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AGRICULTURE TRANSFORMATION OF LAND USE EFFICIENCY IN SOLAPUR DISTRICT OF MAHARASHTRA: A GEOGRAPHICAL ANALYSIS

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Abstract:

In this paper an attempt has been made to analyses the agriculture efficiency at district level in Solapur District. Transformation Agriculture efficiency is a function of various factors including the physical socio-economic & technical organization for simple statistical equation have been employed the study cover out the 11 tahsil part of the Solapur district which come under the variation in spatial variation of landuse efficiency is examined for the 1977-78 to 1979-80 and 2000-01 to 2002-03. The use of land constitutes a major item in national planning and this is especially in India. This Study of landuse is of vital importance from the point of view of the planning and development of the area. Landuse is the surface utilization of all developed and vacant land on a specific point, at given time and space. The aim of the paper is to study the general and agricultural land use efficiency in the Solapur district. It also draws conclusions and finds Out the agricultural problems and suggest suitable remedies to solve them.

KEY WORDS:

Transformation, Agricultural Landuse Efficiency.

INTRODUCTION:

Landuse is an important aspect of Geographical studies particularly reverent to Agriculture Geography. The importance of landuse studies in increasing with the continuous increase in population .because To the get the best of land the diversity of topography & soils should be studied carefully in order to put land to the most efficiency use & development Programme Should be properly used & implemented Agriculture efficiency is the Performances of Various crop Productions in a selected area, which focus on effective of agriculture production with respective to available unit of land resources .there is little scope for expansion of agriculture. so it is very necessary to use land intensively. Landuse is the surface utilization of all developed and land on a specific point, at a given time and space. It will time and space. Basically it has two period reasons; firstly the requirements of society may be the cause for bringing change in the Landuse. Landuse in as important aspect of geographical studies particularly relevant to agricultural geography. The importance of landuse studies in increasing with the continuous increase in population because to get the best of land, the diversity of topography and sols should be studied carefully in order to put land to the most efficient use and development programme should be properly used and implemented.

STUDY AREA:

Solapur district is one of the important districts in Maharashtra in terms of area and population. It lies entirely in Bhima, Sina and Man river basin of Krishna river system of southeast fringes of Maharashtra. The district is bounded by 17° 10' North latitude to 18° 32' North latitude and 74° 42' East longitudes to 76° 15' East longitudes. The east-west extension of Solapur district is 200 km and north and south stretch of Solapur district is 150 km.

The district is fairly well defined to its west as well as to its east by the inward looking scraping of phaltan range and Osmanabad plateau respectively the adjoining districts are Sangli to its southwest, Satara to west, Pune to its northwest, Ahmadnagar to its north, Osmanabad to its east and Bijapur district of Karnataka State to its south. The district covers geographical area of 14878.4 sq.km, which is 4.82% of the total area of Maharashtra state. The total population of the district is 3855383 and density is 258 (2001), which consist 4.09 % of state population. For the administration purpose district is divided into 11 tahsils viz. Akkolkot, South Solapur, North Solapur, Mohol, Magalwedha, Pandharpur, Madha, Barshi, Karmala, Malshiras and Sangola.

