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## CHANGES IN GENERAL LAND USE PATTERN IN SANGLI DISTRICT:A GEOGRAPHICAL ANALYSIS

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### Abstract:

*Lands necessary for human survival, because it provides man with living space, with food and with a number of raw-materials which are used in the satisfaction of his wants. But necessary as the land factor may be, man play an important role in conditioning and transforming his physical environment (Barlowe,R.1963). Man uses land within several frameworks, i.e. physical, social and economic, often operate together. The land utility differs depending upon the soil, topography, climate and water resources. Therefore the agriculture activities of man are restricted on the land surface.*

*This paper is devoted to the study of spatio-temporal analysis of general land use of Sangli district. The general land use pattern has been classified as net sown area, land not available for cultivation, cultivable waste land, fallow land and forest cover. The data obtained for the period of 1981-82 to 2005-06 from socio-economic review and district statistical Abstracts and District census Handbook of Sangli, converted in to the percentage to the total geographic area. To avoid the fluctuation, five years data is averaged and used for analysis. The percentage is categorised in different groups. The volume of change of these categories for twenty five years was computed and volume of change was shown in above mentioned figures and interpreted the text. The analysis gives the proper understanding of the general land use and relevant aspects providing the base for further investigation.*

### KEYWORDS:

Lands, Geographical analysis, Socio-Economic, Spacio Analysis,

### INTRODUCTION:

Land is a basic natural resource. Land and water resources play a major role in the development of any region. The proper utilization of land and water resources of a region helps to achieve the desired level of development ( Mathur and Binda 1990). The study of land use helps in understanding the use of land for different purposes. It is a geographical concept. Since it involves specific areas the utilization of land for different purpose indicates an intimate relationship between prevailing ecological condition and man. The efficient use of land depends on the capacity of man to utilize the land and management in proper perspective (Pawar 1989).

The general landuse pattern means the proportion of the area under different landuse. The general landuse of any region undergoes the changes in any given period of time is called as temporal variation. The temporal changes in landuse pattern of Sangli district have studied for the period of twenty five years. i.e. 1981-82 to 2005-06. To find out the trend of variation in general landuse and to identify the reasons of the

changes. The main objective of this chapter is to highlight the spatio temporal variation in general land use of the district. The tehsil is considered as a study unit and the land use categories are based on census classification. Accordingly the land use is grouped under five major categories namely, Area under forest, Area not available for cultivation, other uncultivated excluding fallow land, fallow land and net sown area.

### THE STUDY REGION

Forming part of famous Deccan plateau Sangli district is one of the southern most districts of Maharashtra state. It is situated between 16°45' and 17°33' north latitude and the 73°04' and 75°04' east longitude. It is bounded by Solapur and Satara districts in the north, Bijapur in the east, Belgaum in the south and The Ratnagiri district to the West. Total area of the district is 8572 Sq. km. The district headquarter is located at Sangli. There are 10 tehsils, 731 villages and 8 towns in the district. Area of 629200 hectares is under agriculture in Sangli district. And support population of district is 2581835 in 2001. The density of population is 258 per sq km. The literacy rate of the study region was 76.7% in 2001 study region was 76.7% in 2001.

### OBJECTIVES :

Main objectives of the present study are as under:

- 1) To understand the general land use pattern of the study region.
- 2) To study the changes in general land use pattern of the study region.

### SOURCE OF DATA AND METHODOLOGY

The data of different kinds have been collected from the primary and secondary sources. The primary data are collected through interviews and discussions and secondary data are taken from published and unpublished reports and abstracts such as socio-economic review and district statistical abstract, Agricultural office, Tehsildar office and zilla parishad Sangli.

As the entire study is based on the data collected by various sources & interviews, discussions with the knowledgeable persons the following methodology is adopted. The tehsil is considered as basic unit of study investigation absolute data are converted into percentage of area under various types of general land use pattern. Information and results are presented through tables and suitable graphs.

### DISCUSSION AND ANALYSIS

The Spatial variation in general land use pattern means the proportion of the area under different land use. It is variably determined by different physio-socio-economic factors. The land utilization has a specific significance in the study region, because of agriculture is a dominant occupation. Accordingly the land use has been grouped under five major categories namely- i) Net sown area, ii) Land not available for cultivation, iii) Other uncultivated land, iv) Fallow land and v) Forest land.

#### 1) Net Sown Area :

The net sown area is the land which is being actually tilled for raising the crop. The Temporal Variation in net sown area during 1981-82 to 2005-2006 shows that very high (29.05 per cent) increase was observed in Jat tehsil and low (-4.59) change was observed in Shirala tehsil. The high change in net sown area was observed in Miraj tehsil. It was 2.5 per cent. Moderate change in net sown area was found in the Khanapur tehsil it was -0.2 per cent. Low change was recorded in Atpadi and Kavathe Mahankal tehsils.

Very low percentage change in net sown area was recorded in Shirala (-4.59), Walwa (-0.44) and Tasgaon (-0.81) tehsils while very low percentage change was recorded in Shirala due to hilly region, in Walwa and Tasgaon tehsils due to Saline land. (Table 1) Generally 2001 to 2006 this last five year net sown area observed in Sangli district it was decreased due to year 2001 to 2003 was recorded low rain fall of expected annual average, and that period was drought prone condition of Western Maharashtra.

