



## Changes of Landuse Pattern in Kodagu District (Karnataka State)

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### ABSTRACT

Land is one of the important natural resources of a country or a state. Its proper use will encourage the growth of economy. But improper use leads to progressive deterioration and loss of productivity of this valuable resource. The distribution of land for different purposes is known as 'Land utilization' or 'Land use pattern.' Land utilization is determined by various factors such as relief features, climate, and soils density of population, socio-economic factors and technical factors. .... The area under study is a smallest district in Karnataka State. It lies on the summits of the eastern and western slopes of the Western Ghats. It is a land locked district. The district enjoys cool climate with heavy rainfall. Due to its mountains and cool climate, the district is oftenly described as the "Switzerland of India" or "Scotland of India" or "Kashmir of South" The present study is based on primary and secondary data collected from the various government offices and personal visit to the study area. This helps to assess the land-use and occupational structure in the district. The total geographical area of the district is 4102 Square Kilometres. Out of this 1345.97 Square Kilometres (32.81%) of area is consisting forest.

**KEYWORDS :** Land Utilization, Net Sown Area, Area Sown More Than Once, Permanent Pasture, Cultivable Waste, Fallow Land

### 1. INTRODUCTION: -

Land is one of the important natural resources of a country. Its proper use will encourage the growth of economy. But the improper use leads to progressive deterioration and loss of productivity of this valuable resource. The distribution of land for different purposes is known as ' Land utilization' or ' Land use pattern.' Land utilization is determined by various factors such as relief features, climate, soils, so- cio-economic factors, technical factors and population pressure.

### 2. STUDY AREA: -

Kodagu district is the smallest district in the Karnataka State, with an area of 4102 Square Kilometres. It is situated on the south – western part of Karnataka State between North latitude 11 ° 56 ' to 12 ° 52 ' and East longitude 75 ° 22 ' and 76 ° 12 '. As shown in the (fig – 01) it is bounded by Hassan district on the North, by Mysore district on the East by Dakshin Kannada district on the West and by Cannanore district of Kerala State on the South. Cauvery is the main, largest and most sacred river of the district. The district enjoys cool climate with heavy rainfall. Due to its mountains and cool climate, the district is oftenly describes as the "Scotland of India" and "Switzerland of India" or "Kashmir of South".

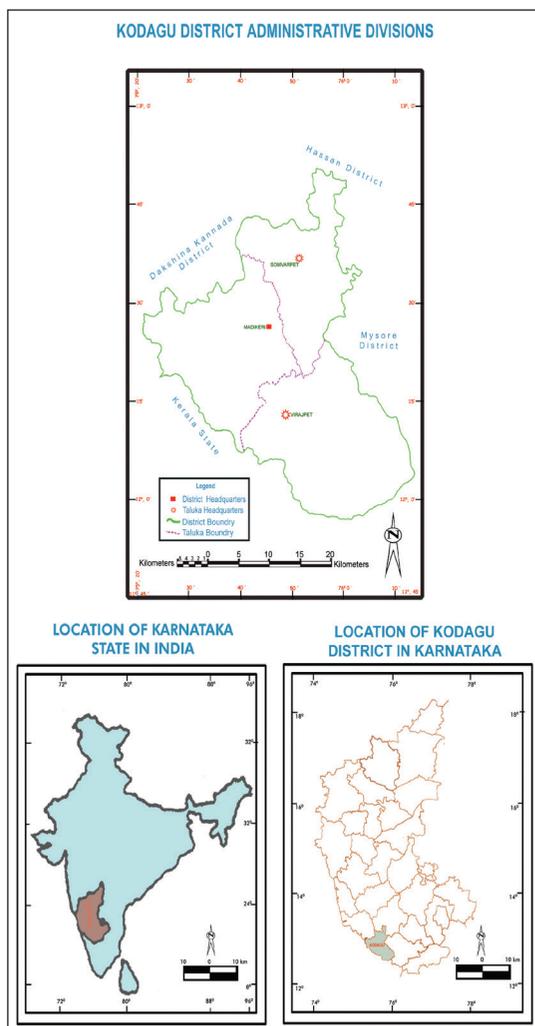
### 3. OBJECTIVES: -

Following are the specific objectives of this paper.