Location Map Of Solapur District

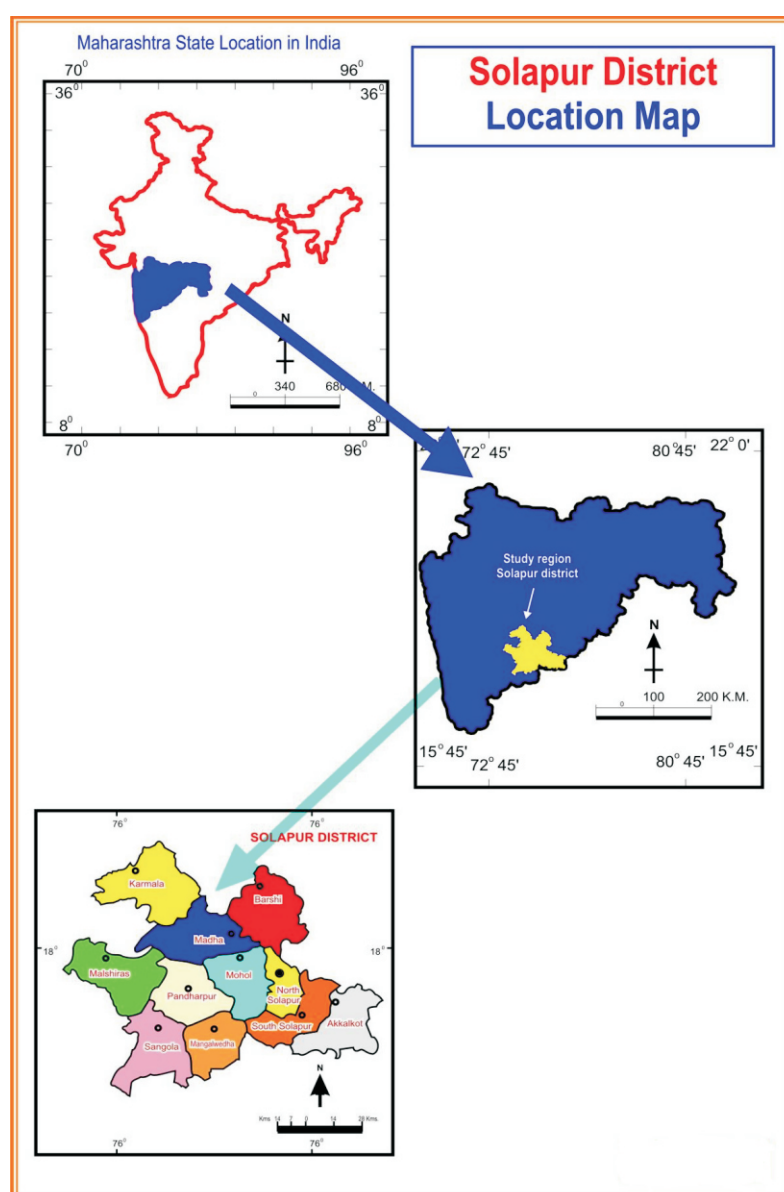


Fig No-01

OBJECTIVES

1. To study the general and agricultural land use efficiency in the study region.
2. To draw conclusions and find out the agricultural problems suggest suitable remedies to solve them.
3. To examine transformation takes place in Landuse Efficiency from 1977-80 to 2000-03.

DATABASE:

This work based on Secondary data collected and used for the period 1977-78 to 1978-80 and 2000-01 to 2002-03 and Calculate the use efficiency index for 1977-80 (Two Years Average) as a Base year and 2000-03 the last year This data obtained forms Socio-Economic Review and District Statistical Abstract (1980-81), (2000-01) and (2002-03). District Census Handbooks, Gazetteer and Crop Report published by the different Agricultural Departments.

METHODOLOGY OF AGRICULTURE LANDUSE EFFICIENCY:

There is scope for extension of cultivated land by bringing fallow and potential agricultural land under cultivation. Therefore, immediate need is to give more emphasis on intensity of cropping and increasing yield from existing calculated area. Problem o under use of new sown area, low productivity and risk of crop failure are taxing the rural population, therefore, it is fruitful to investigate the degree of intensity with which the net sown area is utilized.

Landuse efficiency may be defined as the extent to which the net sown area is cropped or renowned. The gross cropped area as a percentage of the net sown area give a measure of land use efficiency which means the intensity of cropping.

Intensity of cropping refers to the number of crops grown on the same area in any one year, for example, if one crop is grown on a field in one year, the cropping intensity is 100 percent, if two crops in a year are taken, the intensity is 200 percent. Therefore, higher the intensity of cropping higher is the land use efficiency and vice versa.

The index of land use efficiency is obtained by using the following formula.

$$\text{Index of Land Efficiency} = \frac{\text{Gross Cropped area}}{\text{Net Sown area}} \times 100$$

Landuse efficiency indices is divided in to the three Parts

1)Low 2) Medium 3) High

This method landuse efficiency is shown by Cartographical methods

INTERPRETATION OF AGRICULTURE LANDUSE EFFICIENCY IN SOLAPUR DISTRICT:-

Given following showing the table in GCA, NSA & index of landuse efficiency also change in landuse efficiency may be defined as the extent to which the NSA is renowned .the GCA as Percentage of the NSA Gives a measure of land use efficiency which means the intensity of cropping Landuse efficiency may be defined as the extent to which the net sown area is Cropped or renowned .The Gross Cropped area as a percentage of the net own area gives a measure of landuse efficiency, which means the intensity of cropping.

AGRICULTURE TRANSFORMATION OF LAND USE EFFICIENCY IN SOLAPUR DISTRICT.....

