



Aravali Green Wall Project | Haryana | 05 Dec 2024

Why in News?

At a [United Nations](#) climate event held as part of [the United Nations Convention to Combat Desertification Data \(UNCCD\) CoP16](#), India highlighted its ambitious '[Aravali Green Wall](#)' project, emphasizing the importance of adopting innovative approaches to restore degraded forest lands on a global scale.

Key Points

- **About the Aravali Green Wall Project Presentation:**
 - Inspired by [Africa's Great Green Wall initiative](#), the Aravali Green Wall project aims to:
 - Restore over **1.1 million hectares of degraded landscapes** by 2027.
 - Focus on [afforestation](#) with native species, soil health improvement, and [groundwater replenishment](#).
 - Develop an "ecological wall" to mitigate urban heat islands and act as a carbon sink for NCR.
- **Significance of the Aravali Hills:**
 - The Aravali range acts as a natural barrier preventing the eastward spread of the [Thar Desert](#).
 - It serves as a "repository of unique flora and fauna" but is facing severe challenges, including [land degradation and desertification](#), [encroachment](#), [mining](#), and [urbanisation](#).
- **Need for Restoration:**
 - Urgent action is required to address these threats and reverse the degradation.
 - The restoration effort involves **collaboration among Haryana, Delhi, Rajasthan, and Gujarat**.
- **Implementation Strategy:**
 - **State governments will plant millions of native trees and shrubs** and promote [soil conservation](#).
 - The **first phase in Haryana will involve the revival of 66 water bodies** in key districts, including Gurgaon, Faridabad, and Bhiwani.
 - Haryana's plan covers the restoration of 35,000 hectares, with 18,000 hectares in Gurgaon alone.
- **Global Appeal and Vision:**
 - **Global partnerships** involving governments, international organisations, and private entities are called to **support the initiative with technical and financial resources**.
 - The project **aims to serve as a "blueprint" for global efforts** to restore degraded landscapes.
- **Innovative Approaches:**
 - The project incorporates **nature-based solutions**, focusing on afforestation with indigenous species, Soil health and moisture rejuvenation, Community participation in conservation.

Aravali Mountain Range

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- The Aravallis, is the **oldest fold mountains on Earth**. Geological studies indicate that it is three billion years old.
- It spans over **800 km from Gujarat to Delhi** (through Rajasthan and Haryana).
- The **highest peak** in the Aravalli Range is **Guru Peak on Mount Abu**.
- **Influences Climate:**
 - The Aravallis have an impact upon the climate of northwest India and beyond.
 - During monsoons, the mountain range gently guides the monsoon clouds eastwards towards Shimla and Nainital, thus **helping nurture the sub-Himalayan rivers and feeding the north Indian plains**.
 - During the winter months, it **shields the fertile alluvial river valleys of the Indus and Ganga** from the harsh **cold westerly winds blowing in from Central Asia**.

Groundwater Extraction in Haryana | Haryana | 05 Dec 2024

Why in News?

The [Stage of Groundwater Extraction \(SoE\)](#) in Haryana has reached **135.74%**, signifying that the rate of groundwater extraction exceeds the sustainable utilization limit.

Key Points

- **Current State of Groundwater Extraction:**
 - **Haryana**
 - **Annual Groundwater Recharge:** 9.55 billion cubic metres (bcm)
 - **Annual Extractable Groundwater:** 8.69 bcm
 - **Total Groundwater Extraction (2023):** 11.8 bcm
 - **SoE:** 135.74%, indicating that extraction exceeds sustainable levels.
 - **Punjab**
 - **Annual Groundwater Recharge:** 18.84 bcm
 - **Annual Extractable Groundwater:** 16.98 bcm
 - **Total Groundwater Extraction (2023):** 27.8 bcm

- **SoE:** Exceeds sustainable levels, with extraction higher than what can be sustainably used.
- **Rajasthan**
 - **Annual Groundwater Recharge:** 12.45 bcm
 - **Annual Extractable Groundwater:** 11.25 bcm
 - **Total Groundwater Extraction (2023):** 16.74 bcm
 - **SoE:** 148.77%, indicating a significant over-extraction compared to recharge.
- **Groundwater Depletion Concerns:**
 - **Environmental Degradation:** When groundwater levels drop, saltwater can intrude into coastal areas, contaminating freshwater resources.
 - **Groundwater Contamination:** Human activities like agriculture, sewage, and industries can introduce pollutants like [arsenic, fluoride, nitrate, and iron](#) into groundwater.
 - **Land Subsidence:** When groundwater is overused, the soil can collapse, compact, and drop, causing land subsidence.
- **Policy Recommendations:**
 - The [Ministry of Jal Shakti \(MoJS\)](#) has urged states to reassess policies on providing **free or subsidised electricity to farmers**.
 - Introduce water pricing mechanisms to encourage sustainable use.
 - Implement crop rotation, diversification, and other measures to reduce dependency on groundwater.
- **Jal Shakti Abhiyan (JSA) Efforts:**
 - Since 2019, the [Jal Shakti Abhiyan](#) has been a mission-driven program focusing on rainwater harvesting and water conservation.
 - JSA 2024 is focused on 151 water-stressed districts across India.

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