



Groundwater Extraction in Haryana

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.

