



## LAND UTILIZATION CHANGES IN RAMANAGARA DISTRICT: A GEOGRAPHICAL APPROACH

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### Abstract

*Land is a scarce resource, whose supply is fixed for all practical purposes at the same time. The demand for land various competing purposes is continuously increasing with the increase in human population and economic growth. Land use pattern at any given time is determined by several factor increasing size of human and livestock population, the demand pattern, the technology in use the cultural traditions, location and capability of land, Institutional factors like ownership pattern and right and state regulation. The land use pattern beside having economic implications has also important ecological dimensions, which it ignored can have disastrous consequence, the land is the sole resources of sustenance mankind supporting the food and shelter man utilizes land for various purposes like agriculture of urban development, settlement industrial activities etc. The growing pressure population coupled increasing varieties of demands being made on the land resources have brought extra pressure on the land resource all over the country in this paper shown that non land increase from 6.73% to 7.77% and current fallow land decrease from 7.44% to 7.21% of total area also cultivable waste land decrease from 6.89% to 6.83%.*

**Keywords:** Agriculture; Land use & land cover; Forest

### Introduction

Land use involves the management and modification on of natural environment or wilderness in to build environment such as settlement and semi-natural habitats, arable field, Pasture and managed woods. It also has been defined as the total of arrangement, activates, and inputs that people undertake in certain land cover and land caver in district from land use, despite the two terms often being used interchangeable. Land use is a description of haw people utilize the land and socio-

economic activity. Urban and Agricultural land uses are two of the most commonly known land use classes. Ramana-gara district is one of the premier district of Karnataka, in the field of agriculture land use and land cover change, have become one of the essential components of agriculture. Land has been utilizing according to the requirements of man the last decade has witnessed the scientific and technological development which have brought tremendous change in land use.

Expansion of urban centres has brought serious threats to the agricultural land around cities, urban centres, towns and hobbles, in the district. Urban sprawling is one of the important facts of the losses of agriculture land which has been reduced to 12.08% in the state and built area in the cities and towns have been increased to almost 18% out of the total geographical area of 3,55,912 ha. Net sown area constitutes 1,72,092 hectares (48.35%), area under forest 69,945 (19.65%), land put to non- agricultural use 27,671 ha (7.77%), barren and uncultivated land 24339 (6.83%), cultivated waste land 478 ha (0.33%), permanent pastures 24,662 ha (1.10%).

### Study Area

Ramanagara district is located in the southern most of Karnataka, it is situated on the north by Bengaluru rural and Tumakuru district of Karnataka state, on the East Bengaluru urban district, on the south east Tamilnadu state, on the south Chamarajanagara district, on the south west Mandya district of the Karnataka state. It is located between 12° 24' and 13° 09' North latitude and 77° 06' and 77° 34' East longitude. It has a geographical area of 3576sq km, which accounts for 1.85% of the geographical area of the state and has 27<sup>th</sup> place in the state. The average elevation is 800 meters above the mean sea level. There are 4 taluks namely Ramanagara, Channapatna, Magadi and Kanakapura in the district.

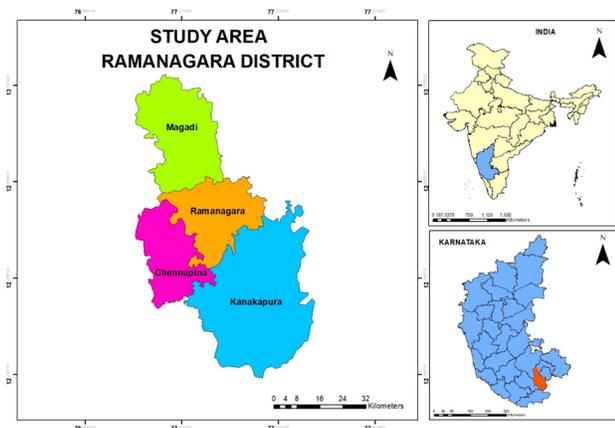


Fig. 1. Study area map

### Objectives

The main objectives of the study are,

1. To know the decadal variation in the land utilization change (2000-01 to 2015-16)

### Data and Methodology

Secondary data have been collected from the directorate of economic and statistics, Bengaluru. Government of Karnataka, Bengaluru. For year 2000-01 to 2015-16, simple statistical methods are used to show the result variations like pie-diagram, bar graph, standard deviation method etc. Table for both study periods have been prepared with percentage conversion.

### Discussion

The land put to various uses in the district have been discussed at length. Land is one of the most important components of life support system which has over used and even observed since centuries.

### General land use

In the year 2000-01 to 2015-16 the Ramanagara district has a total geographical area 3,55,922 hectares, out of which net sown area was 2,00,867 ha (56.43%), forest 6,99,46 ha (19.64%), follows land 23,389 ha (7.89%), cultivable waste 1253 ha (0.33%), barren and uncultivable land 24,540 ha (%), 26,500 ha (7.44%) trees and groves 3648 ha (1.02%).

