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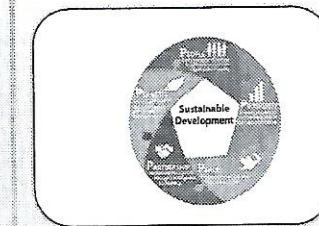
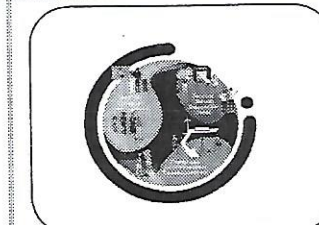
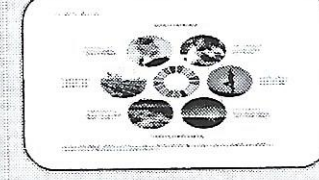
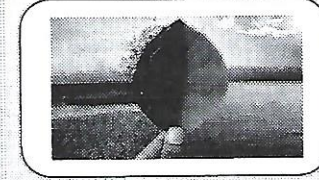
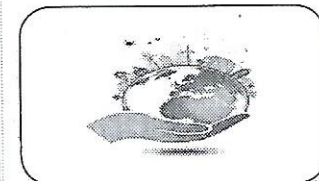
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Study Of General Landuse Pattern In Sangli District (Maharashtra)

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ABSTRACT:

Land is the very most important natural resource of country and the best base of Indian Agricultural production. The Land surface is fixed and of this only a certain proportion is available for cultivation. It is necessary to ascertain the extent to which land, now lying waste can become available for cultivation .Therefore land utilization is necessary for Agricultural development and planning. Efficient use of land depends on the capacity of man to utilize the land and manage it in proper perspective. Thus utilization of land for different purposes indicates an intimate relationship between prevailing ecological conditions and man with Irrigation facilities farmer is able to grow cash crops. Irrigation responds the shift from seasonal cultivation to permanent and promotes more intensive cultivation. The Sangli district is one of the district of Maharashtra states. It is located in the western part of Maharashtra. And it covers an area 8572 Sq.km. With comprise eight tahsil and 724 village and population of about 2832143 as per 2011 census. The Present Research paper is examined on general land use pattern in Sangli District.

Keywords: *Agriculture, Fallow land, Land use pattern, Net sown area.*

Introduction:

Land is the basic natural resource. The total life of human being depends upon land. Land is the surface utilization of all developed and vacant land at a given time and space. Land utilization is the use made of the land by man. Man uses land for pasture, mining, transportation, gardening, and residential, recreational, industrial, commercial and agricultural purposes. It is not normally possible to use land for two or more purposes simultaneously though sometimes even this possible. Landuse is an important aspect of geographical studies particularly relevant to agricultural geography. The study of land utilization has both geographic demographic dimensions. The geographic aspect consists largely of a survey of the topography and soil conditions which influence the utilization of land for crops. The demographic aspect considers the studies of population distribution, composition, characteristics and trends not only in the area being survey, but in the whole country. Land use is the use actually made of any parcel of land, house, apartments and industrial location are Land use categories, whereas the term residential, industrial and agricultural refer to system of land utilization implying roads, neighborhood retail and service activities as well as location of industries and the carrying of agricultural pursuits. In a rural area, tree crop or row crop would identify land use, where an orcharding, truck farming and grazing indicate a system of land utilization. The term 'land utilization' is also used for varied utilization of land and soil surveys e.g. land under cultivation, pasture, barren, orchard, fallows, waste, settlements, forests, water bodies etc. Land use is conditioned by the association of two sets of factors firstly, physical factors such as geology, relief feature, climate, soil and vegetation which limit the use capabilities of land and secondly, cultural factors which include both economic and institutional factors. Cultural factors represent the length of occupancy of the area, demographic and socio-economic conditions, institutional framework and the technological levels of the people which determine the extent to which the land can be utilized. Thus, in general, there are three factors of land use e.g. (1) physical factors which includes geology, relief surface, drainage, underground water, climate, soil and vegetation (2) economic or location factors, (3) institutional factors.

