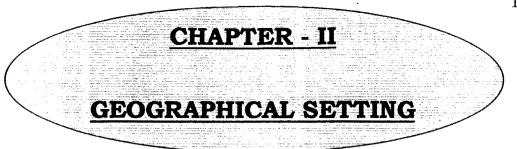
# **CHAPTER - II**

# **GEOGRAPHICAL SETTING**



- 2.1 GEOGRAPHICAL BACKGROUND
- 2.2 PHYSICAL SETTING
- 2.3 DRAINAGE SYSTEM
- 2.4 CLIMATE
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## **CHAPTER - II**

## **GEOGRAPHICAL SETTING**

#### 2.1 GEOGRAPHICAL BACKGROUND :-

Sindhudurg district is the southern part of the greater tract known as the "KONKAN" which is historically famous for its long coastline and safe harbours.

The Sindhudurg district lies between 15°37' to 16°40' North latitude and 73°19' to 74°13' East longitude. The district is bounded by hilly region of Sahyadri hills in the east, Arabian Sea towards the west, Belgaum district of Karnataka State and Goa State in the south and Ratnagiri district in the north. Beyond the Sahyadri hills, Kolhapur district is located in east. The district is located south of the West Coast line of Maharashtra State. On the West Side of the district Arabian Sea gives the district a seaboard of about 121 Kilometres. (Fig. No. 2.1)

Sindhudurg district came into existence on 1 May 1981, largely because of partition of Ratnagiri district, from where 6 talukas were transferred to Sindhudurg and by transfer of 53 villages of Bavada taluka of Kolhapur district resulting into

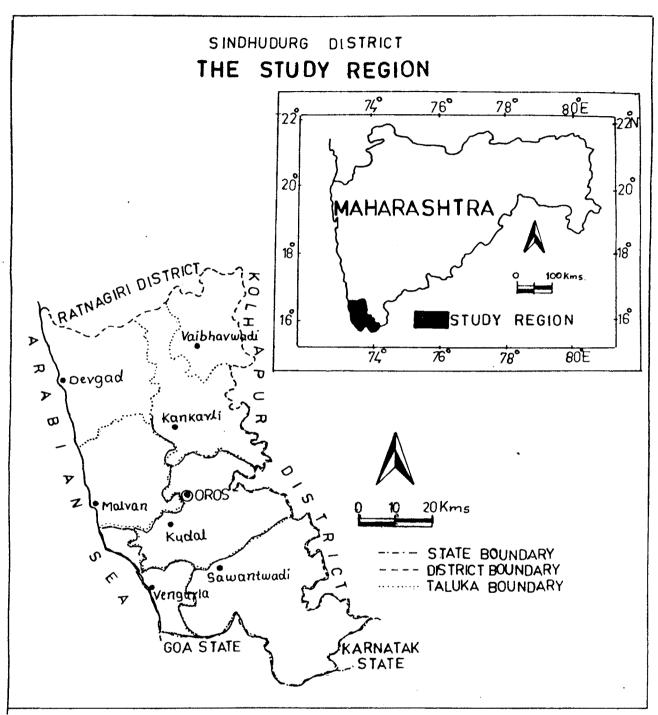


FIG.- 2.1

the creation of a new taluka Vaibhavwadi. Two villages (Morle and Ghotgewadi) from Chandgad taluka of Kolhapur district were also transferred to Sawantwadi taluka.

Sindhudurg district has 4 towns and 736 villages spread over Kudal, Malwan, Devgad, Vaibhavwadi, Kankavli, Sawantwadi and Vengurla talukas. It covers an area about 5207 sq.kms. which accounts for only 1.69 per cent area of the Maharashtra State and has a population of 832, 152 persons according to 1991 census.

#### 2.2 PHYSICAL SETTING :-

The Sindhudurg district is broadly divided into the following physiographic divisions :-

- (I) The Sahyadri Region (height above 450 m)
- (II) The Central Zone or Valati (height 150 m to 450 m)
- (III) Coastal Zone Region or Khalati (height below 150 m)

