CHAPTER – II
PHYSICAL AND HISTORICAL BACKGROUND OF
THE REGION

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2.2 HISTORICAL BACKGROUND
CHAPTER – II
PHYSICAL AND HISTORICAL BACKGROUND OF THE REGION

INTRODUCTION :-

This chapter throws light on physical background like location, boundaries and extension of the region. Physiography, geology, drainage, climate soil and natural vegetation have been included in this chapter. To a certain extent, historical background also play a very important role in changing the face of a region and for future oriented plans for the various kind of development in the region under study may be implemented. In view of this, it is most essential to give an account of each background in order to make clear over all picture of the region to interpret various aspects of the region.

2.1 PHYSICAL BACKGROUND:

2.1.1 LOCATION AND EXTENSION OF THE AREA:

The District of Beed is situated in the central part of Marathwada. It lies between 18° 27' and 19° 27' North latitudes and 74° 49' to 76° 44' East longitudes. It is surrounded by Aurangabad and Jalna in the North, Parbhani and Latur in the East, Ahmednagar and Osmanabad in the south and Ahmednagar in the west. The east-west extention of Beed district is 268 kms. and north-south distance of the district is 127 kms. The shape of the Beed district is broadly likely that of a trapezium, the northern and southern sides of which are nearly parallel.

Geographical area of Beed district as per 2001, socio-economic review of Beed was 10615.3 sq. kms. and it is 3.44% of Maharashtra State.
Further division of area is 234.9 sq. kms (2.21 percent) in Urban parts and 10380.4 sq. kms. i.e. 97.79 percent in rural area.

The Godavari forms the boundary of the district from the village of Kuranpimpri to Borkhed throughout the northern border. The southern boundary mostly coincides with the course of the Manjra but makes a considerable number of deviations from it, comes to the north and others to the south. The south-eastern boundary similarly follows the course of the Sina with three deviations away from the river and one only beyond it to include a small stretch to the south of the river in Aurangpur village. Leaving aside the boundaries formed by these rivers the district boundary elsewhere is the result of historic accidents and administrative convenience.

According to 2001 census there were 1365 villages in the Beed district. This district administrative purpose distributed over the two sub-division. One section is at Beed and Second division is Ambajogai there are special Deputy Collector offices in these two sections.

There are 11 tahsils and excluding urban area, there are 11 Panchayat Samities. At. Beed Zilla Parishad governs all these 11 panchayat samities.

(Fig. 2.1)

2.1.2 PHYSIOGRAPHY:

Physiography is one of the dominate parameter of physical environment and its impact on patterns and density of agriculture is immense. The study of the influence of environment upon the nature and the distribution of crop and livestock is of prime importance in agricultural geography.

Beed is situated in the Deccan black basalt stone, ranges of Balaghat that constitutes main rang from Ahmednagar in the west, to the border of district Beed in the East. This range divides the district into two parts. The
plain area in the north is called as Gangathadi (bank of Ganga-Godavari) and the higher part is called as Ghat at Balaghat. Many hills exceed 2500 feet mark from the sea-level Balabhat range is found in between heights of 2000 and 2200 feet, whereas the plain is called Gangathadi and it has the heights between 1200 and 1500 feet from the sea level. The Beed district can be divided into three broad physiographic divisions as under:

A) The low land region
B) The high land region
C) Low lying undulating region or sina Basin.

i) The low land Region :-

The low land region is found at the northern part of the district. It is a part of the Godavari river valley the northern low land Beed has a general elevation from 550 meters in the west to a little under 400 meters in the east, interspersed with a number of residual hills of summits over 600 meters.

ii) High land Beed or Balaghat plateau :-

The northern low lands rise towards the south by a steep scarp to the next division, the highland Beed. The dissected scarp of this plateau on the north appears as a series of hills which are often described as the Balaghat ranges. The southward, this plateau slopes more gently toward the Manjra river except where the cretine has receded south by the back cutting of the northern trending streams down the scarp. The prominent heights on this range in order from west to east are 889 meters near Chincholi, or 846 meters near supe, 733 meters west of Eda and 697 meters west of Channi near Ambajogai.

iii) Sina Basin or low lying undulating Region :-

The third physical division comprising practically the whole of Ashti tahsil is in the Sina Basin draining into that river. This area is found south-
west and west of highland Beed. Though, of lower elevation this region is interspersed with innumerable low residual hills between the valleys of streams rising from about 600 meter in the south to about 750 meters in the north. (Fig. 2.2)

2.1.3 DRAINAGE:

Water is an essential for the development of agriculture. Adequate water supply is necessary for the chosing crops. Hence, it is essential to study drainage pattern of the district in detail.

