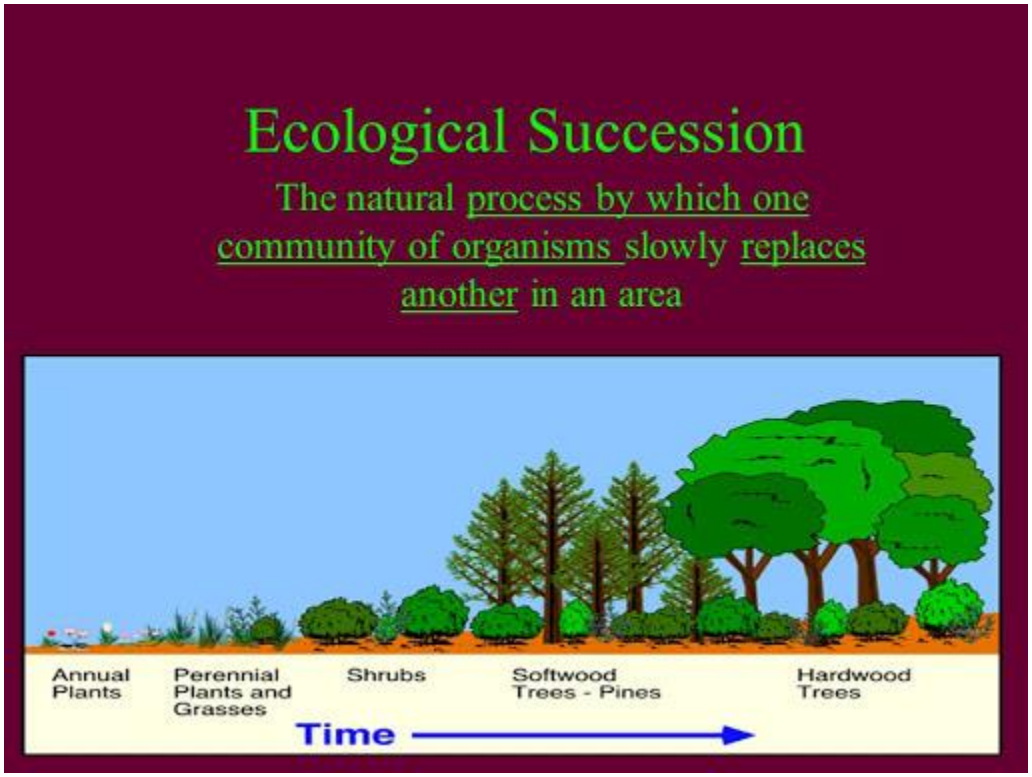
Succession (अनुक्रमण)

Definition: Progressive change in biotic communities is a part of their normal development. The orderly change or replacement of one community in an area by another in specific period of time is called ecological succession.



Depending on the force of change, succession can be of two types:

- **Autogenic succession:** **succession is the result of the organisms themselves.**
- **Allogenic succession:** **due to external force mainly physical forces such as, storm, fire, earthquake, human interference etc.**

Causes of Succession:

Often succession is the result of both autogenic and allogenic factors even though it may be triggered by either one of them. In 1916, F.E. Clement described the **'Theory of Succession'** and involves the following steps:

- **Nudation: development of bare site.**

- **Migration: arrivals of propagules**
- **Ecesis: establishment and initial growth of vegetation.**
- **Competition: species compete for space, light and nutrition.**
- **Reaction: replacement of one community by another.**
- **Stabilization: development of climax community.**

Types of Succession:

Ecological succession can broadly be divided into two types:

Each succession consists of series of sequential stage known as a sere and each sere is made up of a sequence of seral communities (seral stages). Seres are classified according to the environment like halosere develops in salt marshes while hydrosere in aquatic environment.

Primary Succession:

Is the process where succession starts on barren ground where no community had existed before forming a mature community. The example is the invasion and colonisation of bare rock on a recently created volcanic island. The first (pioneer) community in primary succession is mainly lichen which invades the area through various dispersal methods. The tenacious and water-seeking nature of fungus is suitable in forming the pioneer community. It secretes weak acids that gradually erode the rock surface promoting for other communities to succeed.

Secondary Succession:

It is the process of succession, in which a mature community is formed in area which has been previously destroyed by either natural calamities or human interventions. It is a long term repair process and occurs more rapidly than primary succession. The example is the reclamation of previously burned forest or an area after limestone mining.

Biotic and abiotic components change during succession. The pioneer and intermediate communities modify the condition so that it favours the growth of new communities which

eventually replace the previous one. The most important result of succession is the increase in species diversity and ecosystem stability.