

Desertification

Desertification refers to the process of land degradation in which fertile land turns barren by losing its natural resources like fauna or flora, caused due to deforestation, drought, climate flux, human actions, or inappropriate agriculture. In simpler terms, desertification happens when the soil on land cannot support livestock, crops, and wildlife.

Primary Causes of Desertification

Desertification causes the loss of the flora and fauna and the conversion of fertile land into barren land. The areas that have been immensely impacted by desertification are Sahel, Mongolia, Gobi Desert, South America etc. It can be caused naturally or in most cases induced by the activities of humans. Some of the primary causes of desertification are as follows:

- **Overgrazing-** Overgrazing happens when farmers let cattle, goats, and sheep deplete the vegetation in the area, leading to soil erosion. Sometimes, poor irrigation methods decrease soil quality and lead to desertification.
- **Climate change-** Given the constant rise in Earth's temperature, desert areas are getting arider and hotter. There is usually less rainfall in these areas and a higher number of extreme weather occurrences. This excess heat leads to drought which causes trees and plants to die.
- **Rampant population growth-** Rampant population growth adds to all these issues as when the population increases, people demand more and more natural resources.

Farmers start breeding more cattle and livestock that overeat the land and do not allow the crops to grow to their maximum potential.

Impacts Of Desertification

Desertification impacts all life forms in certain ways. It causes an increase in sand storms. The increase in soil erosion and desertification also poses threat to

the food cycle. Some of the damaging impacts of desertification are mentioned below:

Environmental impact

- Destruction of vegetation
- Increase in soil erosion
- Soil infertility
- Increased susceptibility to natural disasters
- Land degradation
- Water pollution
- Extinction of species and loss of biodiversity

Social impact

- Increase in poverty, famine, and social conflicts
- Environmental migration and mass migrations
- Food security problems

Economical Impact

- Increased occurrences of natural hazards
- Threat to agricultural productivity
- A decline in economic productivity

Steps To Combat Desertification

It is highly essential to mitigate desertification to maintain ecological sustainability. Reforestation is the best way to mitigate the effects of desertification. The deserts can be reclaimed by using numerous techniques such as FMNR [Farmer-Managed Natural Resources]. Here some steps are mentioned to curb and mitigate desertification as listed here.

- Reforestation will increase the number of trees, the roots of which bind soil tightly and will aid in reducing desertification.
- Proper management of the rainwater can reduce the flow of rainwater along with a layer of soil.
- Various techniques can be used to retain the soil water and prevent its loss through evaporation.
- Shelter belts and woodlots can be used for soil fixation.

Preventive Measures Taken To Curb Desertification in India

The desertification has led to a loss of 31% of the land in India. Some preventive measures taken by the Indian Government to curb the adverse impacts of desertification in India are as follows:

- **Command Area Development**-This preventive measure, launched in 1974, strives to enhance the country's irrigation potential use and optimize agricultural output through effective water management.
- **Integrated Watershed Management Program**-This desertification program was launched between 1989-90 and aims to revive ecological balance by conserving, harnessing, and improving degraded Earth's resources while creating rural employment.
- **National Action Program to Combat Desertification**-Implemented by the Ministry of Environment, Forest, and Climate Change, this preventive measure aims to address the concerns of rising desertification and take appropriate measures.

In a nutshell, curbing the instances of desertification is the best way to balance the damaging impact of climate change and protect wildlife species.

Steps Taken Globally To Combat Desertification

Numerous steps have been taken to tackle desertification and reclaim the deserts. It has seriously impacted some regions and has impacted the environment, economy and society at large. Steps that have been taken globally to address this issue have been listed here, take a look at the under-noted points.

- The establishment of the United Nations Convention To Combat Desertification [UNCCD] led to a new pathway to acknowledge and address environmental problems.
- The establishment of the [Sustainable Development Goals](#) has listed numerous environmental concerns affecting livelihood envisioning a sustainable future for all.
- The Bonn Challenge has been taken that aims to restore 150 million hectares of deteriorated land globally.

Desertification UPSC Notes

The aspirants preparing for the [IAS exam](#) must be well acquainted with all the essential topics. Desertification is an integral part of the Geography syllabus. You can get access to the PDF by clicking on the link as facilitated here.

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Desertification is an essential topic that will aid the candidates in scoring well. You can refer to the [UPSC previous year papers](#) and get in touch with the type of questions asked in the exam.

Desertification- Latest Updates

Recently, the Government of India hosted the 14th conference of member parties in the United Nations Convention to find ways to combat the global issue of desertification. Also, as a positive measure in this direction, the United Nations announced 17th June as the **World Day to Combat Desertification**.

The theme for the year 2021 was "Turning degraded land into healthy land," which encourages individuals to minimize land depletion and waste of natural resources.

