

CHAPTER - III

POPULATION CHARACTERISTICS

- 3.1 Introduction
- 3.2 The growth of population
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3.1 Introduction :

Population is described as a resource of the country. Man plays unique role in the overall scheme of resource development. He is both the producer as well as consumer of resources. A group of people can only prosper, increase and grow powerful, when its environment supplies it abundance of food and other necessary things of life. A well balanced diet enables a person to lead a healthy and active life, which is needed for the economic development of the country.

The Western Sangli district covers about 40.25 percent area of the Sangli district. However it carries about 67.65 percent of the population of the district. More than 2/3 of the total population of the district resides in Western Sangli district. This is due to Sangli-Miraj-Madhavnagar urban area which possesses 22 percent population of Western Sangli district.

3.2 The growth of population :

According to 1971 census, the population of Western Sangli district was 10,19,989, which increased to 12,38,868 in 1981. However the district's total population was 15,39,820 in 1971 and 18,31,212 in 1981. The decadal growth rate was 21.4 percent for Western Sangli district and 18.9 percent for total Sangli district. This clearly indicates that the population of Western Sangli district is increasing at a faster rate than the district's total. Tahsilwise population in 1961, 1971, 1981.

The decadal variation in 1961-1971 and 1971-1981 is shown in Table 3.1.

Table 3.1 Tahsilwise population in 1961-71-81 and decadal variation in 1961-71 and 1971-81.

Sr. No.	Tahsil	Population			Decadal percentage variation	
		1961	1971	1981	1961-71	1971-81
1.	Miraj	30,1,538	40,8,804	50,6,320	+ 35.55	+ 23.85
2.	Tasgaon	20,2,758	25,0,679	30,0,597	+ 23.63	+ 19.91
3.	Walwa	20,3,428	25,9,326	30,1,302	+ 25.02	+ 16.18
4.	Shirala	89,845	10,6,180	13,0,649	+ 18.18	+ 23.04

As compared to decadal percentage variation of 1961-71 to 1971-81, it indicates that there is a decline in decadal percentage variation in Miraj, Tasgaon, and Walwa tahsil, whereas there is increase in percentage variation in Shirala tahsil. That means the population of Shirala tahsil is increasing at a faster rate than the other tahsils. According to 1981 census the population of Khanapur tahsil was 2,17,598 whereas in 1971 it was 1,86,332. This is a marginal tahsil in the northern part of the district.

3.3 Density of population :

Man and land are the ultimate elements in the life of human society. So that the number of people in proportion to the amount of land is a fundamental consideration in the population

study.¹ Various indices to measure man-land ratio and pressure of population on the land are as follows.²

1. Crude or surface or overall density
2. Rural density
3. Man-soil density or physiographic density
4. Agricultural density
5. Nutritional density or man crop ratio

Crude or surface or overall density :

It is simple arithmetic ratio which divides total population by total area. The overall population density of Western Sangli district varies from place to place. The crude population density for the entire Sangli district, Western Sangli district and its tahsils from 1961 to 1981 is shown in Table 3.2.

Table 3.2 Crude population density from 1961 to 1981.

Sr. No.	District/Tahsil	Density per sq.kms.		
		1961	1971	1981
1.	District total	143	180	214
2.	Western Sangli district	231	296	359
	a) Miraj tahsil	339	449	547
	b) Tasgaon tahsil	183	223	270
	c) Walwa tahsil	261	327	383
	d) Shirala tahsil	141	167	206

The table clearly indicates that overall density of population of Western Sangli district for 1971 and 1981 is 296 and 359 per sq.km. respectively, both of which are more than the corresponding figures for the district total (180 and 214 per sq.km. respectively). The density of population varies from 547 persons per sq.km. in Miraj tahsil to 205 persons per sq.km. in Shirala tahsil. These difference are generally corresponding to those of topography and land utilization. The concentration of population is in Miraj tahsil, due to Sangli-Miraj-Madhavnagar urban area which alone contributes more than 1/5th of the total population of Western Sangli district. The urban population density of Miraj tahsil is 3196 persons per sq.km. followed by 1075 and 465 persons per sq.km. for Tasgaon and Walwa respectively. The highest population is observed in Miraj tahsil, moderate in Walwa and Tasgaon and low in Shirala tahsil. The topography, relief, socio-economic condition have affected the population density. The population density of Khanapur tahsil was 164 persons per sq.kms. in 1981.

