

Unit 2 { (Q & A) + (imp. points) }

Ecosystems & Biodiversity & Conservation

- Ecology → term coined by Hens Reiter & Ernst Haeckel (1869).
 - originated from 'oikos' (eco) & logos (study).
(home)
 - originated from Greek words.
 - It is defined as a scientific study of the relationship of the living organisms with each other & with their environment.

- * Charaka - Samhita - ~~Medicinal book~~ (study) related to medicine.
Ancient book
- * Sushruta - Samhita - Surgical text

- Environment - term coined by Carlyle (1828).
 - derived from a — French word 'Environia' meaning surroundings.
 - It is defined as the sum total of living, non-living components; influences & events, surrounding an organism.

Components of Environment — (i) Biotic (Animals, plants, parasites etc.)
(ii) Abiotic (Energy, fire, soil, temp. etc.)

- Levels of organisations in Ecology —
 - Biosphere
 - ↑
 - Biome
 - ↑
 - Ecosystem
 - ↑
 - Community
 - ↑
 - Population
 - ↑
 - Individual

- i) Individual - An organism that has the ability to act or function independently.
- ii) Population - Group of organism (usually of the same species, occupying defined area, during a specific time).
- ⇒ Population ↑ → (Birth, immigration)
 - ⇒ Population ↓ → (Death, emigration)
- iii) Community - Group of population (e.g; plants, animals etc.)
- Two types → Major (e.g; tropical evergreen forest of N-E India)
 - Minor
(A mat of lichen on a cow dung pad)
- iv) Ecosystem - term coined by British ecologist A.G. Tansley (1935).
- made up of two Greek words - 'oikos' & 'systema'.
(home) (system)
 - It is defined as a structural & functional unit of biosphere consisting of community of living being & the physical environment, both interacting & exchanging material betⁿ them.
 - It includes plants, animals, micro-organisms etc.