1. To find out the trend land utilization in the district.
2. To know the changes of land utilization in taluk wise.

### 4. DATA BASE AND METHODOLOGY: -

The date, which is being utilized throughout the work of this paper, has been collected from different sources. The primary information was collected through the field observation. Secondary data was collected from the various government and semi government departments such as statistical office, District census handbooks, district Gazetteer and Karnataka at a glance. Data has been analyzed with the help of statistical diagrams, Aerial Photography map.



**5. TREND OF LAND UTILIZATION IN THE DISTRICT: -** Land use pattern of the district can be classified into eight categories.

**A. Forest: -** Kodagu is the smallest district in Karnataka State. The total geographical area of the district is 4102 Square Kilometres, (2.14 % of the State). Out of this 1345.97 Square Kilometres, (32.8%) of area is

consists of forest. It is larger than the State average (16.10%) as well as National average (22.55%). After 1977-78, the forest area is slightly decreases from 33 percent to 32.8 percent. (Table no – 1) it is because of increasing population and the extension of agricultural land and using of other purposes of forestland. Among the three taluks, Virajpet taluk has the largest forest area in the district. it consists 49 percent ( 662.34 Square kilometres) of total reported area in the district and 40.04%. Percent of the total geographical area of the taluk. (Table no 1, fig – 2 & Graph no - 01).

**B.Net Sown Area:** - Cropped area in the year under consideration is called net sown area. It is observable that, in between 1965-66 and 2003-04 the net sown area has gradually increases from 25.98percent to 35.7 percent in the district. This is due to the reclamation of barren and uncultivable wasteland. (Table no 1, fig – 2 & Graph no - 01) but still it is lesser than that the State average (54.64%) as well as National average (46.14%). In the midst of Madikeri, Somvarpet and Virajpet taluks. In the midst of Madikeri, Somvarpet and Virajpet taluks, Virajpet has the largest net sown area (43.42%) in the district followed by Somvarpet(29.94%) and Madikeri(26.62%) talus(Table no 1, fig – 2 & Graph no - 01).

**C. Area Sown More Than Once:**-When compare to the State average (.83%) and National average(5.85%) the percentage of area sown more than once is (the name indicated the area is used to grow more than one crop in a year) very meagre. It accounts only 0.17 percent of the total geographical area of the district. After 1975-76 land under this category is sharply declined from 1.36 % to 0.17 % in 2003-04 by coffee plantation (it accounts 56% of agricultural crops). Among the three taluks somewhat Somvarpet taluk had the large amount of plain land, hence the proportion of area sown more than once is large in this taluk.

**D. Land Not Available for Cultivation:** - This class consists barren and uncultivable waste and the area put to non-agricultural uses includes settlements, roads, railways, water etc., It accounts 13.26 % of total geographical area of the district (2003-04). A large proportion of this type of land is found is Somvarpet taluk(45.83%) followed by Madikeri(32.77%) and Virajpet(21.39%) taluks.

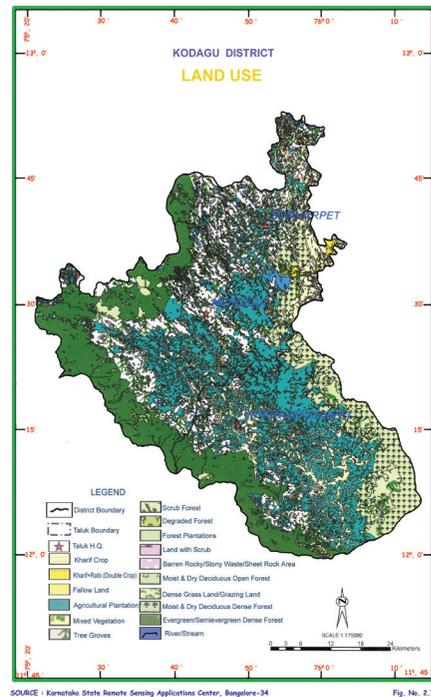
**E. Permanent Pasture and Other Grazing Land:-** A total area of 176.04 Sqare kilometres is belongs to permanent pasture and other grazing lands in the district. It consists only 4.29 % of total geographical area of the district .Large area of this kind of land is found in Virajpet taluk accounts 55.47 %.