#### (I) <u>THE SAHYADRI REGION</u> :

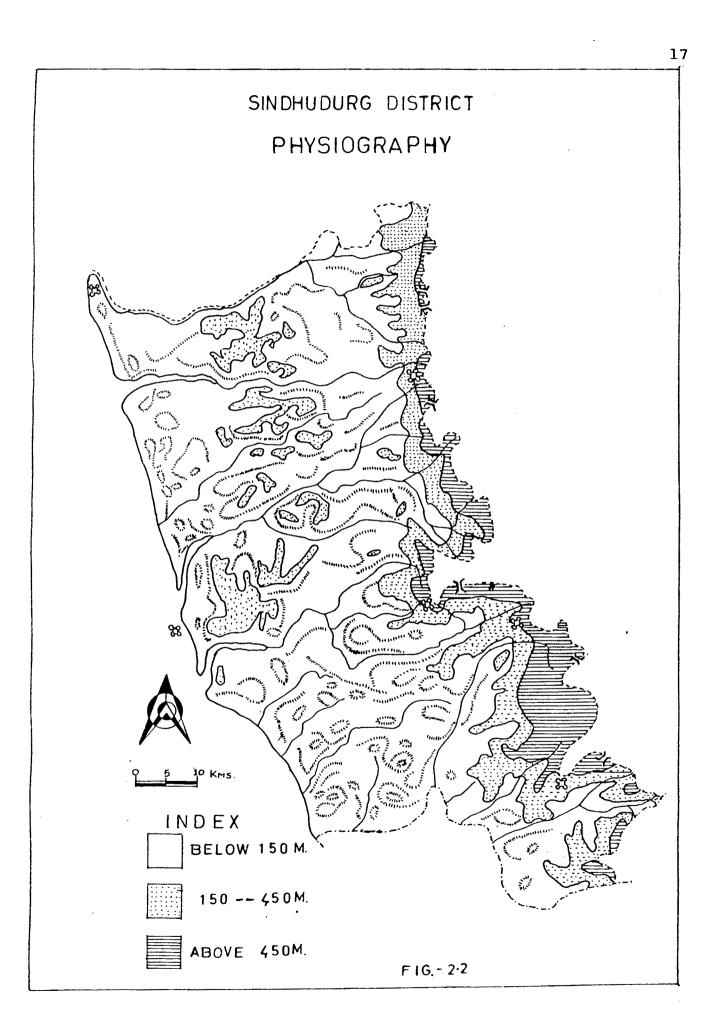
The eastern part of the Sindhudurg district is covered by the Sahyadri Mountain consists of height above 450 m. Many spurs and saddles occur in the area. Out of these, more accessible ones have become major Ghat routes connecting plateau to Konkan region. The Shivgad, Manohargad, Ranganagad, Pargad are the important forts located on Sahyadri range. This region is extended into north-south direction having steep slope, occupying by spurs and saddles. It includes eastern part of Vaibhavwadi, Kankavli, Kudal and Sawantwadi talukas from Sindhudurg district.

#### (II) THE CENTRAL ZONE OR VALATI :

The central zone or the transitional belts covers the middle part of the region. The central zone which is covered by small hills and ridges having height above 150 m to 450 m from sea level. It includes western part of Kankavli, Kudal and Sawantwadi talukas and eastern part of Devgad and Malvan talukas. This part of the study region is locally known as "VALATI". The general slope of the central zone is from east to west and it is formed by denudation of the rocks.

#### (III) COASTAL ZONE REGION OR KHALATI :

The coastal zone lies to the west of central transitional belt is associated with coast of Arabian Sea. It includes the western part of the Devgad and Malvan talukas and Vengurla taluka. Small hills and plain area cover the western part of the Sindhudurg district. The elevation of this part is

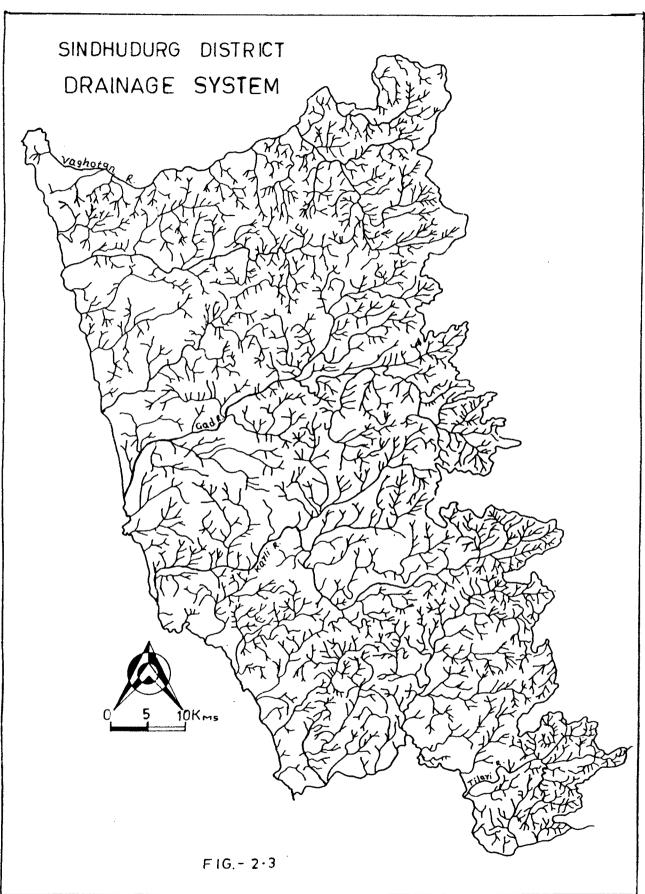


below 150 m. this part is formed by alluvial soil, which is more fertile, so it is locally called "KHALATI".

The central and coastal zones have more land under cultivation. The physiography of the area is depicted in Fig. No. 2.2.

#### 2.3 DRAINAGE SYSTEM :

The study of drainage system is very important in settlement analysis, for it is the streams, which shapes the topography of a region and which acts like a basal platform for the organised growth of settlements. All the rivers in the Sindhudurg district originate from the Sahvadri ranges and flow from east to west and merge in the Arabian Sea. The important rivers are Vaghothan, Devgad, Karli, Terechol, Sukhshanta, Gadhkalawal, Achara and Mochemad. The creek of Achara, Mochemad and Devgad and the rivers in this district are of little value from the navigation and fisheries point of view. Gadhkalawal is the most important river of the district from the point of view of basin area. Gadhkalawal river basin area is near about 1068.5 sq.km. (Fig. No. 2.3)



#### 2.4 <u>CLIMATE</u> :

The Sindhudurg district is characterised by the Monsoonal type of climate. The Sindhudurg district being a coastal district, the percentage of humidity is more and the climate is generally moist and humid. The year may be divided broadly into three seasons. The summer season from March to May, Rainy season from June to October and the winter season from November to February.

