A Geographical Study of Natural Phenomena inyavatmal District

Dr. Digmbar. N. Mane
Asst prof. & Head Department of Geography,
Mahatma PhuleMahavidyalaya,
AhmedpurTq. Ahmedpur, Dist. Latur.

Abstract

Yeotmal district is situated in the south east part of Maharashtra State; geographically it lies between $19^0 26'$ to $20^0 42'$ north latitudes and $77^0 18'$ to $79^0 28'$ east longitudes. Yeotmal is one of the districts of Amravati administrative division.

East- west length of the district is 192 km and north- South width is 160 km. Yeotmal District has an area of 13584 sq. km. It is 4.5% of the total area of Maharashtra State. This district is 18^{th} in Maharashtra in respect of area. The population is 24,58,272 as per 2001 census.

Key Word

Has been studied and an attempt has been made to know the physiographic, drainage, climate, soils, natural vegetation, geology etc. points discussed inyeotmal district.

Introduction

The administrative purpose the district is divided into 16 tahsils. They are Darwha, Pusad, Wani, Yeotmal, Kelapur were Digras, Ner, Babhulgaon, Mahagaon, Umarkhed, Ralegaon, Ghatanji, Maregaon andkalamb, Zari Jamni and Arni.the time of 1961 Census the district comparised of 5 tahsil having 1629 inhabited villages and 8 towns. During the decades 1961-71 and 1971-81 the number of tahsils and towns remained unchanged, but there have been certain changes as to the number of villages due to upgrading of hamlets/wadis into villages. The number of inhabited villages went upto 1647 in 1971 and 1751 in 1981 Census. After 1981 Census 9 new tahsis were created from the existing 5 tahsils. Two new towns 'Umarsara' in Yeotmaltashsil and Rajur in Wanitahsil were created and the number of village increased upto 1836 in 1991. In 1991 Census, there were 14 tahsils with 1836 inhabited villages and 10 towns in the district. In the Census of 2001 the number of tahsils of Yeotmal district rose from 14 in 1991 to 16 in 2001 census. Arni new tahsil created from 69 villages from Digrastahsil and 37 villages from ghatanjitahsil. Zari Jamanitahsil created from 10 villages from Kelapur and 118 villages from Maregaontahsil. 3 new census towns viz., Waghapur, Wadgaon Road (Yeotmaltahsil) and Vasantnagar (Umarkhedtahsil) are created after 1991 census. Thus in 2001 there were 16 tahsils 2,130 (including 264 uninhabited) villages and 13 towns in the district.

Methodology

The present study has been accomplished with the help of scientific methods. Geographical adopted Methods have used to collect and analysing study data has been analysed and mapped using Geographical Information System (GIS) and Remote Sensing (RS) Software techniques.

Data Collected

Secondary data which is necessary is collected From, Magazines, newspaper and other related books are also referred to get secondary in formation.

Objectives

1)To find out Temperature and rainfall in study region.

2)To examine phytography in yavatmal district.

Hypothesis Of The Study

1) The temperature in yavatmal district is increasing and it is showing in the rain.

Result & Discussion

Physiography

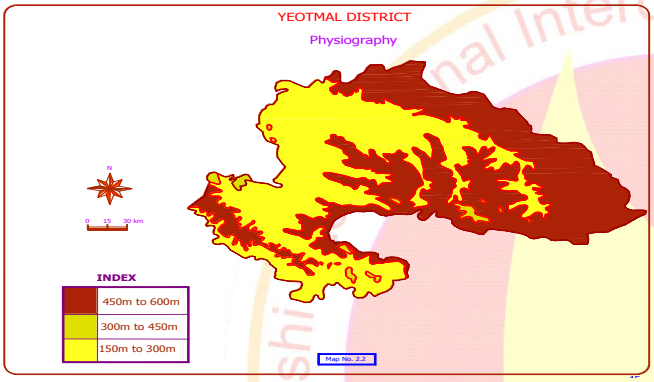
Physiography is one of the domain parameter of physical environment. Nature with its physical characteristics provides more possibilities for the development of the region. Central places in the study region affected by the physiography in the Yeotmal district. Physiographical the district is divided into three major divisional.

A) Hilly region
B) Plateau region
C) Lowland region

A) HILLY REGION:

Hilly region lies in the west and south part of Yeotmal district. This region is a part of Ajanta and Satmala ranges. The average height of this region is 595 from mean see level. But there are some hills which height is more than 640 metres. There are some hillocks which is known by local names like Pusad hills. The slope of the hilly region is towards south-east part. This region comprises parts of Umarkhed, Digras, Pusad, Mahagaon and Arnitahsils of the study region

MAP NO.1.1



B) PLATEAUL REGION

Northern part of this district is covered by plateau region. The height is 350 to 450 m above mean sea level. It is the part of deccan plateau and there are some hills on this plateau it includes Ner, Darwa, Digrasetctahsils.