The overall population density is unsatisfactory representation, because it expresses a quantitative relationship between two elements which in themselves are highly inconstant.

Rural density :

Rural density calculated on the basis of the total rural land area and total rural population, irrespective of the land's suitability for agriculture, is of limited value. It indicates

the simple relationship between total rural population and total rural area. The rural population density is shown in Table 3.3.

Table 3.3 Rural density per sq.km., 1981.

Sr.No.	District/Tahsil	Density
1.	Sangli district	174
2.	Western Sangli district	385
3.	Miraj tahsil	282
4.	Tasgaon tahsil	238
5.	Walwa tahsil	369
6.	Shirala	206

The table shows that the Western Sangli district has high population density than the total Sangli district. Walwa tahsil recorded highest rural population density and Shirala recorded lowest population density. Miraj and Tasgaon tahsil are having medium rural population density. Khanapur tahsil has lowest population density which is 153 persons per sq.km. in 1981.

Man-soil or physiographic density :

Man-soil density (Kuperus, 1938) or physiographic density (Trewartha, 1953) expressed by a ratio ;

$$\frac{\text{Total population}}{\text{Total cultivated area}}$$

It is some more refined concept hardly adequate for making regional comparison in population burden in land and its impact on landuse. The following table shows physiographic density per hectare (Map.3.1A).

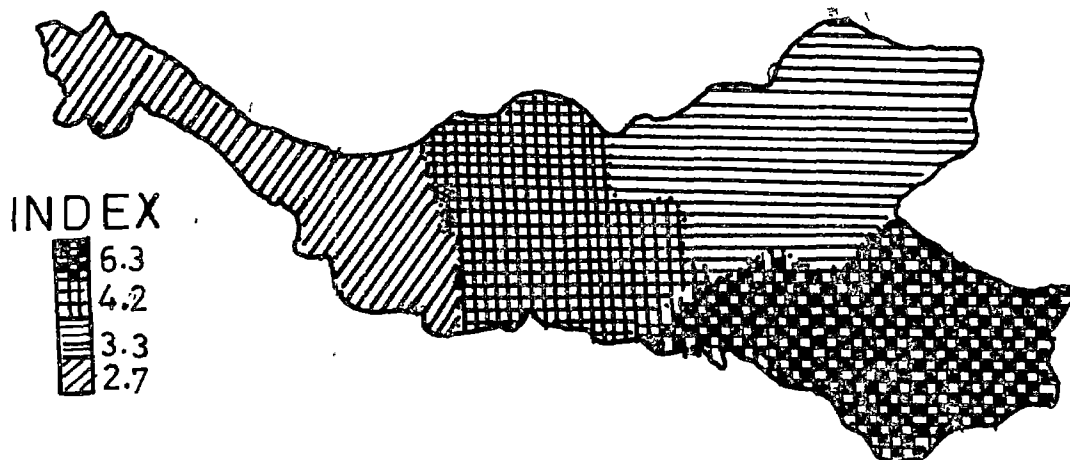
Table 3.4 Physiographic density per hectare 1980-81.

Sr.No.	District/Tahsil	Density
1.	Sangli district	2.6
2.	Western Sangli district	3.8
3.	Miraj tahsil	6.3
4.	Tasgaon tahsil	3.3
5.	Walwa tahsil	4.2
6.	Shirala	2.7