Objectives:

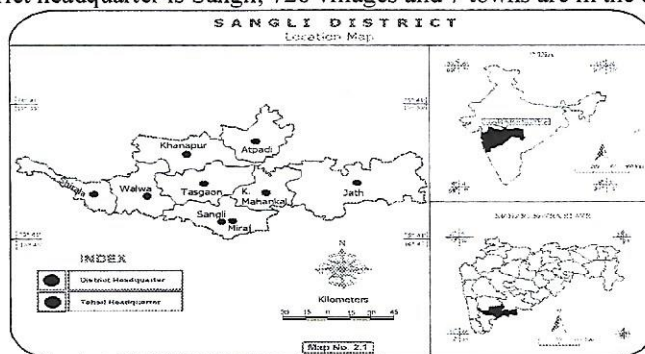
The main objective of the present study is to the general land use pattern in the Sangli District.

Data Collection & Methodology:

The present study mainly on based the primary and secondary data source. The primary data is collected by visiting of same places in Sangli District. The secondary data will be collected through the tahsil office. The Published records of Zilla Parished of Sangli District, Reference books, journals, Agricultural epitomes published by state Government.

Study Area:

The Sangli district is one of the district of Maharashtra States. It is located in the western part of Maharashtra. Sangli District lies between the 16°45' N to 17°33' N latitude and 73°42' E to 75°40' E longitudes. And it covers 8572 Sq.km. area. Sangli city is the district headquarters. It is bounded by Satara & Solapur districts, to the north, Bijapur District (Karnataka) to the east, Kolhapur and Belgaum (Karnataka) districts to South and Ratnagiri district to the west. Sangli district is situated in the river basins of the Warna and Krishna rivers. Other small rivers, such as the Warna and the Panchganga flow into the River Krishna. The average annual rainfall of the district is 620.20 mm. in year 2015. The district headquarter is Sangli, 728 villages and 7 towns are in the district.



General Landuse Pattern in Sangli District:

Tahsil wise trends in general land use pattern in Sangli Districts is shown in Table No.1. With this generalized picture of general land use pattern of the Sangli district, a detailed analysis of the same is given below. For this analysis decadal average of the year 1990-95 and 2010-15 are used to find out the spatio-temporal changes.

Area under Forest:

Out of total geographical area below 4000 hectare area was found under forest in Walwa, Atpadi, Miraj and Kawate Mahakal tahsils, 4000 to 8000 hectare geographical area was observed under forest in Tasgaon tahsil during 1990-95, whereas above 8000 hectare area was found under forest in Shirala, Khanapur and Jat tahsils. Out of total geographical area below 4000 hectare area was found under forest in Walwa, Atpadi, Miraj and Kawate Mahakal tahsils, 4000 to 8000 hectare geographical area was observed under forest in Tasgaon tahsil during 2010-15, whereas above 8000 hectare area was found under forest in Shirala, Khanapur and Jat tahsils.

1: Tahsilwise General Landuse Pattern in Sangli District (1990-95 and 2010-15)

(Area in '00' hectares)

| Name of the Tahsil | Year | Area under Forest | Area not available for Cultivation | Uncultivable Land | Fallow Land | Net sown area | Total Geographical area |
|--------------------|-------------|-------------------|------------------------------------|-------------------|-------------|---------------|-------------------------|
| Shirala | 1990-95 | 13122 | 2307 | 4326 | 1186 | 43007 | 63447 |
| | % | 20.68 | 3.63 | 6.81 | 1.86 | 67.78 | 100 |
| | 2010-15 | 13122 | 3228 | 4826 | 3177 | 39064 | 63417 |
| | % | 20.69 | 5.09 | 7.60 | 5.00 | 61.59 | 100 |
| | Change in % | 0.01 | 1.46 | 0.79 | 3.14 | -6.19 | 0 |
| Walwa | 1990-95 | 2952 | 8448 | 282 | 4812 | 60278 | 78735 |
| | % | 3.74 | 10.72 | 0.35 | 6.11 | 76.55 | 100 |
| | 2010-15 | 2952 | 8803 | 1805 | 7319 | 57902 | 78781 |
| | % | 3.74 | 11.17 | 2.29 | 9.29 | 73.49 | 100 |
| | Change in % | 0 | 0.45 | 1.94 | 3.18 | -3.06 | 0 |
| Khanapur | 1990-95 | 10936 | 11630 | 19009 | 2299 | 88207 | 132602 |
| | % | 8.24 | 8.77 | 14.33 | 1.73 | 66.52 | 100 |
| | 2010-15 | 10936 | 13324 | 18710 | 1850 | 87342 | 132602 |
| | % | 8.24 | 10.04 | 14.10 | 1.39 | 65.86 | 100 |
| | Change in % | 0 | 1.27 | -0.23 | -0.34 | -0.66 | 0 |
| Atpadi | 1990-95 | 2146 | 9821 | 10506 | 18944 | 45752 | 87171 |
| | % | 2.46 | 11.26 | 12.05 | 21.73 | 52.48 | 100 |
| | 2010-15 | 2314 | 10602 | 11554 | 1427 | 59334 | 87171 |