**TRENDS OF LAND UTILIZATION (1965-66 to 2003-04)**  
**Table No- 1**

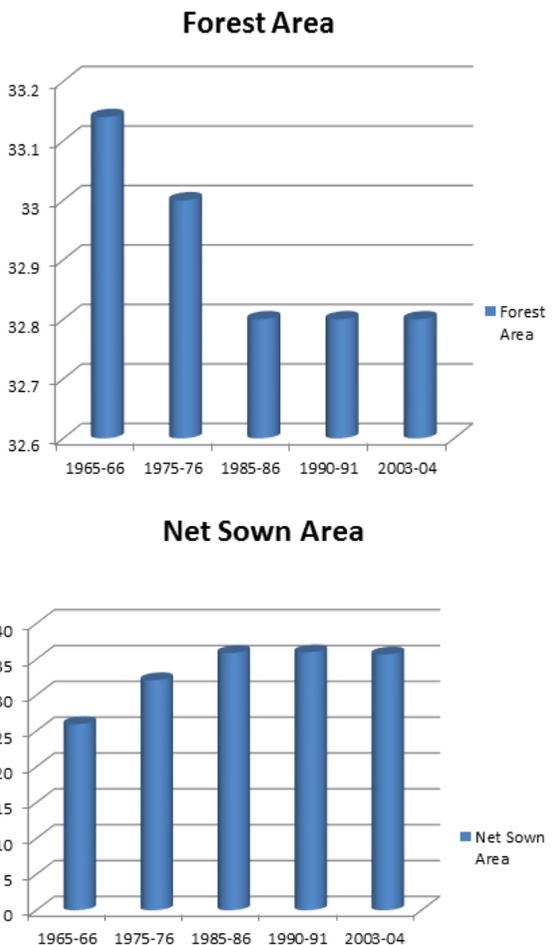
Year	1965-66	1975-76	1985-86	1990-91	2003-04
Total Geographical Area	4108Km <sup>2</sup>				
Forest Area	33.14	33	32.8	32.8	32.8
Barren & Uncultivable Land	7.8	7.8	7.5	7.5	7.5
Land use for other purpose	4.4	5.4	5.77	5.77	5.75
Cultivable Waste	11	5.3	3.46	2.9	2.9
Permanent Pasture	6.8	4.6	4.3	4.3	4.3
Tress & Groves	9.11	9.66	6.55	9.2	7.82
Fallow Land(Current)	0.3	0.17	0.39	1.19	1.73
Others	0.7	1.65	0.39	0.34	1.33
Net Sown Area	25.98	32.1	35.9	36	35.7
Area Sown More than Once	0.1	1.36	0.8	0.7	0.17

Source: - Karnataka at a glance – 2003-04 and District Gazetteer.  
Note: - area in Percentage.

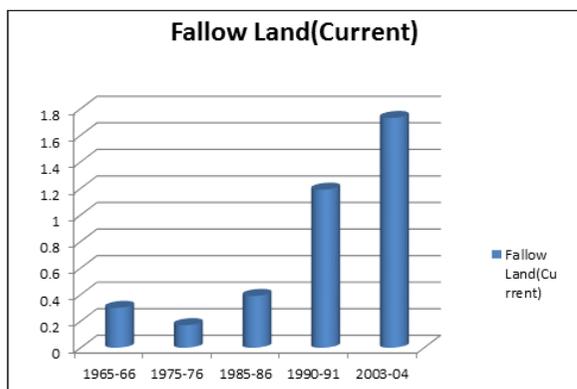
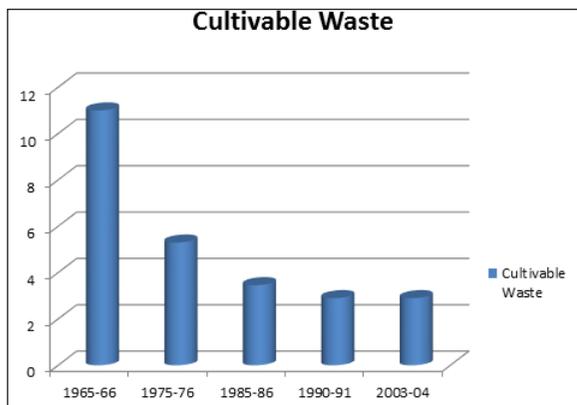
Fig – 2



