucks, 2,517 Motarcycle /scooter, 733 private cars, 55 jeeps, 122 tractors and 1 tanker/water carrier etc. were registered during the year 2009. In total 3,766 vehicles were registered during the year in comparison to state registeration of total 58,852number of vehicles.

Minerals and Mining

The important minerals found are limestone, gypsum and barytes. These are being used by local industries as well as the sugar and paper industries of

the adjoining states. Huge deposits of limestone varying from cement grade to chemical grade occur at Sataun, Manal, Hyona to Kamrau, Tilor Dhar to Lalag. Paonta Sahib to Bharli, Barthal, Kanor, Borli, Sangrah, Nohra and Bhangri. Its total reserves are of the order of 200 million tonnes. The limestone produced is used in the manufacture of cement, ordinary lime, hydrated lime and in sugar and paper industries.Barytes occur in the pockets at Kandi Mashwa, Tatyana and Ashnong. Three mines have been sanctioned for its production and it is mostly used in the paint industry. The mineral is white in colour and fine grained. It is associated with Krol limestone, dolomite, crystalline dolomite and calcite at these places.

Electricty and Power

The development of agriculture and industry cannot be accelerated without the availiability of power. In addition to it, the use of electricity has become indispensable in the modern times. Hydro electric power station was completed across the giri river in the year 1978-79 with an installed capacity of 60 MW. Besides 2 lines namely, 220 KV Khodri Majri line and 132 KV D/C giri kala amb line are under execution and the later is being financed by the world bank. The two number system improvement schemes amounting to Rs. 358.353 lacs in Tahsil Shillai and Renuka are being operated under this circle under System Improvement Scheme. Under this scheme in tahsil Shillai 2x1.6 MVA, 33/11 KV Sub. Station at Shillai has been commissioned and 2x1.6 MVA, 33/11 KV Sub. Station at Charna in tehsil Renuka is tragetted for commissioning by March 2003 which will improve the low voltage and reduction in losses in the area.

Conclusion

Physio-cultural selting of the sirmour discussed very important part of the area. Physical landscape mostly discussed Geology, Drainage, lakes, mountains and velley forests. Cultural landscape like other resources human resources is also important in the development of a particular area.

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