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CHAPTER III

AGRICULTURAL PROFILES OF SANGLI DISTRICT

3.1. Location :-

Sangli district is one of the parts of famous " Deccan Plateau ". It lies between $16^{\circ} - 45'$ and $17^{\circ} - 33'$ North latitudes and $73^{\circ} - 42'$ and $75^{\circ} - 40'$ East longitudes. This district is bound on East by Bijapur district in Karnatak State, on the West by the district Ratnagiri, on the South by the district Kolhapur and Belgaum district of Karnatak State. On the North lies the Satara and Solapur districts. The district has 8 talukas with 711 villages.

3.2. Topography :-

This district falls partly in Krishna basin and partly in Bhima basin. Consequently, it is divided into different drain systems. The whole district can also be divided into three different parts on the basis of topography, climatology and rainfall, viz.

- (1) Western hilly area of Shirala tahsil with heavy rainfall.
- (2) The basin area of Krishna, Warana and Yerala comprising of Walwa tahsil, Eastern part of Shirala and western parts of Miraj and Tasgaon tahsils.
- (3) Eastern drought prone area which comprises of Eastern parts of Miraj and Tasgaon tahsils. North-Eastern parts of Khanapur and whole of Atpadi, Kavathe - Mahankal and Jath tahsils.

The district comes under the shadow of hill ranges; viz. (1) Sahyadri ranges and its offshoots. (2) Offshoots of Mahimangad - Panhala ranges.

Krishna, with its Warana and Yerala tributaries flows through the western part of the district. Warana flows west to east along the Southern boundaries of the district and joins Krishna river at Haripur near Sangli city. Yerala flows from North - West to South - East and after traversing the western part of Khanapur and Brahmanal meets Krishna river. All these rivers are the lifelines of the Western half of the district and serve as a source for larger irrigation schemes.

Agrani, Man and Bor rivers constitute the drain system for the Eastern part of the district. The water

resources from these rivers are very limited and these rivers remain dry for major part of the year.

3.3. Climate and Rainfall :-

In the matter of daily average minimum and maximum temperature ranges hot. Much variation is observed in different zones of the district. The difference is however made by rainfall, extent of vegetation and topography etc. the climate gets hotter and drier towards East and humidity goes on increasing towards the West. The annual maximum temperature of the district is 41.50°C and minimum temperature is 10.30°C .

The rainfall is heavy in the Shirala taluka area. Yearly average rainfall is 1250 mm in the area bordering Shirala tahsil on the East. As we go towards the West of the region the rainfall goes on increasing and in the extreme west, the rainfall is about 6000 mm in a year.

Walwa tahsil, Western part of Khanapur and Tasgaon tahsils and western part of Miraj tahsil fall within the rainfall range of 600 mm to 1250 mm. The rainfall goes on decreasing as we go towards East from the Western boundary of Walwa tahsil. The rest of the region has scanty rainfall which is less than 600 mm.

The other peculiar characteristics of the rainfall are that the average number of rainy days are about 49. Nearly 68 percent of the total rain falls during June to September and 19 percent during October and November. The district also receives shower with thunders during the month of May.

3.4. Population Characters :-

The study of human resources is vital both from the point of view of economic development and economic welfare because human beings are not only instruments of production but also ends in themselves. The human resource provide labour force in the process of production. So that the entire population of the region can live in the conditions of comfort and higher standard of living. The Table 3.1 shows the composition of population character of Sangli District.

The national trend in the growth of population is observed in Sangli district also. On an average about 30 thousand population growth per annum is observed between 1971 - 1981. The density of population has increased from 164 to 213 during same period.

3.5. Agriculture :-

Agriculture is the backbone of our economy. Rural life is mainly dependent on agriculture. Agricultural backwardness is one of the problems of our economy even today. The State of Maharashtra and even Sangli district is no exception to this. Infact this area is more pronounced by hilly region, rocky or poor soils, scarcity and uncertain rains in the eastern zone, inadequate irrigational facilities, poor use of chemical fertilizers etc. All these have barred the productivity of agriculture.

3.5.1 Soils :-

The type and nature of soils is one of the important factors influencing the cropping pattern in the area. The fertility of the land depends upon the type of soil, its depth, slope, its chemical composition and the drain system. The soil of varied texture and structure is observed in Sangli district.