In the hot season, temperature rises slowly from March to May and May is hottest month. With the on set of the southwest monsoon, the temperature drops by 3° to 4° C. Day temperature during the rainy season is lower than those in the cold season. In the post-monsoon months of October and November, the day temperature increases. In October day temperature are as hot as in May. Night temperatures are the lowest in the month of January.

The Sindhudurg district has a highest maximum temperature of 34°C and the lowest minimum temperature of 15°C. Along the coast the maximum temperature rarely goes beyond 38°C. Within the district, the seasons show local variation also. The average annual rainfall in the Sindhudurg district varies from west to east. It increases rapidly from the coast towards the Western Ghats on the eastern border of the district. On the Ghat region the rainfall is very heavy. The highest annual rainfall records at Amboli station in Sawantwadi taluka i.e. 7446 mm. The coastal stations, the Malwan and the Vengurla have annual rainfall of 2275 mm and 2447 mm respectively.

Practically the entire annual rainfall occurs during the months from June to October. July is the month with highest rainfall when about one-third of the annual rainfall is received.

During the pre and post monsoon months, the district experiences very strong winds, sometimes reaching gale force particularly near the coast and heavy rain in association with cyclonic. Storms which develop in the Arabian Sea and move in close proximity to the coast. Thunderstorms are common in the post monsoon months and the latter part of the hot season.

#### 2.5 <u>SOILS</u> :

The soil of the Sindhudurg district is generally classified in to three categories :

- (I) Laterite soil
- (II) Salty soil
- (III) Coastal alluviums

#### (I) LATERITE SOIL :

Laterite soil is commonly found in the district. They vary in colour from red to brownish red, owing to the preponderance of hydrated iron oxides. They are fairly well supplied with nitrogen and organic matter; their texture is loamy. They are porous and not retentive of moisture. These soils are found in several grades, the main being rice soil and varkas soil. Both of these soils are available on the slopes of the hills. These are yellowish red in colour and poor in fertility. Paddy is the main crop of the district grows in this area. The district is famous for its mango crop, specially the world renowned Alphonso. There has been rapid increase in the area under cashew-nuts and mangoes with more and more varkas soil being brought under plantations.

#### (II) SALTY SOIL :

Due to the inundation of the sea, a part of the coastal soils has become salty. They are locally known as "KHAR" or "KHAJAN". In Devgad, Malwan and Vengurla talukas, the entire western strips are salty while in other talukas only salt patches are noticed.

#### (III) COASTAL ALLUVIUMS :

The coastal strips have deep sandyloams and in these soils coconut and arecanut gardens thrive well. The coastal strips in Devgad, Malwan and Vengurla talukas are deep sandy loams.

#### 2.6 MINERALS :

The southern part of the coastline and Kudal, Kankavli talukas have important deposits of minerals. Iron ores are found at Redi (Vengurla taluka), Banda, Tirwade and Aros (Sawantwadi taluka). In the district abundant iron ores are found at Redi. The proportion of ore carrying between 58 to 60 per cent of iron is found particularly at Redi.

Bauxite and Ilmenite are found at a few places along the coast near Vijaydurg, Devgad and at Amboli of Sawantwadi taluka. Manganese is found in the district at Phondye, Sasoli, Netarde and Dingne. The feldspar, a minor mineral found in the district can be used for the manufacturing of potteries.

The reserves of lavish chromite are found in Kankavli taluka. Other minor minerals found in the district are Mica, Mineral pigments such as clay, silica sand, asbestos, building stone, glass sand, copper, salt, limestone etc.

#### 2.7 VEGETATION :

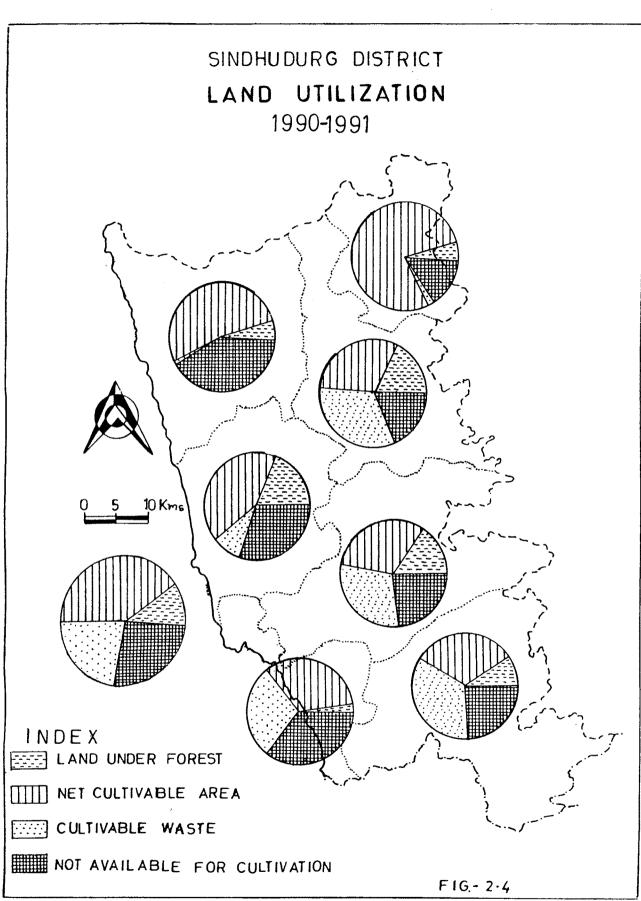
As the region occupies local variation in elevation, runoff, rainfall, etc. there is also variation in vegetation cover. The forest area in the district is distributed among 316 villages accounting for 42.93 per cent of the villages in the district. The total area under forest in this district is about 58,563 hectares. Among the 7 talukas of the district Kankavli accounts for nearly one-fourth of the total forest area of the district.

