



Mains Practice Question

Q.The process of desertification does not have climate boundaries. Justify with examples. (150 words) (UPSC GS-1 Mains 2020).

18 Jan, 2021 GS Paper 1 Geography

Approach

- Start the answer by explaining the phenomena of desertification.
- Explain the factors involved in the increase of desertification and how it is not restricted by climate boundaries.
- Conclude suitability.

Introduction

The UN Convention to Combat Desertification (UNCCD) states that desertification means land degradation in arid, semi-arid, and dry sub-humid areas resulting from various factors, including climatic variations and human activities. Although it's an issue that reaches far beyond those living in and around the world's deserts, threatening the food security and livelihoods of more than two billion people, defying climate boundaries.

Body

There are many factors that contribute to the process of increasing desertification. Moreover, the process of desertification is not just restricted to a particular climate boundary, i.e. arid and semi-arid areas. It is a global phenomenon that can be corroborated in the following examples.

- **Climate Change:** Climate change is a global issue that poses a threat to all progress done by mankind in the last two centuries. The effect of Climate change is also a significant factor in increasing desertification.
 - As the land surface is warming more quickly than the Earth's surface as a whole, this results in smaller increases in surface ocean temperatures compared to the land surface as global temperatures rise.
 - Further, both natural variabilities in climate and global warming can also affect rainfall patterns around the world, which can contribute to desertification.
 - While this sustained, human-caused warming can by itself add to heat stress faced by vegetation, it is also linked to worsening extreme weather events like Floods, Droughts, Landslides.
- **Soil Erosion:** One of the main processes for desertification is erosion. This is typically through some force of nature such as wind, rain, and waves, but can be exacerbated by man-made activities including plowing, grazing, or deforestation.
 - The World Atlas of Desertification (2018) indicated that it is not possible to deterministically map the global extent of land degradation.
 - Further, soil erosion is a **global phenomenon that affects almost all** major biomes in

the world.

- The occurrences of **dust storms in northern India** testifies to this observation.
- **Loss of Soil Fertility:** A loss of soil fertility is another form of degradation. In order to increase agricultural production, whether it is a developed or developing country, soils are being exposed to the overuse of fertilizers.
 - Due to this salinization and acidification of soils is increasing.
- **Urbanization:** According to several reports, urbanization is increasing at a rapid pace. Even in India, almost 50% of the population is expected to live in urban areas, by 2050.
 - As urbanization increases, the demand for resources increases, drawing more resources and leaving lands that easily succumb to desertification.

Conclusion

As can be seen from the above arguments, desertification and its impacts are not restricted to certain climatic boundaries. That's why UNCCD describes Desertification as one of the greatest environmental challenges of our time and it must be tackled in a holistic manner.

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