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Research Paper—Geography

A GEOGRAPHICAL STUDY OF LAND USE PROFILE IN MALEGAON TAHSIL (M.S.)

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ABSTRACT

Malegaon is the largest tahsil in Nashik district of Maharashtra state having a geographical area of 1938 sq. km. In this paper an attempt has been made to highlight the population growth and changing land use profile for the year 1990-91 and 2000-2001. Growing population is one of the main factors for changing land use pattern and is the main threat to the land. The dynamics of land use and land cover changes differ in different part of the world. In much of Europe land is being released from agriculture, and is reverting to scrub and to forest. In many parts of Africa, Asia and Latin America the agricultural area continues to expand. Land use reflects a complex correlation between natural, historical and socio-economic factor. The use of land changes according to the changing needs of man. The distributional pattern of land use and the change therein are brought out from 1990-91 to 2000-2001.

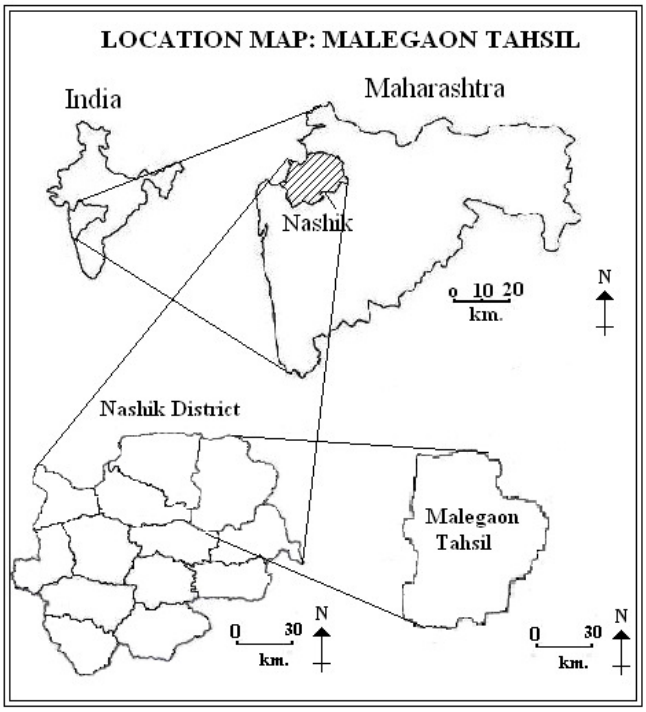
INTRODUCTION:

Land is one of the most important resource which plays an eminent role in determining mans economic, social and cultural progress. Land use is the surface utilization of all developed and vacant lands on a specific space, at a given time. Lands are used for crops, forest, pasture, mining, transportation, garden and recreational, industrial and commercial and residential. Land use is also related to conservation of land from one major use to another general use. The use of land changes according to the changing needs of man. Stamp, L. D. (1948) has classified the needs of man into six major categories, viz., agriculture, home, food, transportation, communication, defense and recreation.

Increasing population and changing needs of the time, requires revision of land utilization. The revision of land is done by trial and error method which leaves its trace of success and failure. The success of National planning is dependent upon the proper utilization of land. Some day in our country a planned programme will determine the pattern of land use and there not only crops and tamed animals but indirectly things will be determined by mans The demand of land changes du to changing needs of society conscious planning and use of land. and as socio-economic conditions change, land use keeps on changing.

The criticality of land in National development is cleared from a statement of the late Smt. Indira Gandhi in 1972 who said," we can no longer afford to neglect our most important natural resources. This is not simply an environmental problem but one which is basic to the future of our country. The stark question before us is whether our soil will be productively enough to sustain the population of more than one billion, at higher standards of living than now-prevail. We must have long term plants to meet this contingency." One

basic fact that, cannot be ignored i.e. land is afinite resource and it is very essential that, land use is properly planned. We therefore, need a national policy on land (soil) with short and long range objectives. Malegaon is one of the most important tahsil in Nashik district in Maharashtra and most prosperous in agriculture and land use aspect. In this paper an attempt has been made to highlight land use changes based on secondary data collected from District planning unit and Dy. Directorate of economic and statistics office, Nashik for the year 1990-91 and 2000-2001. Growing population is one of the main factors for changing land use scenario and is main threat to the land in the district. To overcome this problem, we must plan for the proper use of the available land resources and our living depends on successful agricultural self-sufficiency.



