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.

Land Capability Groupings:-

 The grouping of soils into capability classes and subclasses 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

These information is provided by standard soil survey report

 The environmental factor that limit land use and this information is provided by other agencies

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.

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.

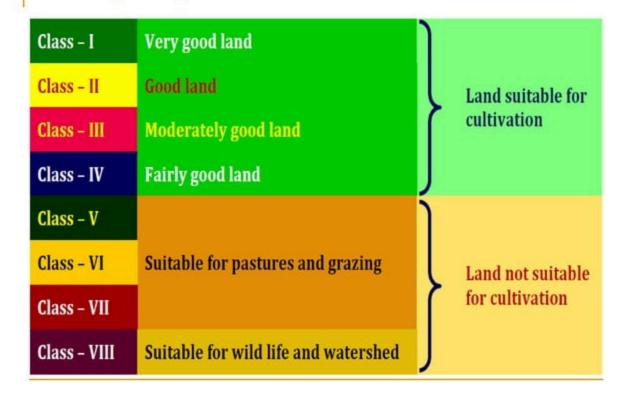
Land Capability Unit :-

- 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.

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:



Land Capability Sub-Classes :-

- The subclasses are further divides in to unit based on a specific management practice.
- The symbol given for each sub-classes is used as 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