India-Nepal flood management needs course correction

The two countries need to re-establish water cooperation as a common cause and draw inspiration from the 1950s

ATUL K. THAKUR

Nitish Kumar should be credited for bringing 'disaster management' into the popular imagination in Bihar. In his early days as Bihar Chief Minister (2005-2010), he made a few noticeable structural changes, with renewed approaches in infrastructure augmentation for dams and reservoirs, detention basins, embankments and channel improvement. Non-structural measures were also adopted in later years such as floodplain management, flood forecasting and warning, flood insurance and financial compensation.

However, despite the efforts made on the ground, people continue to suffer with perennial flooding in north Bihar (the Mithilanchal region). Already facing a humanitarian crisis of sorts following the novel coronavirus pandemic, this year's extra rainfall and floods have been a moment of reckoning. Unfortunately, this chronic issue which is making over five crore people of the north Bihar in India and Tarai in Nepal so vulnerable, does not seem to get the attention it deserves by policymakers on both sides of the border.

This year, on May 4-5, Bihar's Disaster Management Department released two documents titled: "Pre-Flood Preparedness" and "Flood Control Order 2021". The aim was to help the local administration in terms of preparedness and having in place a relief support system. However, a solution to the issue of chronic flooding lies in revisiting the old plans and arrangements between India and Nepal. This is because flood control in Bihar is just not possible till a dedicated intergovernmental panel is formed through a bilateral mechanism between India and Nepal, that in turn can study, assess and offer solutions to this shared crisis.

Fundamentals of flooding

Historically, Bihar has been known to be India's most flood-prone State. The Flood Management Improvement Support Centre (FMISC), Department of Water Resources, Government of Bihar estimates that 76% of the population in north Bihar faces the recurring threat of flood devastation. About 68,800 sq. km out of a total geographical area of 94,163 sq. km, or about 73.06% of the land area is flood affected. A large part of north Bihar, adjoining Nepal, is drained by a number of rivers that have their catchments in the steep and geologically nascent Himalayas.

Originating in Nepal, the high discharge and sediment load in the Kosi, Gandak, Burhi Gandak, Bagmati, Kamla Balan, Mahananda and Adhwara Group wreak havoc in the plains of Nepal's Tarai and Bihar. The FMISC says: "About 65% of the catchment area of these rivers falls in Nepal/Tibet and only 35% of the catchment area lies in Bihar. A review by Kale (1997) indicated that the plains of North Bihar have recorded the highest

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number of floods during the last 30-years. In the years 1978, 1987, 1998, 2004 and 2007[,] Bihar witnessed high magnitudes of flood. The total area affected by floods has also increased during these years. [The] Flood of 2004 demonstrates the severity of the flood problem when a vast area of 23490 Sq Km was badly affected by the floods of Bagmati, Kamla & Adhwara groups of rivers causing loss of about 800 human lives, even when Ganga, the master drain was flowing low."

Cooperation of the past

Unlike the indifference shown by Kathmandu on matters of floods and water management in recent years, the history of cooperation between India and Nepal for embankments starting in the 1950s is worth looking at. When work on the Kosi embankments started in January 1955, a group of retired Nepali soldiers came over voluntarily to join hands with Indian volunteers and start the work. Such a progressive government-citizen interface could not sustain itself and water cooperation between the two countries for a common cause waned. Consequently, not much has happened barring the use of water resources for hydroelectric generation.

Recasting water management

For the people of Madhubani, Darbhanga, Sitamarhi, Sheohar, Saharsa, Supaul, Purnea, Araria, Madhepura, Katihar, Samastipur, Muzaffarpur, Bettiah, Motihari and Begusarai, the flood is a part of their lives. In fact, infrastructural interventions such as building embankments and re-routing streams have disturbed the conventional pattern of slow water flow.

Earlier, without so many artificial barriers, the flow of water used to aid farming in the region. The Kosi Treaty of 1954, under which the embankments in Nepal were established and maintained, was not futuristic and did not make enough provisions for the maintenance of embankments and the rivers changing their course. The deposition of stones, sand, silt and sediment has led to river beds rising, changing course and causing unimaginable losses. Between the mid-18th and mid-20th centuries, the Kosi is said to have shifted over 100 kilometres westward, resulting in large-scale human displacements. Also, there is a need for greater sensitisation on climatic imbalances and sustainable development. Ironically, the same flood-affected regions also face the issue of drought and a sinking water table.

Notwithstanding Kathmandu's wavered approach on the matters concerning water management with India, it would not be apt to blame Nepal for releasing water from its rivers that cause flooding on the Indian side; and on their part, for believing that India is reaping the benefits from all projects that were taken up in the past. Clearly, course correction is needed to reestablish water cooperation as a common cause and draw inspiration for joint action from the 1950s.

For a policy refresh

As early as in 1937, the transition from the traditional method of flood control to the embankment-based British system was thought out. To control the floodwater at Barahakshetra in Nepal, a high dam was thus planned and finally built after the devastating Kosi flood in 1953. Prime Minister Jawaharlal Nehru visited the flood-affected areas in 1953 and announced a visionary Kosi scheme for the safe resettlement of the affected people. Lalit Narayan Mishra, former Union Cabinet Minister, was the first prominent political leader from the Mithila region who unwaveringly tried improving infrastructural capabilities with the Kosi Project and other initiatives to control the flooding.

In the mainstream political and policy establishments, greater attention needs to be given to this annual calamity and its devastating effects on lives and livelihoods. India and Nepal need to be in dialogue to end the crisis of flooding every year. With a long-term strategy of water management cooperation between India and Nepal, the matter should be looked into.

Atul K. Thakur is a policy analyst and columnist