Most of the river are flowing through the Beed district are seasonal. They are having water in rainy season, and some time in winter season. Most of the rivers become dry in summer season; hence, they are not useful for irrigation. Due to the seasonal nature of the rivers, the agricultural sector is greatly affected.

The district is drained by Godavari river and its tributaries. The Godavari together with its tributaries the Lindi, the Amrita, the Sindphana, the Saraswati, the Gunwati and the Wan, while there are other tributories, the like Manjra, the Bendsura etc. drain the north eastern region. The following are the important rivers of the Beed district.

i) The river Godavari :-

Godavari is the most important river in Beed district which flows in a winding course with a general trend from north west to south-east direction through the northern border of Georai and Majalgaon taisils. The tributaries of the Godavari in order from west to east of their confluences with that river are the lendi, the Amrita, the sindphana, the Saraswati, the Gunwati and the Wan.
ii) The river Sindhphana :-

Sindhaphan rises in the Chincholi hills at north -western apex of the Balaghat plateau and flows in a north -eastenrly course past Amalner. About a kilometer below Chavarwadi it makes a right -angular turn to follow the trend of a small tributary. The Ganga in a north -westerly direction flowing by Hingalwadi and resumes again it north -easterly course, the trend of another tributary, the Belpur below the confluence. After the confluence of another tributary, the Kinha, the sindphana, has a farily long easterly course up to about Majalgaon, whereafter it flows north -eastward and north words to join the Godawari at Kshetra manirath.

iii) The river Manjara :-

The Manjra, some times called the Wanjra River. This Manjra river rises in the northern edge of the Balaghat plateau a little above Gaurwadi flows first southwards and then south eastwards right across the plateau towards the opposite side and makes an abrupt right angular turn to follow the course of a tributary from sakat. After Pimpalgaon ghat the course because zigzag but with a general easterly trend up to near Bhatangli in Osmanabad, where it is joined by the Rena throughout a greater part of its course this river forms the southern boundary of the District. The river flows in a deep bed with high banks which rise some times as much as 9 meters but on an average 5.5 metres above the bed of the river in the district so that the water is not available for irrigation of the banks. Recently Mahasangavi project has contructed on this river. (Fig. 2.3)

iv) The river Bendsura:-

The Bendsura rises near Waghera about two km. north -west of Limbaganesh and has a fairly long course on the nortern slopes of the Balaghat platenu, first flowing northwards and after Kadamwadi eastwards to Pali village, receiving a number of tributaries on both banks comprising a
V) The river Wan

The Wan or the Wanganga as it is often called, has its source to the south of Dharur and has a fairly long deeply incised easterly and south easterly course on the Balaghat plateau itself. It makes an abrupt turn northwards to the north -west of Ambajogai cutting through the scarp and then flows in a north -easterly direction towards the Godavari. Flowing through Ambajogai there is a small tributary of this river viz. The Jayanti Nala that meets the river in the opposite direction in the same valley axis. The Rena of after a gap continuous to run through the valley of the Jayanti river but flows eastwards and then southwards to join the Manjra. There are most important major rivers in the Beed district and the other minor rivers are Talwar, Kambli Ruti Mehkari, Saraswati, Gunwati, Limba, Babhti, Kaij, Rena, this are important rivers in the district.

2.1.4 GEOLOGY

The Beed district is occupied by Basalt formations belonging to Deccan traps of Cretaceous –Eocene age. The basalt formations belong to the type called “Plateau Basalts” and uniform in composition corresponding to that of Dolerite or Basalt with an average specific gravity of 2.9.

