# CHAPTER – II

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# CHAPTER – II PHYSICAL AND SOCIO-ECONOMIC SETTING OF THE REGION

# 2.1 INTRODUCTION

In the study of Physical and human aspects the represent of physical environment (land features includes relief, Drainage Pattern, forest area and mostly includes the climate and Rainfall). Thus physical environment affects life forms, while human also modifies and changes physical environmental conditions through his economic activities (Savindra Singh, 2008: "Physical Geography", pp. 2). This approach can be understood through an integrated study of parts. In the present study the physical features or characteristics are the base of river systems.

The Western Ghats are watershed in peninsula and major rivers system in this areas of south India. These peninsular rivers are mostly flowing in the direction of eastwards. The Krishna is second largest east flowing river in India. It rises from a spring near by Mahabaleshwar Place in Maharashtra State (Rajiv Ahir, 2007: "Geography", pp. 466). The most important physical features are rainfall and climate. The characteristic of rain is frequently up the slopes and climate is uniformity of temperature throughout the year and damp air. This climatic condition is favorable for seasonal crop cultivation in the Deccan Trap region.

In India, the population is engaged in agriculture sector. The pressure of population on agriculture has resulted unemployment in society in rural area. The labourers have intensive cultivation with application of machineries. The non-agriculture sectors such as finance, marketing, industries, transportation facilities and communication network etc. influence agricultural productivity. While the industrial sector is the development of a number of industries such as chemical, steel and iron, cement, cotton, sugar and other industries e.g. the sugar factories are established near by villages. These objectives are higher productivity, reduce of unemployment and improved economic condition of the areas.

# 2.2 PHYSICAL SETUP OF THE REGION

These study area is feature by the Deccan lava plateau. Geographical area can be divided into following ways,

#### 2.2.1 Valleys

In the Krishna and Varna valleys there are perennial rivers, which flows in plain, provides water for seasonal crops cultivation. It is characterized by fertile valleys, the land suitability is high in the southern and eastern part of Walwa Tahsil and varna valleys also favourable climatic condition.

#### 2.2.2 Hills

Some hills are scattered on the Deccan plateau some discontinuous lines of rising hills such as Mallikarjun and Kamalbhairav hills are covered some area to south western and north eastern direction of Walwa tahsil. They have height of 600 to 900 m. above mean sea level.

#### 2.2.3 Erosion of Soil

It is caused by running water, for e.g. Krishna valley is created by the fluvial erosion. Erosion is influenced by the nature of soil, geology, climate especially rainfall and vegetation. The soil depth is recorded by more than 100 cm in river valleys. This length is very deep in these areas than in shallow i.e. 10 to 25 cm and 75 to 100 cm is moderate soil depth in the central east part of Walwa tahsil.

#### 2.2.4 Drainage

The Krishna and Varna are the two main rivers of Sangli District. These rivers are flowing from west to east and south west to east, Approximately 30 and 173 km in the District. Krishna river flowing from two streams is remarkable. Therefore, there is creation of small island and the temple of Ramlinga on this island is near by Bahe village. It is well developed river basin, 300 to 600 meters above sea level. These rivers flowing from west to east approximately 130 km through northern part of Walwa tahsil in Sangli District and south direction of Walwa tahsil is covered by Varna river. It is known as border of Sangli and Kolhapur District. Among the largest east-

flowing perennial rivers, have a large utilizable flow of high surface water. While these rivers are local and seasonal.

#### 2.3 SOIL AND CROPPING PATTERN

There are various types of soils in each taluka of Sangli District. Red soil is very less in the uplands (i.e. 0%) and 5% of Alluvial soil next sandy soil covers 8% and also sandy loam soil is covering 58% in the Walwa tahsil. These soils are found along with black soil (Regur soil) which covers more than 29% to the total land. They vary from black soil in river valley to shallow murum red or grey in the hilly areas.

The ecological information of Walwa tahsil is comprised of Deccan trap. They are occupied by black soil derived from the inter-trappean beds. Black soils are difficient in Potash, allumina, magnesium and they are poor in phosphorus, nitrogen. These soil contain in high percentage of clay and losing moisturing. The black soils are fertile, highly moisture and suitable for cultivated dry crops viz. cereals and pulses.

