COP16 of UNCCD

For Prelims: **United Nations Convention to Combat Desertification**, **Great Green Wall (GGW) Initiative**, Riyadh Global Drought Resilience Partnership, Vision for Adapted Crops and Soils, **Sacred Lands**, **Desertification, Land Degradation and Drought (DLDD)**, **Rio Conventions**, **UN Framework Convention on Climate Change (UNFCCC)**, **Convention on Biological Diversity**, **Planetary Boundaries**, **Greenhouse Gas**, **Carbon Reserves**, **Aral Desert**, **Sahel**, **Sahara**, **Wetland**.

For Mains: Rising threat of desertification and ways to address them.

Source: TH

Why in News?

Recently, the **16th Conference of the Parties (COP16)** to the **United Nations Convention to Combat Desertification (UNCCD)** concluded in **Riyadh, Saudi Arabia**, with nearly 200 countries committing to prioritise land restoration and drought resilience.

- It was also the **first time** a UNCCD COP was held in the **Middle East and North Africa (MENA) region.**

What Were the Key Outcomes of COP16 UNCCD?

- **Global Drought Framework:** Nations advanced efforts toward a global drought framework, aiming for **completion at COP17 in Mongolia 2026**.
- **Financial Pledges:** Over **USD 12 billion** pledged to address desertification, land degradation, and drought.
    - **Riyadh Global Drought Resilience Partnership**: **USD 12.15 billion** committed to supporting **80 vulnerable countries**, including USD 10 billion from the Arab Coordination Group.
    - **Great Green Wall (GGW) Initiative:** The African-led **GGW initiative** secured **Euros 11 million from Italy** for Sahel landscape restoration and **Euros 3.6 million from Austria** to enhance coordination across 22 African countries.
    - **Vision for Adapted Crops and Soils (VACS):** Nearly **USD 70 million** announced for VACS initiative.
        - VACS aims to build **resilient food systems** with diverse, nutritious, and climate-adapted crops in healthy soils.
- **Indigenous Peoples and Local Communities**: Caucuses for **Indigenous Peoples and Local Communities** were formed to ensure their perspectives and challenges are represented.
    - The **Sacred Lands** **Declaration**, presented at the **Indigenous Peoples Forum**, greater involvement in global land and drought governance.
- **Business4Land initiative**: It highlights the role of **private sector advocacy**, **environmental, social, and governance (ESG)** **strategies**, and sustainable finance in tackling **Desertification, Land Degradation and Drought (DLDD)** challenges.

    - The private sector currently contributes **only 6%** of financing towards land restoration and drought resilience.
- **UNCCD's Science-Policy Interface (SPI):** Parties agreed to continue the **UNCCD's SPI**, established at **COP11 (Windhoek, Namibia) in 2013** to translate scientific findings into recommendations for decision-makers.

United Nations Convention to Combat Desertification

- **About:** The UNCCD is one of the three **Rio Conventions,** along with the **UN Framework Convention on Climate Change (UNFCCC)** and the **Convention on Biological Diversity.**
- **Purpose and Importance**: The UNCCD was established in **1994 t**o protect and restore land, aiming for a sustainable future.
    - It addresses the consequences of **land degradation and drought,** including crop failure, migration, and conflict.
- **Objective:** Its main goal is to **mitigate land degradation and protect land** to ensure access to food, water, shelter, and economic opportunities for all people.
- **Legally Binding Framework**: It is the **only legally binding international agreement** to combat desertification and drought.
- **Membership**: The Convention has **197 Parties,** including 196 countries and the European Union.
- **Principles**: It operates on the principles of **participation**, **partnership**, and **decentralization**.

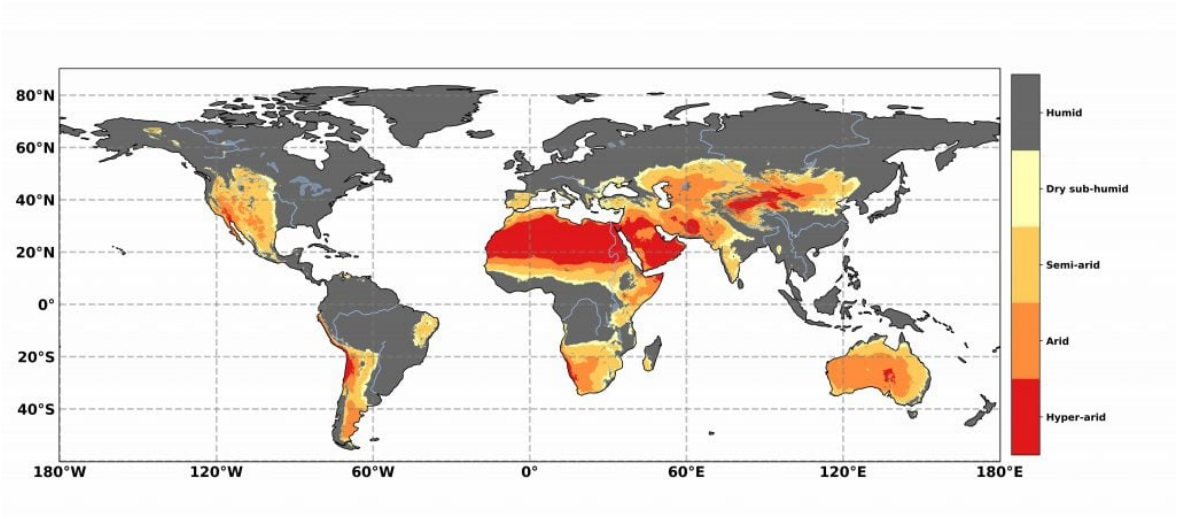
International Drought Resilience Observatory

