

SCIENCE

INTRODUCTION OF ENVIRONMENT, ECOSYSTEM, COMPONENTS OF ECOSYSTEM

INTRODUCTION

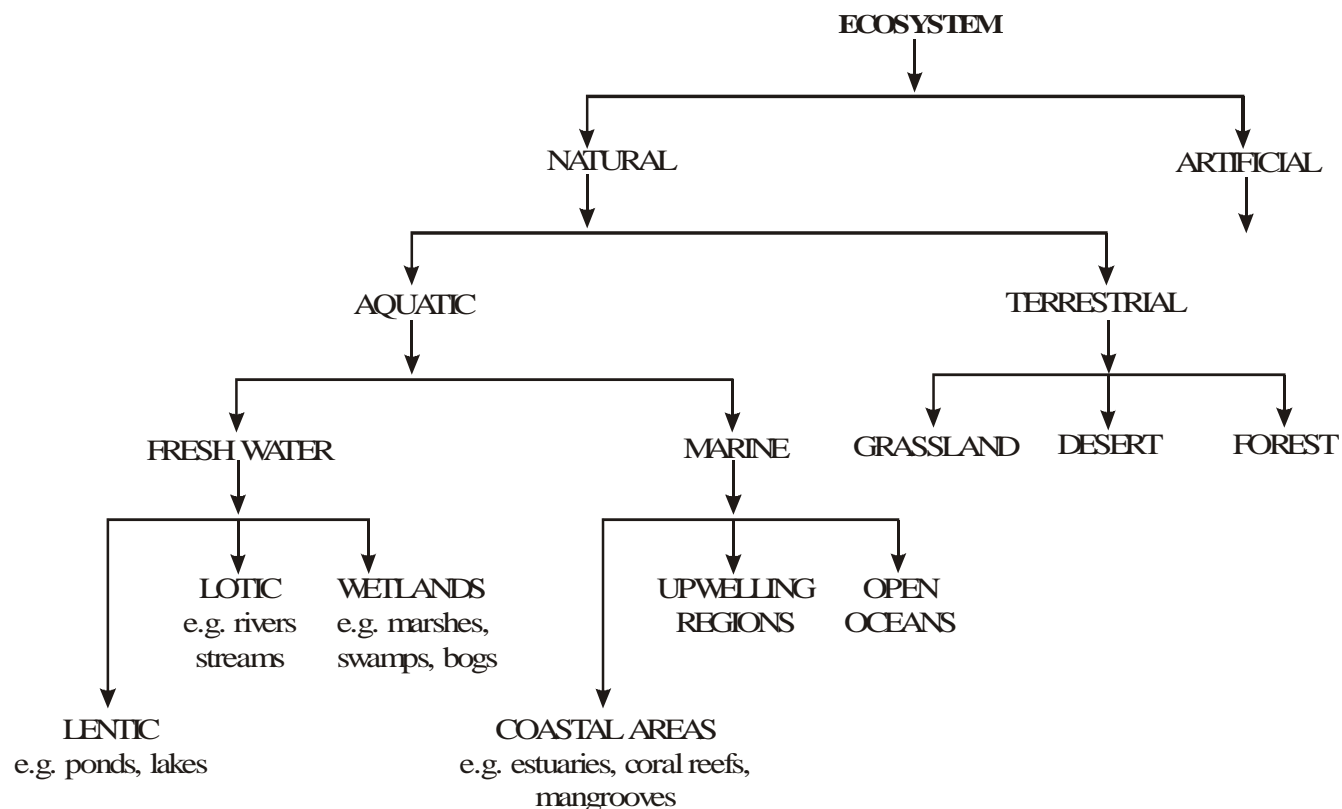
- The term Ecosystem was coined by Tansley. According to him Ecosystem is a symbol of structure and function of nature.

Definition : "The total group of living things and environmental factors present in a particular place is called as ecosystem."

It means any structural and functional unit of the environment that can be identified and studied is called as ecosystem.

TYPES OF ECOSYSTEM :

In the biosphere, ecosystem may be classified on the basis of their nature, duration and size :



(A) Nature : On the basis of nature, ecosystem may be classified as :

(1) Natural ecosystem

(2) Artificial ecosystems

(1) Nature ecosystem : These ecosystem operate in the nature by themselves without any human interference. Common examples of natural ecosystem are : a pond, a lake, a meadow, a desert, a grassland, a forest, an ocean etc.

(2) Artificial ecosystem : These are maintained by man and hence are also termed **man-made** or

man-engineered ecosystem. In these ecosystem, man maintains / disturbs the natural balance by the addition of energy and planned manipulations. Common examples of artificial ecosystem are croplands, orchards, gardens, aquarium etc.

(B) Duration : On the basis of duration, ecosystem may be classified as :

(1) Temporary ecosystem : e.g. – short lived ecosystem, rainfed pond

(2) Permanent ecosystem : e.g. – a lake, a forest, a desert

(C) Size :

(1) Small ecosystem : eg :- flowerpot, water in a dish.

(2) Large ecosystem : eg :- forest, desert, ocean.

MODES OF WASTE DISPOSAL

Some prominent methods of waste disposal are :

1. **Land fills :** In urban areas, majority of the solid wastes are buried in low lying areas to level the uneven surface of land. This method of waste disposal is commonly called land fills.
2. **Recycling of wastes :** Number of solid wastes (paper, plastics, metal, etc.) can be recycled by sending them to respective recycling units. For instance, paper is sent for recycling into special paper mills ; brock plastic (e.g., plastic bags, buckets, bowls, dishes, mugs, disks, etc.) are sent to plastic processing factories.
3. **Preparation of compost :** Household waste such as peeling of fruits and vegetables, left-over food, fallen dead leaves of kitchen garden plants and potted plants etc. can be converted into compost and used as manure.

4. **Incineration or burning at high temperature** : Incineration is the process of burning of substance at high temperature (usually more than 1000°C) and ultimately converting them into ashes. This ash can be disposed of by land fills. In cities, municipal committees / corporations generally do large scale disposal of waste by incineration.
5. **Production of biogas and manure** : Biodegradable, waste can also be used in biogas plants to generate biogas and manure. Biogas is a cheap source of fuel, and manure, a cheap fertilizer.