STUDY AREA:

Malegaon ranking first largest Tahsil in Nashik district of Maharashtra having a total geographical area of 193800 hects. It lies between 20? 22' to 20? 53' North latitude and 74? 21' to 74? 50' East longitudes. Physiographically, Malegaon comprises of a part of a Deccan Plateau. The Tahsil may be broadly divided into three geographical regions, viz, a) The Girna basin b) The Mosam basin and c) The Estern Dry area (locally known as Mal-Mathha).

The soils of the Girna and Mosam valleys are quite deep and fertile. The soil in the rest of the Tahsil are undulating and susceptible to erosion. Light shallow soils are noticed on hill slopes. The tahsil is mainly drained by two major rivers i.e. River Girna and River Mosam. The climate of the Tahsil is primarily monsoonic, which is highly mild and healthy for establishment of human settlements and agriculture. Malegaon receives 436.7 m.m. Annual Rainall & most of it comes during the monsoon period from June to Sept. Similarly Malegaon experiences a very high temperature during the pre-monsoon period that is April and May (max. 44.06 °C & min. 35° C). As well as in rainy season it experience 30° C max. Temperature and 23°C min. temperature. Agriculture is the chief support of the economy of the Tahsil and supports the population of 790000(2001 Census).

OBJECTIVES:

The main objectives of the study are as follows:1) To know the changing land use pattern and land use cover change scenario from one decade to another.) To know how demographic, economic and social factors play a vital role on changing land use pattern. 3) To know how land changing from one major use to another and the factors responsible for it. 4) To know the factors responsible for increasing fallow land and land put to non-agricultural use.

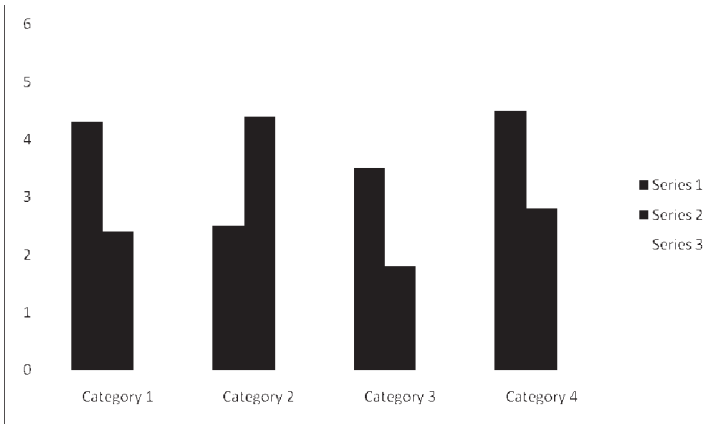
DATABASE AND METHODOLOGY

The study is completely based on the secondary data. The study is completely based on the secondary data. Topographical maps are used for physiographic study . Landuse data collected from socio-economic abstract , Nashik district and District Census Hand-

book are referred to collect related information. Simple statistical methods have used to compute percentage. The required statistical information was obtained from census hand books as well as the record of local bodies. After collecting the data it has been organized, tabulated & then analyzed. Whenever necessary the maps and the graphs have been prepared to help the analysis. Similarly same statistical techniques have been employed to yet the clear & precise results.