**TableNo.1 Statement showing Landuse Efficiency in Solapur District.
Production in Hect (000)**

Sr No	Tahsil Name	1977-78 to 1978-80			2000-01 to 2002-03			Volume Change of Landuse Efficiency
		NSA	GCA	Index of land use efficiency	NSA	GCA	Index of land use Efficiency	
1	Karmala	2232	2415	108.19	2383	2446	102.51	-5.68
2	Madha	2293	2414	105.27	2344	2469	105.33	0.06
3	Barshi	2736	2880	105.26	2431	2499	103.56	-1.7
4	N.Solapur	983	1014	103.15	1006	1121	111.43	8.28
5	Mohol	1998	2051	102.95	1919	1989	103.43	0.69
6	Pandharpur	1867	1955	104.71	2011	2053	103.64	-2.63
7	Malshiras	1732	1956	112.93	2064	2148	102.08	-8.81
8	Sangola	2087	2170	103.97	1812	1924	104.06	2.21
9	Mangalvedha	1580	1660	105.06	1479	1563	106.18	0.59
10	S.Solapur	1951	2014	103.22	1841	1911	105.65	0.28
11	Akkalkot	2400	2448	101.66	2050	2137	103.80	2.58
	Total	21886	22963	104.92	21350	21322	104.24	-0.68

Source 1) Computed by the author

2) Socio-economic Review & Statistical abstract State 1980-81, 2000-01, 2002-03 and Gazetteer of Solapur District

Table No. 1 reveals that regions Landuse Efficiency of Solapur District is 104.24. Total Gross cropped area (GCA) of the 2.29 lakh hectares, and Net sown area (NSA) was 2.18 lakh hectares. This region/division index of lands efficiency was 104.92% during the year 1977-78 To 1978-80 (Fig.No-02) and (Fig.No-03) in Total Gross cropped area (GCA) of the 2.13lakh hectares and Net sown area (NSA) was 2.13 lakh hectares his region/division index of lands efficiency was 104.24 % during the year 2000-01 To 2002-03 of the Solapur District. The Volume of change land use efficiency of Solapur Tahsilwise like as Firstly the low Volume of change land use efficiency in Madha(0.06),Mohol (0.69),Mangalvedha(0.59), S.Solapur (0.28), Secondly as the Negative Volume change land use efficiency is Karmala(-5.68), Barshi (-1.7), Pandharpur(-2.63),Malshiras (-8.81) and Lastly Positive Volume change land use efficiency is N.Solapur (8.28), Sangola (2.21) and Akkalkot (2.58) it is the during the year 1977-78 To 1978-80 and 2000-01 To 2002-03. Finally Volume of change land use efficiency output the decreased by -0.68 during this period.

Variation in landuse efficiency are mainly confided to the irrigation possibilities pattern of agricultural practices, crops & limitation imposed by the changing physical environment as the soil types physiographic & nature of rainfall distribution etc. finally on the strength of percentage of the region is divided in to three categories viz - low, median, and high land efficiency.

AGRICULTURE TRANSFORMATION OF LAND USE EFFICIENCY IN SOLAPUR DISTRICT.....

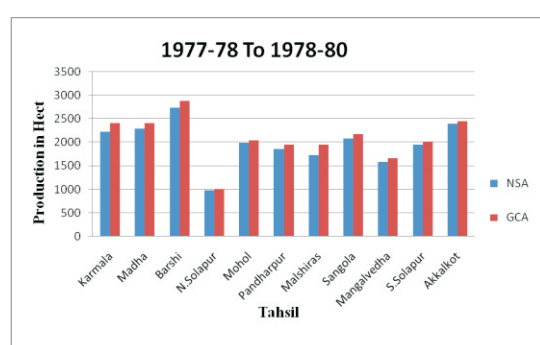


Fig No-02.

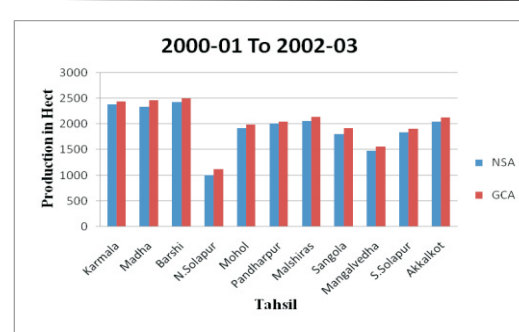


Fig No-03.

