

Groundwater Situation in India

What is the issue?

\n\n

\n

- India is extensively exploiting its ground water resources, at a phase that is faster than any other country.

\n

- Irrational farming practices, improper drainage designs, and poor regulatory oversight are the main reasons for this state.

\n

\n\n

What water use demography in India?

\n\n

\n

- In India, about 90% of the rural water supply, 50% of the urban water supply, and 70% of the agricultural water supply is from ground reservoirs.

\n

- India is the highest user of groundwater, even ahead of the US and China, consuming over 70% of groundwater.

\n

- In this context, it is also interesting to note that only 8% of rainwater is actually captured in India.

\n

- One common reason for water over-exploitation is the geometrical increase in population and the uneven distribution of it.

\n

- Also, economic and social developments triggered by rapid urbanisation have led to lifestyle changes that impact water consumption patterns.

\n

\n\n

Why are our ground water sources getting depleted?

\n\n

\n

- **Destruction** - Ponds are vital water resources, but many of them have been degraded by human activity, rendering them useless over the years.
\n
- As ponds dry up, they become swamps and act as breeding ground for disease and sometimes they are even converted into waste dumping yards.
\n
- In the absence of these water resources, water supply crunches are inevitable, and they force habitations to seek supply from sources elsewhere.
\n
- **Irrational Farming** - Water-intensive crops have always been preferred by farmers, as they are more remunerative despite higher risks of crop failure.
\n
- Also, despite being water deficit, India is an exporter of water-intensive crops/produce, while it imports water prudent crops like pulses.
\n
- Sadly, our administrative responses to farmer stress have largely focused on “mass-tailored” solutions, without considering the implications.
\n
- For example, free electricity for agriculture has over the years led to over irrigation and water overuse, due to lack of proper awareness on optimum use.
\n
- This has in fact made soil alkaline in states like Punjab, straining farmers for want of more fertilizers to make up for the degradation.
\n

\n\n

How have industries impacted water resources?

\n\n

- Industries are comparatively less intensive on water, and are inherently advantaged to recycle and reuse due to their organised nature.
\n
- Notably, there are success stories of industries that have created their own water sources and have had a positive impact on the environment.
\n
- But nonetheless, there are some industries in water surplus areas, which have polluted the ground water greatly, affecting nearby communities.
\n

\n\n

What is the way ahead?

\n\n

\n

- As we keep exploiting water resources, there is a need for a proportional recharge to avoid getting depleted.

\n

- Constructing recharge shafts/wells to benefit the water levels locally, through harvesting, collecting, and recharging will help replenish ground waters.

\n

- Minimising water drainage and directing it to the aquifer as in areas where there is less or no contamination of water is another approach to save water.

\n

- In urban areas, where land is scarce, parks can be constructed a level below the ground level to allow the direct rain water drainage into the ground.

\n

- Also, reducing water consumption through cost-effective methods, through timely and sustained implementation programs can be taken up.

\n

\n\n

\n\n

Source: The Hindu

\n