They are dark grey to dark greenish grey in colour. The Traps have been distinguished into the vesicular and non-vesicular types. The non-vesicular types are hard, compact and medium to fine grained in texture. Sometimes they break with conchoidal fracture. The vesicular types are soft and tend to break with more ease. Geological map of Beed District is
shown at Geological survey of the district has brought out the existence of 35 flows in the district. The basalt flows are mostly horizontal in their deposition and they occur one above the other, in the order of its eruption. Thus the oldest flow occurs at the bottom and youngest at the top. The thickness of individual flow ranges from 2-3 meter to 57 M with average thickness of 15 meter. (Fig. 2.4)

In Beed district, based on the petrology of the flows, two distinct divisions have been noticed in the Basalts. One consists of basalts located in the altitude range of 390 meter to 550 meter AMSL. In this the thickness of the individual flow ranges from three meter to twelve meter rarely exceeding 15 meter. The flows are invariably separated by Red bole formations. Further green boles the black bole exist simultaneously in the same horizon. The lava flows are generally composite flows made up of three units viz. Massive basalt at the bottom, Amygdular / vesicular basalt in the middle and red bole at the top. Although red bole is particular in disposition some times they are totally missing Massive basalt and vesicular basalt sometimes show vide variation in lateral thickness. The amygdules are generally filled with Zeolites. The Zeolitic trap has high weathering potential.

The second type of Basalt occurs from 550 meter to 890 meter. These are the part of Balaghat range. In all fourteen flows are identified in this group with seven red bole horizons, having thickness of 0.2 to 1 meter. The thickness of individual flow ranges from 3-4 to 30 meter. The thickness of Amygdular basalt is comparatively thin. The weathering of basalt in initial stages normally gives rise to brown fragment material with admixture of brown/pale yellow soil. But with intensive weathering yellowish brown and black cotton soil is formed, which forms vast spreads in different places in the district Nodules of kanker are frequent occurrences in the black cotton soil.
The Joints and fractures are mainly formed during cooling of magma and are therefore confined to individual flows only. However shear zones or fracture zones expressed as lineaments at the surface, are seen to traverse through several flow units. General trends of secondary fractures are NE-SW and NW-SE. At few locations (Manjarsumbha Ghat section) cooling joints in hexagonal and pentagonal pattern has been observed. This joining pattern is different from conventional hexagonal jointing. In Beed District hexagonal joints are in fan shape at the bottom they radiate from a common point to outward and upward with increasing intensity. Shirsikar (1984) has observed the existence of nine basalt flows from Beed and Georai talukas. Details are as shown in Table 2.1

Table 2.1 Basalt flows in Beed Taluka

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Flow no</th>
<th>Altitude range</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Un classified</td>
<td>&gt; 538 M</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>VII</td>
<td>538-518</td>
<td>20</td>
</tr>
<tr>
<td>3.</td>
<td>VI</td>
<td>518-505</td>
<td>13</td>
</tr>
<tr>
<td>4.</td>
<td>V</td>
<td>505-495</td>
<td>10</td>
</tr>
<tr>
<td>5.</td>
<td>IV</td>
<td>495-478</td>
<td>17</td>
</tr>
<tr>
<td>6.</td>
<td>III</td>
<td>478-465</td>
<td>13</td>
</tr>
<tr>
<td>7.</td>
<td>II</td>
<td>465-448</td>
<td>17</td>
</tr>
<tr>
<td>8.</td>
<td>I</td>
<td>448-426</td>
<td>22</td>
</tr>
<tr>
<td>9.</td>
<td>0</td>
<td>&lt;426</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Hydrology of Beed district, Ground water survey and Development Agency (Bhujal Bhavan, Pune 411005)
2.1.5 CLIMATE OF BEED DISTRICT:-

The term climate is a geographical term denoting a spatial distribution of the average atmospheric conditions near the surface of the earth. Average conditions of wind, temperature, pressure rainfall is known as climate. Climate is the principal aspect of the physical environment influencing the economic activities of man. It almost determines the land use and crop patterns of the particular region. Unquestionably, it has a considerable influence on the health of the people. As a matter of fact, climate has a great bearing upon the flora and fauna of a region, which in turn affects the soil condition of a particular region. Apart from this, it influences transportation and communication system and also the settlement pattern.

The climate of this district is on the whole, dry, except, in the south west monsoon season. The climatic condition of the Beed district is divided into four seasons. The cold season from December to February is followed by the hot season from March to May. The period from June to September is the South west monsoon season i.e. rainy season while October and November constitute the post monsoon season in the region under study.

1) TEMPERATURE : -

Among the various elements of climate, the temperature is the most important, as it has the greatest impact upon the agriculture activity over the Earth. The temperature varies from place to place due to physical constraints as well as geographical location in terms of Latitudes. Beed district belongs to the tropical area which receive the maximum amount of temperature throughout the year.