The soil in the western part of the district (i.e. certain area of Shirala tahsil) is formed from red laterite mixed with hard murum due to the hilly nature of the zone. This type of soil contains iron compounds and has a good property of drainage.

The Central portion of the district which covers area of Walwa, Tasgaon and Miraj tahsils has deep black soils capable of yielding bumper khariff crops. These soils are highly retentive of moisture grow rabbi Jowar, wheat, gram, and cash crops like Sugarcane, turmeric, chillies, grapes etc. This central portion is thus the rich agricultural track of the district.

The rest, eastern part of the district comprising Miraj, Tasgaon, Khanapur and whole of Atpadi, Kavath - Mahankal and Jath tahsils has a shallow poor grey soils which is a well known scarcity track. Bajra, cotton, Jowar are the main crops of this zone.

3.5.2 Land Utilisation :-

Land is the basic requirement of human activity. It is the basic requirement for planning his activities. Since long, the land is being used for various purposes according to his capacity and technical acumen. Land use pattern presents a socio - economic picture and indicates the status_{of} the community using the land. It also provides information about the extent of exploitation of the land as a resource for the welfare of the individual and of the community at large. Table 3.2 shows the variations in land utilisation pattern of

Sangli district during the period between 1980 - 81 to 1988 - 89.

Table 3.2 broadly indicates the trend in land utilisation between 1980 - 81 and 1985 - 86. The total geographical area increased by 2900 hectares, because one village viz. Nagaj has been added to this district. The area under land put to non - agricultural use has decreased by 2000 hectares. Same is the position with barron land too. The current fallow land and total fallow land has declined by 547 and 162 hundred hectares respectively during the period because other fallow land increased by 485 hundred hectares. This is because of the mismanagement of water resources in western part of the district. The net sown area and gross cropped area has increased by 15000 and 18900 acres during the period 1980 - 81 to 1988 - 89.

3.5.3 Cropping Pattern :-

The development in the field of agriculture can be assessed from three main indicators viz.;

- (1) Percentage of gross area sown to net area sown,
- (2) Percentage of net area irrigated to net area sown,
- (3) Productivity of important crops. The net performance of these indicators as indicated in Table No. 3.2,

shows that the district's economic position is improving and developing. Table 3.3 indicates the variations in cropping pattern between 1979-80 and 1985-86.

The trend of cropping pattern in the district during seven years from 1979 - 80 shows a considerable change over the period. The area under sugarcane and other cash crops has shown an increasing trend. Jowar is the principal crop of this district which covers about 36 to 38 percent of gross cropped area, which also increased by 17152 hectares during the period. The area under paddy maize groundnut, cotton and condiments decreased considerably with growth in irrigation facilities. The area under cash crops increased; particularly under g sugarcane.

3.5.4. Irrigation :-

The water potential available in the district is being tapped by undertaking the irrigation projects which are classified as Flow Irrigation and Lift Irrigation. The Flow Irrigation schemes are further classified as major and minor. It depends upon the cost and command area of the scheme.

The following are the main Irrigation schemes in the Sangli district.

- (1) Lift Irrigation Schemes on rivers,
- (2) Lift Irrigation Schemes under Crash Programme.
- (3) Lift Irrigation Schemes organised by Co - operative Sugar Factories.
- (4) Lift Irrigation on Wells and Private Co - operative Irrigation Schemes.

Table 3.4 explains the clear picture of progress of irrigation in Sangli district, during the period between 1979-80 - 1985-86.

It is evidenced from the figures of Table 3.4 that the irrigation in Sangli district depends on wells and tube wells. Nearly three fourth of irrigated land is covered by well irrigation. The net area under irrigation was 68,000 hectares in 1980 - 81 and 70,000 hectares in 1985 - 86.

3.5.5. Area and Yield of Crops :-

Table 3.5 shows the area under different crops and yield per hectar of some crops.

Production per hectare of cotton increased at the rate of 63.97 percent per annum and that of gram at

at the rate of 24.09 percent per annum. Production per hectare of wheat and sugarcane showed least increase less than two percent per annum. Yield per hectare of Tur divided by 9.63 percent per annum. The number of iron plough increased by 9.8 percent and of tractors by 106.75 percent during 1977-78 and 1982-83 and that of wooden ploughs declined by 4.77 percent during this period.

