

GLOSSARY

- 1. **Warm Blooded Animals**: Animal species which have a relatively higher body temperature. E.g., mammals and birds
- 2. **Cold Blooded Animals**: Animals which cannot regulate their internal body temperature with the change in the environment. E.g., reptiles, insects, amphibians and fish
- 3. **Stenothermal Animals**: An animal that is capable of living only at a certain temperature or within a very narrow range of temperature. E.g., reptiles, crustaceans, insects, penguin, crocodile and python
- 4. **Eurythermal Animals**: Animal species which are able to tolerate a wide range of temperature levels. E.g., cat, dog, man, tiger
- 5. **Aestivation**: It is a state of animal dormancy which is characterized by inactivity and a lowered metabolic rate and is entered in response to high temperatures and arid conditions.
- 6. **Hibernation**: It is a state of animal dormancy, characterized by inactivity and a lowered metabolic rate that is entered in response to low temperatures. E.g., bears, bat, rodents
- 7. **Agroforestry**: It is an integrated approach of using interactive benefits from combining trees and shrubs with crops and livestock.
- 8. **Ecotopes**: Smallest ecologically-distinct landscape features in a landscape mapping and classification system.
- 9. **Ecozones**: Large areas of the Earth's surface within which organisms have been evolving in relative isolation over long periods of time. Ecozones are separated from one another by geographic features like oceans, broad deserts or high mountain ranges that constitute barriers to migration.
- 10. **Carrying Capacity**: Carrying Capacity of an environment is the maximum population size of a biological species which the given environment can sustain, considering the food, habitat, water and other resources available.
- 11. **Ocean de-oxygenation**: A term used to describe the expansion of oxygen minimum zones in the world's oceans as a consequence of anthropogenic emissions of Carbon Dioxide.
- 12. **Bioterrorism**: Terrorism involving intentional release or dissemination of biological agents.
- 13. **Bioleaching**: Extraction of specific metals from their ores though the use of living organisms.
- 14. **Bioprospecting**: Bioprospecting means exploring natural sources for small molecules, macromolecules and biochemical and genetic information that has the potential to be developed into commercially valuable products for the agricultural, aquaculture, bioremediation, cosmetics, nanotechnology or pharmaceutical industries.
- 15. **Biopiracy**: Theft of genetic materials especially plants and other biological materials by the patent process. Biopiracy is a practice where indigenous knowledge of nature, originating with indigenous people, is used by others for profit, without authorization or compensation to the indigenous people themselves.
- 16. **Ecological Footprint**: Measure of human demand on the earth's ecosystems.
- 17. **Carbon Footprint**: Measure of all Greenhouse Gases we individually produce in units of tonnes of Carbon Dioxide equivalent. A Carbon footprint is made up of the following two parts:
 - a. **Primary Footprint**: Measure of our direct emissions of CO₂ like burning of fossil fuels
 - b. **Secondary Footprint**: Measure of indirect CO₂ emissions from the whole lifecycle of products we use.
- 18. **Carbon Diet**: Reducing the impact on climate change by reducing GHG emissions, without lowering the standard of living.
- 19. **Biocapacity**: Capacity of an area to provide resources and absorb wastes.
 - a. **Global Hectare**: Measure of biocapacity of the entire earth.
- 20. **Earth Hour**: It is a global event organized by WWF and is held on the last Saturday of March annually, asking households and businesses to turn off their non-essential lights and other electrical appliances for one hour to raise awareness on the need to take action on climate change
- 21. **Earth Overshoot Day**: The day when humanity's demand for ecological resources (like fish and forest) and services in a given year exceeds what earth can replenish in that year.



22. **Alliance of Small Island States (AOSIS)**: It is an ad-hoc coalition of low-lying and island countries. These nations are highly vulnerable to rising sea levels and share common positions on climate change.

