

The Ecosystem And Its Types

The **ECOSYSTEM** is defined as the existence of living organisms along with the nonliving components in a given geographical area. An ecosystem comprises **Biotic** as well as **Abiotic Components**.

The **Biotic Component** comprises living organisms such as human beings, plants, animals, and microorganisms (bacteria, fungi, viruses).

The **Abiotic Component** comprises the non-living components of an ecosystem, such as wind, temperature, atmosphere, and water.

Types of Ecosystems:

Ecosystems can be broadly divided into two types:

- 1. TERRESTRIAL ECOSYSTEM:** A **Terrestrial Ecosystem** is one that exists on land. Terrestrial Ecosystems can be further classified into:
 - **Forest Ecosystem:** A Forest Ecosystem comprises animals (herbivores, carnivores, and omnivores) plants, and microbes that exist in conjunction with the abiotic components, such as air, water, sunlight, and wind.
 - **Grassland Ecosystem:** A Grassland Ecosystem mainly comprises herbs and grasses. Example: *Savanna Grasslands*.
 - **Tundra Ecosystem:** A Tundra Ecosystem mainly exists in cold regions (devoid of trees with very little rainfall). Example: the Ecosystem that exists in the Arctic.
 - **Desert Ecosystem:** This ecosystem is prevalent in deserts.



2. **AQUATIC ECOSYSTEM:** An **Aquatic Ecosystem** is one that exists in a water body. Aquatic Ecosystems can be classified into:

- **Freshwater Ecosystem:** It is an ecosystem that exists in freshwater, such as rivers, lakes, ponds, wetlands, and streams.
- **Marine Ecosystem:** It is an ecosystem that exists in marine water, such as oceans and seas. The salt content in a Marine Ecosystem is relatively higher as compared to a Freshwater Ecosystem.



A few important terms related to the Ecosystem

- **A Biome** is referred to as a community of organisms, which include both plants as well as animals, that co-exist in a particular region based on their identical characteristics.
- **A Niche** is nothing but the position or function that an organism or species holds or performs in a particular environment.
- **Symbiosis** is a unique phenomenon wherein two species or organisms that differ from each other co-exist in a given environment.
- **Epiphytes** are defined as organisms that grow and thrive on a plant surface, deriving their nutrition from rainfall, air, or the debris that accumulate around them.
- **Decomposers**, as the name suggests, are organisms that play a significant role in the breakdown/decomposition of the remains of dead organisms.

Match the types of Ecosystems and the terms related them with the correct definitions.

Types or facts related to Ecosystems	Definition
Decomposers	A unique phenomenon wherein two species or organisms that differ from each other co-exist in a given environment
Biome	Organisms that grow and thrive on a plant surface, deriving their nutrition from rainfall, air, or the debris that accumulate around them
Biotic component	An ecosystem that exists in marine water, such as oceans and seas
Freshwater ecosystem	Organisms that breakdown/decompose the remains of dead organisms
Terrestrial ecosystem	An ecosystem that exists in freshwater, such as rivers, lakes, ponds, wetlands, and streams
Abiotic component	An ecosystem that mainly exists in cold regions
Symbiosis	An ecosystem that exists on land
Epiphytes	Comprises the non-living components of an ecosystem, such as wind, temperature, atmosphere, water
Marine ecosystem	Community of organisms (plants as well as animals) that co-exist in a particular region based on their identical characteristics
Tundra ecosystem	Comprises living organisms, such as human beings, plants, animals, microorganisms