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## CHANGE IN LANDUSE PATTERN IN MAHABALESHWAR TALUKA: A GEOGRAPHICAL ANALYSIS



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### Short Profile

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### ABSTRACT:

Landuse means the surface utilization of all developed and vacant land on a specific point at a given time and space. The change in landuse pattern may be due to the two most probable reasons, firstly, the requirements of the society and secondly, the technological development. The change in landuse pattern in Mahabaleshwar taluka is the result of tourism development and other socio-economical factors. The main objective of this research paper is to find out the change in landuse pattern and to find out the main

causes behind changing landuse pattern in Mahabaleshwar taluka. This research study is based on secondary data collected from Socio Economic Review and District statistical Abstract of Satara District and empirical knowledge.

### KEYWORDS

*Utilization, Landuse Pattern, Tourism Development, Empirical Knowledge.*

## INTRODUCTION

Land is one of the important components on which physical, economical and social development is depends. Land provides food and variety of minerals and therefore, it needs judicious use of land. Land resource has very often been left in past entirely applications of traditional and primitive methods resulting basic resource gradually deteriorated (Siddiqi, 1971).The study of landuse pattern is important not only in agriculturally dominated, over populated developing regions but throughout the world because of its relationship with different human phenomena. The study of landuse pattern is of prime concern to geographers to know the relationship between man and natural environment (Tripathi and Vishwakarma, 1988). The study of changing landuse pattern is essential for micro level planning for the development of region.

## STUDY AREA

Mahabaleshwar taluka is having very distinct physical character. It is located between 170 42' North to 180 60' North latitude and 730 21' East to 730 51' East longitude in Satara district of West Maharashtra. The taluka is bounded in North West by Raigad district, in West by Ratnagiri district, in South by Patan taluka and in East by Satara and in North East by Wai taluka. The total geographical area of Mahabaleshwar taluka is 495.50 Sq km. The total taluka is surrounded by Sahyadri Mountains, and having a famous hill station Mahabaleshwar located at 1436 m above msl.

## OBJECTIVES

1. To find out the change in landuse pattern in Mahabaleshwar taluka.
2. To find out main causes behind changing landuse pattern in Mahabaleshwar taluka.

## DATA BASE AND METHODOLOGY

The present research paper is based on secondary data. The data regarding landuse pattern are collected from Socio Economic Review and District statistical Abstract of Satara District. For the calculation of the change in landuse pattern, the percentage method is used. For showing change in landuse pattern, 35 years statistical data is compiled. The study of change in landuse pattern in Mahabaleshwar taluka has been done from 1970-71 to 2004-05, because before 21 March 2006, there were 55 villages in this taluka but after 21 March 2006, 55 villages from Jaoli taluka were added to this taluka. The total number of villages in this taluka reached at 110. So, to avoid great difference in data the data from 1970-71 to 2004-05 has been taken into consideration for study.

