

CHAPTER - V

III CONCLUSION III

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C O N C L U S I O N

Land is an important national resource providing basic needs of living, space, food, to human beings and fodder to animals. Man's economic development is closely associated with the proper use of land. The basic needs of human beings are totally dependent on this resource. But many times it is misused and deteriorated. Therefore, this national resource should be used rationally. But it is gradually deteriorated, so there is a need of landuse planning. The land capability classification is a method of grouping land on the basis of soil characteristics.

The landuse capability classification becomes possible only when a micro level detailed soil survey is properly done. The study of physical properties of soil is essential as it is the natural medium for the plant growth. They consist of soil texture, slope, soil depth, soil drainage, soil erosion, gravels, colour and soil moisture, wetness, permeability and available moisture capacity. These properties are considered for analysis of land capability in the study.

The area very gentle slope 1.3° has attained 10.44 percent proportion whereas moderately 5.10° sloping land covers about 12.35 percent area of the total. The strongly sloping land covers about 34.33 percent area of the circle.



The depth of soil covers varies spatially in the region very shallow soils below 15 cms are located along the western and eastern of the study area. Whereas central part have attained significant depth above 20 cms.

Present work is concerned with study of land capability classification of Kotavade circle in Ratnagiri district of Western Maharashtra. Physical properties are essential as medium for the plant growth. The spatial variations in physical properties are examined in the study region. About six textural classes are identified in the study area. The proportion of sandy loam clay silty soil is 9.40 percent of the total area whereas gravel silty heavy clay textural soils have covered 18.64 percent area which are confined to the bank of river Nivedi and its tributaries. Based on the slope categories the region has been grouped into six land capability classes. The two, three and four categories namely Class II, III and IV are suitable for cultivation and class V, VI, and VII are suitable for grazing, forestry and settlement. In the study area the total area of class II, III and IV is 21.11 percent and class VI and VII covers only 78.89 percent of the total.

There are regional variations in landuse pattern of the study area. The total geographical area (19081.92 hect.) of the circle is divided into three major categories namely

cultivated area, grassland, forest land, waste land. The major part of study area is occupied by cultivated area (23.60) percent. And very high portion (65.68) percent is covered by grassland and forests. The waste land account for 10.72 percent area in the circle.

The total area suitable for cultivation is about 21.11 percent but presently in the area under study the cultivated area is 23.60 percent. It indicates that there is no scope for further extension of area under cultivation. Whereas the total area suitable for forestry, grazing and forest is about 78.89 percent. But actually the area under forest permanent pastures land 65.68 percent. This indicate that there is scope for further extension of area under forest. The waste land covers 10.72 percent area in the circle and it can be also used in future after improving it for plantation crops. This association between landuse and land capability is also tested by Chi-square values. The result is got as the landuse and land capability classes are not related to each other in the study area.

RECOMMENDATIONS

The field observations indicate that in the study area there are some land degraded patches which are reflective of improper use of land by man. Hence, the optimum use of every type of land is recommended according to its capability.

The land capability class II is observed in 0.98 percent of the total area. This class of land is highly suitable for intensive cultivation. But some parts, land is used for grassland and forest. It is an improper use of land. This deterioration should be checked and this class of land faces the severe problem of salinity in western part of the study area. As some 4.39 percent area which is left as waste can be used for cultivation after making pit channeling drainage.

The land capability class III register 8.45 percent area of the total. This class of land faces the problem of salinity in western part of the circle. In this class of land some area is put as waste which can be used for horticulture after making pit channeling drainage. This class of land is also suitable for intensive cultivation. But even some portion is used for grassland and forest. It is unsuitable use of land. This degradation should be checked and this land should be used for cultivation.

The land capability class IV is observed in 11.68 percent of the total area. This class of land faces the problem of moderate moisture capacity in some parts. This class of land is suitable for occasional cultivation, with severe limitations. This land requires very careful management practices in cultivation. But even some portion is

used for grassland and forest. It is a misuse of land, this deterioration should be checked and this land should be brought under cultivation.

The capability class VI account for 29.59 percent area in the circle. This class of land faces the problem of erosion hazard particularly in south eastern hilly part of the study area. So some part is left as stony katal waste land. So special efforts have to be made for planting and bunding to control the problem of erosion. This class of land is largely suitable for grazing and wood land. But even some area is used for cultivation. It is improper and misuse of land. This land degradation should be stopped and land should be used for grazing and wood land. The land in Kotavade circle of Ratnagiri district faces some of the problems of land degradation which needs immediate action for rational landuse.

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