

CHAPTER - III

LAND CAPABILITY CLASSIFICATION

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1. LAND SUITABLE FOR CULTIVATION
 - i) Land capability class II
 - ii) Land capability class III
 - iii) Land capability class IV

2. LAND NOT SUITABLE FOR CULTIVATION
 - i) Land capability class VI
 - ii) Land capability class VII

Summary

References

Land capability classification is a scientific appraisal of the physical characteristics of the land. It is an inherent capacity of land to perform the general land use function. It is the quality of land and is assessed by the physical properties of soil and terrain characteristics. Land capability is by and large ascertained by inherent soil characteristics, external land features and environmental factors limiting land use (Mohammad Noor, 1981). The detailed investigation of physical properties of soil such as soil texture, slope, depth, erosion, drainage, graveliness and soil colour is made in the previous chapter. The present investigation of land capability is based on the above physical properties.

The land capability classification is grouped into three major categories of soil viz. i) capability unit ii) capability sub-class and iii) capability class. Land capability unit is a grouping of soils that have about the same responses to cultivated crops and pasture plants. Yields are also used as criteria in establishing the capability units. The second category, the capability sub-class is a grouping of capability units having similar kinds of limitation and hazards. The third broadest category of land capability is a group of soils having the same degree of limitations. The limitations in use of soil progressively increase from class I to class VIII. Class I to IV are suitable for cultivation and class V to VIII are not suitable for cultivation, but suitable for grazing, forestry and wildlife maintenance and recreation or watershed protection (ICAR, 1980).

According to this scheme of classification five land capability classes viz. class II, class III, class IV and class VII are observed in the Karveer taluka. The brief description of each class of land is as follow.

1) LAND SUITABLE FOR CULTIVATION :

In the study region there are three classes of land suitable for cultivation. They are class II, III and IV. The total area covered by these classes is about 71% of the total land of the taluka.

i) Land capability class II

The soils in class II are good with moderate limitations. Soil depth is more than 50 cm. and the slope is 1 to 3%. The soil erosion is slight and gravel content is less. The soil texture is clay, clay-loam and sandy loam. The soil colour is mostly dark and red brown, but it is less drained soil. This class of land covers about 26% land of the taluka (Table 3). This type of land has a good productivity and is suitable for cultivation with ordinary practices.

This class of land is generally observed on the river banks. The villages which occupy this class of land are Kasaba Bavada, Nigave Dumal, Vadanage, Shinganapur, Chikali, Varanage, Padali Br. & Kh., Unchagaon, Mudshingi, Waliwade, Chinchwad, Vasagade, Beed, Adur, Kalambe, Bachani, Donawade, Wakare, Koge and Kuditre (Fig.1.1).

Table 3 : Area under different land capability classes.

Capability class	Percentage Area
<u>Area suitable for cultivation</u>	
class II	26
class III	32
class IV	13
<u>Area not suitable for cultivation</u>	
class VI	14
class VII	09
<u>Kolhapur M.C. Area</u>	06

SOURCE : Compiled by Author.

ii) Land capability class III

The soil in class III is moderately good with severe limitations that reduce the choice of crops and requires special care in handling and management. The limitations of soil in class III are more than those in class II and therefore need careful management (ICAR, 1980).

The soil depth is more than 25 cms. and the slope is gentle. The soil drainage is moderate to well. The soil erosion is less and moderate. There are also no gravels in the soil. The soil texture of this class of land is clay-loam, sandy-clay and sandy loam.

About 32% land of the taluka is covered by this class of land. And it is noted in the Panchaganga valley and the southern part of the taluka (Fig.3.1).

iii) Land capability class IV

The soil in class IV is fairly good with occasional cultivation and has very severe limitations. The limitations restrict the choice of crops and require very careful management practices (Sharma,1981). The cultivation of crops may be restricted to once in three or four years.

The soil is shallow and slope is gentle. The soil erosion is high but it is well drained. The gravel content is moderate and soil texture is sandy loam, sandy clay loam and sandy. The proportion of this class of land is about 13% of the total area of the taluka (Table 3). It is observed in the villages of Tamgaon, Gokulshiragaon, Kaneri, Kavane, Nigave-Khalasa, Ghotavade, Pasarade, Ghinvade, Manjavewadi, Mhandre, Sonali, Patekarwadi, Kanchanwadi and Mhalasavade (Fig.1.1).

2) LAND NOT SUITABLE FOR CULTIVATION :

In the study region class VI and class VII are identified as land not suitable for cultivation and their total area is 23% of the taluka.

i) Land capability class VI

The soils in class VI have severe limitations that make them generally unsuited to cultivation and limit their use largely