The forest produce is divided into two main classes, major and minor. The chief major forest produce are timber and firewood and much of it send to Kolhapur. Timber has more demand from Maharashtra State itself. The chief minor forest produce are Apta and Temburni leaves, hirdas, Tamalpatra, Kokum etc. The forest of Sawantwadi, Kudal and Kankavli talukas are characterized by the species of teak which is associated by Ain, Kinjal, Nana, Siddm, Jambul, Shiras and Wavla. The other types are Amba, Asan, Phanas, Shisham, Kokam etc.

#### 2.8 LAND - USE PATTERN :

Land being the fundamental asset of mankind is one of the greatest resources. Consequently its proper use becomes significant in the economy of the region. The pattern of land utilization differs with the differences in soil texture, rainfall, and physiography of the area. Geographically, the study region covers 5,01,736 hectares of land. Out of this total land, forest occupies nearly 11.67 per cent of the area. More forest cover is observed in the Kankavli, Kudal and Sawantwadi talukas. Very limited area in Vengurla, Vaibhavwadi and Devgad talukas is occupied by forest cover. Out of the total land under forest only 1.23 per cent land is under forest in Vengurla taluka.

It is observed that out of the total geographical area nearly 39.97 per cent land is under net cultivation (Table II-I). Very limited land in Vengurla (4.59 per cent) and Kankavli (11.46 per cent) talukas is under cultivation. More land from



Sawantwadi, Devgad and Vaibhavwadi talukas has been brought under cultivation. Nearly 21.85 per cent land is covered by cultivable waste. High dominance of cultivable wasteland is observed in Sawantwadi, Kankavli and Kudal talukas. (Table II.I-A). Very limited land is Devgad; Vaibhavwadi and Malvan talukas is under cultivable waste.

The area, which is not available for cultivation, is about 133,010 hectares, which accounts for 26.51 per cent of the total geographical area. More area of Sawantwadi, Devgad and Kudal talukas is occupied by this category. Figure No.2.4 shows the taluka wise land utilisation of the study region.

#### TABLE NO. II-I

## SINDHUDURG DISTRICT LAND USE PATTERN 1990-91

Sr. No.	Land utilization	Area in Hectares	Percentage to total
1	Land under forest	58563	11.67
2	Net cultivable area	200556	39.97
3	Cultivable Waste	109607	21.85
4	Not available for cultivation	133010	26.51
	Total	501736	100.0

Source : District Census Handbook of Sindhudurg District, 1991.

## TABLE NO. II.I-A

## SINDHUDURG DISTRICT

### TALUKAWISE LANDUSE-PATTERN

## 1990-1991 (Area in Hectares)

Sr.	Taluka	Geographical	Land	Net	Cultivable	Not
No.		Area	under Forest	Cultivable area	waste	available for
						cultivable
1	Kudal	81388	12823	25450	24416	18699
	% to total	16.22	21.90	12.69	22.28	14.06
2	Malvan	60935	11690	25614	5404	18227
	% to total	12.15	19.96	12.77	4.93	13.71
3	Devgad	77810	3914	41335	81	32480
	% to total	15.50	6.68	20.61	0.07	24.42
4	Vaibhavwadi	41611	2114	32977	496	6024
	% to total	8.29	3.61	16.44	0.45	4.53
5	Kankavli	76997	14624	22990	24773	14610
	% to total	15.35	24.97	11.46	22.60	10.98
6	Sawantwadi	135179	12677	42993	46225	33284
	% to total	26.95	21.65	21.44	42.18	25.02
7	Vengurla	27816	721	9197	8212	9686
	% to total	5.54	1.23	4.59	7.49	7.28
	District	501736	58563	200556	109607	133010
	% to total	100	100	100	100	100

#### 2.9 CROPPING PATTERN :

The economy of the Sindhudurg district is mainly dependents on agriculture. The Sindhudurg district geographically covers an area about 501,736 hectares. Out of this total land, nearly 27 per cent of the area is under cultivation in 1995-1996 and nearly 76 per cent of working population was engaged in agriculture sector.

