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**“CHANGING CROPPING PATTERN OF SOLAPUR
DISTRICT SPECIAL REFERENCE TO SUGARCANE CROP: A
GEOGRAPHICAL ANALYSIS”**



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ABSTRACT:

Cropping pattern is the acreage distribution of different crops in any one year in a particular farm. It is the pattern of crops for given piece of land or cropping pattern means the proportion of an area under various crops at a point of time in a unit area or it indicates the yearly sequence and spatial arrangements of crops and follows in an area.

Solapur district is located in drought prone area of Maharashtra. The canal construction is an art and science of artificial application of water to agriculture and different types of uses (industrial use,

drinking water etc.) to develop and increase in agriculture production. In India there are many canal and dams constructed to solve the irrigation problem in arid, semi arid and in drought prone area. The present paper analyzes the changing cropping pattern of Solapur district. It shows that the changing cropping pattern due to the availability of an irrigation sources like Ujani dam, Bhima-Sina river joint canal. Irrigation is the single most important factor which changes the cropping pattern of area or region. In the cropping pattern area under Sugarcane crop is increased in Solapur district.

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KEYWORDS

Cropping Pattern, Sugarcane crop.

INTRODUCTION

Cropping pattern is an area under various crops at a point of it changes over space and time. The cropping pattern of a region is closely influenced by the geo-climatic, socio-economic, historical and political factors. Patterns of crop land use of region are influenced of physical and human environment. The Cropping Patters in India underwent several changes with the advent of modern agricultural technology, especially during the period of the Green Revolution in the late sixties and early seventies. There is a continuous surge for diversified agriculture in terms of crops, primarily on economic considerations. (Husain Majid 2005)

Since the early days of Green Revolution' there are signs of imbalance in cropping pattern. Technological changes of mid-sixties caused significant shifts, in land utilization, in favor of crops like wheat and rice at the cost of area under coarse cereals, pulses and oil seeds. This shift was the combined effect of differential rates of technological change among crops, irrigation bias of new technology causing shift, of land away from dry crops in favor of irrigated crops and the associated policy of price support system as well as market intervention by the Government for certain crops. Changes in cropping pattern are determined by factors like agro-climatic conditions, irrigation resources, technological, infrastructural and institutional environment and profitability signals. (Surindra Mishra 1988)

Canal irrigation has been practiced in one form or other in the arid, semi arid and in drought prone area. Solapur district is located in drought prone area of Maharashtra. In India there are many dams and canals constructed to solve the irrigation problem in arid, semi arid and in drought prone area. (Pawar C. T.1989)

Present research paper analyzed the cropping pattern of Solapur district special reference to area under sugarcane crop change of Solapur district.

STUDY AREA:

The Solapur district is one of the most important district of Maharashtra state. The Solapur district lies entirely in the Bhima-Sina-Man basins. The Solapur district is located between 17° 34'0'' North latitudes and 18° 48'40'' North latitudes and 74° 34'0'' East longitudes and 76° 19'0'' East longitudes. The average height of Solapur district from Mean Sea Level (MSL) varies from 500 meter to 800 meter. The Solapur district has an irregular shape.