Rich soil is found in the Krishna. This soil is reddish and brown coloured on uplands and hill slopes than in the river valleys. This soil is favourable and gives high yields under the irrigation system. In which important annual crop is sugarcane than most cultivation of seasonal crops such as jawar. The data on survey of crops in terms of hectors (in %).

1

16

Cultivated area for seasonal crops







FIG. 2.1

(Source : Department of Agricultural Strategic Research and Extension Plan, Vijaynagar, Sangli, 2005-06, pp.10).

# 2.4 CLIMATE, RAINFALL AND FOREST

Due to the monsoon climate of Walwa tahsil is pleasant one and healthy as well as cold and hottest. It is characterized by dryness throughout the year except during the monsoon season. On the basis of climatic variations the year is divided into three seasons.

The cold season in December and at the beginning of middle of February, the south west monsoon is fully established over tahsil. During this season the temperature is come down as low as, low humidity and rainless days. The hot season period is March to May and also hottest month is the end of May from the study region. June to September is the south west monsoon season (rainy season) and October to November constitute the post monsoon season (Retreating south west monsoon season).

Monsoon rainfall in the terms of duration is the character of monsoon climate. But there is much variation in the temporal and spatial distribution, the temporal distribution of rainfall within a one year is highly increasing about 1407.6 mm more than 654.5 mm of annual rainfall is received within 69 days of rainy season, the year of 2005. Similarly annual average of rainfall in the tahsil is 215.06 mm. The annual rainfall is received within 3 months of south west monsoon season (July, August and September) although a considerable amount (less than 25 mm) is received in the form of thunder showers occurs in May.

The bulk of the annual rainfall is received during the rainy season in almost every part of tahsil. While during these season the air is humid and winds are strong and heavily clouded to overcast in the south west monsoon season.

Particularly, in area having assured rainfall occur black soils. They have good physical condition, there some rocky rising ground there villages is situated. The trees, plants and grasses of a particular region may be regarded as the community that covers the area. Now Sangli District has been divided into four types or groups. In which wet and dry deciduous forest on the slopes of hills with the bushy and stunted trees growth on the hills to the eastern part of Krishna river and densly covered by deciduous forests. The total Geographical area (78781 hectares) under forests in this tahsil is about 2952 hectares as per the position in 2000.

Forests on hill slopes about 32 km (20 miles) from the rise of Varna river covering central and eastern of Shirala Mahal and eastern part of Walwa taluka. March from wait fixed deciduous forests to the dry mixed deciduous types of forests with large proportion of teak and its associates viz. Anogeissus Latifolia (Dharda), Terminalid tomentosa, Butea frondosa (Palas); Schleichtra trijuga (Kusum); Grewia tiliaefalia (Dhaman); Cassia flstula (Bhava); Eleodendron glaucum (Bhlutkes), Albizzia lebbek (Shiras), Zizihus zylopyra (Ghatbor).

(Source:http://www.maharashtra.gov.in/english/gazetteer/SANGLI/directory1. html-40K-Cached-Similar Page).

### 2.5 ECONOMIC SETUP OF THE REGION

Economy is based on "work" which may be defined as participation in any economically productive activity. It also includes unpaid work on agricultural and non-agricultural sector. The work participation for workers in primary, secondary and tertiary sectors, which is including the economy activities.

#### 1) **Primary Sector**

Those economic activities which are concerned with agriculture forestry, hunting, fishing etc. and it is basis of secondary activities.

# 2) Secondary Sector

Among them the major categories are manufacturing, processing, servicing and repairs in other than household industry, trade and commerce and other services. These sectors are fully depends upon primary activities. It includes the manufacturing and construction of industries in which the greatest value goes to raw materials.

#### 3) Tertiary Sector

They consist of trade administrative, teaching and other services. It also includes personal business, professional services, transport and communication services of man.

# 4) Distribution of Workers

The percentage of distribution of workers in three categories of economic activities for the tahsil.