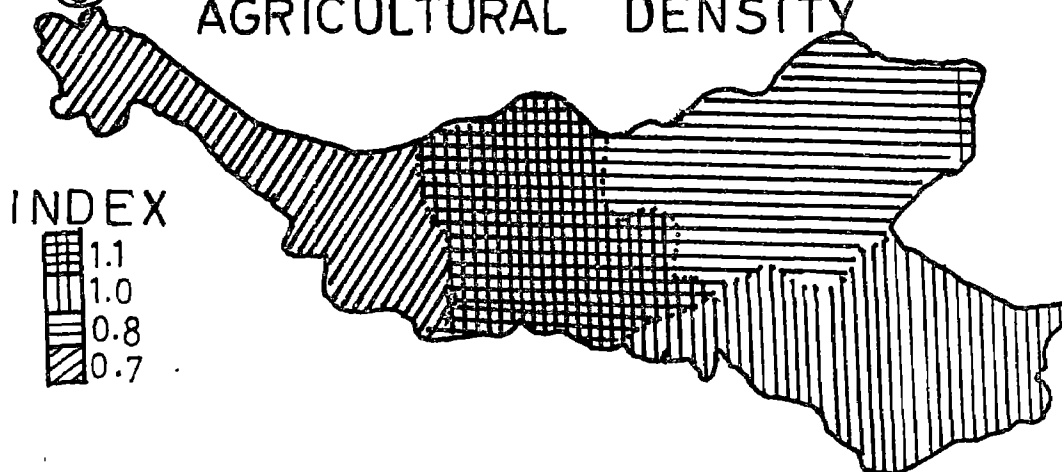
The physiographic density for Western Sangli district is 3.8 per hectare. However for total Sangli district it is 2.6 per hectare. Miraj taluka recorded highest physiographic density. The Miraj tahsil alone contributes 41 percent of population of Western Sangli district; whereas 28 percent of total cultivated area of Western Sangli district. Man-soil ratio is high which indicates heavy population burden on soil. The topography of Shirala tahsil is hilly and mountainious, hence cultivated area is less but as it is a sparsely populated tahsil of Western Sangli

POPULATION DENSITY — Wn. SANGLI DIST, 1981

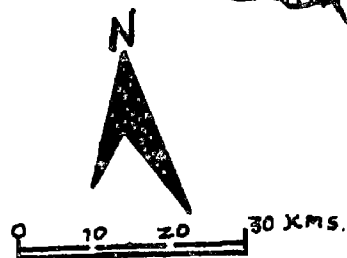
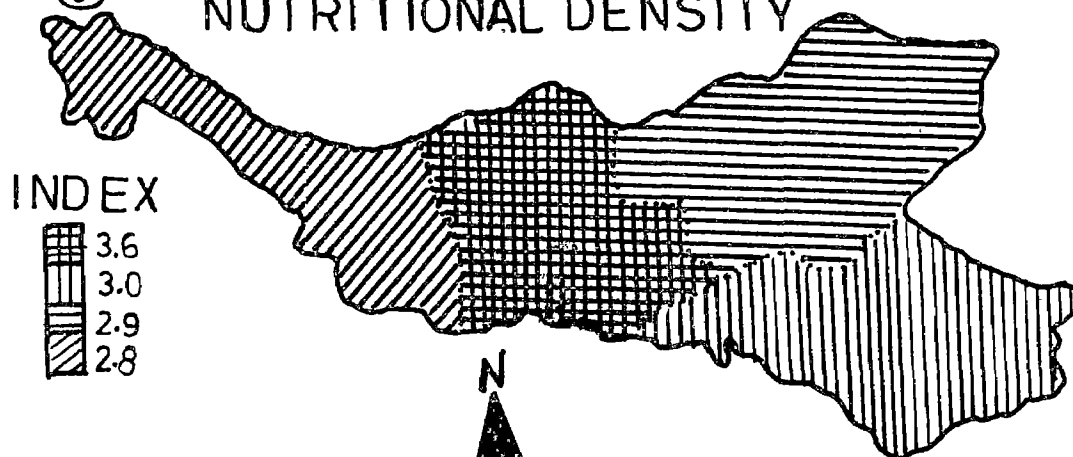
(A) PHYSIOGRAPHIC DENSITY



(B) AGRICULTURAL DENSITY



(C) NUTRITIONAL DENSITY



district. Hence physiographic density is less. Tasgaon and Walwa tahsils have moderate physiographic density.

Agricultural density :

Agricultural density is expressed by the ratio :

$$\frac{\text{Agricultural population}}{\text{cultivated area}}$$

Agricultural density is a better approach to analyse landuse in agricultural countries where heavy reliance is placed on farming. The cultivated area takes no account of area sown more than once but it does include fallow lands. (Map 3.1B)

Table 3.5 Agricultural density per hectare, 1980-81.