The only meteorological observation in the district which is at Beed began functioning recently. The description of the temperature and other meteorological conditions in the district which follows is based on the
records at the metrological observatories in the neighboring districts and the major records for Beed. The cold weather comes towards the end of November when temperature begins to fall. December is the coldest month with the mean daily minimum temperature at about 11.5°C, and mean daily maximum at about 28.5°C.

In cold season the district is sometimes affected by cold waves in association with the passage eastwards of western disturbances across north India. On such occasions the minimum temperatures may drop to about 3°C or 4°C. Although on an average the temperatures in January and February are slightly higher than in December. The rapid rise in temperatures starts only by about beginning of March. May is the hottest month with the mean daily maximum temperature may be as high as 40.4°C. With the advance of the south-west monsoon into the district by about the second week of June the temperatures fall appreciably and the weather is pleasant throughout the south-west monsoon season. By about the first week of October, the monsoon withdraws and the day temperature increases slightly and a secondary maximum is reached in October up to 32°C. Thereafter, the temperatures begin to decrease gradually. (Table 2.2)

Table 2.2- Monthly average Maximum and Minimum temperature of Beed district 2004-2005

<table>
<thead>
<tr>
<th>Month</th>
<th>Maximum temp. (°C)</th>
<th>Minimum temp. (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>29.9</td>
<td>12.4</td>
</tr>
<tr>
<td>February</td>
<td>35.7</td>
<td>12.0</td>
</tr>
<tr>
<td>March</td>
<td>30.2</td>
<td>18.3</td>
</tr>
<tr>
<td>April</td>
<td>39.3</td>
<td>21.0</td>
</tr>
<tr>
<td>May</td>
<td>39.3</td>
<td>23.6</td>
</tr>
<tr>
<td>June</td>
<td>35.8</td>
<td>24.1</td>
</tr>
<tr>
<td>July</td>
<td>32.3</td>
<td>23.1</td>
</tr>
<tr>
<td></td>
<td>Temperature</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-------------</td>
<td>-----</td>
</tr>
<tr>
<td>August</td>
<td>32.1</td>
<td>23.6</td>
</tr>
<tr>
<td>September</td>
<td>31.6</td>
<td>23.2</td>
</tr>
<tr>
<td>October</td>
<td>31.5</td>
<td>21.4</td>
</tr>
<tr>
<td>November</td>
<td>28.7</td>
<td>18.7</td>
</tr>
<tr>
<td>December</td>
<td>25.9</td>
<td>16.0</td>
</tr>
<tr>
<td>Annual</td>
<td>39.6</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Source: Socio-Economic Review of Beed district 2007-2001

The temperature of the district shows a downward tendency from the September. The fall is more significant in the minimum in comparison to the maximum. The day and night temperature record a rapid fall. December is the coolest month of the short winter season. From February onwards temperature starts rising and continues till the monsoon in June. Summer is a period of constant rising of mercury in the thermometer and falling of barometric pressure. The relative humidity decreases season ranges from 35.7 °c to 39.8 °c

2) Rainfall:-

Rainfall is the dominant single weather element influencing the intensity and location of farming system and the farmer's choice of enterprise. It also becomes a climatic hazards in farming, when it is characterized with scantiness, concentration, intensity, variability and unreliability. The quantum of rainfall and the number of rainy days may be quite sufficient to meet the annual requirement of successful crop production, provided they are so naturally spread that rain is received at the time is required. Variations in rainfall characteristics affect agriculture as a whole, and therefore, there is in need to investigate them in detail. They became more suitable when crops are affected by moisture conditions at sowing germination, shooting stalking and heading and at maturing,
harvesting and threshing moisture is indeed a basic factor in all crop producing areas, it is all the more important in the minimal regions, Where average or normal rainfall is generally necessary for successful crop production. In such areas the system of crop production must be correlated more or less to the moisture factor. (Fig. 2.5)