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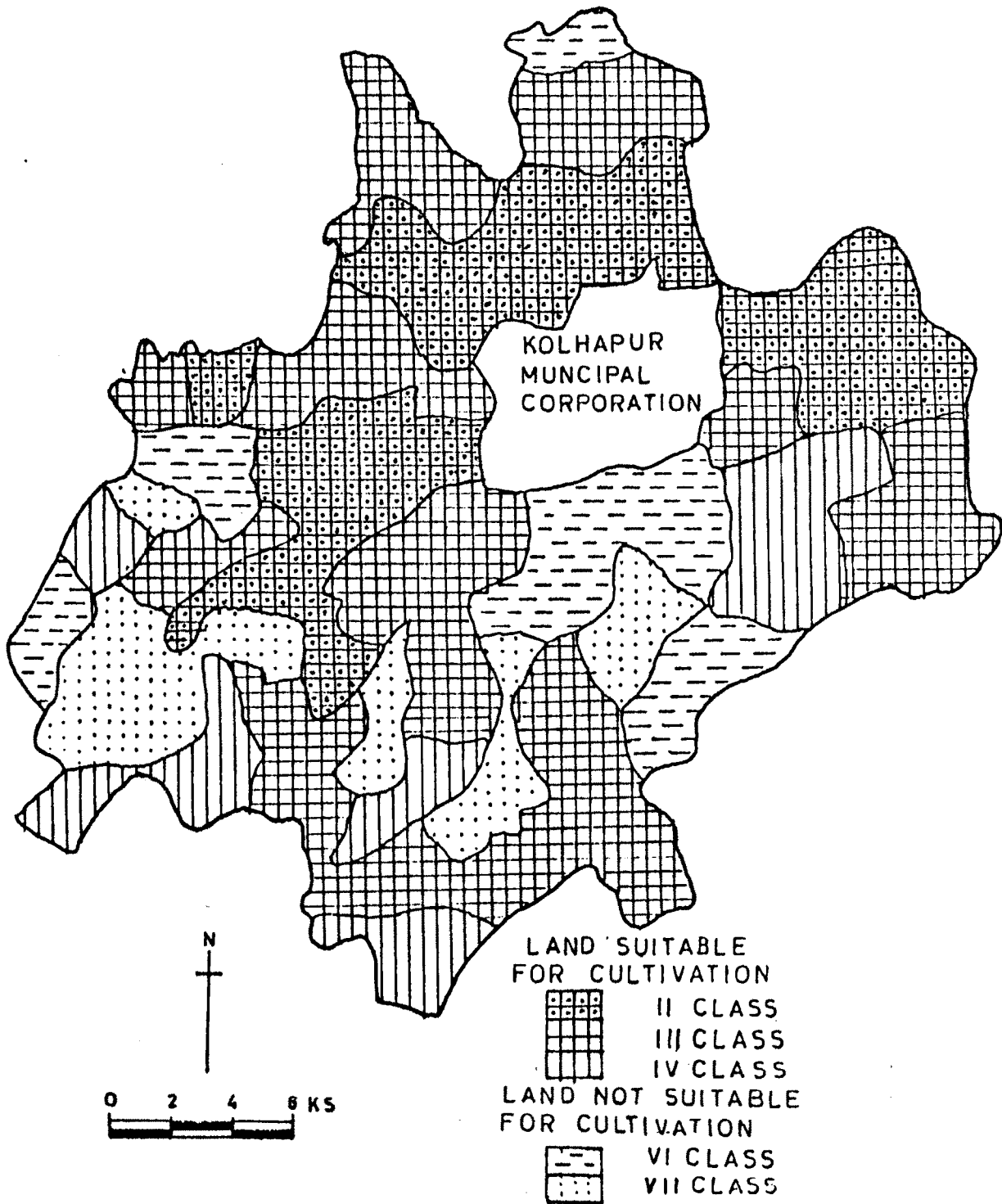


FIG. 3.1

to pastures or woodland.

The soil depth of this class of land is very shallow and it is moderately sloping. The soil erosion is very high but it is well drained. The soil texture of this class of land is sandy-clay, sandy loam and sandy. The gravel content is moderate.

This class of land has covered 14% area of the Karveer taluka. The villages such as Sadale, Madale, Ispurli, Yavati, Kogil Bud. & Khurdh, Vadagaon, Kandalgaon, Panchgaon, Kalambe (Thane), Hanabarwadi, Navali and Nithavade have more proportion of this class of land.

ii) Land capability class VII

This class of land is suitable for grazing or forestry. The very severe limitations make the soil unsuited for cultivation and restrict their use largely to pastures and woodland.

This type of land is generally stony and rugged. It is found mostly on high elevated areas, hence the soil depth is very shallow and soil erosion is very high. It is highly drained soil and gravel content is also very high. The soil texture is sandy, sandy clay-loam and sandy-loam.

This class of land covers about 9% area of the taluka (Table 3). The villages namely Khatangale, Bololi, Taraswadi, Arale, Dhonwadi, Garjan, Chafodi, Shirol-Dumal, Kothali, Sadoli-Khalasa, Jaithal, Girgaon and Wadawadi have high proportion of this class of land.

SUMMARY :

The land capability classification is grouping of land according to its inherent characteristics. It is grouped into eight classes and each class is indicated by numbers from I to VIII. The first four classes of land are suitable for cultivation and the remaining four are not suitable for cultivation but useful for grazing, forestry and wildlife.

Based on this classification scheme five land capability classes viz. class II, III, IV, VI and VII are identified in Karveer taluka. Class II, III and IV covers about 71% area and class VI and VII record only 23% area of the taluka.

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