## CLASSIFICATION OF LANDUSE PATTERN

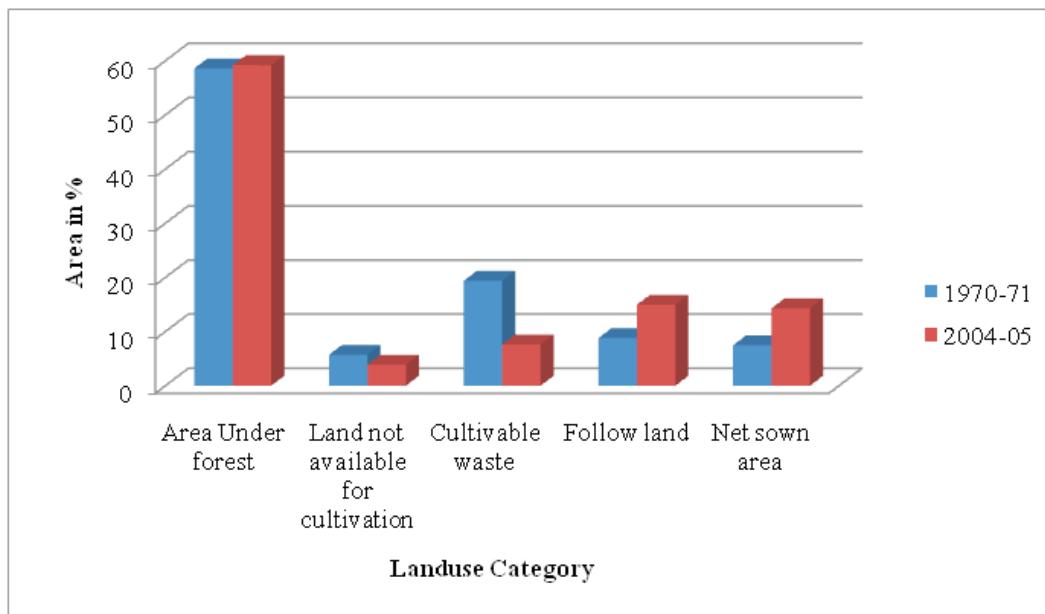
Land can be divided into different categories according to a set of factors. It is controlled by climatic factors, soil characteristics, slope of land and degree of erosion, water supply, drainage pattern and similar environmental conditions. In past, several attempts have made in different countries to classify landuse from different viewpoints by employing various methods. For the present study five landuse categories have been categorized by assessing change in landuse pattern from 1970-71-2004-05 of the study area. These five landuse categories and there change are shown in following table no.1.

**Tab. 1: Change in Landuse Pattern in Mahabaleshwar taluka (1970-71 to 2004-05)  
(Area in Hectors and Percentage)**

S.N	Landuse Category	Years				Volume of Change in %
		1970-71 (Area)		2004-05 (Area)		
		Hector	%	Hector	%	
1	Area Under forest	13300	58.59	13438	59.19	+ 0.60
2	Land not available for cultivation	1300	5.73	886	3.90	- 1.83
3	Cultivable waste	4400	19.38	1730	7.63	- 11.75
4	Follow land	2000	8.81	3397	14.96	+ 6.78
5	Net sown area	1700	7.49	3249	14.32	+6.83
	Total Geographical area	22700	100.00	22700	100.00	----

Source- Socio Economic Review and District statistical Abstract of Satara District. (1970-71 to 2004-05)

**Change in Landuse Pattern in Mahabaleshwar Taluka (1970-71 to 2004-05)  
(Area in Percentage)**



**Fig.1**

The above table.1 and fig.1 showing the figures of change in landuse pattern in Mahabaleshwar taluka during the period of 1970 – 71 to 2004 – 05. The detail information about landuse category and there change is as given below.

### 1) Area under Forest

The area under forest includes any land classed or administered as a forest under legal enactment. The areas figures under grazing lands or a crop within the forest are also included in this landuse category. It is clear from above tab.1 and fig.1 that out of total geographical area 13300 hectares accounting 58.59 percent area was under forest during 1970 – 71. During 2004 – 05 period area under forest is increased up to 13438 hectares which accounting 59.19 percent of area. The volume of change in area under forest from 1970-71 to 2004 – 2005 is positive and this is + 0.60 percent.

### 2) Land not available for cultivation

This landuse category includes two types of land

- i) The land put to Non-agricultural use
- ii) Barren and uncultivable land

The land put to non-agricultural use covers all lands occupied by settlements, roads, railways and beds of streams, ponds and canals. Barren and uncultivable land covers rocky hills, old quarry pits, swaps, deserts, riverbed of to rents, ravines etc. The tab.1 and fig.1 shows that out of total geographical area of this taluka 1300 hectares accounting 5.73 percent area is under this landuse category during the period 1970 – 71. In 2004 – 05 the land under this category is decreased up to 886 hectares or 3.90 percent. The volume of change in land not available for cultivation is negative, which is - 1.83 percent from 1970 - 71 to 2004 - 05.