The over all cropping pattern reveals that the district dominated by the cultivation of cereals. Out of the total cultivable land in Sindhudurg district nearly 60.29 per cent of land is occupied by cereals. (Table No. II-II). Rice is the major food-crop, which occupy nearly 53 per cent of the total cropped land of the study region. It is mainly sown in Kharif seasons. In Sawantwadi, Kudal, Malvan and Kankavli talukas rice is the important food crop occupying more land under cultivation.

In the cropping pattern fruits and vegetables (horticulture) occupy second rank and shares 31.72 per cent of the total cultivable land. The district is famous for its Mango crop specially the world renowned ALPHONSO. There has been rapid increase in the area under Cashew-nuts and Mangoes. Very high percentage of land in Devgad, Vengurla and Malvan talukas is found under mango plantation. The highest concentration of land in Kudal, Sawantwadi, and Kankavli talukas is found under cashew-nuts.

Pulses are grown only on 1.49 per cent of the total cropped area. Devgad, Kankavli and Sawantwadi talukas have more dominance of pulses. Pure crops of spices cover only 0.54 per cent of the total cropped area. Swantwadi, Vengurla and Devgad talukas have more dominance of spices. (Fig. No.2.5)

Coconut is the principal Oil-seed crop and occupies nearly 4.88 per cent area of the cultivable land. The highest concentration of coconut cultivation is found in Sawantwadi, Vengurla, Malvan and Kudal talukas. (Table No.: II.II.A)

Paddy (Rice), Coconut, Mango, Cashew-nut, and Spices are the important crops of the area. The remaining land is traditionally cultivated for Ragi, Vari and Nagli, but this practice shift towards horticultural crops in the recent years. The cultivation of groundnut have also started in the recent years.

## TABLE NO. : II.II

## SINDHUDURG DISTRICT

## **CROPPING PATTERN - 1995-1996**

Sr.	Сгор	Area in	Percentage to
No.		Hectares	total
1	Cereals	80617	60.29
2	Pulses	1997	1.49
3	Spices	720	0.54
4	Horticulture	42410	31.72
5	Coconut	6527	4.88
6	Other Crops	1434	1.08
	Total	133705	100.00

Source : Socio-Economic Reviews and Statistical Abstracts of the Sindhudurg District 1996-97.

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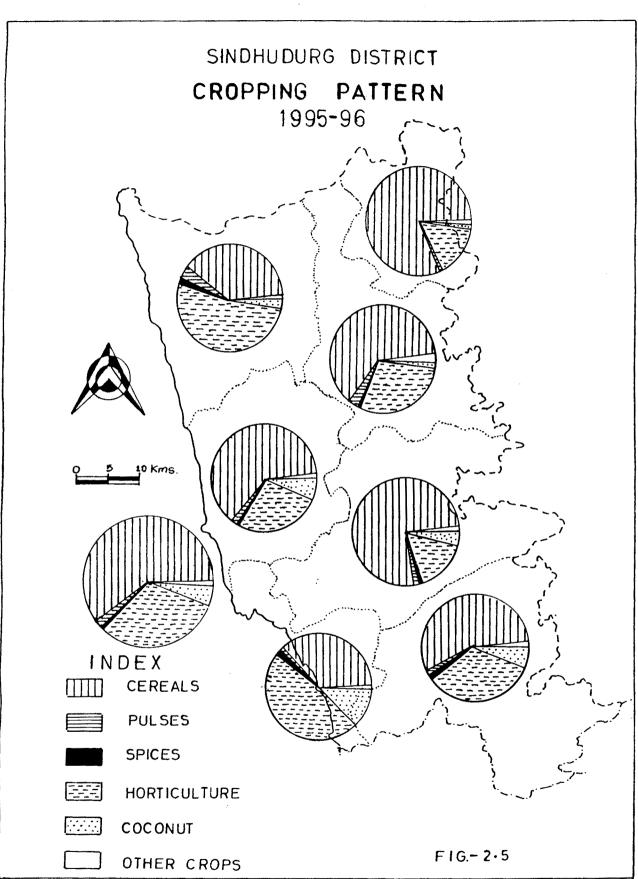
## TABLE NO. II.II.A

#### SINDHUDURG DISTRICT

### TALUKAWISE LAND UNDER DIFFERENT CROPS - 1995-96

(Area in Hectares)

Sr. No.	Taluka	Cereals	Pulses	Spices	Horticu- lture	Coconut	Other Crops	New Sown area
1.	Kudal	18468	187	27	3857	1030	183	23752
	% to total	22.91	9.37	3.75	9.09	15.78	12.76	17.76
2.	Malvan	14648	251	57	6137	1568	207	22868
	% to total	18.17	12.57	7.92	14.47	24.02	14.14	17.10
3.	Devgad	6489	573	113	9190	376	98	16839
	% to total	8.05	28.69	15.69	21.67	5.76	6.83	12.60
4.	Vaibhavwadi	5647	13	-	1115	35	45	6855
	% to total	7.00	0.65	-	2.63	0.54	3.14	5.13
5.	Kankavli	13635	667	10	6213	171	427	21123
	% to total	16.92	33.40	1.39	14.65	2.62	29.78	15.80
6.	Sawantwadi	16852	269	338	9792	1690	370	29311
	% to total	20.90	13.47	46.95	23.09	25.89	25.80	21.92
7.	Vengurla	4878	37	175	6106	1657	104	12957
	% to total	6.05	1.85	24.31	14.40	25.39	7.25	9.69
	Total	80617	1997	720	42410	6527	1434	133705
	% to total	100	100	100	100	100	100	100



#### 2.10 FISHERIES :

Sindhudurg district is one of the important maritime district of Maharashtra and therefore marine fishery is naturally an importnt economic activity of the district.