Sr.No.	District/Tahsil	Density
1.	Sangli district	0.6
2.	Western Sangli district	0.9
3.	Miraj tahsil	1.0
4.	Tasgaon tahsil	0.8
5.	Walwa tahsil	1.1
6.	Shirala tahsil	0.7

Western Sangli district has high agricultural density than the total district. Walwa and Miraj tahsils have recorded highest agricultural density. Tasgaon and Shirala have recorded

low agricultural density. That means Walwa and Miraj has high agricultural population pressure on the soil than the Tasgaon and Shirala.

Agricultural density does not consider the potential productivity of soil. Therefore, agricultural density can not be used as reliable for scientific planning of landuse.

Nutritional density or man crop ratio :

An elaboration of agricultural density may be nutritional density or man crop ratio :

$$\frac{\text{Total rural population}}{\text{Total cropped area}}$$

The cropped area excludes fallow land, but includes the area sown more than once. The following table shows per hectare nutritional density. (Map 3.1C)

Table 3.6 Nutritional density per hectare, 1980-81.

Sr.No.	District/Tahsil	Density
1.	Sangli district	2.1
2.	Western Sangli district	3.0
3.	Miraj	3.0
4.	Tasgaon	2.9
5.	Walwa	3.6
6.	Shirala	2.8



The nutritional density of Western Sangli district is 3 persons per hectare as against 2.1 for total Sangli district. The highest nutritional density is observed in Walwa tahsil. In Walwa tahsil rural population is more as compared to the total cropped area. In Miraj tahsil rural population is less than the urban population, nutritional density is 3 persons per hectare. In Shirala tahsil all the population is rural but it is sparsely populated tahsil in Western Sangli district. Though Shirala is having low nutritional density but agriculture is not developed and holdings are too small and the production is not sufficient. So all the villages of Shirala tahsil face the problem of undernourishment. Tasgaon tahsil have nutritional density equal to that of Miraj tahsil. Both tahsils support 3 persons per hectare. Agriculture is developed a narrow strip of land along Krishna and Yerela basin. The villages like Ankalkhop, Rethare Narnax, Visapur, Kundal, Haripur are agriculturally flourished villages in Krishna and Yerela basins. But all these villages face malnutrition problem. All other villages outside the Krishna and Yerela basin face the undernutrition problem.

3.4 Rural urban ratio :

The population living in rural areas is 8.6 lakhs, while in urban areas it is 3.7 lakhs. That mean rural population is 70.1 percent and urban population is 29.9 percent, as against the district total is 78.4 percent and 21.6 percent respectively.

Table 3.7 Rural-urban division of population in the study region.

Sr. No.	District/Tahsil	Total population	Rural percent	Urban percent
1.	Sangli district	1,831,212	78.4	21.6
2.	W. Sangli district	1,238,868	70.1	29.9
3.	Miraj Tahsil	506,320	46.8	53.2
4.	Tasgaon Tahsil	300,597	84.4	15.6
5.	Walwa Tahsil	301,302	81.9	18.1
6.	Shirala Tahsil	130,649	100.0	-

Highest percentage of urban population is marked in Miraj tahsil which is 53.2 percent spread in Sangli-Miraj-Madhavnagar urban area. There are 7 urban centres in Western Sangli district. Out of it 3 are in Miraj taluka. Walwa tahsil ranks after Miraj. Nearly 18 percent of urban population is spread in Uran Islampur and Ashta urban centre. Tasgaon tahsil having 16 percent of urban population. Tasgaon and Kirloskarwadi are the two urban places. Shirala tahsil do not have a single urban centre. In Khanapur tahsil nearly 88.5 percent of population is rural.

3.5 Sex ratio :

The total population of Western Sangli district was 12,38,868 in 1981, out of which 8,35,284 were males and 6,03,584 were females. So the sex ratio (number of females per 1000 males)

of Western Sangli district is 950, as compared to the total district's ratio of 966. This ratio is variable in the region. Maharashtra state's ratio is 937 as compared to all India ratio of only 935 women.

Table 3.8 Sex ratio in the study region in the year 1981.