**Table 2.3 Monthly average rainfall in Beed district**

<table>
<thead>
<tr>
<th>Month</th>
<th>Average rainfall cm.</th>
<th>Percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>February</td>
<td>02</td>
<td>0.2</td>
</tr>
<tr>
<td>March</td>
<td>06</td>
<td>0.80</td>
</tr>
<tr>
<td>April</td>
<td>02</td>
<td>0.2</td>
</tr>
<tr>
<td>May</td>
<td>08</td>
<td>1.06</td>
</tr>
<tr>
<td>June</td>
<td>130</td>
<td>17.37</td>
</tr>
<tr>
<td>July</td>
<td>155</td>
<td>20.72</td>
</tr>
<tr>
<td>August</td>
<td>195</td>
<td>28.06</td>
</tr>
<tr>
<td>September</td>
<td>110</td>
<td>14.70</td>
</tr>
<tr>
<td>October</td>
<td>90</td>
<td>12.03</td>
</tr>
<tr>
<td>November</td>
<td>40</td>
<td>5.34</td>
</tr>
<tr>
<td>December</td>
<td>10</td>
<td>1.33</td>
</tr>
<tr>
<td>Annual</td>
<td>748</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Source:** Socio-economic review of Beed district 2005-06.

Table No.2.3 reveals that a very large proportion (80.85%) of the total annual rainfall is received only during the period of June to September. But even in these month the rainfalls is unevenly distributed. The two month July and August account for 48.76% of the total rainfall of the season, on the average August is the month of maximum rainfall in study region as per 2005-06 census. The rainy days vary from 30 to 45 days and people’s livelihood in study area is based on agriculture, which is dependent on rainfall, especially on the south-west monsoon. The south-west monsoon is the pivot around which almost the entire form life and economy swings (sinking, 1933) rainfall has a seasonal rhythm of conditions influencing pattern of land use.
Distribution of Rainfall :-

The rainfall of the Beed district is erratic in nature, and unpredictable. Unevenness in its seasonal area distribution poses the problem of dividing the region in suitable zones. However, on the basis of rainfall data for the series of years justify the different zone of the regions follows:

1) Heavy Rainfall zone (above 1052 mm) No. of region i.e. taluka or tahsil fallow under this zone.
2) Moderate Rainfall zone :-(623 to 1052 mm) In this zone included Beed, Ambajogai, Parli, Georai, Kaij, Patoda, Shirur (Ka.), Wadwani, Dharur, Majalgaon

Table No.2.4 Mean annual rainfall and co-efficient of rainfall variability in Beed district.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the tahsil</th>
<th>Mean annual rainfall in mm.</th>
<th>Co-efficient of rainfall variability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Beed</td>
<td>840.85</td>
<td>45.00</td>
</tr>
<tr>
<td>2</td>
<td>Ambajogai</td>
<td>909.14</td>
<td>34.00</td>
</tr>
<tr>
<td>3</td>
<td>Parli</td>
<td>721.14</td>
<td>38.00</td>
</tr>
<tr>
<td>4</td>
<td>Georai</td>
<td>749.00</td>
<td>30.00</td>
</tr>
<tr>
<td>5</td>
<td>Kaij</td>
<td>683.71</td>
<td>26.00</td>
</tr>
<tr>
<td>6</td>
<td>Patoda</td>
<td>752.14</td>
<td>27.00</td>
</tr>
<tr>
<td>7</td>
<td>Ashti</td>
<td>480.14</td>
<td>31.00</td>
</tr>
<tr>
<td>8</td>
<td>Shirur (ka.)</td>
<td>733.73</td>
<td>28.87</td>
</tr>
<tr>
<td>9</td>
<td>Wadwani</td>
<td>733.73</td>
<td>28.87</td>
</tr>
<tr>
<td>10</td>
<td>Dharur</td>
<td>857.00</td>
<td>25.00</td>
</tr>
<tr>
<td>11</td>
<td>Majalgaon</td>
<td>699.14</td>
<td>22.00</td>
</tr>
<tr>
<td>12</td>
<td>Beed Dist.</td>
<td>741.79</td>
<td>33.00</td>
</tr>
</tbody>
</table>

Source: Socio-economic review of Beed district 2005-06
BEED DISTRICT

Mean Annual Rainfall

Co-Efficient of Rainfall variability

Index

- Above 700 mm.
- 600 mm. - 700 mm.
- Below 600 mm.

Index

- Above 40%
- 30% to 40%
- Below 30%

Fig. 2.5

Fig. 2.6
3) Low rainfall zone :- (Below 623 mm) In this zone only Ashti taluka of the region with the 480.14mm rainfall per annum. The co-efficient of rainfall variability is calculated by the following formula.

\[
\text{Co-efficient of rainfall variability} = \frac{S}{x} \times 100
\]

Where \( s \) = the standard deviation.