#### 2) Land not available for Cultivation.

The area under this category includes the land not under agriculture use. The highest (7.44 per cent) increase of land under this category has observed in Khanapur tehsil and the lowest (-10.46 per cent) decrease was observed in Tasgaon tehsil. Moderate change in this category is observed in three tehsil viz. Shirala, Kavathe Mahankal and Walwa and low change is recorded in Miraj

and Jat tehsils. (Table.1 and Fig.1 ).

### 3) Other Uncultivated Land

Other uncultivated land is also known as cultivable waste land. These land are definitely cultivable but at present lying of waste on account of number of reasons.

During 1981-82 land under cultivation waste in Sangli district was 56359 hectares (8.21 per cent). During 1985-86 it was 70487 hectares while in 2000-2001 it was about 66282 hectares(7.69 per cent), and after five year in 2005-06 it was 66599 hectares (7.82 per cent). Very high ( 8.84 per cent )changes in the other uncultivated land was observed in Shirala tehsil and the lowest change was observed in three tehsil and moderate change was occurred in two tehsils( Table.1 and Fig.1)

### 4) Fallow Land

The fallow land is commonly related to the agricultural practices adopted by the farmers, owing to the scarcity condition, nature of terrain, texture and structure of soil, available water potentiality. The land under this category in 1981-82 to 1985-86 was 96306 hectares (11.0 per cent), in 2001-02 to 2005-06. Due to scarcity condition in Sangli district. it was again increased. It was 94985 hectares(11.15 per cent) . The high (12.49 per cent) changes of fallow land was observed in Atpadi tehsil, Moderate change was observed in four tehsils, and low and very low changes observed in Khanapur and Jat tehsil respectively..( Table.1 and Fig.1)

### 5) Forest

The government department of forest and social forestry have planted the species and developed the forest in study area. During 1981-82 to 1985-86 the area under forest was 57828 hectares , It was ( 6.60 per cent ) of the total geographical area of the district .During 2001-02 to 2005-06 it was 46504 hectares ( 5.46 per cent ).It means land under forest area was decreased.

Very high ( 5.53 per cent ) change in area under forest was observed in Shirala and high change was recorded in Jat tehsil ( 4.75 per cent ).

Moderate changes area under forest was observed in three tehsils namely Tasgaon, Khanapur and Atpadi. Very low changes in area under forest was observed in in Walwa, Miraj and Kavathe Mahankal tehsils. The area under forest during 25 years (1981-82 to 2005-0) was decreased by 1.14 per cent . The decreased has been observed due to utilization of forest and under transport network, settlement and communication and drought prone condition in Sangli District ( Table.1 and Fig.1)

### CONCLUSIONS:

Fore going analysis shows that natural, socio-economic and other technological factors have affected the general land use pattern of study region. In the study region area under net sown was decreased by -0.69 per cent. Low change was observed in Khanapur Atpadi and Walwa tehsils and high change was observed in Jat Miraj and Tasgaon tehsils. Only 5.46 per cent area was under forest. In Miraj tehsil alone forest area was decreased by 17.75 per cent. High changes in area not available for cultivation was observed in Jat, Miraj and Tasgaon tehsils.

CHANGES IN GENERAL LAND USE PATTERN IN SANGLI DISTRICT:A.....



Table. 1

Tehsil wise general land use in Sangli district(1981-82 to 2001-2006)

District/Tehsil	year/V.C.%	Area under forest	Area not available for cultivation	Other uncultivated land	Fallow land	Net sown area
District	1981-1986					
	1981-1986	57828	68722	56359	96306	596262
	%	6.6	7.86	6.54	11	68
	2001-2006	46504	70421	66599	94985	573376
	%	5.46	8.26	7.82	11.15	67.31
	V.C.%	-1.14	0.4	1.28	0.15	-0.69
Shirala	1981-1986	13122	1859	3332	1492	63687
	%	22.69	2.71	5.91	1.55	10.68
	2001-2006	13122	2890	9827	2657	34921
	%	28.22	4.1	14.76	2.8	6.09
	V.C.%	5.53	1.4	8.84	1.25	-4.59
Walwa	1981-1986	2952	7116	355	5238	63045
	%	5.1	10.35	0.63	5.44	10.57
	2001-2006	2952	9305	2239	6130	58055
	%	6.35	13.31	3.36	6.45	10.13
	V.C.%	1.24	2.86	2.73	1.01	-0.44
Tasgaon	1981-1986	4961	9014	7999	8057	81125
	%	8.58	13.12	14.19	8.37	13.63
	2001-2006	4961	1869	7994	14915	73520
	%	10.67	2.65	12	15.7	12.82
	V.C.%	2.09	-10.46	-2.19	7.34	-0.81
Miraj	1981-1986	11606	13085	4599	5571	51540
	%	20.07	19.4	8.16	5.78	8.64
	2001-2006	1079	10780	6390	8485	65890
	%	2.32	15.31	9.59	8.93	11.49
	V.C.%	-17.75	-3.73	1.43	3.15	2.85
Khanapur	1981-1986	11167	8440	7790	57.23	89482
	%	19.31	12.28	31.57	5.94	15
	2001-2006	9820	13890	18929	5000	84883
	%	21.12	19.72	28.42	5.26	14.8
	V.C.%	1.81	7.44	-3.14	-0.68	-0.2
Atpadi	1981-1986	2035	8109	9784	5952	61291
	%	3.52	11.8	17.36	6.18	10.28
	2001-2006	2341	10961	9861	17730	46278
	%	5.03	15.56	14.81	18.67	8.07
	V.C.%	1.51	3.77	-2.55	12.49	-0.21
Kavathe Mahankal	1981-1986	6.74	9634	6443	7186	47326
	%	1.17	14.02	11.43	7.46	7.93
	2001-2006	924	11626	5470	9364	43289
	%	1.99	16.51	8.21	9.36	7.55
	V.C.%	0.82	2.49	-3.22	2.4	-0.38
Jat	1981-1986	11311	11465	6057	57087	138766
	%	19.56	16.68	10.75	59.28	23.27
	2001-2006	11305	9100	5889	30704	166540
	%	24.31	12.92	8.84	32.33	29.07
	V.C.%	4.75	-3.76	-1.9	-26.95	5.78

