

Basic Terminology of Environment and Ecology

1. **Abiotic components:** Non-living and inorganic components of an ecosystem constitute the abiotic components like soil, water, air, sunlight, etc.
2. **Amensalism:** It is a type of interaction between the two species where one is harmed and others remain unaffected. For example, penicillin and bacteria.
3. **Atmosphere:** Atmosphere is a physical mixture of atmospheric gases, water vapour and suspended particulates which is surrounding the earth from all the sides. It is bounded to the surface by the gravity of earth.
4. **Autotrophs:** The organisms which produce their own food from inorganic substances like CO₂ and water are called autotrophs. They are also known as primary producers.
5. **Auto ecology:** Ecological study of a particular individual or species with respect to the environment is regarded as auto ecology.
6. **Benthic animals:** The animals which live at the bottom of the water body are benthic animals.
7. **Bioaccumulation:** It is the process of increase in the concentration of toxic elements within the body of a particular organism (i.e. it refers to how an element first made an entry into the food chain) and in general the concentration of such pollutants become higher in the body of the organism compared to the external environment like air, water etc.

Biomagnification is also known as bio amplification; in this, the concentration of the toxicants increases at the successive trophic levels. It is due to the reason that toxic elements cannot be absorbed and simultaneously they get transferred to the successive higher trophic levels resulting in more concentration of toxicants at the higher trophic level.

8. **Biodiversity:** The Sum total of all plants, animals and microorganisms represent the biodiversity of an ecosystem. It is also represented in terms of interspecies and intraspecies variations of biotic components of an ecosystem.
9. **Bio-Geochemical cycles:** The circular pathways from which the essential elements like nitrogen, carbon etc. circulate from organisms to the environment and vice versa are called biogeochemical cycles.
10. **Biome:** Natural forests and grasslands which are connected with climatic regimes or with the distribution of sunshine, temperature and rainfall are known as biomes.
11. **Biomass:** Amount of living matter present in an organism at a given point of time is known as the biomass of that organism.
12. **Biosphere:** It is the greatest ecosystem on the surface of the earth and its presence indicates a continuous interaction and interdependence between all three spheres of earth- atmosphere, hydrosphere and lithosphere.
13. **Biotic component:** Living components of an ecosystem form part of biotic components of the ecosystem.
14. **Brood parasitism:** A unique form of parasitism in birds where a parasitic bird lays its eggs in the nest of host and let the host incubate them.

15. **Carnivores:** Animals depending upon herbivores or primary consumers for food and energy are known as carnivores.
16. **Climate change:** Shifting pattern of weather and climate parameters making it uncertain, unpredictable and fluctuating. This is climate change.
17. **Climax:** It is the last stage of the process of succession. The species at which the process concludes is known as a climax community.
18. **Co-extinctions:** It is a situation When a species becomes extinct, the plant and animal species associated with it also become extinct.
19. **Composting:** Decomposition of organic solid wastes under aerobic conditions (in presence of oxygen) is known as composting.
20. **Commensalism:** Type of interaction between the two species When one of the organisms is benefited and others remain neutral in an association. For example, epiphyte and mango; barnacles growing on the back of a whale.
21. **Competition:** Type of interaction between the two species where both are negatively impacted (harmed). Example- plants and herbivores.
22. **Conservation:** Judicious use of natural resources (both living and non-living) so as to prevent them from being lost, wasted or extinct.
23. **Cryosphere:** Area covered by the surface of the earth by ice and glaciers is known as cryosphere.
24. **Detrivores:** The microorganisms which decompose the detritus are detrivores.
25. **Decomposer:** Organisms like bacteria, fungi etc. which are involved in bio decomposition of dead plants and animals are known as decomposers.
26. **Deciduous:** Trees which shed all their leaves for a certain period of time.
27. **Demography:** Statistical study of the population size of humans.
28. **DDT:** Organochlorine chemical used as an insecticide/pesticide in agricultural uses. Now, its use has caused havoc due to bioaccumulation.
29. **Ecology:** Scientific study of the relationship of living organisms with each other as well as with their environment. A.G. Tansley introduced the concept of ecology.
30. **Environment:** Anything that affects the existence of an organism throughout his lifetime directly or indirectly constitutes the environment.
31. **Ecosystem:** Ecosystem represents interaction and interdependence between biotic and abiotic components of an area that ensure the flow of mass and energy.
32. **Ecosystem services:** A wide range of economic, environmental and aesthetic goods and services offered by ecosystem are referred to as ecosystem services.
33. **Ecotone:** Zone of the junction between two or more diverse ecosystems. For example, estuary, grasslands, etc.
34. **Ecotype:** A plant or animal species that occupy a particular habitat which is adapted to local environmental conditions.
35. **Ecocline:** Gradual and continuous change in the composition of the species from one ecosystem to another along an environmental gradient with no clear-cut differences between the two. It is a physical transition zone.
36. **Ecological niche:** Functional and ecological role played by the organism of an ecosystem. It is the sum total of all relationships of an organism with biotic as well as abiotic elements of its environment.

37. **Ecological succession:** It is the gradual and fairly predictable change in the composition of the species of a given area.
38. **Ecophene:** Population which is characterized by the same genotype but different phenotype in a particular habitat is regarded as ecophene.
39. **Ecological efficiency/10% law:** Rate of transfer of mass and energy from one trophic level to other is just 10% of the previous level. This is 10% energy law which indicates the ecological efficiency of an ecosystem.
40. **Ecological footprint:** It represents the use and exploitation of natural and environmental resources with respect to the carrying capacity of the environment or the ability of the environment to regenerate.
41. **Endemic biodiversity:** Biodiversity of a region which is connected with a particular and specific geographical condition having limited distribution on the surface of the earth is called endemic biodiversity.
42. **Eutrophication:** Overfertilization of water bodies due to excessive concentration of nitrates and phosphates leading to algal bloom is Eutrophication.
43. **Euryphagic organisms:** The plants and animals that have a wide range of tolerance for food are euryphagic.
44. **Eurythermal organisms:** The plants and animals that have a wide range of tolerance for temperature are eurythermal.
45. **Euryhydric organisms:** The plants and animals that have a wide range of tolerance for water are euryhydric.
46. **EIA:** Analysis of the effects caused by the development projects on the environment is Environmental Impact Assessment (EIA).
47. **Ex-situ conservation:** When a species is conserved outside the array of its natural habitat, it is known as ex-situ conservation. For example- conservation in the zoo, botanical gardens, etc.
48. **Flora:** Plant community of a region is the flora of that area.
49. **Fauna:** Animal community of a region is the fauna of that area.
50. **Food chain:** Linear and sequential flow of mass and energy in an ecosystem.