The importance of cattle wealth in a predominant in agricultural economy needs no emphasis. Farmer's income can be supplemented by undertaking allied activities like dairy, poultry, piggery fishery etc.

Animal husbandry in Sangli district from the view point of its substantial contribution in providing income and subsidiary food to human population, is of great importance. The data on livestock population for the period of 1977 - 78 to 1981 - 82 is given in Table 3.6.

Population of livestock according to livestock census of 1978 shows that, there is an increasing trend in in the total livestocks of the district of the district. There was an increase in the number of poultry at the

rate of 3.14 percent per annum. The number of buffaloes increased marginally at an average rate of 0.48 percent per annum. The number of sheeps decreased because of the restrictions put by Government on sheep rearing by prohibiting use of reserve forests. The use of horses decreased because of the growth in automative transport sources.

3.5.7 Agro - Industries :-

There are no major industries in this district which are based on minderals due to lack of important mineral deposits in the district. The industrial development is observed mainly in Sangli, Miraj, Madhavnagar, urban complex. Other industrial growth centres in the district are located at Kirloskarwadi and Vita. There are six co-operative Sugar factories in the district located at Kavathe Mahankal, Sangli, Sakharale, Walwa, two khandasary units are located at Kavathe Mahankal and Jath. Textile units are located at Madhavnagar, Sangli, Miraj and Kupwad. The grape cultivation and grape drying activity is growing in the district. Two more sugar factories are proposed in this district.

The dairy development has a notable share in the economy of this district. There is one government

milk dairy having a capacity of 1,20,000 litres of milk collection per day located at Miraj and other six co-operative dairy unions collecting milk from every corner of the district. There are two chilling plants at Kadegaon and Jath in Government sector. One mini chilling plant at Karanjavade in Walwa tahsil was started functioning recently. The dairy union and Government Dairy of Miraj collected over 5.23 crores litres of milk in the year 1987-88.

3.5.8 Fisheries :-

The Sangli District having no coastal line has to think of only inland fisheries. Various fisheries development programmes have been taken for the development of this sector.

The progress of fisheries in Sangli district is explained in Table 3.7.

It is heartening to note that there is a considerable increase in fish - culture activity and fish production during the period between 1980-88. Fish production increased at the rate of 51 percent per annum on average and increase in value at the rate of 144.72 percent per annum. There is a great potential to develop fisheries in the district.

Sangli district is basically an agricultural district with growing number of agro - based industries. Eastern area is drought prone. Rainfall is varied from 600 mm in a year. Population of the district is growing at the rate of 2.35 percent per annum. There is much migration from rural to urban area. Gross cropped area has increased nearly by three percent in years 1980 - 81 and 1985-86. Double cropped area increased by 12 percent but as proportion of total cropped area is negligible. Almost 38 percent of cropped area is under cash crops and it has increased by six percent in six years. There is some improvement in productivity of various crops. Livestock population shows popularity of poultry followed by dairy. There are considerable agro based industrial units in the district. But other specially engineering industry has made little headway. There has been remarkable increase in fishing.

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Table No. 3.1Population Characters(figures in Rupees)

Sr. No.		1980-81	1988-89	Average annual rate of change
(1)	Rural Population	1253	1440	+ 1.86
(2)	Urban Population	287	394	+ 4.66
(3)	Males	782	933	--
(4)	Females	758	902	--
(5)	Ratio (per 1000 male to female)	961	967	--
	Total Population	1540	1835	+ 2.38

Source :- Socio Economic Review & District Statistical
Abstract of Sangli District 1980-81 and
1988-89.

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Table No. 3.2

Land Utilisation .

(Area in hundred Hectares)

Sr. No.	Land Utilisation	1980-81	1988-89
(1)	Total geographical area	8,611	8,640
(2)	Total Land under forest	472	475
(3)	Land put to non-agricultural use.	177	157
(4)	Barron and un-cultivable Land	399	378
(5)	Permanent pasture and other grazing land.	168	191
(6)	Cultivable waste	127	315
(7)	Land under misc.trees crops etc. not included in area swon	150	154
(8)	Current fallow	658	111
(9)	Other fallow	486	671
(10)	Total fallow Land	1,144	982
(11)	Net area swon	5,974	6,124
(12)	Area swon more than once	332	372
(13)	Gross cropped area	6,306	6,495

Source :- Compiled from Socio Economic Review & District Statistical Abstract of Sangli District 1980-81 and 1987-88.