**TRENDS OF LAND UTILIZATION (1965-66 to 2003-04)**  
**Graph No- 01**



**TRENDS OF LAND UTILIZATION (1965-66 to 2003-04)**  
**Graph No- 01**



**F. Land under Miscellaneous Tree Crops and Groves:** - Land under miscellaneous tree crops and groves includes all cultivable land, which is not included under net area sown, but is put to somagricultural use. It includes gardens, orchards and plantations. Land under this category gradually declined from 9.66 % in 1975 to 7.2% in 2003-04. The district is lies on the summits of the eastern and western slops of Western Ghats, hence it consists large amount of this kind of land than Karnataka State (State average is 1.59%) with 213.24 Square kilometres (66.53%) Madikeri taluk has the largest area under this category followed by Virajpet taluk(2.99%).

**G. Cultivable Waste:-** The "Wasteland Survey and reclamation committee" defines 'Cultivable waste land available for cultivation but not used for cultivation for one or other reason like lack of water, salinity, water logging etc.. The land under this category has declined considerably from 11.5 % in 1965-66 to 2.9 % in 2003-04(Table no 1, fig – 2 & Graph no - 01) . This is due to reclamation schemes launched in the district. Madakeri has the largest area of cultivable waste in the district. It has 100.09 Square kilometres of this type of land, which is about 84.75 % of the total wasteland of the district.

**H. Fallow Land:** - It includes current and other fallow land. Fallow of one year is called 'Current fallow' while that of 2 to 5 years is called as 'other fallow land'. Area under current fallow land is gradually increased from 0.3 % (1965-66) to 1.73 % in 2003(Table no 1, fig – 2 & Graph no - 01) .But the other fallow land has declined from 1.65 % in 1975-76 to 0.34 % in 1990-01 again in 2003 the percentage of this kind of land is increased to 1.33 % in the district. Among the three taluks of the district, the percentage of current fallow land is more in Madikeri taluk it consists 39.38% of total current fallow land of the district. Nevertheless, the percentage of other fallow land is more in Virajpet taluk it consists 39.72 percent of total other fallow land of the district.

**6. COCLUSION AND SUGGESTIONS:** - Following suggestions should be implemented for the proper utilization of land, to improve productivity of land and quality of life.

The net sown area increases from 25.98 percent (1965-66) to 35.7 percent in 2003-04. Even though it is necessary to increase the net sown area for meeting the food and other requirements of increasing population of the district.

Number of total cultivators is gradually declining from 48,643 in 1981 to 43,854 in 1991. Further it is sharply decaling from 43,854(1991) TO 21,046 in 2001. It indicates that the agricultural sector of the district is facing problems like failure of coffee due to some diseases, rain havoc, fall of coffee price etc, by these problems the small and medium cultivators have been forced to sell their coffee plantation lands to companies like TATA. Therefore, the government should take some measures to solve these problems.

According to 2003-04, the district covers 1345.97 square kilometres of forest area, it accounts 32.81 percent of total geographical area of the district. This works out 0.24 square kilometres forestland is having with individual. According to the National Forest Policy (Report of the National Agricultural Commission, 1976) drawn up by the central government for hilly areas like Kodagu, the minimum forest area for ecological and protective reasons forest area should be 60 percent. The forest area of Kodagu falls short of this limit. Hence, measures should be taken to improve the forest area in the district.

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