Sr.No.	District/Tahsil	Sex ratio
1.	Sangli district	966
2.	Western Sangli district	950
3.	Miraj tahsil	921
4.	Tasgaon tahsil	956
5.	Walwa tahsil	945
6.	Shirala tahsil	1066

This ratio is variable in Shirala tahsil which is 1066 due to migration of male population towards Bombay and other cities of Western Maharashtra. Tasgaon also faces the problem of out migration of male population. Walwa tahsil is near to the average. Miraj tahsil there are 921 women per thousand men. This is due in migration of male population towards Sangli-Miraj-Madhavnagar for in search of employment.

The requirement of food depends upon the sex and other aspect. The requirements are greater in pregnancy, lactation and during the growth period. In Khanapur tahsil there are 1046 woman

per thousand men. This clearly indicates the out migration of male population.

3.6 Literacy :

Table 3.9 Literacy in percentage in 1981.

Sr.No.	District/Tahsil	Literates		
		Persons	Males	Females
1.	Sangli district	47	60	34
2.	Western Sangli district	51	64	38
3.	Miraj	56	67	45
4.	Tasgaon	50	63	37
5.	Walwa	51	65	37
6.	Shirala	37	53	21

The literacy rate in Western Sangli district is 51 percent, however for the entire district the rate is 47 percent, which is equivalent to the Maharashtra state literacy (47.37%). In the case of male population it is 64 percent and in female population 38 percent. Variation in literacy is found in different tahsils. Miraj tahsil has highest literacy (56 percent). Second and third place in percentage of literacy is occupied by Walwa (51 percent) and Tasgaon (50 percent). Shirala has found lowest literacy.

3.7 Occupational structure & dependency ratio :

Requirement of food depends upon the type of work. A man engaged in active manual work requires more amount of food than the man engaged in sedentary work. The food requirement also differs according children, teenager, adults and old persons. Working population and dependency ratio is shown in Table 3.10.

Table 3.10 Main workers, marginal workers and non-workers percentage of Miraj, Tasgaon, Walwa & Shirala tahsil.

Sr. No.	Tahsil	Main workers	Marginal workers	Non workers	Cultivators & Agri. labours among main workers
1.	Sangli district	34	5	61	70
2.	W.Sangli district	32	4	64	64
3.	Miraj	32	2	66	47
4.	Tasgaon	35	5	60	75
5.	Walwa	35	4	61	76
6.	Shirala	31	9	60	75

The table indicates main workers, marginal workers and non-workers of total Sangli district, western part of Sangli district and its tahsil. Main workers is the real working population which includes cultivators, agricultural laboures,

livestock, forestry, fishing, hunting, plantation, mining and quarrying, manufacturing, construction, trade and communication, other services. Marginal workers include teenagers which is not real working population but they help in cultivation and other activities. Non working population include children and old persons.

Out of the total population of the study region 32% are the main workers, out of which 64 percent are cultivators and agricultural labourers, as against 34 percent population is main workers, out of which 70 percent are cultivators and agricultural labourers to the whole Sangli district. Nearly 64 percent population is dependent as compared to 36 percent population is working population in Western Sangli district. Miraj tahsil has recorded 32 percent population is main workers, out of which 47 percent are cultivators and agricultural labourers. Cultivators and agricultural labourers are less as compared to other tahsils. This is because most of the population of Sangli-Miraj-Madhavnagar urban area is engaged in other than the agricultural activities. Miraj tahsil has recorded highest dependent population.

Tasgaon, Walwa and Shirala tahsils have the same position. In all these three tahsil more than 30 percent of population is working population and out of it more than 70 percent are cultivators and agricultural labourers. The dependent population is also nearly the same. Nearly 60 percent population is dependent. Shirala tahsil has recorded highest marginal workers population. This is because literacy is very low, so teenagers

help to their parents in their concern activities.

The dependancy ratio is highest in Miraj tahsil. Nearly 66 percent of population is dependent. The dependancy ratio of Walwa, Tasgaon, and Shirala tahsils are the same. Nearly 60% of population is dependent. There is close relationship between dependancy ratio and nutritional level. High dependancy ratio causes for the low nutritional level. All the people are not well fed and health problem continues. Dependancy ratio also indicates the level of economic development. High dependancy ratio is the sign of poor economic development. So it indicate that nutritional level as well as economic level of the region is not satisfactory.

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