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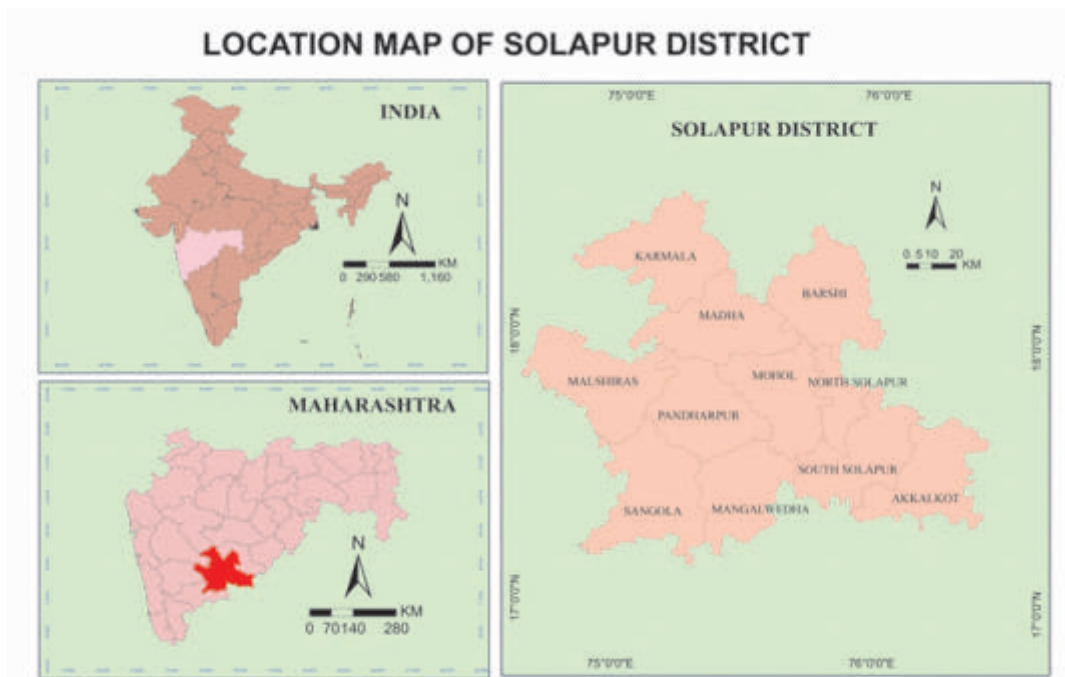


Fig. 1

The total Geographical area of the Solapur district as per 2011 census is 14895.40 sq.kms out of which 348.80 sq.kms. (2.34%) is urban and 14546.60sq.kms (97.66%) is rural. The East-West length of the district is about 200 km. and North-South is about 150 km. Its proportion as compared with Maharashtra state area is about 4.84 percent. Within the region under study, Malshiras is the largest tahsil in area and the lowest is North Solapur tahsil. (Socio-economic review and District Statistical abstract 2010-11).

Objective:

The present study has following specific objectives.

- 1.To assess the cropping pattern of Solapur district.
- 2.To study area under Sugarcane crop in Solapur district.

DATA COLLECTION AND METHODOLOGY:

The proposed research paper based secondary data. The secondary data is collected from District Gazetteers, Socio-Economic Review of Solapur district, and census etc. The data collection period is i.e. 1990-91 and 2010-11. The data processed and analyzed by using different cartographic techniques, statistical and quantitative techniques, etc.

INTERPRETATION AND ANALYSIS:

Table 1 shows the changing cropping pattern of Solapur district. The table shows area under change in total cereals crop, pulses crop and other crops in the year 1990-91 and 2010-11. In the area under cereals crop shows the positive change where in the area under change of totalpulses crop and

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other crops are shows negative change.

Table 1. Changing Cropping pattern of Solapur district (1990-91 and 2010-11)

Sr.No.	Tahsil Name	Area under Total Cereal (in%)			Area under total Pulses (in%)			Area under Other crops (in %)		
		1990-91	2010-11	Change	1990-91	2010-11	Change	1990-91	2010-11	Change
1	Karmala	73.93	80.40	6.47	9.61	4.39	-5.22	0.60	1.29	0.69
2	Madha	80.04	83.24	3.20	7.49	5.51	-1.98	1.85	0.10	-1.75
3	Barshi	65.80	75.59	9.79	21.76	7.67	-14.09	1.33	0.28	-1.05
4	N. Solapur	69.22	76.64	7.42	16.21	6.42	-9.79	2.01	0.23	-1.78
5	Mohol	77.70	82.01	4.31	8.40	5.50	-2.90	0.66	0.11	-0.55
6	Pandharpur	72.94	73.52	0.58	5.39	7.64	2.25	2.54	0.45	-2.09
7	Malshiras	76.06	69.18	-6.87	6.94	7.58	0.64	0.48	0.11	-0.36
8	Sangola	81.82	74.37	-7.45	6.76	6.27	-0.49	0.40	0.11	-0.29
9	Mangalweda	69.67	68.26	-1.41	5.16	6.29	1.12	0.65	0.11	-0.54
10	S. Solapur	71.46	79.70	8.24	17.76	5.82	-11.94	0.32	0.44	0.12
11	Akkalkaot	62.87	72.82	9.95	14.34	6.77	-7.57	0.82	0.18	-0.64
	Total	73.19	76.31	3.12	10.91	6.35	-4.56	1.05	0.34	-0.71

