
Introduction :-

- **The system of land capability classification requires that every acre of land be used in accordance with its capability and limitations.**
 - **The land capability classification is a broad grouping of soils bases on their limitations and also serves as a guide to assess suitability of the land for cultivation, grazing and forest plantation.**
 - **Land capability classification is the system of grouping soils primarily on the basis of their capability to produce common cultivated crops and pasture without deteriorating over a long period of time.**
 - **It is strongly biased towards consideration of soil conservation; and it is based on negative land features, the limitations.**
 - **The structure of LCC is capability class, capability subclass and capability unit.**
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Land Capability Groupings :-

- The grouping of soils into capability classes and sub-classes is done on the basis of their, capability to produce crops and pasture plants without deterioration over a long period of time.
 - It is mainly based on :
 - The inherent soil properties
 - The external land features
 - The environmental factor that limit land use and this information is provided by other agencies
- These information is provided by standard soil survey report**

Land Capability Classification (LCC) :-

- **The LCC scheme is developed by the soil conservation service of the United States Department of Agriculture (USDA).**
 - **The classification scheme has three categories namely**
 - (i) Capability units**
 - (ii) Capability classes and**
 - (iii) Capability sub-class**
 - **Land capability classification may be defined as a system of grouping land in to various classes based on inherent limitations imposed on sustained use by soil attributes, topography, drainage and climate.**
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Factors for determining the capability of a soil :-

- **Depth of soil**
 - **Drainage condition of soil**
 - **Texture and Structure of soil**
 - **Relief (slope)**
 - **Intensity of soil erosion**
 - **Susceptibility to overflow and flooding and degree of saturation**
 - **Problematic soils (Salt affected, acidity and other unfavourable chemical properties)**
 - **Climatic variation etc.**
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Land Capability Unit :-

- **It is a grouping of one or more individual soil-mapping units having similar potentials and continuing limitations or hazards.**
 - **The capability unit condenses and simplifies soils information for planning individual tracts of land, field by field.**
 - **Capability units with the class and sub-class furnish information about the degree of limitation kind of conservation problems and the management practices needed.**
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Land Capability Classes :-

- **The capability classes are useful as a means of introducing the map user to the more detailed information on the soil map which is indicated by different colours.**
- **It is the broadest category in the land capability classification system.**
- **Thus, land is classified in to eight land capability classes are used to represent both irrigated and non-irrigated land capability classes.**
- **Class codes I (1), II (2), III (3), IV (4), V (5), VI (6), VII (7) and VIII (8).**
- **Land suitable for agriculture and other uses which include class I to class IV lands. While, land not suitable for agriculture but very well suited for forestry, grass land and wild life which include class V to class VIII lands.**

Land Capability Classes :-

Class - I	Very good land	}	Land suitable for cultivation
Class - II	Good land		
Class - III	Moderately good land		
Class - IV	Fairly good land		
Class - V	Suitable for pastures and grazing	}	Land not suitable for cultivation
Class - VI			
Class - VII			
Class - VIII			

Land Capability Sub-Classes :-

- The subclasses are further divided into units based on a specific management practice.
 - The symbol given for each subclass is used as a suffix to the concerned land capability class.
 - These are applied only to classes II, III and IV and shown by the addition of small alphabets, namely :
 - ‘e’ – Erosion and runoff
 - ‘w’ – Excess of water is the main problem
 - ‘s’ – Soil limitations
 - ‘c’ – Climatic limitations
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