

# **Destruction of Ecosystem: Ecology and Environment notes for UPSC**

The topic regarding the destruction of the ecosystem is an important topic in the Ecology section of the UPSC Exam

## **A Brief Introduction**

An ecosystem is a collection of plants, animals and other living organisms that share the space and benefits of an environment.

In an ecosystem, every organism comes with a specified role and function. Thus disturbing the balance of an ecosystem will prove to be disastrous for every living thing that relies upon it.

It can be said that the Earth is an ecosystem on a much gigantic scale. When external factors such as pollution through carbon dioxide and methane, the balance of the ecosystem is disturbed to such an extent that it will affect everyone living in it. Some of these disturbances are what cause natural disasters such as earthquakes, tsunamis etc.

## **What are the causes of an ecosystem destruction?**

When an ecosystem is stable and healthy, it is called a sustainable environment. This means that it is capable of sustaining itself and reproducing. Sustainable ecosystems have biodiversity. There's a variety of species and organisms living there and contributing. The causes that will destroy such an environment are given below:

1. Ecosystem destruction is already happening at an alarming rate. Almost 25% of coral reefs have disappeared and it is expected that 60% more will be gone in 30 years. This is due to ocean acidification, water pollution and illegal fishing.
2. Deforestation is caused by Illegal logging and human need and progress. More than 4.6 million hectares of forest have been burned or cut down. The large scale destruction has already caused the destruction of many plant and animal species and damaged the biosphere at large.
3. Habitat loss is endangering our animal species. Apex predators such as the lion, tiger leopard and even the majestic mountain gorillas are all being threatened by habitat loss.
4. Humans destroy ecosystems. The lifestyle of the human species is quite self-destructive to say the least as it creates pollution along with the criminal overuse of natural resources. Construction of infrastructure like roads, hunting of animals, clearing the planet of trees are just some of the factors accelerating the destruction of the ecosystem.

At the rate at which resources are being consumed, there may not be any left for future generations.

## **What will be the impact of an ecosystem destruction?**

The impact of ecosystem destruction are the following:

- Increased flooding due to the erosion of soil and lack of trees
- Climate change that causes the sea levels rising due to the melting of the glaciers.
- More likelihood that natural disasters such as tsunamis, earthquakes, droughts will be commonplace
- Disruption of the food chain when the apex predators become extinct
- Water shortage - the supply of fresh drinking water is limited with only a few water bodies being fit for human consumption
- Food shortage as the lands become barren and the oceans become devoid of fish and other marine life
- Loss of biodiversity as whole species of living things disappear due to deforestation
- Pollution will eventually become unmanageable and affect the health of the human population. Rising temperatures may be too much to bear for every living organism on the planet.

## **What will be the ultimate impact of an ecosystem destruction?**

It is with no exaggeration that it can be said that the earth is heading for destruction. But efforts are being made to address these global concerns. People are becoming more aware that the little things that they do everyday do have an effect – whether negatively or positively is up to discretion.

Every aspect of our ecosystem is important – because when one goes, the rest will follow.

Imagine this scenario... When the global temperature continues to rise, the glaciers will melt. The sea levels will rise and coastal cities will be inundated, killing millions of people. Economies will stop and will be severely burdened in trying to sustain everyone. Farms will be flooded, there will be no food.

It goes on and none of it is a pretty picture. So while we still can, let's do our share to stop degrading our ecosystems. Our lives depend on all of us interacting in a sustainable environment.