### 3) Cultivable waste land

This landuse category consists of three types of land

- i) Cultivable waste land
- ii) Permanent pasture and grazing land
- iii) Land under miscellaneous trees crops and groves.

Cultivable waste land denotes land considered by present judgments as cultivable but actually not cultivated during the current year and last five years or more in succession. Permanent pasture and other grazing land i.e. all grassing lands, which may be permanent medown and village common pasture. Area under miscellaneous trees, crops and groves overcome all cultivable land which is not included in the net area sown but it is put to some agricultural use other than seasonal cropping. The tab.1 and fig.1 shows that out of total geographical area of Mahabaleshwar taluka 4400 hectors accounting 19.38 percent area is under this landuse category during 1970 -71. During 2004– 05 the area under this landuse category is decreased up to 1730 hectors accounting 7.63 percent. The volume of change in this landuse category is negative, which is -11.75 percent from 1970-71 to 2004-05.

### 4) Follow land

The term follow is applied to lands not under cultivation of the time of reporting, but which have been sown in the past. This landuse category consists of two types of land viz i. Current follow and ii.

Other follows land. Current follow land means the lands left unsown during the current agricultural years only to regain fertility and also that which remained uncultivated in the short term for want of moisture and economic reasons. Other follow land crop rise all land which was taken up for a period of not less than one year and not more than five years. However in the present study both the sub-categories are grouped together. The tab.1 and fig.1 shows that out of total geographical area of this taluka 2000 hectors accounting 8.81 percent area is under this landuse category during 1970 – 71. This is increased up to 3397 hectors accounting 14.96 percent during the period 2004 – 05. The volume of change in this landuse category from 1970-71 to 2004 - 05 is positive, which is + 6.78 percent.

### 5) Net sown area

Net sown area is the land which is being actively filled for rising of crops. This landuse category and follow land together constitutes the extent of cropped land in the region and therefore area of vital significance in studies relating to agriculture. The net area sown is the actual area under crops counting areas sown more than once in the same years only once. Net sown area represents the extent of the cultivated area actually sown during the agricultural years. It may be reoffered to as net cropped area also. The tab.1 and fig.1 shows that out of total geographical area in Mahabaleshwar taluka 1700 hectors accounting 7.49 percent area is under this landuse category in 1970 – 71, which is increased upto 3249 accounting 14.32 percent during 2004 – 05. The volume of change in this landuse category is positive, which is + 6.83 percent from 1970-71 to 2004-05.

### CONCLUSION

The area under forest has increased from 58.59 percent to 59.19 percent during the period of investigation. The majority of the forest in this region is evergreen and semi-evergreen dense. Forest cover in Mahabaleshwar taluka has been increased slightly because Mahabaleshwar taluka come under eco-sensitive zone. The government has made strong restriction on deforestation in this taluka. The programmer such as afforestation, soil conservation and social forestry for forest conservation is implemented successfully in this taluka. The land not available for cultivation is decreased from 5.73 percent to 3.90 percent, which shows -1.83 percent changes. The land not available for cultivation has been decreasing due to the increase in the land under cultivation.

The area under other uncultivable waste land is decreased significantly, which is from 19.38 percent to 7.63 percent during the same period which shows -11.11 percent change. This situation is happens because of changing agricultural practices in Mahabaleshwar taluka. This change is occurs due to shifting of agriculture from subsistence to commercial nature. The area under follow land is increased significantly by 8.81 percent in 1970-71 to 14.96 percent in 2004-05. Which shows + 6.78 percent change. This change is occurring because more land comes under other follow land due to some decrease in the cultivable waste land. The net sown area is also increased from 7.49 percent to 14.32 percent, which shows + 6.83 percent changes. This increase may be attributed to increasing awareness of improved agricultural techniques and introduction of the use of new improved seeds by farmers and changing nature of agriculture by subsistence to commercial type.

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