The coastal belt of the district stretches approximately to 121 kms. Fishing is done all along the coast, in the sea, generally up to 65 kms. from the coast. The important fishery centres in the district are Vengurla, Malwan and Devgad. Fishery activities are carried out during nine months from September to May.

The commercially important varieties of the fishes available in large quantities are Bangada, Tarli, Pedva, Mulshi, Shingada, Paplet, Halwa, Gedar, Surmai, Zinga, Dhoma, Ghol, Karli etc. There are 79 fishing villages along the sea coast, where various types of fishes are caught.

A major portion of the fish caught is transported by sea to Bombay. There is also good local demand at Kankavli, Sawantwadi and Vaibhavwadi. About 60 per cent of the fish is sold fresh, 30 per cent for satting and wet cured and about 10 per cent for sundried. The salt dried fishes even send to important towns in Maharashtra and in southern states. The sundried small fish is powdered in the local grainding mills at Malwan and Devgad. With a view to improve the socio-economic condition of the fisherman and to augment the fish supply, several developmental schemes are introduced by the Fisheries Department. There are 22 fishermen's co-operative credit societies in Sindhudurg district.

#### 2.11 INDUSTRIES :

Industrially, Maharashtra is one of the advanced state in the country but Sindhudurg is one of the most industrially underdeveloped district in the state. There is practically no major manufacturing industry in the district. The existing industrial establishments are mostly very small in size. The employment in nonagricultural sector depends mainly upon the village and cottage industries.

In the district, there are industrial estates in Kudal, Kankavli and Majgaon (Sawantwadi taluka). This area is given to small scale as well as large scale industries.

The most important small scale industries in the district are cashewnut processing, having a great demand in the national market, fruit preservation and silica processing. Other small industries are oil mills, saw mills, cement products, sodium silicate, laundry soap, printing, book binding, bidi making etc., which are located in Vengurla, Malwan and Kudal talukas. Kankavli, Kudal and Sawantwadi are also known for handloom weaving, wooden toys and decorative articles of fine quality. There is only one large-scale industry in the district. It is established at Redi in Vengurla taluka i.e. "Pig Iron and Steel Industry" or "USHA ISPAT". The project is the largest project in whole Maharashtra state. Its budget (expenditure) is near about Rs.120 crores and yearly production is near about 1.74 lakhs tonnes pig iron. In this project 4,000 person are directly engaged for employment and it also provides work 15 to 20 thousand persons indirectly.

#### 2.12 ROAD NETWORK :

The movement of people and goods entirely depends upon the roads and coastal shipping. Upto 1991, there was absence of railway line in the district.

The National Highway No. 17 i.e., Bombay - Konkan - Goa Road passes through Sindhudurg. Some important state highways passing through this district. The eastern part is a hill terrain and the roads leading to 'DESH' pass through the Western Ghats. The important Ghats are Amboli, Phonda, Ramghat and Bhuibawada.

In the rural areas of the district, there is an improvement in respect of pucca road facility in 1991 than in 1981, when there were 267 villages having pucca road facility. In 1991 it has increased by 103. In this district most of the villages are accessible and are connected either by a pucca or a kachcha approach road. 1.35% villages are accessible by Foot path only. About 50.27 per cent of the villages have pucca approach road. In this respect Devgad taluka

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enjoys a better position with 87.63 per cent of the villages having pucca approach road, on the other hand, Malwan taluka is in the most unfavourable position with 34.07 per cent. The aggregate population of the villages with pucca roads forms 63.91 per cent of the rural population of the district. In the Devgad and Kankavli obviously, a greater proportion of large sized villages enjoy the pucca road facility.

The type of roads by length are given in the table II.III

# <u>TABLE NO. II.III</u> SINDHUDURG DISTRICT :

Sr.No.	Category	Length in km.
1	National Highway	107.91
2	Main State Highway	139.92
3	Other State Highway	539.48
4	Major District Roads	671.93
5	Other District Roads	672.67
6	Village Roads	1123.57
7	Municipal Roads	91.49
8	Other Roads	100.10
	Total	3447.07

#### **CATEGORYWISE ROAD LENGTH**

Source :

1) Executive Engineer, P.W.D. Kankavli and Sawantwadi.

2) Executive Engineer, P.W.D. (Z.P.), Kankavli.

3) Municipal Councils of Sawantwadi, Vengurla and Malvan.

#### 2.13 IRRIGATION:

The Sindhudurg district has low water table. On account of the uneven surface the construction of canals are difficults. River are mostly seasonal, short and small. Consequently the region has little scope for the development of irrigation facilities.

The irrigated area in the district is distributed in to 252 villages out of 736 inhabited villages accounts for 34.24 per cent. Within the district total cultivated area is 39.97 per cent which is about two-fifth of the total area. The table II-IV gives details regarding the area under irrigation and the source of irrigation. Out of the total land under cultivation only 1.99 per cent land is under irrigation in 1990-91. The irrigation facilities are not developed much because this region is very rugged and complex. The farmers are mainly depend on the monsoonal rainfall.