- The **International Drought Resilience Observatory (IDRO)** is the **first global AI-driven platform** to help countries assess, and enhance, their capacity to cope with harsher droughts.
- This innovative tool is an initiative of the **International Drought Resilience Alliance (IDRA).**
    - IDRA is a global coalition that helps mobilize **political, technical and financial capital** to enhance drought resilience in **countries, cities, and communities.**
    - It was launched by the **27th Conference of Parties (COP27)** to the **UNFCCC** at **Sharm El-Sheikh** by **Spain and Senegal.**

What is Desertification and its Current Status?

- **Desertification:** Desertification is a type of **land degradation** in which an already **relatively dry land area becomes increasingly arid**, degrading productive soil and losing its bodies of water, biodiversity and vegetation cover.
    - It is driven by a combination of factors, including **climate change, deforestation, overgrazing and unsustainable agricultural practices.**
- **Current Status**:
    - **Expansion of Drylands**: According to the UNCCD report ***The Global Threat of Drying Lands*, 77.6% of Earth's land** has experienced drier conditions since the 1990s.
        - Drylands now make up **40.6% of Earth's terrestrial surface** (excluding Antarctica), showcasing a rapid loss of productive land.
    - **Key Regions Affected**: **Europe** (95.9% of its land), parts o **Brazil**, the **Western United States**, **Asia**, and **Central Africa** are witnessing significant drying trends.
        - **Africa** and parts of **Asia** are seeing ecosystem degradation and desertification, threatening biodiversity.
    - **Projected Future Impact**: Projections indicate that, in a worst-case scenario, up to **5 billion people** could live in drylands by the century's end, facing challenges like **depleted soils**, **water scarcity**, and **ecosystem collapse**.

