

15. **Highlighting the impacts of land degradation and desertification, enumerate the initiatives taken at the national and international levels to combat them.**

Approach:

- Briefly provide the meaning of land degradation and desertification (LDD).
- Highlight its socio-economic impact.
- List initiatives at the national and international level to combat LDD.
- Conclude appropriately.

Answer:

Land degradation is defined as a negative trend in land condition, caused by direct or indirect human induced processes, including anthropogenic climate change, expressed as long-term reduction or loss of at least one of the following: biological productivity, ecological integrity, or value to humans. **Desertification**, on the other hand, refers to the land degradation within dryland regions (arid, semi-arid and dry sub-humid regions), which turns fertile land into a desert. As per the Desertification and Land Degradation Atlas of India, **around 29.7% of India's total geographical area** underwent land degradation during 2018-19.

Impacts of land degradation and desertification

- **Agricultural production decreases** with soil degradation which in turn affects agricultural income leading to associated deprivations in health, education, and living standards.
- It reduces the land's ability to store water resulting in **water scarcity**, which affects production potential of the industrial sector as well as household work.
- Loss of livelihood and other benefits associated with productive land **forces people to migrate** to other areas in search of economic opportunities. The influx of climate migrants in other areas lead to **societal tensions** owing to limited resources.
- **Negative health outcomes and diseases** are also observed in regions as it creates ground for zoonotic disease, water and foodborne diseases and respiratory diseases. Moreover, there are higher **threats of malnutrition** from reduced food and water supplies.
- It affects **tourism potential** of the region owing to loss of scenic beauty and ecosystem services.

National level initiatives

- India is a party to the United Nations Convention to Combat Desertification (UNCCD), which has pledged to reach **land degradation neutrality targets by 2030**.
- India promotes **sustainable land management practices** in agriculture sector through schemes such as Pradhan Mantri Fasal Bima Yojana, Soil Health Card Scheme, Soil Health Management Scheme, Pradhan Mantri Krishi Sinchayee Yojna, Per Drop More Crop, etc. which are helping to reduce land degradation.
- The Ministry of Environment consolidated the intervention on **participatory forest management** through the National Forest Policy, 1988, and then through enabling guidelines in 1990 on Joint Forest Management.
- The Ministry of Environment is also implementing three major schemes for **development of forest areas** i.e., National Afforestation Programme scheme, National Mission for a Green India and Forest Fire Prevention & Management Scheme.

International initiatives

- **United Nations Convention to Combat Desertification** established in 1994 is the legally binding international agreement linking environment and development to sustainable land management.
- **Reducing emissions from deforestation and forest degradation** mechanism aims to reduce emissions from deforestation and forest degradation.
- **Bonn Challenge** launched by Germany and IUCN in 2011, has a global goal to bring 150 million hectares of degraded and deforested landscapes into restoration by 2020 and 350 million hectares by 2030.