The proportion of work participation for total workers is 46.61% to the total population. Among the male workers in the tahsil stands at 28.50% and the rate for female stands at 18.11% as per the 2001 census. The corresponding figures for male workers are higher than the tahsil average for female workers. In the tahsil the proportion of the total workers in rural and urban area is 38.24% and 8.37%.

The cultivators and agricultural labourers made 33.30% and 21.86%, Also the household industries workers is 2.79% and 21.88% of the other workers respectively. That means overall main worker is 79.83%. The proportion of cultivators is higher in the tahsil because of large areas under the agricultural sectors. The proportion of 20.17% of marginal workers also engaged in some other secondary economic activity for the categories of work for tahsil.

According to 2001 census, it is seen that 7.21% are cultivators, 8.67% are agricultural labourers, 1.57% are household industry workers and also remaining 2.72% are other workers to the marginal workers in Walwa. Since the rate of total workers for females is higher in rural than urban areas. And the proportion of non-workers is 40.35% in rural area and 13.04 in urban area. In the 2001 census that the non-workers of the tashil the proportion of such persons come to 53.39% more than half of total population. There are variations between 23.11% for male non-workers and 30.28 for female non-workers to the total population of Walwa tahsil. However, the females in rural areas therefore the non-workers are numerous than urban areas.

Generally rural area offer more opportunities for male and female to work in primary sector like farming and animal husbandry etc. The large numbers of women are required to work during peak seasons in agricultural sector.

#### 2.6 INDUSTRIAL SETUP

The Industrial Estate has been set-up at tahsil for the development of large scale as well as small scale industries. Basically large scale industries are located into rural area because lack of land in urban area. 1) Location,2) Raw materials, 3) Tools and Equipment, 4) Demand of production and power, 5)Marketing, 6) Finance, 7) Majority of labourers and employment.

There is now a great scope for the development of industries. Walwa tahsil has the largest area under the cultivation of sugarcane. Therefore, sugar factories are established in these area and the farmers have contributed to the majority of its shares.

The most important industry in the Walwa tahsil is sugar manufacturing industry. There are 3 co-operative sugar factories and about 1577 workers on temporary basis i.e. particular period and also 1224 permanent workers are engaged in these industries. These factories in tahsil are based on sugarcane which is a raw material. The total production in the year 2004-05 was 1,74,710 metric tons of sugarcane in the Walwa tahsil. This average of one quintal sugar is obtained from one ton of sugarcane. These co-operative sugar factories are names as:

- Hutatma Kiran Ahir Sahakari Sakhar Karkhana Limited, is location in Walwa place.
- Rajaram Babu Patil Sahakari Sakhar Karkhana with Shakha in the Sakharale near by Islampur city.
- Sarvodya Sahakari Sakhar Karkhana Limited. This location is near by Karandwadi village.

# 2.7 TRANSPORTATION AND COMMUNICATION NETWORK

Transportation facilities is very well developed and road density is high in these area for people, road are mainly metalled links to villages with tahsil roads and other unmetalled and also other roads. They are unsurfaced and narrow like kachha and pucca roads in rural area as well as urban area. These roads are connected to one or more important roads i.e. National Highway (NH-4).

These are highways which run through the length (30 kms) and breadth of the state and connect headquarter of Walwa tahsil in Sangli District. It is near by five villages, such as Kasegaon, Peth, Vittalwadi, Kameri, Tandulwadi and very low distance between  $\frac{1}{2}$  to 1 kms. The availability of this facility depend upon the location of village and population size among 96 villages, which have 2 villages in the population range of 200 – 499, 15 villages in the range of 500 – 999, 56 villages in the range of 1000 – 4999 and 23 villages in the range of 5000 and above.

State highways are main commerce and passenger transport in the state with its capital, all district headquarter with the national highways in Walwa. There are four state highways which connect to the towns, basically Islampur and Ashta.

- SH136 and SH138 These roads connect Ashta town and continue in Kolhapur district.
- 2. SH111 is connecting with Islampur to Vita town.
- 3. And SH75 is equivalent to railway and both state highways (SH75 and SH111) are come to Takari.

