Disasters by Design: Rethinking Law, Power, and Water in a Changing Climate

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Floods are often framed as acts of nature, and the unfortunate consequence of excessive rainfall. But a closer look enables another story to emerge: floods are not only about hydraulic processes. They are also about law, governance, power and profit.

In Eastern India, as Rahul Yaduka's previous post on the Kosi River in Bihar outlined, floods are often a result of flood control measures. This trend continues across into West Bengal. In 2020, 170,000 people were affected and 151 lives were lost. Yet, the paradox is stark: the very same region that drowns in monsoon waters also suffers from drought and water shortages during other times of the year. For many families, life swings between "too much" and "too little" water.

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Take the Damodar River, often called the "Sorrow of Bengal" (similar to the Kosi being the "Sorrow of Bihar" as Yaduka wrote about). Last year, 2500 people were displaced and 3 people died from floods in the Damodar. Such floods usually result in political blame games between the state and the Dam corporation who control the dams across the river.

Since the 19th century, however, the Damodar has been shaped and reshaped. It has been engineered towards attempts to control the river and harness its power towards economic ends. Laws have been passed that attempt to separate land and water, empower the building of vast embankments, canals to expand agriculture. The primary goal, during colonial era, was not flood control for nearby communities, but the extraction of economic gains from the land.

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These legacies live on. After independence, the Damodar Valley Corporation (DVC) was set up as India's first multipurpose river project. On paper, its mandate was noble: flood control, irrigation, power generation, soil conservation, public health. Without adequate governance of priority of uses, or participation in decisions around how the water is used, in practice, this has increasingly become about energy production – the most profitable use.

When dams release water too late, downstream villages are inundated. This is a regular occurrence in the Damodar. Meanwhile, during the year water is held back and farmers suffer from shortages. The result is a disaster by design, tragedies amplified not by nature along but by how rivers and managed and governed.

These choices reveal deeper conflicts. Whose needs does the river serve?

In nearby cities and villages, residents often face shortages, while industries and power plants are assured a steady supply. The issue is not simply scarcity, but how laws and institutions shape whose access to water is prioritised.

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Climate Adaptation, Water, and Floods

In the 21st century, flood control and water conflicts are intertwined with climate change. Climate adaptation has become a recurring priority in calls for action at recent COP meetings, shaping how countries will access finance and produce policies for flood management and related projects in years to come.

Governments often respond with the same old toolkit however: building higher embankments, dredging canals, expanding reservoirs. These 'technical fixes' may offer short-term relief, but they rarely address the root causes.

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Worse, they often reinforce the same centralised, top-down control that produced today's inequities. Decisions about when to release water from a dam, or whether to expand a thermal power plant, are made by bureaucrats and engineers with little space for local voices.

What would it mean to do things differently? The Intergovernmental Panel on Climate Change (IPCC) has called for a shift from "incremental" to "transformative" adaptation.

That means going beyond engineering fixes and asking harder questions:

- Who has a say in how rivers are managed?
- How can communities living near the river be given real decision-making power over water?
- How can law recognise water for its intrinsic value, as a shared ecological and social resource?

That could mean democratising the governance of dams and embankments, expanding participatory rights for riverine communities, and ensuring rivers and managed for the benefit of local communities and local ecologies.

Such a shift isn't quick or easy. It is an attempt to challenge who has power over river, and entrenched interests built over centuries. **However, without broadening our framing of floods, understanding the root causes, we cannot change the solutions we pursue. Instead of endlessly rebuilding embankments, and pursuing technology-driven changes, we need also to examine how societies share water, who gets to decide.**

This post is based upon a longer article by the author, available here

(The views expressed in the article are those of the author and do not reflect in any way his affiliation to any organisation or institution)

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