## Caution warranted for river-linking project

2017-9-8

Is the proposed interlinking of rivers a bold and ambitious engineering project that will resolve the country's water woes or is it an ill-conceived plan built on obsolete ideas that will devastate the country's riverine ecosystems? Even as the government claims to have made significant progress with the initial clearances and negotiations so as to kick-start the project, which has been in the pipeline for several decades, expert opinion on the matter remains as sharply divided as ever.

To be fair, this is to be expected, given the sheer scale and scope of the project: 30 river linkages and more than 3,000 storage structures spread across a 15,000km canal network that will transfer 174 trillion litres of water every year, and will cost a total of Rs5.6 trillion. This puts the river-linking project on a par with some of the most daring feats of engineering attempted in the history of mankind. It is a reimagining of the entire aquatic ecosystem of a country as large and diverse as India. That said, the basic idea driving the project is actually fairly simple: Connect the Himalayan and peninsular rivers via a network of canals so that excess water from one channel can be diverted to another which has inadequate flow.

Proponents of the project, which include successive governments at the Centre, argue that river linking offers three key benefits: It will irrigate about 87 million acres of farmland, control floods, and generate 34 GW of hydroelectric power. These are tantalizing prospects: India's rain-fed farms are forever hostage to the vagaries of nature, so much so that even one bad monsoon has a direct and debilitating economic impact. At the same time, simultaneous floods and droughts in different parts of the country continue to wreak havoc, destroying the lives and livelihoods of millions. India also desperately needs clean energy to fuel its development processes, and if river water can be leveraged and redirected to serve these purposes, that's an option worth exploring.

However, river-linking critics insist that the project is built on bad science and an outdated understanding of water systems and water management. Specifically, the concept of surplus and deficit river basins—which is at the core of the river-linking project—is contested. A new study by researchers at the Indian Institutes of Technology in Mumbai and Chennai, analysing weather data over 103 years (from 1901 to 2004), has found that rainfall has decreased over the years by more than 10% even in river basins that once had a surplus, such as those of the Mahanadi and the Godavari.

Also, the project seems to view the river as a unidimensional water pipeline when it is, in fact, an entire ecosystem—and any changes to its natural course will have an impact on all the flora and fauna, the wetlands and the floodplains that are intricately linked to the river system. In fact, the long-term environmental impact of such a project is a major concern. For example, one of the reasons why the Ken-Betwa link, which is now receiving priority attention, has been stuck for several years is because it requires environmental clearance for diverting 5,500 hectares from the Panna National Park, a tiger reserve. Critics also point to the less than positive experience that other countries have had with such projects—be it the Soviet regime's decision to divert the Amu Darya and the Syr Darya, which fed the Aral Sea, to irrigate the desert, or the Australian government's experiments in its Murray Darling basin.

There are political challenges as well. Water transfer and water sharing are sensitive subjects that have already spawned century-long disputes, and few political parties today can expect to win the next election if they are seen as having signed away a scarce natural resource. Moreover, water is a state subject in India, and even though the Centre is empowered to bring an inter-state river under its control to serve the national interest, it has effectively never done so owing to enormous resistance from the states.

The resultant turf wars are already under way—with the Ken-Betwa link, for example, the governments of Uttar Pradesh and Madhya Pradesh have been unable to agree on how much water should be transferred from the Ken river. Union water resources minister Nitin Gadkari intervened a few days ago and has called for a meeting of the chief ministers concerned, but this will not be an easy political bargain—no matter that the same party leads both the state governments and at the Centre.

Given all these concerns, not to mention the massive price tag, perhaps the government would do well to consider other interventions, both on the supply side and the demand side, such as conservation of water resources and more efficient irrigation and agricultural practices, etc., to deal with India's looming water crisis.

What effect do you think the interlinking of rivers will have on the country's economy and ecology? Tell us at views@livemint.com