Source: Compiled by researcher on the basis of Socio-economic review and district statistical abstract of Solapur district 1990-91 and 2010-11.

The following table 2 shows the area under change of Sugarcane crop in Solapur district.

Table 2 Area under change in Sugarcane of Solapur district in 1990-91 and 2010-11.

Sr. No.	Tahsil Name	Area under Sugarcane (in %)		
		1990-91	2010-11	Change
1	Karmala	2.87	3.89	1.02
2	Madha	1.75	4.04	2.30
3	Barshi	1.10	6.38	5.28
4	N. Solapur	1.96	5.49	3.53
5	Mohol	2.95	5.35	2.40
6	Pandharpur	10.23	7.76	-2.47
7	Malshiras	13.27	10.58	-2.70
8	Sangola	2.69	4.12	1.42
9	Mangalweda	7.64	9.17	1.53
10	S. Solapur	2.63	3.92	1.29
11	Akkalkaot	4.22	10.51	6.30
	Total	4.45	6.37	1.92

Source: Compiled by researcher on the basis of Socio-economic review and district statistical abstract of Solapur district 1990-91 and 2010-11.

Area under Sugarcane crop of Solapur district in 1990-91 to 2010-11:

Area under Sugarcane crop of Solapur district in 1990-91:

Table 2 and figure 2 A shows the total area under Sugarcane crop of Solapur district is 4.45 percent in 1990-91. High percent area under Sugarcane crop is found in the tahsils of Malshiras, Pandharpur and Mangalwedha i.e. above 4.22 percent. Moderate percent is found in Sangola, Karmala, Mohol, S. Solapur and Akkalkot tahsil ranging between 1.96 to 4.22 percent. Whereas low in the tahsils of Madha, Barshi and N. Solapur tahsil i.e. below 1.96 percent.

Area under Sugarcane crop of Solapur district in 2010-11:

Table 2 and figure 2 B shows the total area under Sugarcane crop of Solapur district is 6.37 percent in 2010-11. High percent area under Sugarcane crop is found in the tahsils of Malshiras, Mangalwedha and Akkalkot i.e. above 7.76 percent.

