

## **June 17- World Day to Combat Desertification and Drought**

On June 17th every year, the world observes the World Day to Combat Desertification and Drought. This day is observed by the UN with the goal of promoting initiatives to address the problems of desertification and drought.

Drought and desertification are two distinct but linked phenomena that are related to the availability and usage of water resources.

Desertification is the long-term degradation of land in arid, semi-arid, and dry sub-humid areas that turns productive ecosystems into desert-like conditions. It involves a decline in agricultural output, soil erosion, and loss of vegetation, which are mostly brought on by human activity, climate change, and unsustainable practises of land management.

While, drought is a short-term and natural occurrence which is characterised by a prolonged period of exceptionally low precipitation, which makes water scarce in a particular area. It has an impact on the supply of water for human use, ecosystems, and agriculture, frequently having an adverse economic and societal effect. Drought can occur in a various climatic region. Both dry and non-arid locations are susceptible to droughts.





Picture 1 and 2: Deserted Area

Source: <https://desertification.wordpress.com/2/>, <https://www.hindustantimes.com>

There are various causes and impacts of desertification. These are given below:

**Table: Causes and Impacts of Desertification**

Causes	Impacts
<ul style="list-style-type: none"> <li>• Overgrazing</li> <li>• Deforestation</li> <li>• Farming practices</li> <li>• Excessive use of fertilizers and pesticides</li> <li>• Over utilization of groundwater and other</li> <li>• Climate change</li> <li>• Natural disasters</li> <li>• Soil pollution</li> <li>• Urbanization, and other type of land development</li> </ul>	<ul style="list-style-type: none"> <li>• Farming is impossible without special technologies</li> <li>• Decrease in crop yields</li> <li>• Increased food insecurity</li> <li>• Flooding</li> <li>• Poor Water Quality</li> <li>• Poverty.</li> <li>• Biodiversity Loss</li> <li>• Endangerment and Extinction of Species</li> <li>• Migration</li> </ul>

**Measures to Combat Desertification and Drought:**

**1. Sustainable Land Management:**

- Promote reforestation and afforestation to increase vegetation cover and stop soil erosion as part of sustainable land management.
- Adopt sustainable farming methods include agroforestry, organic farming, and conservation agriculture.
- Apply soil conservation techniques including contour ploughing, cover cropping, and terracing to lessen erosion and increase soil fertility.

- Support land restoration initiatives to improve the resilience of ecosystems and restore degraded areas through harvesting and removal of biomass, the stimulation of chemical precipitation and the removal of degraded land surface.

## 2. Water Management:

- Promote effective water use and conservation practises in families, businesses, and the agricultural sector.
- Utilise water harvesting strategies including rooftop harvesting, check dams, and rainwater collection systems.
- Promote the adoption of irrigation techniques that utilise less water, such as drip irrigation and precision farming.



Picture 3: Drip Irrigation

Source: [tribune.com.pk](http://tribune.com.pk)

## 3. Climate Change Adaptation:

- Include climate change factors in planning for water and land management.
- Develop and implement climate-smart farming methods that promote resistance to drought and changing climate conditions.
- Implement reforestation and restoration initiatives that help to sequester carbon (the capturing, removal, and storage of carbon dioxide (CO<sub>2</sub>) from the earth's atmosphere) and lessen the effects of climate change.
- To enable quick response and preparation, strengthen early warning systems for droughts and other climate-related risks.
- Advocate for policies and practises that reduce greenhouse gas emissions and minimise the impacts of climate change.

#### 4. Community Engagement and Capacity Building:

- Engage local people in decision-making processes and provide them the tools they need to take part in sustainable land management practises.
- Programmes on sustainable agriculture, water conservation, and climate change adaptation should be offered.
- Support alternative means of subsistence to ease the strain on fragile ecologies and advance sustainable economic growth.
- Encourage the sharing of best practises and knowledge across communities, stakeholders, and specialists.
- Through campaigns and educational initiatives, inform and educate the public on the significance of reducing desertification and drought.



Picture 4: Encouraging Sustainable Practices

Source: <https://india.mongabay.com>

#### 5. Monitoring and Evaluation:

- Establish monitoring methods to evaluate the efficiency of the actions taken to combat desertification and drought.
- Regularly assess the results and effects of strategies that have been put in place, and make required adjustments to your methods.
- To enhance future initiatives and increase effect, share best practises and lessons gained.

We can effectively address desertification and drought, ensuring sustainable land management and water resource conservation for current and future generations, by putting these measures into place and encouraging cooperation among governments, communities, civil society, and international organisations.

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