Out of the total land under irrigation 14.47 per cent land is found under well irrigation, 39.62 per cent land is under river irrigation, 41.44 per cent under other irrigation sources and only 0.18 per cent under canal irrigation respectively.

Vengurla taluka has a slightly better proportion (5.47%) of the cultivated area under irrigation. Lowest irrigated area is observed in Vaibhavwadi taluka i.e. only 0.04 per cent of the cultivated area under irrigation. Other talukas exceeding the district average are Sawantwadi (3.31 per cent) and Kudal (2.30 per cent) and the remaining talukas as below the district average.

The talukawise analysis of land under irrigation has been shown in the Table No. II-IV-A, which gives the clear cut idea about the land under different uses in each taluka. (Fig. No.2.6).

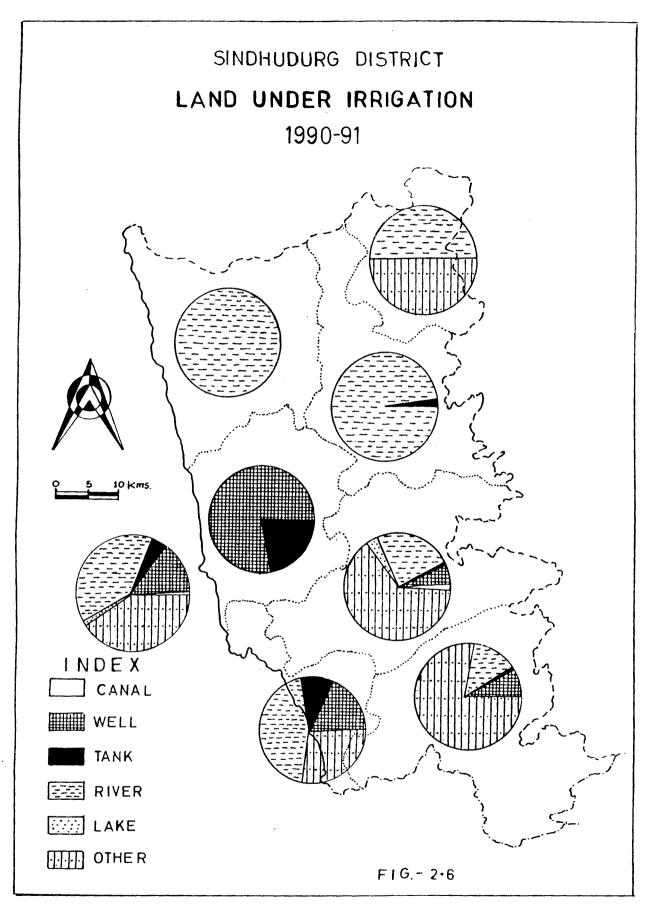
# TABLE NO. II.IV SINDHUDURG DISTRICT TALUKAWISE LAND UNDER IRRIGATION

Sr. No	Taluka	Percentage of cultivable area to total area	Percentage of Irrigated area to total cultivable area
1	Kudal	31.37	2.30
2	Malvan	42.04	1.73
3	Devgad	53.12	1.55
4	Vaibhavwadi	79.25	0.04
5	Kankavli	29.86	1.68
6	Sawantwadi	31.80	3.31
7	Vengurla	33.06	5.47
	Total	39.97	1.99

1990-91

Source : District Census Handbook of Sindhudurg District, 1991.

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# TABLE NO. II.IV.A SINDHUDURG DISTRICT TALUKAWISE LAND UNDER IRRIGATION BY DIFFERENT SOURCES (In Hectares) (1990-91)

Sr. No.	Taluka	Canal	Well	Tank	River	Lake	Other	Total
1.	Kudal	7.00	34.00	2.00	144.00	16.00	383.00	586.00
	% to total	1.20	5.80	0.34	24.57	2.73	65.36	100.00
2.	Malvan	-	346.15	95.79	-	-	-	<b>441.9</b> 4
	% to total	-	78.33	21.67	-	-	-	100.00
3.	Devgad	-	-	-	640.84	-	-	640.84
	% to total	-	-	-	100.00	-	-	100.00
4.	Vaibhavwadi	-	-	-	6.53	-	6.55	13.08
	% to total	-	-	-	49.92	-	50.08	100.00
5.	Kankavli	-	-	7.44	379.30	-	-	386.74
	% to total	-	-	1.92	98.08	-	-	100.00
6.	Sawantwadi	-	109.08	2.00	187.20	-	1125.06	1423.34
	% to total	-	7.66	0.15	13.15	-	79.04	100.00
7.	Vengurla	-	89.00	48.00	225.00	-	141.00 ·	503.00
	% to total	-	17.69	9.54	44.73	-	28.04	100.00
	Total	7.00	578.23	155.23	1582.87	16.00	1655.61	3994.94
	% to total	0.18	14.47	3.89	39.62	0.40	41.44	100.00

13646

#### 2.14 **POPULATION** :

According to the 1991 Census the total population of Sindhudurg district is 832152 having 389384 males and 442768 females. Thus Sindhudurg has 1.05 per cent of state's population over 1.69 per cent of its area . Our of the total 832,152 population of the district, 92.41 per cent are residing in rural areas and remaining 7.59 per cent are residing in urban areas. Sindhudurg district has 736 villages and all of these are inhabited. The urban population is distributed among 4 units of which 3 are municipal towns and one is census town. The overall density of population in Sindhudurg is 160 persons per square kilometre and this figure is much below the state average of 257.