LAND USE IN MALEGAON TAHSIL:

Land use in the surface utilization of all developed and vacant lands on a specific space at a given time. Lands are used for forests, cultivation of crops, pasture, mining, roads and transportation, gardens and playgrounds, recreational, settlement (residential), industrial and commercial establishment etc. Whereas, uncultivable waste land, barren and fallow lands are unused lands. The present landuse has been divided into five broad categories viz., 1)Net sown area; 2)Forest; 3)Fallow land; 4)Cultivable waste and 5)Barren and uncultivable waste land for the period 1980-81, 1990-91 and 2000-01.



NET SOWN AREA:

The net sown area is the land which is being actually decline. Out of the total geographical area (193800 hefts.) of the tahsil 122200 hects. (63.05%) were under net sown during 1980-81. Whereas, during 1990-91, the tahsil had 116800 hects. (60.27%) were under net sown. About 5400 hects. (2.78%) of land has been decreased under net sown during a span of ten years. During 2000-2001, the tahsil has 108800 hects. (56.14 %) of land under net sown. Between 1990-91 and 2000-2001 about 8000 hects. (4.13%) of land under net sown has been decreased in the tahsil. There is a net decrease of 13400 hects. (6.91%) of land under net sown during the study period i.e. 1980-81 to 2000-2001 (Table 2). This decrease is due to the increase in population and its pressure on demand of settlement to feed the increasing population in the tahsil. This decreased land has been brought under the different uses like residential, commercial establishments. Accordingly, the land under net sown has also been decreased during the span of twenty years in the tahsil.

FOREST:

In assessing the character of the vegetation type, a factor that cannot be neglected in the long occupation of man and the consequent change on the vegetal carpet through agriculture. The type of vegetation met with any given locality depends on the climate, soil and past treatment has been emphasized by the leading plant ecologists. The influence of temperature and rainfall on plant life has received a special attention in the classifications of climate proposed by Koppen and Thornthwait. Malegaon Tahsil has 19.92 percent of land under forest cover during 1980-81, 1990-91 and 2000-2001 respectively. There is almost no change in forest lands during a span of twenty years but the density of trees goes on decreased through time. Forest plays a dominant role in maintaining ecological and environmental balance in the district.

FALLOW LAND:

The term fallow land applies for the lands which are not under crops at the time of reporting though they were soon in the immediate past. The fallow lands are generally divided into two major categories i.e. "Old fallow lands "which comprises those lands that have been left uncultivated for more than five years, and the "Current fallow lands "which include lands that were not sown at the time of crop

Table 2: Land use in Malegaon Tahsil (Past & Present -Area is in Hectares)

Sr.No.	Land use Category	Years			Changes
		1980-81	1990-91	2000-01	
1	Net Sown Area	122200	116800	108800	-8000
	Percentage	63.05%	60.27%	56.14%	-4.13
2	Forest	38600	38600	38600	0000
	Percentage	19.92%	19.92%	19.92%	nil
3	Fallow Land	5400	5900	11000	+5100
	Percentage	2.79%	3.04%	5.68%	+2.64%
4	Cultivable Waste Land	3400	9100	5300	-3800
	Percentage	1.75%	4.7%	2.73%	-1.97%
5	Land put to non-Agricultural uses	24200	23400	30100	+6700
	Percentage	12.49%	12.07%	15.53%	+3.46%
	Total Area	193800	193800	193800	
	Percentage	100%	100%	100%	

(Source: Nasik District at a glance 1980-81, 1990-91 and 2000- 2001, Govt. of Maha.)

reporting but were sown one or two years before or left Fallow either in one season or for one complete year to replenish the soil fertility. The definition of the term "current fallow "greatly differs in many parts of the country. In Punjab, lands are classified as current fallow if it has been left uncultivated for less than two years. In Maharashtra, land continues to be classified as current fallow, if it is continued uncultivated for less than ten years. In Bihar current fallow is applied to all such lands which were not under crops at the site of reporting but which had been sown in the recent past. Thus current fallow are a part and parcel of the arable land.