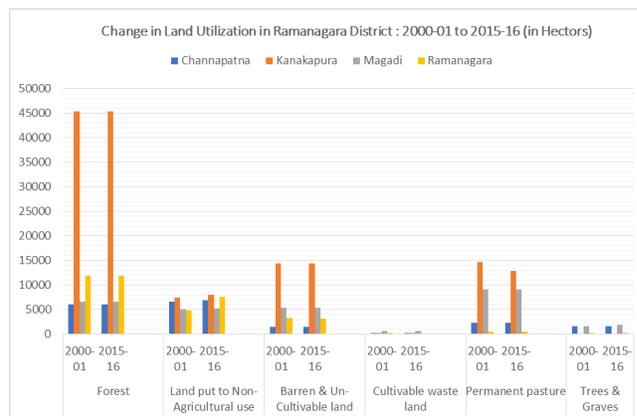


Fig. 2. Change in land utilization in Ramanagara District

### Forest

Ramanagara district has total geographical area 3,55,912 ha out of which 6131 ha (11.44%) of land under forest. During 2000-01, and the same was 6131 ha (11.44%) in the year 2015-16, there is no change in the forest area during the study period.

### Land put to Non-agricultural uses

This broad category comprises of a number of diferent types of land which are not available for cultivation under the



**Table 1. Change in land utilization in Ramanagara district: 2000-01 to 2015-16. (in ha)**

Taluk/land Utilization	Year	Channapatna	Kanakapura	Magadi	Ramanagara	Total'
Forest	2000-01	6131	45263	6598	11954	69946
	2015-16	6131	45263	6598	11954	69946
Change		0	0	0	0	0
Land put to Non-Agricultural use	2000-01	6674	7425	5075	4794	23968
	2015-16	6946	7951	5236	7538	27671
Change		-272	-526	-161	-2744	-3703
Barren & Uncultivable land	2000-01	1482	14422	5346	3290	24540
	2015-16	1482	14422	5346	3090	24339
Change		0	0	0	200	201
Cultivable waste land	2000-01	215	190	620	228	1253
	2015-16	260	190	600	128	1178
Change		-45	0	20	100	75
Permanent pasture	2000-01	2258	14652	9100	490	26500
	2015-16	2258	12814	9100	490	24662
Change		0	1834	0	0	1838
Trees & Groves	2000-01	1580	140	1680	248	3648
	2015-16	1580	140	1929	301	3950
Change		0	0	-249	-54	-302
Total	Total	53587	159426	79969	62930	35591
Geographical area						2

Source: Ramanagara district at a glance, 2000-01 to 2016-17

existing the land, e.g. occupied by Building, Roads, Railways and Factories, Water bodies, Ply ground, Gardens and others domestic purpose. Land put to uses other than agriculture, this land covers an area of 23,968 ha (6.73%) during 2000-01 and 27,671 ha (7.77%) changing 2015-16.

This exceptionally high propagation of non-agricultural land is due to the rapid growth of population which require more land for residential purpose, commercial establishment, educational and other institution, industries, roads, railways etc. The land under this category is increasing fast and is bound to increase in future also with the development of science and technology.

### Barren and uncultivable land

This category of land includes all such land which are practically useless or unproductive and unfit for cultivation. Ramanagara district had 24,540 ha (6.89%), of land under this category during 2000-01, it is decreased to 24,339 ha (6.83%), the decrease is 201 ha of during span of fifteen years.

### Permanent pasture

This category of land covers all grazing lands whether they are permanent pastures or not permanent lands for grazing cattle, has been characteristics as pasture lands. The pasture land all over the Ramanagara district had been reduced gradually and

used for agriculture. Cattle grazing are still continued only in seasonal follow lands, their feed is supplemented by stocks of grains like Ragi, Mulberry, Paddy etc,

Ramanagara district had 25,500 ha (7.44%) of land under this category during 2000-01 and the same has been reduced to 24,662 ha (6.92%) in 2015-16. During 2000-01, the taluk wise land under this category shown that kanakapura taluk shares highest land i.e. 14,652 ha (9.19%) Magadi 9100 ha (11.37%), Channapatna 2258 ha (4.21%) and Ramanagara 490 ha (0.77%), In 2015-16, the highest land under this category is noticed in kanakapura taluk and remaining 3 taluks has no changes under this category.

### Land under Miscellaneous Tree and Groves

It includes all cultivable land which is not included with net area shown, but it is put to some agricultural uses.

Ramanagara district had 3,648 ha (1.02%) of land under this category during 2000-2001, whereas, in 2015-2016, the land under this category is increased to 3,950 ha (1.10%) in both the year channapatna taluk has more area i.e. 1580 ha (2.94%), under this category during 2000-01 and the same has been to increased 298 ha in 2015-16.



## Conclusion

Out of the total geographical area (2000-01), 56.43% land was under net shown, 11.44% under forest, 7.89% under follow land, 0.35% under cultivatable waste, 0.35% under barren and un-cultivable land, 6.37% land put to non- agricultural uses, 7.44% permanent pasture and other growing land, 1.02% land under miscellaneous trees and groves. Looking at the data of 2000-01. The net shown area has decreased very significantly in the year 2015-16, Lack of available water resource, especially the underground water goes down which is to be tapped in order to make agricultural land more economical and widely acceptable.

Both generation land uses should improve in quality and quantity to maintain the entire related ecology. So that, it

can help to stop soil erosion and there by imageries brings certain constraints in the minute and micro land use analysis of district.

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