C) LOWLAND REGION

Because of the flow at the rivers of Wardha and Painganga North- East and Sourh Part of the district has become low lamed with good soil. The height is less than 150 to 300 m. The region includes Babhulgaon, Kalamb, RalegaoMaregao,

CLIMATE

In the development of central places climate of the particular place plays a very significant role. The pace of the development depends upon the climate. Rainfall, wind, moisture, temperature and light are important factors of climate. The climate of Yeotmal district is dry except during the monsoon season,(June to September). There is quite moisture during this season only.

TEMPERATURE

Temperature is an important factor of climate. Generally the temperature of Yeotmal district is hot especially in the months of March, April and May. The highest temperature is experienced in May i.e. 45.8^{0}C and lowest in December i.e. 4.5^{0}C the difference between maximum and minimum temperature is 23.92^{0}C approximately. December is coldest month with mean daily maximum temperature 29.09^0 C and mean daily minimum temperature 4.5^0 C. The hottest month is May when the maximum temperature is 45.08^0 C and minimum is 22.06^0 C.

Table No. 1.1: Monthly Average Maximum and Minimum Temperature (^{0}C) Yeotmal District 2010-11

Sr.No.	Month	Maximum temp (^{0}C)	Minimum temp (^{0}C)
1	January	32.2	9.9
2	February	37.4	9.7
3	March	41.7	11.6
4	April	43.4	11.4
5	May	45.8	22.6
6	June	43.6	22.6
7	July	44.9	20.6
8	August	35.3	20.2
9	September	34.4	19.1
10	October	35.4	11
11	November	32.3	7.7
12	December	21.1	4.5
Total		38.02	14.24

Source: *Divisional Metrological Dept.*

RAINFALL

Rainfall in this district occurs on the monsoon season i.e. in the months of June, July August, and September.

Table No. 1.2: Tahsilwise Annual Average Rainfall in the Yeotmal District 2010

Sr.No.	Tahsil	Annual Average Rainfall (mm)
1	Ner	1007
2	Babulgaon	864
3	Kalamb	1313
4	Yeotmal	1224
5	Darwha	1330
6	Digras	1249
7	Pusad	1069
8	Umarkhed	857

9	mahagaon	1011
10	Arni	698
11	Ghatanji	1293
12	Kelapur	967
13	Ralegaon	1304
14	Maregaon	1214
15	Zari-Jamani	738
16	Wani	1148

Source: *Agriculture Department YeotmalZillaParishad 2010.*

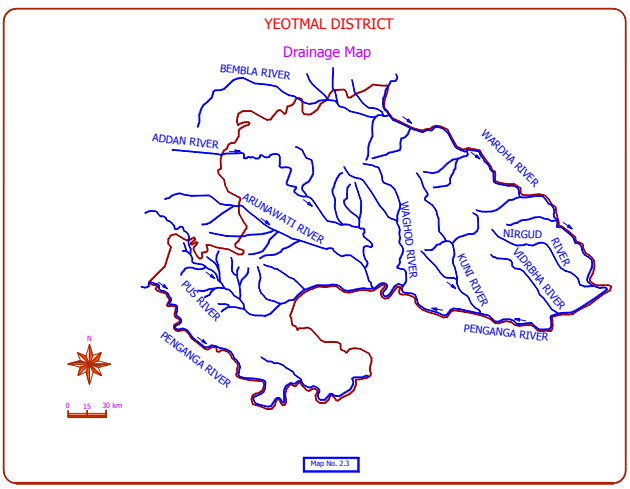
Wardha River

The river rises to the east of Multai in Madhya Pradesh. It flows in general south easterly direction along the north eastern boundary of the district. The Wardha is the only river of the district which is partly navigable. The bed of the river is broad and deep. But the banks are sometimes overflowed in times of exceptional floods. During the monsoon the river flows with a strong current but in summer the river is fordable at a number of places. The Bembla and the Nirguda are the main tributaries of the Wardha within the district and both are perennial.

Penganga River

The Penganga River rises in the Ajantha range near the south west of Buldana town. It is a major tributary of the WardhaRiver. The river is deeply entrenched and has a meandering course. The Penganga forms the southern district boundary throughout its long sinuous course. The river changes twice from one longitudinal valley to a parallel longitudinal valley northwards by making big 'S' shaped curves.

MAP NO.1.3



SOILS

Soil is the most vital and ubiquitous resource of the earth. It has been said that there can be no life without soil. Soils are loose surface materials of life. It is the physical basis of our agricultural enterprises The importance of soil lies in the fact that, it provides man's food, clothing and even increasing list of other needs and hence while describing the soils the detailed knowledge of site and soil condition is required as it helps to determine land leveling needs, the irrigation, drainage and special reclamation of requirement of specific soil type. Soil conservation of measures and the alignment of canals and drains. The soil information is also necessary to judge the choice of the crops, application of fertilizers, cultivation and irrigation scheduling (Dent and Young, 1981). The present section deals with the soil types in connection with irrigation.