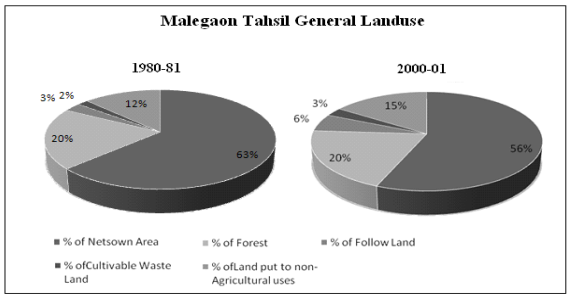
Malegaon Tahsil has a fallow land of 5400 hects. (2.79 %) during 1980-81, which has been increased to 500 hects. during 1990-91 and it has been further increased to 5100 hects. during 2000-2001, to the total geographical area. The net increase of fallow land is 5600 hects. Which constitute 2.89 percent over a period of twenty years. This reclaimed land is almost used for cultivation purposes. Reclaiming fallow land is a good sign of prospering in the development agriculture in the district.

CULTIVABLE WASTE LAND:

Cultivable waste lands are defiantly cultivable but are at present lying as waste on account of number of limitations. The limitations vary from one to another. They can be enumerated under the following heads: encroachment by wild weeds, floods and erosion, poor drainage, scarcity of water and distance from settlement area etc. In Nasik district cultivable waste land is found in the areas where the land has been adversely affected by water logging, floods, erosion and scarcity of water. Due to these negative factors, this category of land has become un-economic and un-productive. This land can be brought under cultivation if they are provided with cultivable facilities. Also outlet can be provided to protect it from water logging. During 1980-81, the Tahsil had 3400 hects. (1.75%), during 1990-91, 9100 hects. (4.7 %) and during 2000-2001, 5300 hects. (2.73 %) of land were under cultivable waste to the total geographical area of the tahsil. About 0.98 % (1900 hects.) of land has been increased in the district during the span of two decades.

LANDPUT TO NON-AGRICULTUAL USE:

This broad category comprises of a number of different types of land which are not available for cultivation under the existing circumstances. This type of use represents the land occupied by buildings, roads, railways, factories, water bodies, playgrounds, gardens, grave lands and settlements. These lands cover an area of 24200 hects. (12.49%), 23400 hects. (12.07%) and 30100 hects. (15.53%) during 1980-81, 1990-1991 and 2000-2001 in the tahsil respectively to



the geographical area. There is an increase of land under this category. The net increase of land put to non geographical use is 5900 hects. Which increased 3.04 percent over a period of twenty years? This high proportion of non-agricultural land is due to rapid growth of population, which requires more land for residential, commercial establishments, educational and other institutions, industries, roads, gardens, playgrounds etc. in the tahsil. The land under this category is increasing fast and is bound to increase in future too with the development of science and technology. This land is however, considered detrimental to balanced rural agrarian economy because the productive land is usurped by unproductive uses. Non-agricultural land is an index of the development of an area, when the area is developed in the construction of multy-stored buildings and development in transport facilities.

CONCLUSION:

The tahsil has good percentages of areas under net sown during the study period. Net sown areas gradually decrease. But it is more than 50 percent of the total geographical area. The net decrease of net sown area is 13400 hects. Decreased 6.91 % over a period of twenty years. The net area under forest will be constant; it is 19.92 % of the total geographical area of the tahsil. This percentage of land under forest will not suitable for environment & ecological balance. There is increase in follow land i.e. 5600 hects. (2.89%) over a period of twenty years. There is net increase of 1900 hects. (0.98%) of land under cultivable waste. While the net increase of land put to non-agricultural use is 6000 hects. Constitutes 3.04% over a period of twenty years.

The decreasing percentage of net sown area & increasing high proportion of fallow land and non-agricultural land is due to rapid growth of population, which requires more land for residential, commercial establishments, educational and other institutions, industries, roads, gardens, playgrounds etc. in the tahsil. Non-agricultural land is an index of the development of an area, when the area is developed in the construction of houses and transport facility.

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