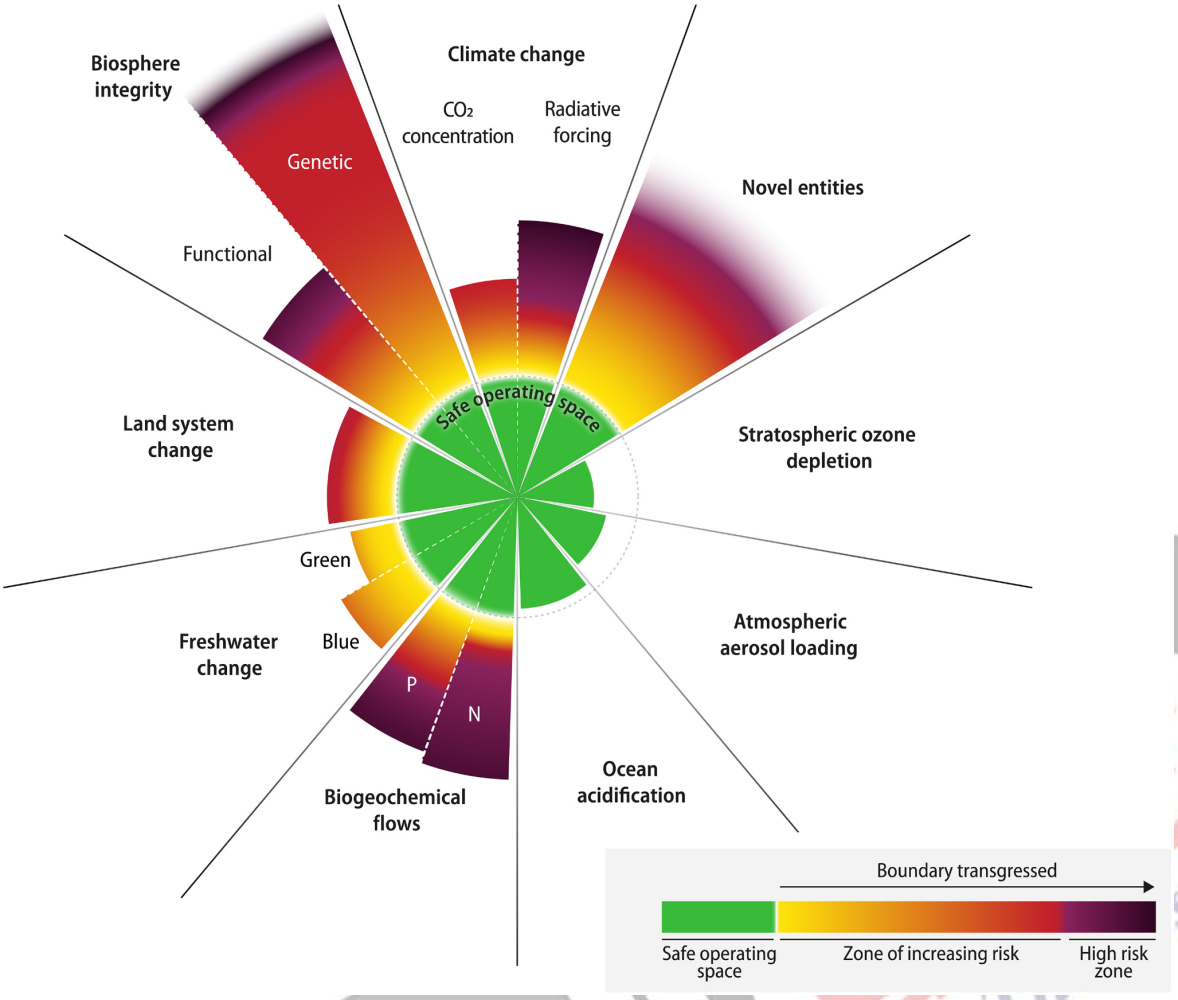
//



What are the Implications of Land Degradation and Desertification?

- **Planetary Boundaries at Risk**: **Seven of nine** **planetary boundaries** have been negatively impacted due to unsustainable land use, as highlighted in the **UNCCD Stepping back from the precipice report.**
    - **Agriculture** is responsible for **23% of** **global greenhouse gas** **emissions, 80% of deforestation,** and 70% of worldwide freshwater usage.
- **Economic Cost:** Droughts impact **1.8 billion people globally** and the economic toll of droughts is estimated at **USD 300 billion annually**, severely affecting agriculture, energy, and water availability.
- **Social Cost: Water scarcity** and **agricultural collapse** are driving **forced migration** across regions, including the **Middle East**, **Africa**, and **South Asia**, creating social and political challenges.
- **Food Security**: Land degradation threatens **one-sixth of the global food supply,** potentially **depleting one-third of the Earth's** **carbon reserves**.
- **Link to Natural Disasters**: Aridity is driving larger, more **frequent wildfires**, particularly in semi-arid regions, by increasing dry biomass.
    - **Sand and dust storms** are becoming more common, particularly in the **Middle East**.

Note: The nine planetary boundaries are:



Current Status of Desertification in India

- According to **UNCCD data**, from **2015-2019, 30.51 million hectares** of India's total reported land was degraded.
    - This means that **9.45%** of the country's landmass was **degraded** as of 2019. This was **4.42% in 2015.**
- India's total degraded land is equivalent to the size **of 43 million football pitches.**
- **251.71 million Indians** constituting 18.39% of the country's population were exposed to **land degradation** during the same period.
- **854.4 million** of the country's people were exposed to **drought from 2015-2018.**

Way Forward

- **Reforestation and Afforestation**:
    - **Reforestation**: **Uzbekistan's** regreening program has planted **trees and shrubs** on one million hectares of the **Aral desert,** using drought-resistant **black saxual shrubs *(Haloxylon Aphyllum)*** to stabilize soil and prevent sandstorms.
    - **Afforestation:** The "**Great Green Wall**" aims to restore **100 million hectares of land by 2030,** involving 22 African countries in the **Sahel** and **Sahara** **regions**.
- **Agroforestry**: Integrating trees with agricultural crops can improve **soil fertility, conserve water, and reduce soil erosion.**
- **Water Management Techniques**: **Rainwater harvesting** and **drip irrigation** can efficiently deliver water to plant roots, minimizing evaporation and runoff in water-scarce regions.
    - Planting **drought-resistant crops** ensures agriculture continues in water-scarce regions,

supporting food security.

- **Habitat Restoration**: Protecting and rehabilitating natural habitats, like **wetlands and riverbeds**, restores biodiversity, improves **soil moisture**, and boosts ecosystem resilience against desertification.
- **Addressing Root Causes**: Addressing desertification drivers like **deforestation, poor land management, and climate change** is crucial, along with policies that promote sustainability.

Drishti Mains Question:

Q. What is Desertification? What are the key strategies that can be adopted to mitigate land degradation in arid regions?

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q. What is/are the importance/importances of the 'United Nations Convention to Combat Desertification? (2016)

1. It aims to promote effective action through innovative national programmes and supportive international partnerships.
2. It has a special/particular focus on South Asia and North Africa regions, and its Secretariat facilitates the allocation of major portion of financial resources to these regions.
3. It is committed to bottom-up approach, encouraging the participation of local people in combating the desertification.

Select the correct answer using the code given below:

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Ans: (c)

Q. Consider the following international agreements: (2014)

1. The International Treaty on Plant Genetic Resources for Food and Agriculture
2. The United Nations Convention to Combat Desertification
3. The World Heritage Convention

Which of the above has/have a bearing on biodiversity?

(a) 1 and 2 only

(b) 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Ans: (d)

Mains

Q. The process of desertification does not have climate boundaries. Justify with examples. (2020)

Q. Define the concept of carrying capacity of an ecosystem as relevant to an environment. Explain how understanding this concept is vital while planning for sustainable development of a region. (2019)