## LAND DEGRADATION: ENVIRONMENT

**NEWS:** How land degradation is threatening Earth's capacity to sustain humanity

#### WHAT'S IN THE NEWS?

Land degradation, affecting 15 million sq. km globally, threatens food security, ecosystem health, and climate stability, driven by unsustainable practices, climate change, and urbanization. Nearly 30% of India's land is degraded or desertified, with soil erosion due to rainfall and runoff being a primary cause, impacting 26 states significantly.

### **Global Context of Land Degradation**

**Definition**: Land degradation, as defined by the UNCCD, is the reduction in biological or economic productivity of ecosystems due to unsustainable practices.

# Scale of Impact:

- Annually, 1 million square kilometers of land are degraded.
- Approximately 15 million square kilometers have already been affected globally.

## **Consequences:**

- Threatens food security, ecosystem health, and climate stability.
- Reduces land ecosystems' ability to absorb carbon dioxide by 20% in the last decade.

## **Impacts of Land Degradation**

## **Human and Ecosystem Health:**

- Reduces food quality and quantity, heightening malnutrition risks.
- Leads to diseases from water scarcity and soil erosion.
- Affects aquatic ecosystems with pesticide-laden runoff, harming biodiversity.

## **Climate Change:**

- Releases stored carbon, exacerbating global warming.
- Weakens ecosystems' role as carbon sinks.

## **Drivers of Land Degradation**

### **Unsustainable Agricultural Practices:**



• Overuse of chemicals, deforestation, and excessive irrigation.

## **Climate Change:**

• Amplifies degradation through extreme weather and heat stress.

#### **Urbanization:**

• Expands habitat destruction, pollution, and biodiversity loss.

## **Most Affected Regions**

- Drylands in South Asia, northern China, U.S. High Plains, California, and the Mediterranean.
- Low-income countries in tropical and arid zones, with limited resilience to impacts.

# LAND DEGRADATION IN NUMBERS

60%: Remaining global forest cover — well below the safe boundary of 75%.

15 MN SQ KM: Degraded land area, more than the size of Antarctica, expanding by 1 mn sq km annually.

20%: Earth's land surface covered by the savanna, now under threat from cropland expansion and poorly planned afforestation.

46%: Global land area classified as drylands, home to a third of humanity

90%: Share of recent deforestation directly caused by agriculture.

20%: Decline in trees' and soil's CO2 absorption capacity

since 2015 attributed to climate change

25%: Share of biodiversity found in soil

50%+: World's major rivers disrupted by dam construction

47%: Aquifers being depleted faster than they are replenished

Source: UNCCD report

# Land Degradation in India

# **Scale of Degradation:**

• 30% of India's total geographical area (328.72 MHA) is degraded or facing desertification.

SINCE 2000

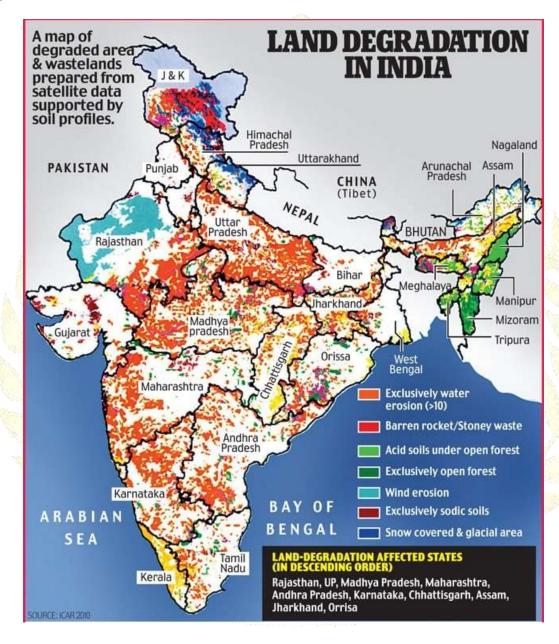
• 96.4 MHA is under desertification.

## **State-Level Impacts**:



- States like Rajasthan, Delhi, Goa, Maharashtra, Jharkhand, Nagaland, Tripura, and Himachal Pradesh report 40-70% land degradation.
- 26 out of 29 states show increasing desertification over the past decade.

**Key Driver in India**: Loss of soil cover due to rainfall and surface runoff.



**Source:** <a href="https://indianexpress.com/article/explained/explained-climate/how-land-degradation-is-threatening-earths-capacity-to-sustain-humanity-9703110/">https://indianexpress.com/article/explained/explained-climate/how-land-degradation-is-threatening-earths-capacity-to-sustain-humanity-9703110/</a>