

UPSC Notes: Geography- Loss of biodiversity

NCERT notes on important topics for the UPSC civil services exam. These notes will also be useful for other competitive exams like banking PO, SSC, state civil services exams and so on. This article talks about the loss of biodiversity.

- About three-fourth of the human population resides in the Tropical regions which occupy only about one-fourth of the total area of the world.
- The tropical rain forests contain 50 percent of the species on the earth.
- The excessive population is one of the causes that have led to biodiversity loss that has resulted in the rampant exploitation of resources and deforestation.
- The destruction of the Tropical regions has resulted in the loss of natural habitats which is catastrophic for the whole biosphere.
- Natural calamities like forest fires, droughts, floods, volcanic eruptions, earthquakes, etc. cause damage to both flora and fauna of the earth.
- Pesticides and other pollutants like toxic heavy metals and hydrocarbons destroy the feeble and sensitive species.
- Loss of biodiversity in an area may cause
 - Decline in plant production
 - Lowered resistance to environmental perturbations
 - Increased variability in definite ecosystem developments such as water use, plant productivity, and disease cycles and pests.
- The IUCN issues data about endangered species universally as the Red List of threatened species.
- IUCN has a membership of over 16000 scientists and 1000 full-time staff in more than 50 countries on a voluntary basis.
- It is headquartered in Gland, Switzerland.
- IUCN has observer and consultative status at the United Nations and plays a role in the implementation of several international conventions on nature conservation and biodiversity.
- The organization has categorized the threatened species of plants and animals into three categories for the purpose of their conservation.
 - Endangered Species
 - Vulnerable Species
 - Rare Species

It comprises those species which are in danger of extinction.

- This comprises the species which are probable to be in danger of extinction in near the future if the factors threatening their extinction continue.
- Vulnerability is mainly caused by habitat loss or destruction of the species home. Vulnerable habitat or species are monitored and can become increasingly threatened.

- Survival of these species is not guaranteed as their population has decreased greatly.
- The population of these species is very small in the world and they are restricted to limited areas or thinly scattered over a wider area.
- Rarity rests on a specific species being represented by a small number of organisms worldwide, usually fewer than 10,000.
- A species may be endangered or vulnerable, but not considered rare if it has a large, dispersed population.
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Loss of Biodiversity (UPSC Notes):- [Download PDF Here](#)

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Questions related to Loss of biodiversity

What are the 5 major causes of biodiversity loss?

- Climate change. Changes in climate throughout our planet's history have, of course, altered life on Earth in the long run.
- Deforestation and habitat loss.
- Overexploitation
- Invasive species
- Pollution.

What are the consequences of loss of biodiversity?

The loss of biodiversity will adversely impact the health of the human race . It will increase the number of diseases carrying animals in local populations. Research has shown that the species best adapted to survive critically fragmented habitats are also the most prolific carriers of pathogens.

How can we solve the loss of biodiversity?

1. Government restrictions and policies.
2. Education.
3. Protection of species.
4. Protection of habitats.
5. Stop deforestation.
6. Prevent overhunting and overfishing.
7. Prevent species invasion.
8. Stop pollution.

How is human population growth affecting biodiversity?

Humans affect biodiversity by their population numbers, use of land, and their lifestyles, causing damage to habitats for species. The rapid consumption of Earth's resources is outpacing its demand at a fast rate. As a result, to meet these demands, infrastructure is being built at the expense of the local ecology leading to disastrous consequences in the process.