| | | | | | | | |
|--------------------|-------------|-------|-------|-------|-------|--------|--------|
| | % | 2.65 | 12.16 | 13.25 | 1.63 | 68.06 | 100 |
| | Change in % | 0.19 | 0.9 | 1.2 | -20.1 | 15.58 | 0 |
| Tasgaon | 1990-95 | 4961 | 9018 | 7994 | 4163 | 84883 | 111215 |
| | % | 4.46 | 8.10 | 7.18 | 3.74 | 76.32 | 100 |
| | 2010-15 | 4961 | 10076 | 7994 | 8442 | 79786 | 111259 |
| | % | 4.45 | 9.05 | 7.18 | 7.58 | 71.71 | 100 |
| | Change in % | -0.01 | 0.65 | 0 | 3.84 | -4.61 | 0 |
| Miraj | 1990-95 | 1097 | 7590 | 5049 | 4159 | 73662 | 92624 |
| | % | 1.18 | 8.19 | 5.45 | 4.49 | 79.52 | 100 |
| | 2010-15 | 1097 | 10910 | 5850 | 2048 | 72737 | 92624 |
| | % | 1.18 | 11.77 | 6.31 | 2.21 | 78.52 | 100 |
| | Change in % | 0 | 3.58 | 0.86 | -2.28 | -1 | 0 |
| K. Mahankal | 1990-95 | 924 | 12262 | 7541 | 7814 | 38775 | 70673 |
| | % | 1.30 | 17.35 | 10.67 | 11.05 | 54.86 | 100 |
| | 2010-15 | 924 | 11647 | 7541 | 1939 | 51422 | 70673 |
| | % | 1.30 | 16.48 | 10.67 | 2.74 | 72.76 | 100 |
| | Change in % | 0 | -0.87 | 0 | -8.31 | 17.9 | 0 |
| Jat | 1990-95 | 11305 | 12698 | 5801 | 48840 | 145952 | 224607 |
| | % | 5.03 | 5.65 | 2.58 | 21.74 | 64.98 | 100 |
| | 2010-15 | 11305 | 9187 | 5725 | 36773 | 188180 | 224538 |
| | % | 5.03 | 4.09 | 2.54 | 16.37 | 83.80 | 100 |
| | Change in % | 0 | -1.56 | -0.04 | -5.37 | 18.82 | 0 |
| Gross Cropped Area | 1990-95 | 47425 | 73133 | 60628 | 94100 | 586177 | 861065 |
| | % | 5.50 | 8.49 | 7.04 | 10.92 | 68.07 | 100 |
| | 2010-15 | 47593 | 77787 | 61205 | 36773 | 637707 | 861065 |
| | % | 5.52 | 9.03 | 7.10 | 4.27 | 74.06 | 100 |
| | Change in % | 0.02 | 0.54 | 0.06 | -6.65 | 5.99 | 0 |

Source: Computed by the researcher on the basis of Socio-Economic Review and Statistical Abstract of Sangli District 1990-91 to 2014-15.

