

4.1 THREATS TO BIODIVERSITY

(i) Habitat destruction

- It has played a key role in extinctions, especially related to tropical forest destruction.
- Factors contributing to habitat loss are: overpopulation, deforestation, pollution (air pollution, water pollution, soil contamination) and global warming / climate change.

(ii) Introduced and invasive species

- Introducing new species often leaves endemic and other local species unable to compete with the exotic species and unable to survive.
- The exotic organisms may be predators, parasites, or may simply outcompete indigenous species for nutrients, water and light.
- Several countries have already imported so many exotic species, particularly agricultural and ornamental plants, that their own indigenous fauna/flora may be outnumbered.

(iii) Environmental pollution

- Loss of biodiversity due to pollution is very common.
- When resources are consumed, only the biodegradable waste gets broken down slowly and gets recycled.
- But the non-biodegradable waste remains in the environment and enters our food chain.
- This waste travels through the food webs, gets biomagnified and reaches the tissues of all the living species.
- These wastes are very toxic and their toxicity increases with time.
- Ultimately pollution is responsible for global climatic changes and extinction of most of the species.

(iv) Over exploitation of resources

- Overexploitation occurs when a resource is consumed at an unsustainable rate.
- This occurs on land in the form of overhunting, excessive logging, poor soil conservation in agriculture and the illegal wildlife trade.
- About 25% of world fisheries are now overfished to the point where their current biomass is less than the level that maximizes their sustainable yield.

(v) Climate Change

- Polar bears reside on the sea ice of the Arctic Ocean, near the North Pole.
- Climate change has started affecting bear populations.
- Global warming is also considered to be a major threat to global biodiversity.
- Coral reefs -which are biodiversity hotspots-, will be lost in 20 to 40 years if global warming continues at the current trend.
- Scientists feel that 35% of the world's existing terrestrial habitat may face extinction due to global warming due to the accumulation of green house gases.

(vi) Poaching of wildlife

- Poaching is an illicit wildlife trade.
- It is the illegal killing of wildlife for sale in the international trade market.
- The animals are killed not only for their meat but also for their hides, and different parts of their body that are used as clothing, for food, to make folk medicine, or jewellery or as trophies.
- Some people poach just for thrill of it, while others poach for trade.
- Violations of hunting laws and regulations are normally punishable by law and, collectively, such violations are known as poaching.