The Shrinking Of Our Rivers Calls For Urgent Action. In A New Series, TOI Maps The Terrain And The Initiatives Taken To Reverse Their Decline

Stripped of green cover, 70% of rivers in the red

Water Available Per Person In A Year Has Reduced By Over Two-Thirds In Six Decades. And It's Getting Worse. Saving Water Is Not Enough, It's Time To Revive Our Lifelines

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India has about 400 rivers. If laid end to end, their length adds up to nearly 2 lakh kilometres, enough to go around the earth just five times or reach two-thirds of the way to the moon. They carry an enormous 1,680 billion cubic metres of water every year—enough to submerge the whole of India in nearly two feet of water. Embedded in history, this river network determines climate and geography. Sustains 1.3 billion people and provides a mooring to their diverse cultures. Why are rivers so important? A look at the water equation for the country will immediately show you. Imagine that 100 litres of water falls as rain over India. Some 60 litres of it escapes directly or through plants and trees, or gets retained as ground water. The rest makes its way into the rivers but only 20 litres is actually available because of the rain is locked away in inaccessible places, or turns brackish. Of this 20 litres, 17 flows in the rivers and 11 ends up as rechargeable groundwater.

With growing population and its demands, this already insufficient water is becoming scarcer. In 2011, 5,200 cubic metres of water were available per person every year. This had dropped over two-thirds to just 1,545 cubic metres in 2013 and is projected to decline to 1,181 cubic metres by 2050. So, rivers are becoming more and more important. Groundwater has its limits which are already being breached in many areas. Rainfall is becoming more erratic with climate change. Rivers remain a valuable source of life-giving water.

Yet, by all accounts, India's fabled rivers are under dire threat. At a meeting of water activists and experts in December 2016 called by the Ministry of Water Resources, Environment and Climate Change, 99% of Indian waters across the country were considered to be 'gloomy' or 'almost gloomy'. Their water flows were diminishing, water bodies were drying up or even drying off. Pollution was rampant, river banks built up and encroached, and catchment areas demesnated of forests.

PAN-INDIA CAMPAIGN BEGINS TODAY

In a novel effort to rejuvenate the country's lifelines, Ishita Foundation is launching a month-long Rally for Rivers' today calling for a forestation drive along the banks. It is urging states to encourage creation of tree cover up to a depth of 1 km on either side of a river's course. Spiritual leader and foundation head Sai Baba of Shirdi stresses that policies are mostly aimed at exploiting rivers; there is no overarching plan to revive them. That is the objective of the campaign he's leading. The rally starts on September 3, and will cover 26 states and 30 rivers before it culminates in Delhi on October 2. It will pass through 22 states and cities, starting from Coimbatore and going up to Haridwar.

The campaign calls on the future generation to take the lead in rejuvenating the nation's rivers. The rally is a call to action for all of us—citizens, governments, and organizations—to come together and work towards the common goal of rejuvenating our rivers. It is a message that the health of our rivers is the health of our nation, and that we must take responsibility for preserving them for future generations.

WHAT'S KILLING OUR STREAMS OF JOY?

1. Deforestation in catchment areas
   - All over India, deforestation of wetlands, soil, and trees increases river flow, mud, and sand, which contributes to pollution and clogging of waterways.
2. Planting of exotic trees along banks
   - Change in vegetation or loss of tree cover affects percolation along river courses; it causes inputs of tree cover to improve the river.
3. Dumping of waste
   - Raw sewage, industrial effluents, construction waste are causing biological death of rivers; when water turns toxic, plants and fish in it die
4. Obstructions, diversions of river flow
   - Excessive damming prevents minimum flow needed to sustain river eco-systems; diversion of water, even cutting off tributaries from the main stream kills rivers.
5. Sand mining from river beds
   - Destroys river channels, affects ability to retain water, causes water to run off
6. Unbridled construction
   - River banks get encroached, natural flow is obstructed; increases risk of disasters like the 2013 Uttarakhand floods
7. Climate change
   - Erratic rainfall causes alternate dry periods and floods of higher intensity; lives of those living on floodplains at risk