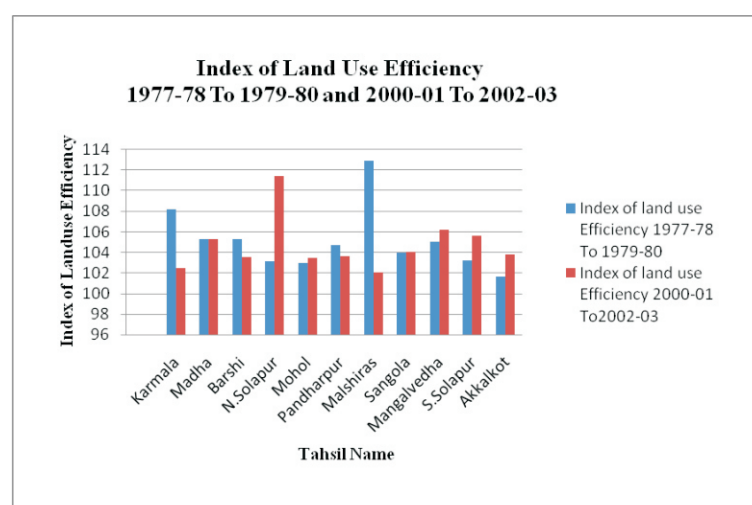


Fig No-04.

1. Low Landuse Efficiency:- (Below 105%)

This zone index values is observed in between range of 104-105 in Area of low intensity (Fig.No-04) are distributed in Madha, Barshi, S.Solapur, Mohol, Pandharpur and Akkalkot like as index of efficiency in during the year 1977-78 To 1978-80 and 2000-01 To 2002-03 it is tahsil of area under no more forest area, less irrigated area, traditional way of farming, low irrigation, absence of capitale.

2. Medium Landuse Efficiency :- (105-110%)

This zone index values is observed in between range of 105-110% in Area of Medium intensity (Fig.No-04) are distributed in Karmala, Sangola and Mangalvedha like as index of efficiency in during the year 1977-78 to 1978-80 and 2000-01-200203. Cultivated crops according to Climate Condition & economic Situation of farmers, baranland and soil condition minor irrigation scheme responsible to this tahsil division area.

3) High Landuse Efficiency :- (>110%)

This was observes in Malshiras and N.Solapur like as physical & non-physical factors are responsible for the high intensity of landuse efficiency and large use of fertilizers and pesticides, growing literacy of farmers& development like as index of efficiency in during the year 1977-78 to 1978-80 and 2000-01 To 2002 -03 (Fig.No-04).

Strategy for Growing Suggestion landuse efficiency in Study area:

1. To the develop the Agriculture education in rural area.
2. To Preparedness of multiple projects in area.
3. To Sustainable development of rural Progress in area.
4. To provide the well Hybrid to Seeds for the time of flowing.
5. To easily provide the Short, Medium and Long time loan for Agriculture development.
6. To Arrange the Agriculture Conference and Increase the Agriculture Research
7. To develop the Crop insurance.
8. To use New Agriculture Technology.
9. To Increase the Source of Irrigation and development New Irrigation Mode.
10. To Alternate the Fallow land to Agriculture land.
11. To develop the transport network.
12. To arrangement the agriculture conference and increase research in area.

CONCLUSION:-

1. Finally Volume of change land use efficiency output the decreased by -0.68 % in the study region during the investigation.
2. Largely varying from taluka wise in the landuse efficiency of Solapur district
3. The High Agriculture Landuse Efficiency Index is observed in only two tahsil i.e. Malshiras and N.Solapur.
4. The Low Agriculture Landuse Efficiency index is Madha, Barshi, Mohol, Pandharpur and Akkalkot tashils.
5. The Medium Agriculture Landuse Efficiency index tahsils Karmala, Sangola and Mangalvedha tahsils.
6. Positive Volume of change in Landuse efficiency in one of the tahsil is N.Solapur i.e. 8.28%.
7. Negative Volume of Change in landuse efficiency in Karmala, Barshi, Pandharpur and Malshiras tahsils.
8. Physical and non physical factors are responsible for the high intensity of landuse in this area.

REFERENCES

1. Das M.M. (1981): "Landuse Pattern in Assam," Geographical Review of India Vol.43. No. 3, Pp. 243-244.
2. Singh Jasbir (1974): "An Agricultural Atlas of India-A Geographical Analysis," Vishal Publication Kurukshetra India, P.139.
3. Solunke J.R. (2009) :- "Spatio- Temporal Analysis of Agricultural Landuse in Beed district A Geographical Review" unpublished thesis in Tilak Maharashtra V Vidyapeeth, Pune.
4. Jaybhaye R.G. (2011): "Agricultural Efficiency in Khed Shirur Sez, Pune District, Maharashtra" Sanshodhan Partrika, Vol-xxviii, No-2, pp-53.
5. Dr. D.S. Nagade (2012): "Transformation in Landuse Efficiency in Agricultural Region of Maharashtra- 1981-82 To 2001-01" Latur Geographer Vol I, Issue; I, May-2012.
6. Socio-economic Review & Statistical abstract of Solapur District (2000-01) pp.33, (2002-03) pp-62 and Gazetteer (1980-81) pp.25.

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