SOIL TYPES

The soils of the district are generally black and are mostly derived from the Deccan traps, which cover most of the district. They are of a uniform fine texture and vary in colour from black to dark brown. They are however slightly inferior in productive capacity to those, found in other district of the important cotton growing region in the Wardha basin. The soils of the district possess three common defects, a mixture of nodular pieces of limestone and slopiing surface and an excessive admixture of sand.

Bardi is a stony soil, which is shallow and found on the high lying slope of the district. It is sandy loam to loamy in texture, brownish black in colour and under laid with murum derived from the basic rock besalt. Because the murum subsoil is quickly reached, it is acalled 'Murumad'.

Medium soil is found in low-lying areas. It is black to deep black in colour, rich in lime content and retaining of moisture. Black soil is the most fertile soil of the study area. It is deep alluvial soil, very fertile and occurs in the river valleys of the district.

NATURAL VEGETATION

The cover of natural vegetation acts as rain-holder and a rain banker. The trees also act like millions of tiny damps and check the flow of water. Natural vegetation prevents soils erosion; regulate the flow or rivers etc. Forest play a significant role in the prevention and control of soil erosion by water

and wind. Roots of the trees absorb much of the rain water and use it slowly during the dry season. Thus they regulate the flow of water.

Yeotmal district has about 3715.84 sq.km. Area under forest. The study area has large proportion forest area, which is account about 27.35% of total geographical area. The most common is salai teak is found throughout the district. Some fine specimens growing in the sacred grave at Dattapur in Wanitahasil and in a few pathes along the Penganga on the wholeand other purposes. Trees found in the forest are economically important Babul, Khair and Dhaundaetc species used for fuel. In fields and grazing tracts common trees are Mango, Mahua, Nim, Imli, Pipal etc. A single species of Bamboo is found in the forest of Kelapur and Wanitahasils. Vegetation cover in study area is related with physiography, rainfall and type of soils. More rainy hilly and foot hill parts viz. Pusad hills, Ajanta Mountain are marked with denser vegetation.

GEOLOGY

The rocks of peninsula India can be divided into three main groups, the Archaean, the Purana and Aryan according to the period of formation. In the study area the Archaean rocks were entirely covered by the Gondwana land system.

The Archaean group is the oldest. It consists of rocks of various kinds, the most prominent being gneisses and schist's No. Archaean rock has been noticed in the study region. The Purana group occurs next in point of antiquity. It consists of sediments. In the parts as in the Cuddapah system, the thickness of this group is as much as 20,000 feet. It can be divided into lower and higher beds. The lower beds consist, chiefly of ferruginous jaspers and procellantities the higher of shales, limestone and sandstone.

The most recent group is the Aryan. It includes two great divisions i.e. the Gondawana system and the Deccan trap. The Gondawana system is formed of sub-aerial and fresh water deposits. It is divided into lower and upper GondwanasGondwanas, there the

The Deccan trap is perhaps the most extraordinary of all these formations. It consists of volcanic lava flows, which are spread out in the form of horizontal sheets or beds. Because of their dominantly basaltic composition and the tendency to form flat topped plateaus, the lavas are termed plateau basalts. Since these basaltic lava flows cover an extensive region in the Deccan and frequently present step like appearance to the hills and ridges. They are commonly termed as 'Deccan traps'.The word trap meaning step like. The rocks wither by exploitation into massive spheroid boulders, which are usually seen on hill slopes and foot hills. In same flows the basalt is columnar and weathers into fantastic shapes.

At the base of the Deccan trap there are beds known as the Lameta series. They consists chiefly of limestone. They were probably formed by the weathering of the Gondwana or other rocks before lava spread over them. The district has rich deposists of coal. The coal fields geologically belong the Barakar stage of the Damunda series of the lower Gondaana system. The district also has extensive deposits of good quality limestone belong to the Vindhyan system which is suitable for the manufacture of cement.

Most of the district is covered by Deccan Traps rocks are generally barren and economically not important minerals. But being hard, dense and durable, they are extensively used as building stones etc. and as an aggregate for concrete mixtures.

References

1. Dr.Ambedkar(1979):Speeches and Writing Vol. I Education Department, Government of Maharashtra, Bombay, P. 397.
2. M. N. Srinivas,'Social Structure', the Gazetteer of India, Vol. I P. 504.
3. D.N. Majumdar and T.N. Madan, "An Introduction to Social Anthropology", P. 222.
4. Datta, Ruddar and Sundarram, K. P. M. (1991): "Indian Economy" (29th Revised Edition) S. Chand & Company Ltd., New Delhi, P. 415.
5. Dr. Chaudhari M.R. (1970): "Indian Industries Development and Location", Oxford and IBH Publication Co. Kolkata, P. 214.