

With the Monsoon around, India Must 'Catch the Rain'

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With Rains pouring down in monsoon, India has to "catch-the-rain", preserve, and wisely manage this abundance to mitigate floods and prevent recurring summer water crises.

India's Water Reality

Despite being home to 18% of the global population and 19 crore cattle, India holds just 4% of the world's freshwater resources. Monsoons deliver 1,170 mm (appx) of rains annually, with wide spatial and temporal variation. But its lion's share gushes off into rivers and seas, many times leading to devastating floods in rainy seasons and severe shortages in summer. It is estimated that India stores only 12–15% of this water. Nearly 85% of water usage in India is in agriculture, largely adapting very inefficient flood irrigation technique. India is also world's top groundwater extractor, pumping 250 billion m³ annually, but replenishment is very minimal. There is little reuse/recycling of treated water. With no single entity handling water and virtually no water-governance mechanism, it is the classic case of "tragedy-of-commons". Poor water management- both demand and supply side- and poor water governance are the biggest banes of Indian water sector.

It matters to "Catch-The-Rain":

Realising the need of harvesting maximum rain water, National Water Mission started "Catch-The-Rain"

campaign with tagline: Catch-The-Rain, where it falls, when it falls" in 2020, which continues as "JalShaktiAbhiyan: CatchTheRain". India had tradition of building Rainwater Harvesting Structures (RWHS) like bavdis, stepwells, temple-ponds etc, which fell to disuse over a period of time, more so, after the "mass-entry" of bore/tube wells. Big, major/multi-purpose dams which have high capital, operational and environmental costs, need to be complemented by decentralized, insitu RWHS, suited to the agro-climatic and sub-soil strata conditions. These are cheaper, environment friendly, equitable, participatory and hence more democratic! local "Jal-Shakti-Kendras" can give technical support to make appropriate RWHS.

While vast rural landscapes absorb significant quantity of water, urban areas present the greatest challenges when skies open. Rising Real-estate values have swallowed many urban waterbodies. Debris and other solid and liquid wastes have further diminished those remaining. The extensive coverage of land with buildings, roads, concrete, tiles etc along with the high density of development, has severely restricted the infiltration of rainwater into underground aquifers due to densification of ground and higher run-off velocities. As a result, groundwater recharge is nearly non-existent, and water flows into low-lying areas, causing urban-flooding. To mitigate this, municipalities should incentivize stakeholders like RWAs, and corporates by giving tax-rebates, subsidies for



making appropriate RWHSs.

Catching-The-Rain: Recharges Groundwater; Reduces Energy Consumption- pumping from shallower wells saves electricity and diesel; Improves Soil Health and Agriculture: improved soil moisture, fosters healthy microbial life and boosting crop resilience; Mitigates Urban Flooding; Preserves Spring Zones in hilly areas, and help prevent landslides.

To break the cycle of monsoon floods followed by summer shortages, India needs: Decentralized, affordable, and community-led solutions as complements to large dams; Strengthened stakeholders' coordination and better water governance; Public participation, from farmers to urban residents and corporate entities, embracing rainwater harvesting and Incentive structures—financial and regulatory—to scaleup adoption of RWHS.

Monsoons are India's greatest water source. But without systems to catch, store, and recharge ground-water, the seasonal abundance will continue to feed floods and leave deep deficits by summer. We need to "Catch-The-Rain" systematically, to secure water security and sustainability for current and future generations.

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