Source – Computed by the authors.

Tehsil wise general land use in Sangli District (1981-1986)

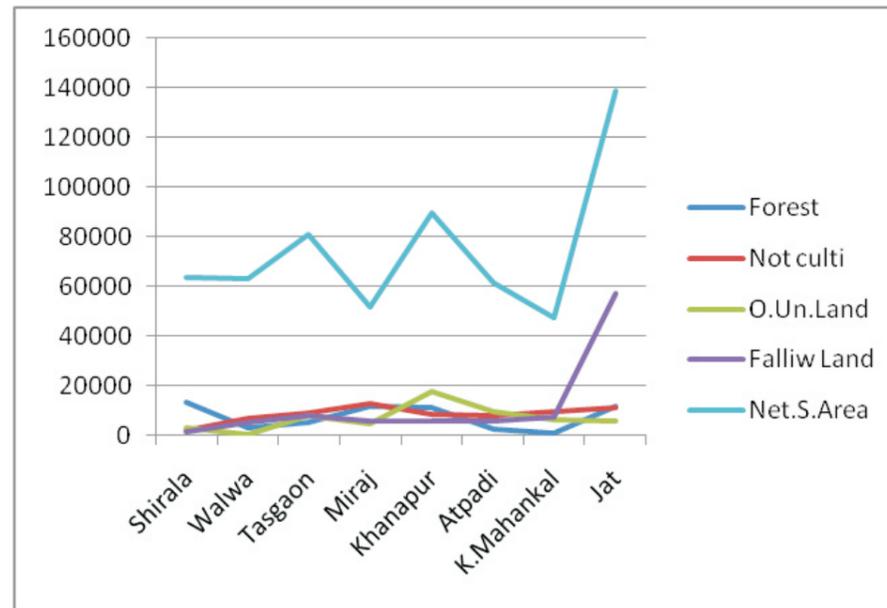
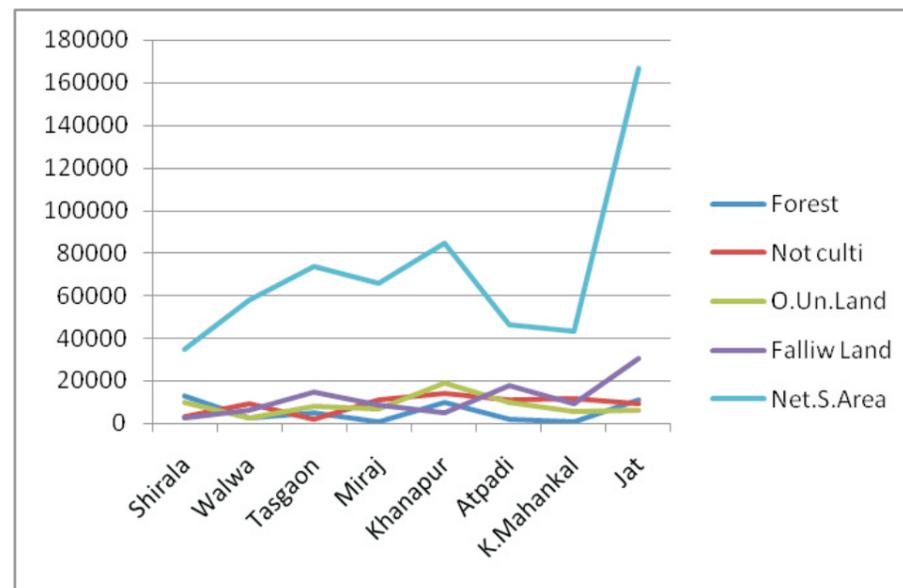


Fig. 1 (A) AND (B)

2001-2006



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