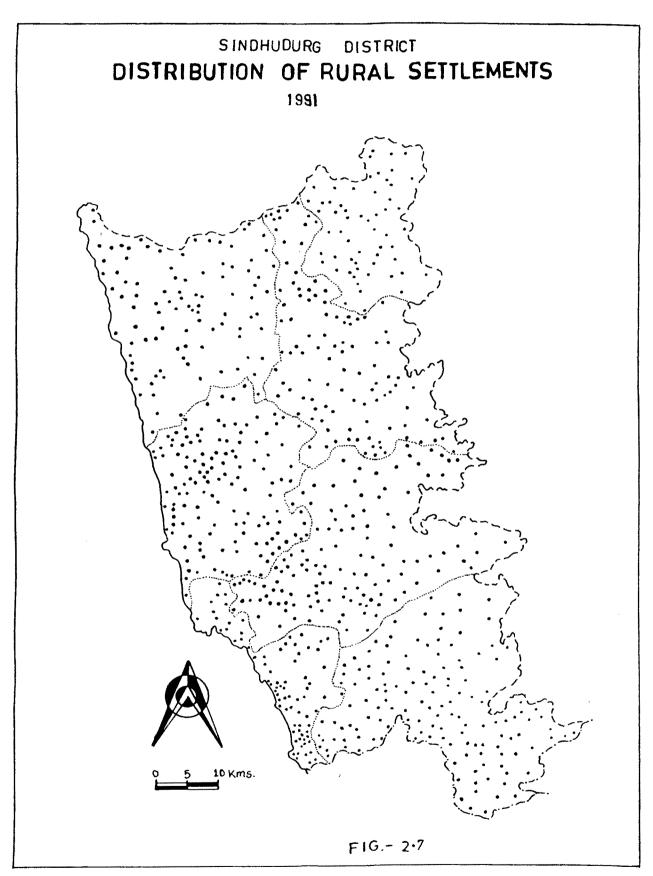
1991 Census recorded a sex ratio of 1137 females per 1000 males in the district. This is significantly higher than that of the state average 934. The literacy rate of Sindhudurg district in 1991 census was 75.81 per cent. The literacy rate for males is much higher than that of females. As much as 86.23 per cent of the males are literate while females account for only 66.87 per cent.

#### 2.15 SETTLEMENT DISTRIBUTION :

In the Sindhudurg district, there are 736 rural settlements and 4 urban centres according to 1991 census. It is the only district in the state having all villages in habited. The rural population is thus distributed among 736 inhabited villages in 7 talukas. The average number of inhabited village per taluka comes to about 105. Sawantwadi is the largest tahsil in terms of population, number of villages and geographical area, accounting for 19.02 per cent of the total inhabited villages and 21.44 per cent of the total rural population of the district.

Out of the total 832,152 population of the district, 92.41 per cent are residing in rural areas and remaining 7.59 per cent are residing in urban areas. The urban population is distributed among 4 units of which 3 are municipal towns and one is census (Kudal) town. Malvan, Kudal, Sawantwadi and Vengurla are small size urban centers. Sawantwadi is the most populous town. (Table No. II.V)

The average areal size of the village is 7 Sq.Kms. and the average population size of the village is 1045 persons. The average size of an urban center of the district works out to 15,788 persons.



The distributional patterns of rural settlements are also quite distinct. The settlement are generally not so concentrated and not so dispersed as in the other districts but are rather "relatively dispersed". The deference in arable land due to dissected topography and diversity of soil, high rainfall, vegetation, direction of the slope are factors which have resulted in comparative diffusion of settlements.

Overall picture shows that in the western part of district is plain areas, number of settlements are more concentrated. In the central part of the district it is moderate and in the eastern part of hilly region it is less. (Fig. No. 2.7)

#### TABLE NO. : II.V

#### SINDHUDURG DISTRICT

## TALUKAWISE DISTRIBUTION OF RURAL SETTLEMENTS AND TOWNS - 1991

Sr.No.	Taluka	No. of Rural Settlements	No. of towns
1	Kudal	123	1
2	Malvan	135	1
3	Devgad	97	
4	Vaibhavwadi	58	-
5	Kankavli	105	-
6	Sawantwadi	140	1
7	Vengurla	78	1
<b></b>	Total	736	4

Source : District census Handbook of Sindhudurg District, 1991.

#### REFERENCE

1.District census Hand books of the SindhudurgDistrict, 1971, 1981 and 1991.

2. Maharashtra State Gazetter

- 3. Punekar S. D. and golwalkar Alka R. (1973), "Rural change in Maharashtra" An Analytical study change in six villages in Konkan, Tata institute of social sciences - Bombay.
- 4. Socio-Economic Reviews and Statistical Abstracts of the Sindhudurg District, 1996-97.