\( x \) = the mean of rainfall during 07 years.

It is clear from table 2.1 that mean annual variability of rainfall in the district ranges between 22% to 45.00% in Majalgaon and Beed tahsils respectively Beed, Ambajogai, Parli (v.) and Georai tahsils have high variability (above 30%) Tahsils like Kajj, Patoda, Ashti, Shirur (ka.), Wadwani, Dharur and Majalgaon have variability between 22 to 29%.

The south-west monsoon during June - September influences the agronomy of the district to a very great extent. It also affects the agricultural operations. Cultural practices and the system of crop rotation. The rainfall during the north-east monsoon i.e. October to November, though scanty is very helpful for the rabi crops and also augments water in the wells and tanks. Some showers in the first quarter of the year have also beneficial effects on the growth of rabi crop and summer crops. (Fig. 2.6)

3) Humidity:-

Humidity is one of the prominent elements of weather from the farmer’s point of view and plays a significant role in changing agro-climate condition from place to place. Humidity, in facts is a state of atmosphere with respect to the gaseous from of water. Most plants grow well in conditions of high atmosphere and humidity. Because very often saturated air completely stops the transpiration except during the south west monsoon,
season, when the relative humidity high and the air is generally over entire study region.

4) Cloudiness:-

During the south-west monsoon the air is hued and the skies are heavily clouded to over cast. During the rest of the year, the air is generally dry and skies are clear or lightly, clouded

1) Winds:-

Wind has many direct and indirect influences upon the crops. The direct effect of strong winds is entirely of mechanical nature that is in the form of crop uprooting and logging. The indirect effect of the winds is apparent on plants physiology. In the study region winds are generally light to moderate with increase in speed during the latter half of the hot season and in the monsoon, season. The wind blows predominantly from direction west and north during the hot season. Winds blow mostly from directions between south-west and northwest during the south-west monsoon season. Thunder storms occur in all month of the year. They occur more frequently during April to June and from September to October dusty storms occur sometimes during summer afternoon in the study region.

2.1.6 SOILS:

Soil constitutes the physical basis of an agricultural enterprise and plays a very important role in the agricultural economy of a region. Differences in soil texture, drainage and fertility are of major importance in explaining contrasts in agriculture from one region of to another.

Unlike climate, soils should not be regarded as a part of the natural endowment of an area. In fact, it is agriculture that modifies soils, except certain virgin soils which can retain their original characteristics. On the whole, soils constitute the physical base, for any agricultural enterprise. Farming is a business and good soil is part of the farmer’s stock in trades.
Good soils are suitable to the extent that man makes judicious use of them our standard of living which predominantly depends on agriculture which often determined by a combination of the physical, chemical and biological characteristics of the soils, crops and livestock raised on the. Crop growth is determined to considerable extent by the amount of nutrients in the soils. The main factor that has influenced the development of soils in Beed, district is the undulating and hilly topography. The soils of varying are to be found through the district. Deep black soils covers about 12.76% portion the Beed district. While medium black soil cover 65% and shallow soil cover 22.74% of the district

The soil in the district can be classified into four main categories on the basis of depth and structure namely:

a) Shallow soils (with depth below 7 inches)

b) Moderate deep black soils (between 7 inches to 9 inches)

c) Medium deep black soils (between 9 inches to 27 inches)

d) Very Deep black soils (between 27 inches to 45 inches)

a) Shallow soils :-

The shallow soils of Beed district have dark brown to dark yellowish brown color, single grain to block structure and sandy loam to loamy texture. These are found in some ports of Georai, Kaij and Ashti tahsils.

b) Moderate deep black soils :-

The moderately deep soils are found in hilly and undulating area of Georai, Patoda, and Ashti, the color of the soil is dark brown, dark reddish brown or dark grey brown.

c) Medium deep black soils :-

The medium deep soil is found in every tahsils particularly on the banks of various streams. It has dark brown or black color and is granular or
blacky in structure and sandy loam to clay in texture. The type of soil responds favorably to the nitrogenous and phosphates fertilizers. (Fig. 2.7)

d) **Very Deep black Soils :-**

These soils are to be found in Georai, Ambajogai and Majalgaon, particularly these soils are found in the river valley of Manjara, sinus, Bend Sara, Godavari, Chousala, Rena, Kaj and Sarswati etc. Their color changes from dark brown to black and so also the texture changes from clay loam to clavey.