From 1990-95 to 2010-15 the positive volume of change (in %) in respect of area under forest is observed in talukas viz. Atpadi (0.19%) and Shirala (0.01%) and Total District (0.02%). From 1990-95 to 2010-15 the negative volume of change (in %) in respect of area under forest is observed in taluka viz. Tasgaon (-0.01%). Remaining tahsils of the study region was no change in area under forest.

Area Not Available For Cultivation:

This group includes a) the land put to nonagricultural uses and b) barren and uncultivable land. Area under land put to non-agricultural use includes land occupied by buildings, road and railway or under water and other such uses.

Out of total geographical area below 4000 hectare area was found not available for cultivation in Shiralatahsil, 4000 to 8000 hectare geographical area was observed not available for cultivation in Miraj tahsil during 1990-95, whereas above 8000 hectare area was found not available for cultivation in Walwa, Khanapur, Atpadi, Tasgaon, Kawate Mahakal and Jattahsils.

Out of total geographical area below 5000 hectare area was found not available for cultivation in Shirala tahsil, 5000 to 10000 hectare geographical area was observed not available for cultivation in Walwa and Jat tahsils during 2010-15, whereas above 10000 hectare area was found not available for cultivation in Khanapur, Atpadi, Tasgaon, Miraj and Kawate Mahakal tahsils.

From 1990-95 to 2010-15 the positive volume of change (in %) in respect of area not available for cultivation is observed in talukas viz. Miraj (3.58%), Shirala (1.46%), Khanapur (1.27%), Atpadi (0.90%), Tasgaon (0.65%) and Walwa (0.45%). From 1990-95 to 2010-15 the negative volume of change (in %) in respect of area not available for cultivation is observed in talukas viz. Jat (-1.56%) and Kawate Mahakal (-0.87%).

Other Uncultivable Land:

Other uncultivable land excluding fallow land consists three types of land viz. (a) Culturable waste, (b) Permanent pasture and grazing land, (c) Land under miscellaneous trees etc. Culturable waste land includes the land which can be brought under cultivation but which has not been cultivated for some time and not been cultivated successively for more than five years. The category of

miscellaneous trees, crops includes land under grass, bamboo, other trees used for fuel and casuarinas trees. Permanent pasture and grazing land include all such lands which are under grass cover owned by Government or privately.

Out of total geographical area below 4000 hectare area was found other uncultivated land in Walwa tahsil, 4000 to 8000 hectare geographical area was observed other uncultivated land in Shirala, Tasgaon, Miraj, Kawate Mahakal and Jat tahsils during 1990-95, whereas above 8000 hectare area was found other uncultivated land in Khanapur and Atpadi tahsils.

Out of total geographical area below 5000 hectare area was found other uncultivated land in Shirala and Walwa tahsils, 5000 to 10000 hectare geographical area was observed other uncultivated land in Tasgaon, Miraj, Kawate Mahakal and Jat tahsils during 2010-15, whereas above 10000 hectare area was found other cultivated land in Khanapur and Atpadi tahsils.

From 1990-95 to 2010-15 the positive volume of change (in %) in respect of other cultivated land is observed in talukas viz. Walwa (1.94%), Atpadi (1.20%), Miraj (0.86%) and Shirala (0.79%). From 1990-95 to 2010-15 the negative volume of change (in %) in respect of other uncultivated land is observed in talukas viz. Khanapur (-0.23%) and Jat (-0.04%) tahsils. No change was noticed in Tasgaon and Kawate Mahakal tahsils.

Fallow land:

The meaning of term "Fallow land" is that the land which is not under cultivation at the time of reporting but which has been sown in the past. Census of India has divided the fallow land into two types viz. (i) Current fallow land, (ii) Permanent fallow land or other than current fallow.

Current fallow indicates the land left fallow during the current year only and permanent fallow (Other than current fallow). Means land left fallow temporarily out of cultivation for 1 to 5 years. However, for the present study these two categories are grouped together. Out of total geographical area below 4000 hectare area was found fallow land in Shirala and Kahanapur tahsils, 4000 to 8000 hectare geographical area was observed fallow land in Walwa, Tasgaon, Miraj and Kawate Mahakal tahsils during 1990-95, whereas above 8000 hectare area was found fallow land in Atpadi and Jat tahsils.