In the north part of tahsil the rail facility is good communication. These ways, Pune to Miraj in Sangli District which connect particularly important areas and all states with its capital in the country. And also Railway line with station is in Bhavaninagar (N.V.), Dudhari and Takari.

# 2.8 ADMINISTRATIVE SETUP

The present area of Walwa tahsil up to 1949 were partly included in south Satara and this name was changed to Sangli District in 1960, similarly Walwa and Miraj are divided into two sub-divisions in Sangli District at present. For administrative purpose, the district is at present divided into five talukas and three Mahals. Now all Mahals have been converted into talukas. The Walwa sub-division comprises Khanapur, Shirala and Walwa talukas.

At the tahsil level the Tahsildar, Block Development Officer, Judicial Magistrate, Deputy Engineers and other officers look after their respective departments for development. The Zilla Parishad and Panchayat Samitis (C.D. Block) have been established in the Districts of Maharashtra in the year 1962 under the State Government. The Panchayat Samitis (C.D. Blocks) is divided into 8 Revenue Circles at the present. Each revenue act as a centre of all the villages in Walwa tahsil.

The headquarter of Walwa was at one time at Walwa and Municipality was established at Walwa. Since it's shifting to Islampur the village has paled into insignificance and also weekly bazar is held on days for important villages. Ashta and Islampur are two municipal towns in Walwa tahsil and also municipal council or corporation with the M.I.D.C. as well as judicial facilities are available in the Islampur town.

The various functions of administrative set up in tahsil level, PTO, Schools, Health centres and Rest house. As regards rural areas of the tahsil as a whole, PTO facility is available in 55 villages out of 96 villages and total General Telephone Centres are 2405 in 2006. As well as Sangli District of Walwa tahsil have the proportion of more than 50 percent. The percentage of villages having Health facilities varies 100% in Walwa tahsil as compared to District in the medical facilities. Among these there is one Hospital, (9) Dispensaries, one Maternity Hospital, Primary Health Centres (11) and (51) Sub centres and Animal Dispensaries (23) at the State or local level. It consist of Rest House in Walwa tahsil, is only for two cities Islampur and Ashta. As few villages having more than one primary school in these tahsil. The primary and secondary classes (I to IV and V to VII) are functioning in the 156 primary and secondary schools under the Z.P. The number primary schools are 93 and 63 secondary schools per total schools in Walwa tahsil of Sangli District.

# 2.9 CONCLUSION

Due to the reverse, such as Varna, Krishna which are main rivers in the study region. The river valleys occur particularly in areas having assured rainfull. They have good Physical conditions, clayey texture, fertile soil, highly moist uried soils and yield of crops. This river valley grows specialized for mainly the sugarcane. The Krishna and Varna forms the main river system of the Walwa tahsil. The forests on hill slopes about 32 Km. from the rise of Warna river covering eastern part of Wala tahsil. It is observed that, the wet and dry mixed deciduous types of forest with large proportion of beak.

The climatic transition of annual rainfall is received within 3 months of south west monsoonseason and temperature as well as humidity is favourable for seasonal crops cultivation, such as cereals, pulses, oil seeds, fruits and vegetables etc. The region is agriculturally a very productive. It's fact that the high percentage of workers in the agricultural sectors than non-agricultural sectors in the rural areas. The labours are required to work during the peak seasons in agricultural sector. In Walwa tahsil, there is largest area under the cultivation of sugarcane. Therefore most important industry in the tahsil is sugar manufacturing industry about the 2.97% household industries workers are engaged in large scale as well as small scale industries. Mainly the people go to industries or factories for the employment in urban areas (Islampur and Ashta.) There are 3 co-operative sugar factories. Their great scope for the development of industries in the study region.

The transportation and communication network is well developed and road density is high, also rails facility is available in the north part of Walwa tahsil. The administrative setup in tahsil level, post telegram offices, rest house, central telephone centres as well as judicial facilities are available. Also the school facilities are better and health facilities are very good i.e. 100% as compared to other tahsils in the district.

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