### 2.1.7 NATURAL VEGETATION:

Vegetation of some sort of the other, is the natural covering of the land surface of the earth. Even the scaled deserts have their vegetation, though it may be scanty and in conspicuous. Natural vegetation prevent soil erosion; regulate the flow of rivers and reduce the floods, check the spread of deserts and to soil. Fertility and ameliorate the extremes of climate forest play a significant role in the prevention and control of soil erosion by water and wind.

Natural vegetation in the district correspond to southern tropica; dry deciduous forest, within this type. Local variations are met with due to variations in the nature of the soil. Topography, accessibility although the altitudinal variations are very limited, they play an important part in influencing the character of vegetation better stocked patches occur in cooler and protected depressions on the northern and eastern slope.

Owing to the pressure of the increasing population an the ever-increasing demand for land for tillage, the forest areas have receded to distant hilly tracts with poor and shallow soil, with the result that the forest are of very poor and open type. In addition to this, biotic influences such as heavy illicit cutting, uncontrolled grazing exceptra, can be responsible for
further retrogression of the forest. These forests have thorny shrubs with barren and rocks patches scattered all over the region. On the whole, the forests in the district are of an inferior type. Apta, khair, babhul, bor, bel, hiwar, kawath, sisam, these trees belongs to dry, thorny forests are found all over the region. Dhawda, chandan, palas, pimpal, wad, chinch, nimbo, mango, these trees of dry deciduous types forest are also found in study area woods obtained from the forest is mostly used for making agricultural implements etc. the forest of beed of district is not economically important. The Beed district has limited area under forest. Dry deciduous forest is found in the entire study region. (Fig. 2.8)

The forests of the Beed district can be classified into the following three groups. A) Scrub forest B) Tree forest C) Grasses.

A) **Scrub forests :-**

The pressure of the increasing population and the ever-increasing demand for land for tillage, the forest areas have receded to distance hilly tracts with poor and shallow soil.

Actually, majority of the forest blocks in this district carry scrub by growth of bharati (Gymnosporia montma) Dhawai (Wood fordia floribunda) dhal, ghela, ghaneri, Karonda, mador Rui, Nirgudi, paristak, tarwad, tarota, Chindh and thick grass due to which most of these blocks have been declared as remains of kurans and are sold either on cutting or grazing terms.

B) **Tree forests :-**

The types of forest occurs only in cool sheltered pockets having northern and eastern aspects, these forests are of mixed - miscellaneous type and consists mostly of salia, moina, temru, Kandal, Khari, Bahawa, Palas, bhilwa, Lokhandi, Ghat-bor, apta, bhutkes, with scattered dhavad, Awala and Chandan at some places.
C) Grasses :-

The main grasses found in the various forest blocks of the district are boni, kusali, panaya, rosha, sheda, kunda, gondal, chirka and moruel.

Every taluka has forest cover except Georai but the proportion of cover varies from one taluka to another taluka.

2.2 HISTORICAL BACKGROUND:

Beed district is known to history as Asmaka during vedic, Epic and puranic periods panini refers to Asmaka which includes a portion of modern Beed District. In the days of Pandavas it was known as Durgavati and later on during the regime of queen champavati it was named after her as Champavati nagar. It was ruled by the Andharas, the Chalukyas. The Rashtrakutas and Yadavas and subsequently went under the rule of Delhi.

At the time of Mohammad Tughlak, the district was named as Bhir. The history of its name is rather shrouded in mystery. The district is strewn with ancient religious places, the notable amongst them being 1) kankaleshwar temple (at beed town) 2) yogeshwari temple (at Ambejogai town) 3) vaijanth temple (at parli town). The vaijanth temple of parli referred to above is one of the twelve Jyotirlingas.

The district derives its name from that of its headquarters town of Beed, for the origin of which two explanations are given. The town is set in a hollow or a Beed into the scarp of the Balaghat Plateau, trenched by the Bendsura river and hence the name of Bhir. The term Beed having undergone this transformation in course of time. As such a piedmont location provided as an abundance of subterranean water supplies tapped by unfailing wells, the Persian word Beed meaning water might also explains the origin of the name.

As the advent of modern period of history Beed district was in the erstwhile Hyderabad state, following the reorganization of states in 1956, the
district of Bhir, along with other districts of Marathwada became a part of the Bombay state, which was bifurcated in 1960 to constitute the present Maharashtra state.
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