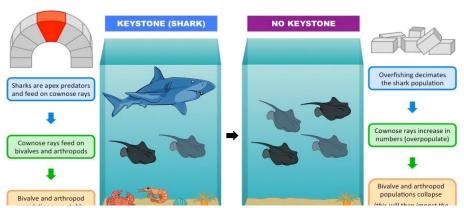


AOSIS Countries

- 23. **Coalition of Rainforest Nations**: A voluntary group of largely developing nations with rainforests which addresses issues surrounding environmental sustainability specific to rainforests.
- 24. **Fugitive Fuel Emissions**: GHGs which are emitted as by-product or waste or lost in the process of fuel production, storage or transportation, such as methane given off during oil and gas drilling and refining etc.
- 25. **Hot air**: Concerns that some government will be able to meet their targets for GHG emissions under the Kyoto Protocol with minimal effort and could then flood the market with emission credits, thus reducing the incentive for other countries to cut off their own domestic emissions.
- 26. **Registries/registry system**: These are electronic databases that tracks all transactions under the Kyoto Protocol's Greenhouse Gas Emissions Trading System
- 27. **Spill-over effects**: Reverberations in developing countries caused by actions taken by developed countries to cut Greenhouse Gas emissions.
- 28. **Umbrella Group**: A loose coalition of non-European Union developed countries formed following the adoption of the Kyoto Protocol.
- 29. **International Standards and Environment**: ISO 14000 environmental management standards exist to help organizations minimize how their operations negatively affect the environment and to enable them comply with applicable laws, regulations and other environmentally oriented requirements.
 - Certification is performed by a third-party organization rather than being awarded by ISO directly and it is based on the process of how a product is produced, rather than the product itself.
- 30. **Bioassay**: Bioassay is test in which organisms are used to detect the presence or effects of any other physical factor, chemical factor or any other type of ecological disturbance. Bioassays are very common in pollution studies.
- 31. **Flagship species**: A species chosen to represent an environmental cause, such as an ecosystem in need of conservation. These species are chosen for their attractiveness, vulnerability or distinctiveness on order to engender support and acknowledgement from the public at large.

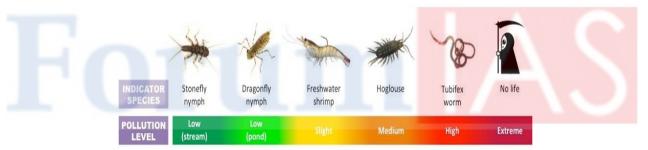
a. **Keystone species**: A species which when added or lost from an ecosystem causes major changes in the occurrence of at least one other species. Keystone species are important from the conservation point of view because conservation of keystone species encourages conservation of all other relevant species associated with it.

All top predators like lions are considered as keystone species.



Picture Credits: Bio Ninja

b. **Indicator species**: Animals, plants, or microorganisms used to monitor changes in the environment. For e.g., amphibians indicate chemicals, global warming and air pollution. Lichens are indicators of air quality and are sensitive to Sulphur Dioxide.



Picture Credits: Bio Ninja

- c. **Foundation species**: These are dominant primary producers in an ecosystem, both in terms of abundance and influence. E.g., kelp and corals
- d. **Umbrella species**: These are wide-ranging species whose requirements include those of many other species. The protection of umbrella species automatically extends protection to other species.
- 32. **Chipko Movement**: It is a socio-ecological movement that utilized the Gandhian methods of non-violent resistance through the act of hugging trees in order to protect them from falling. The first recorded event of Chipko took place in Khejarli village, Jodhpur district, in 1730 AD, when Bishnois led by Amrita Devi sacrificed their lives while protecting Khejri trees. However, the modern Chipko movement started in the early 1970s in the Garhwal Himalayas of Uttarakhand, aims to grow awareness towards rapid deforestation.
 - a. **Appiko Movement**: The Chipko Movement in Uttarakhand inspired the villagers of Karnataka to launch a similar movement to save their forests.
- 33. **National Plan for Conservation of Aquatic Ecosystems (NPCA)**: NPCA is a single program for the conservation of both lakes and wetlands. It is a Centrally Sponsored Scheme under the MoEFCC. The Plan was formulated in 2015 by merging of the National Lake Conservation Plan and National Wetlands Conservation Program.
- 34. **National Wastelands Development Board (NWDB)**: It was set up in 1985 with the objective of formulating nodal policies, plans and programmes for the management and development of wastelands in the country. The Board comes under the Ministry of Rural Development.