Out of total geographical area below 4000 hectare area was found fallow land in Shirala, Khanapur, Atpadi, Miraj and Kawate Mahakal tahsils, 4000 to 8000 hectare geographical area was observed fallow land in Walwa tahsil during 2010-15, whereas above 8000 hectare area was found fallow land in Tasgaon and Jat tahsils.

From 1990-95 to 2010-15 the positive volume of change (in %) in respect of fallow land is observed in talukas viz. Tasgaon (3.84%), Walwa (3.18%) and Shirala (3.14%). From 1990-95 to 2010-15 the negative volume of change (in %) in respect of fallow land is observed in talukas viz. Atpadi (-20.10%), Kawate Mahakal (-8.31%), Jat (5.37%), Miraj (-2.28%) and Khanapur (-0.34%).

Net Sown Area:

This category and fallow lands together constitute the extent of cropped land in any region and therefore is of vital significance in studies relating to agricultural geography. The land which is actually cropped during the current agricultural year is called "Net Sown Area" In computing the net area sown, areas grown more than once have been counted only once. Out of total geographical area below 50000 hectare area was found net sown area in Shirala, Atpadi and Kawate Mahakal tahsils, 50000 to 80000 hectare geographical area was observed net sown area in Walwa and Miraj tahsils during 1990-95, whereas above 80000 hectare area was found net sown area in Khanapur, Tasgaon and Jat tahsils.

Out of total geographical area below 50000 hectare area was found net sown area in Shirala tahsil, 50000 to 80000 hectare geographical area was observed net sown area in Walwa, Atpadi, Tasgaon, Miraj and Kawate Mahakal tahsils during 2010-15, whereas above 80000 hectare area was found under net sown area in Khanapur and Jat tahsils. A clear view of the movements of gross cropped area and net sown area is depicted in Graph No. 4.23 & 4.24. From 1990-95 to 2010-15 the positive volume of change (in %) in respect of net sown area is observed in talukas viz. Jat (18.82%), Kawate Mahakal (17.90%) and Atpadi (15.58%). From 1990-95 to 2010-15 the negative volume of change (in %) in respect of net sown area is observed in talukas viz. Shirala (-6.19%), Tasgaon (-4.61%), Walwa (-3.06%), Miral (-1.0%) and Khanapur (-0.66%).

Conclusion:

1. From 1991-95 to 2010-15 the negative volume of change (in %) in respect of area under forest is observed in taluka viz Tasgaon (-0.01%) Remaining talukas of the study region was no change in area under forest.
2. From 1991-95 to 2010-15 the negative volume of change (in %) in respect of area not available for cultivation is observed in taluka viz Jat (-1.56%) and Kawate Mahankal (-0.87%)
3. From 1991-95 to 2010-15 the negative volume of change (in %) in respect of other uncultivated land is observed in taluka viz Khanapur (-0.23%) and Jat (-0.04%) thasils. No change was noticed in Tasgaon and Kawate Mahankal thasils.
4. From 1991-95 to 2010-15 the positive volume of change (in %) in respect of fallow land is observed in talukas viz Tasgaon (3.84%) Walwa (3.18%) and Shirala(3.14%). From 1990-95 to 2010-15 the negative volume of change (in %) in respect of fallow land is observed in talukas viz Atpadi (-20.10%). Kawate Mahankal (-8.31%), Jat (5.37%),Miraj(-2.28%), and Khanapur (-0.34%).
5. From 1991-95 to 2010-15 the positive volume of change (in %) in respect of net sown area is observed in talukas viz Jat (18.82%) Kawate Mahankal(17.90%) and Atpadi (15.58%). From 1990-95 to 2010-15 the negative volume of change (in %) in respect of net sown area is observed in talukas viz Shirala (-6.19%), Tasgaon (-4.61%), Walwa (-3.06%),Miraj (-1.0%), and Khanapur (-0.66%).

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