Note :- figures of all columns are round up so the total is not equal to total geographical area.

Table No. 3.3Cropping Pattern .

Sr. No.	Name of Crops	<u>Area in hectares</u>	
		1980-81	1985-86
(1)	Rice -- --	20,125	10,947
(2)	Wheat -- --	17,360	19,282
(3)	Jowar (Rabbi & Khariff)	2,32,201	2,49,353
(4)	Bajara -- --	1,03,840	1,08,185
(5)	Maize -- --	5,035	3,944
(6)	Gram -- --	10,458	13,350
(7)	Tur -- --	13,487	15,136
(8)	Sugarcane -- --	29,876	37,184
(9)	Turmeric -- --	1,254	N.A.
(10)	Chillies -- --	5,598	N.A.
(11)	Groundnt -- --	45,791	45,068
(12)	Tobacco -- --	4,698	3,450
(13)	Fruits & Vegetables	3,202	6,716
(14)	Oil Seeds -- --	54,839	NA.
(15)	Cotton -- --	3,282	1,516
(16)	Total Condiments --	7,576	2,055

Statistical

Source :- Socio Economic Review & District/Abstract
of Sangli District 1980-81 and - 1987-88.

Note :- N.A. -- Not Available.

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Table No. 3.4Sources of Irrigation

Sr. No.	Name of Scheme	1979-80	1985-86
(1)	Total number of wells.	50,015	50,413
(2)	Number of Irrigation Schemes on wells in use	43,864	46,530
(3)	Number of Irrigation wells not in use.	3,472	3,860
(4)	Number of Bore wells (successful)	250	3,365
(5)	Total area Irrigated	99,678	1,07,493

Source :- Socio Economic Review & District Statistical Abstract Sangli 1980-81 and 1985-86.

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Table No. 3.5Area and Yield of Crops

Sr. No.	Name of the Crop	1979-80		1985-86	
		Area in hectares	Yield/ hectare in Kgs.	Area in hectares	Yield/ hectare in Kgs.
(1)	Rice -- --	20,125	1,484	19,947	1,880
(2)	Wheat -- --	17,360	890	19,282	948
(3)	Jowar -- --	1,33,916	781	1,46,144	1,066
(4)	Bajara -- --	1,03,840	205	1,08,165	327
(5)	Gram -- --	10,458	379	13,350	927
(6)	Tur -- --	13,487	893	15,136	377
(7)	Groundnut --	45,791	661	45,068	918
(8)	Sugarcane --	29,876	8,762	37,184	9,739
(9)	Cotton -- --	3,282	155	1,516	750

Source :- Socio Economic Review and District Statistical Abstract of Sangli District 1980-81 and 1987-88.

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Table No. 3.6Live Stock

Sr. No.	Name of the Animals		1978	1982
(1)	Buffaloes	-- --	2,83,215	2,88,676
(2)	Sheeps	-- --	2,53,463	2,23,043
(3)	Goats	-- --	2,42,132	2,58,145
(4)	Horses and Ponies	--	1,000	819
(5)	Other Live Stock	--	5,144	45,476
(6)	Poultry	-- --	10,28,637	11,58,025
Total Live Stock		--	19,65,701	11,45,693

Source :- Socio Economic Review and District Statistical Abstract of Sangli District 1980-81 and 1987-88.

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Table No. 3.7Fisheries

Sr. No.	Items	1980-81	1987-88
(1)	Total length of rivers in K.M.	392	392
(2)	Total area suitable for fish culture, Ponds, lakes, and resources.(hectares)	4,140	4,958
(3)	Total area brought under fish culture (hectares)	2,577	3,669
(4)	Inland fish production (M.T.)	175	800
(5)	Value of Fishes to the fish producers (Rs.in Lakhs)	5.75	64.00

Source :- Socio Economic Review and District Statistical Abstract Sangli District 1980-81 and 1987-88.

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