CHAPTER - VI

CONCLUSION

Land is an important national resource providing
living space, food to human beings and fodder to animals.
Man's economic development is closely associated with the
proper use of land. But it's improper use leads for gradual
deterioration. This, therefore, invites proper landuse plan-
ning for maximum production with minimum depletion of resources.
Land capability classification happens to be an important tool
to the planners. Land capability classification is a method of
grouping land on the basis of soil characteristics.

Present work is concerned with the study of land capa-
bility classification of Khatav taluka in Satara district of
South Maharashtra. 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. The spatial
variations in physical properties are examined in the study
region. About six textural classes are identified in the
taluka (Fig.2.1-A). The proportion of sandy loam soil is 20.9
percent of the total area whereas clay textural soils have
covered 12.1 percent area which are confined to the banks of
river Yerala and it's tributaries. Based on the slope categories
the region has been grouped into three classes (Fig.2.1-B). The
area with gentle slope has attained 37.00 percent proportion
whereas moderately sloping lands cover about 19.5 percent area.
The steep sloping lands have occupied 43.5 percent area of the
total. Notwithstanding the depth of soil cover varies spatially

in the region. Shallow soils (below 7.00 cms) are located along the western and eastern borders of the study area whereas central parts have attained significant depth (above 45.00 cms).

The erosion from running water, is the major phenomenon all over the region. However, it's intensity differs with the variation in the degree of slope. The areas having low intensity of erosion are observed along Yerala river banks due to gentle sloping lands. The hilly parts along the western and eastern borders are characterised by high intensity of erosion. This has led for insignificant soil cover and ultimately for poor cultivation of rainfed crops. High soil drainage is confined to hilly parts. The hilly region, proper and foot hill zones have shown the occurances of more gravelness. Generally, all over taluka brown soils are observed. There has been considerable decrease in moisture content of soils in hilly region. However, the soils, in the central tract, have attained moisture content which is useful for the cultivation of foodgrains.

In view of the above spatial characteristics of soil properties, the region can be divided into two major land capability classes viz. land suitable for cultivation and land not suitable for cultivation. The first category is further sub-grouped into three land capability classes viz. Class II, Class III, and Class IV. Mention should be made of class I about which the specific characteristics of soils are not observed. The second

group is sub-divided into two categories (i.e. class VI & VII).
The properties of class V and VIII are also not observed in
the region. Thus, entire region has five land capability sub-
classes of major categories. Of these sub-categories, first
three (II,III & IV) are designated as suitable for cultivation
occupying 63.8 percent (86953.0 hect.) in the region. The
remaining land of 36.2 percent may be considered as unsuitable
for cultivation. This means that the region offers better
opportunities for bringing additional land under cultivation
with the help of modern technology. Table 3.1 indicates the
propertion of different categories of land capability classes.

The case studies of six villages (Chapter IV) has revealed
the fact that these villages represent different land capability
classes. Moreover, class II and III have acquired more proportion
in Ner, Vakeshwar, Dalmodi, Umbarmale villages. The high propor-
tion of class VI is found in Holichagaon and Unchithane villages.
The erratic nature of monsoon rainfall, inadequate irrigation
facilities and adverse properties of soils have resulted into
poor cultivation of crops. The lands are not used as per the
land capability classes.

The study pertaining to landuse and landuse planning
(Chapter V) highlights the dynamic nature of landuse (1971 to
1985). About 72.7 percent area is under cultivation (arable
land) whereas 27.3 percent is non-arable. Moreover, there is
scope for converting areas not available for cultivation (12.4%)

into cultivable lands. The region has 9.7 percent cultivable waste lands which may be transferred to arable lands. The proportion of forest land is 5.2 percent in 1985 which could be increased by allocating the non-arable lands of class VI and VII in the region.

Different land capability classes have various hazards. The landuse planning strategy is suggested to solve these problems (Chapter V). The deterioration of soils by erosion, depletion of soil fertility, poor moisture availability, salinity, low proportion of fertilizer application and limited use of modern technology are the vital problems in the region. The construction of contour bunding, terracing in hill slopes, construction of water percolating tanks, use of modern technology are some of the measures to solve these problems.

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