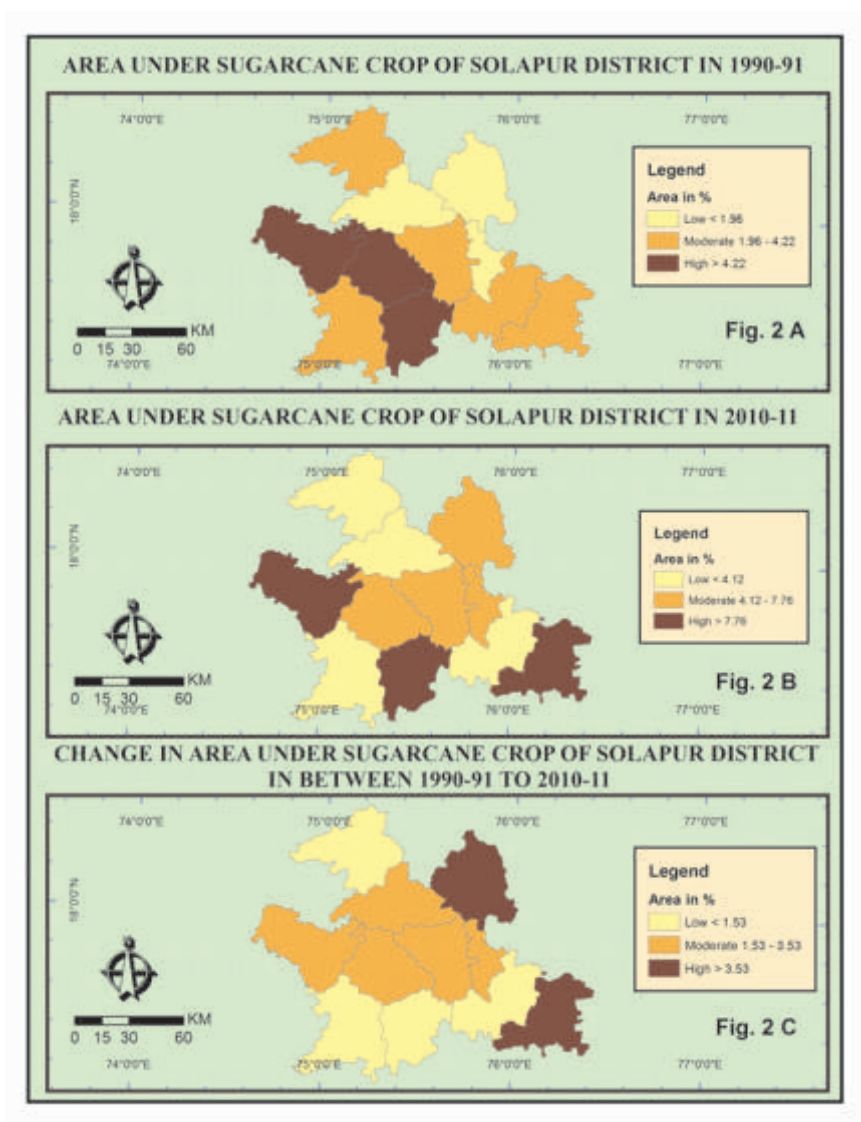
Moderate percent is found in Barshi, Mohol, N. Solapur and Pandharpur tahsil ranging between 4.12 to 7.76 percent. Whereas low in the tahsils of Karmala, Madha, Sangola and S. Solapur tahsil i.e. below 4.04 percent.

Change in Area under Sugarcane crop of Solapur district in 1990-91 to 2010-11:

Table 2 and figure 2 C shows the total change in area under Sugarcane crop of Solapur district is increased 1.92 percent in 1990-91 to 2010-11. High percent area change in under Sugarcane crop is

found in the tahsils of Barshi and Akkalkot i.e. above 3.53 percent. Moderate change is found in Madha, Mohol, N. Solapur, Malshiras and Pandharpur tahsil ranging between 1.53 to 3.53 percent. Whereas low area change in the tahsils of Karmala, Sangola, Mangalwedha and S. Solapur tahsil i.e. below 1.53 percent.

The area under Sugarcane crop is increased in the tahsils of Karmala, Madha, Barshi, N. Solapur, Mohol, Sangola, Mangalwedha, S. Solapur and Akkalkot because irrigation facilities and farmers are move to growing cash crops. Whereas decreased in the tahsils of Pandharpur and Malshiras due to production and soil fertility are decreases farmers growing other profitable crops like Grapes, Banana etc.



CONCLUSION:

The present paper concludes that the cropping pattern of Solapur district is changed. Due to the increase in irrigation facilities the area under cash crop is increased in Solapur district. The area under Sugarcane crop increased in the tahsils of Madha, Mohol, Pandharpur, Malshiras, S. Solapur and

Akkalkot. Otherwise the area under cereals crop is decreased. The area under fruits and vegetables also increased in the tahsils of Sangola, Pandharpur, Malshiras, Mangalwedha and N. Solapur.

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