

UNTIL DAMS DO US PART

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The tragedy in Kerala has highlighted the dangers of excess water accumulation in dams. More than 20 dams released water that cascaded down the hills, leaving behind a trail of destruction. The opening of the gates of the Idukki dam, for instance, caused the Periyar river to swell rapidly and discharge seven lakh litres of water per second.

Yet, the argument for dams — that they provide drinking water and water for agriculture — is today scientifically discredited. For independent geologists and hydrologists, dams represent a nightmare, an ephemeral triumph of engineering over common sense and the natural sciences. Increasingly, it is evident that dam proponents are ignoring crucial decision-making data now available on patterns of rainfall, geology and climate change.

Reservoirs not managed using a scientific, decision-support system: M. Rajeevan

Dams store millions of tonnes of fresh water in large reservoirs, submerging prime forests, villages, farms and livelihoods. The 4,700 large dams built since 1947 have cumulatively displaced 4.4 million people. This makes dams the single largest cause for displacement post-Partition.

Solving the drinking water crisis does not require giant storage structures; these dams take decades to come up and only a fraction of their output is for the household sector. Over 85% of them are used in agriculture for producing cash crops such as sugarcane. Dams have displaced the poorest of India's people in favour of richer farmers and urban residents, often with little or no compensation.

Worryingly, dams are far more hazardous than any other infrastructure project, except nuclear plants. Even as Kerala and Tamil Nadu have battled over the safety of the 116-year-old Mullaperiyar dam, there are, according to the India Water Portal, over 100 dams in India which are over a century old, and more than 500 large dams which are 50-100 years old, many of which have major defects and need urgent repair. It is also accepted today that dams can trigger seismic events. The reservoir-induced seismicity (RIS) from the weight of the reservoir has resulted in earthquakes in various parts of the country: of the 75 cases of RIS reported worldwide, 17 have been reported from India.

Catastrophic rain is the new normal

The scale and frequency of natural disasters is growing. According to data compiled by the Centre for Research on the Epidemiology of Disasters, the instances of extreme weather have gone up from 71 in the 1970s to about 224 in the 1990s and 350 in the first decade of the millennium. In the second decade, Uttarakhand, Odisha, Chennai, and now Kerala and Kodagu district have all been hit.

There has never been a greater urgency to review India's policy on dams and to act on decentralised alternatives that involve water recycling and reuse. The immediate task is to critically review every dam in the country, decommission those that are at end-of-life, stop building new ones and establish sound safety protocols. If this is not done, the time bomb will tick on.

The writer is Executive Director, Nityata River Otter Conservancy

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