



Govt. of Puducherry  
Department of Science, Technology & Environment

# World Environment Day

LAND RESTORATION, DESERTIFICATION & DROUGHT RESILIENCE

5th June 2024



"Our land. Our future."

#GENERATIONRESTORATION





# World Environment Day 2024 with a focus on

## Land Restoration, Desertification and Drought Resilience



According to the UN Convention to Combat Desertification, up to 40 per cent of the planet's land is degraded, directly affecting half of the world's population and threatening roughly half of global GDP (US\$44 trillion). The number and duration of droughts has increased by 29 per cent since 2000 – without urgent action, droughts may affect over three-quarters of the world's population by 2050.



Land restoration is a key pillar of the UN Decade on Ecosystem Restoration (2021–2030), a rallying call for the protection and revival of ecosystems all around the world, which is critical to achieve the Sustainable Development Goals.

2024 will mark the 30th anniversary of the UN Convention to Combat Desertification. The sixteenth session of the Conference of the Parties (COP 16) to the United Nations Convention to Combat Desertification (UNCCD) will be held in the Saudi capital, Riyadh, from 2<sup>nd</sup> to 13<sup>th</sup> December 2024.



# Land Restoration



Land Restoration boosts livelihoods, lowers poverty and builds resilience to extreme weather. Restoration increases carbon storage and slows climate change. Restoring just 15 per cent of land and halting further conversion could avoid up to 60 per cent of expected species extinctions. But we must also end the drivers of land degradation, drought and desertification, such as climate change. Last year, temperatures records were shattered. Much of the world felt the impacts, not just in heat but in storms, floods and drought. Restoring land without tackling climate change would be like giving with one hand and taking away with the other.



# Desertification



Desertification is a phenomenon that ranks among the greatest environmental challenges of our time. Although desertification can include the encroachment of sand dunes on land, it doesn't refer to the advance of deserts. Rather, it is the persistent degradation of dryland ecosystems by climate change and mainly human activities: unsustainable farming that depletes the nutrients in the soil, mining, overgrazing (animals eat away grasses and erode topsoil with their hooves) and clear-cutting of land, when the tree and plant cover that binds the soil is removed. It occurs when trees and bushes are stripped away for fuelwood and timber, or to clear land for cultivation. Wind and water erosion aggravate the damage, carrying away topsoil and leaving behind a highly infertile mix of dust and sand. It is the combination of these factors that transforms degraded land into desert.



# Drought Resilience



Droughts threaten livelihoods, food security, and ecosystems worldwide. But through proactive measures and collective action, we can build resilience to mitigate their impacts.

## Key Strategies towards drought resilience:

- ❖ *Water Management:* Conserve, recycle, and diversify water sources.
- ❖ *Sustainable Agriculture:* Adopt drought-resistant crops and practices.
- ❖ *Early Warning Systems:* Enhance monitoring and preparedness.
- ❖ *Community Engagement:* Empower local communities through education and planning.
- ❖ *Ecosystem Restoration:* Protect and restore vital ecosystems for water regulation and biodiversity.
- ❖ *Policy and Governance:* Implement robust policies and cooperation frameworks.
- ❖ *Climate Change Adaptation:* Address underlying drivers for long-term resilience.





# Our Land. Our Future

## WE ARE

### #GENERATIONRESTORATION

## WORLD ENVIRONMENT DAY 2024



**WORLD  
ENVIRONMENT  
DAY**

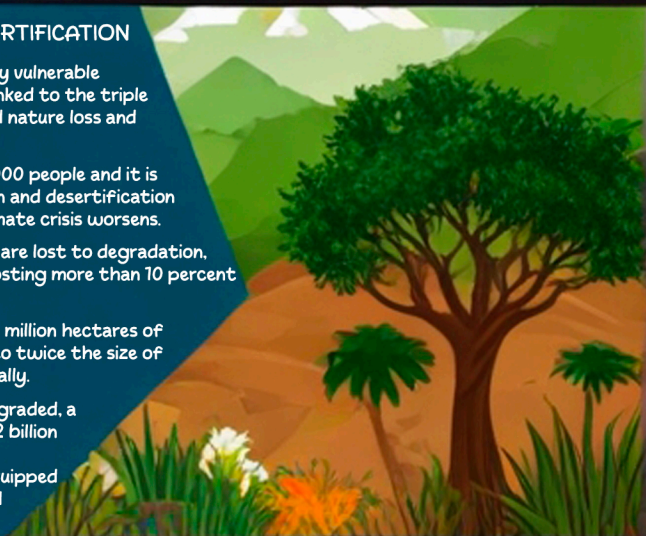
**UN**  
environment  
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**LiFE**  
Lifestyle for  
Environment

### DROUGHT, LAND DEGRADATION AND DESERTIFICATION

- ✱ Drought has become an existential threat for many vulnerable communities around the world and is inextricably linked to the triple planetary crises of climate change, biodiversity and nature loss and pollution and waste.
- ✱ Since 1970, droughts have claimed the lives of 650,000 people and it is estimated that by 2030, drought, land degradation and desertification could cause 135 million people to migrate as the climate crisis worsens.
- ✱ Every year, an estimated 12 million hectares of land are lost to degradation, roughly three times the size of the Netherlands, costing more than 10 percent of annual global GDP in lost ecosystem services.
- ✱ Between 2015 and 2019, the world lost at least 100 million hectares of healthy and productive land every year, adding up to twice the size of Greenland, affecting food and water security globally.
- ✱ In total, more than 2 billion hectares of land are degraded, a footprint larger than South America, affecting 3.2 billion people – 40 per cent of the world's population disproportionately harming those who are least equipped to cope: rural communities, smallholder farmers and the extremely poor.



### CLIMATE ACTION

- ✱ Forests alone absorb carbon from the atmosphere at a rate equivalent to about one-third the amount released annually by burning fossil fuels.
- ✱ Peatlands store nearly 30 per cent of global soil carbon despite covering only 3 per cent of the world's land area.
- ✱ Ecosystem conservation and restoration could close emissions gap by 25 per cent.
- ✱ Soils represent around 25 per cent of the nature-based solutions required for climate change mitigation by 2030.



**#GenerationRestoration**

