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FACULTY OF ENGINEERING AND
TECHNOLOGY

Lecture- 16

Ecosystems-Part 4



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Forest ecosystem

A forest ecosystem is a natural woodland unit consisting of all plants, animals and microorganisms (Biotic components) in that area functioning together with all of the non-living physical (abiotic) factors of the environment.

There are three types of forest viz:

- Tropical forest,
- Temperate forest, and
- Boreal or Taiga forest.



Grassland ecosystem

Grassland ecosystem is a type of terrestrial ecosystem with an open land of grasses. The grassland ecosystem occupies about 25% of the total land area throughout the world.

Three types of grasslands are found to occur in different climatic regions:

- Tropical grassland
- Temperate grassland
- Polar grassland



Desert ecosystem

Desert is an area of land that is arid, or dry, and gets less than 10 inches of rain per year.

Deserts can be hot (That desert, Sahara desert) or cold (Gobi).

Plants and animals in the desert ecosystem have adaptations that allow them to survive the lack of rainfall and extreme temperatures.

About one-third of world's land area is covered by deserts.

Deserts have low species diversity which are generally adaptive to such conditions.



Aquatic ecosystem

An aquatic ecosystem is a water-based ecosystem. It includes

- **Freshwater ecosystems** comprises water containing low concentrations of salts. They have less than one gram per litre of dissolved solids. Freshwater ecosystem include ponds, streams, lake and river ecosystem, and
- **Marine ecosystems** which consists of saltwater of seas, oceans, and estuaries.

Aquatic ecosystems in shallow waters, where there is plenty of sunlight, generally tend to be the most productive.

Around half of the 25,000 known species of fish live in the marine environment, mainly in shallower, warmer region.



