

Water scarcity a key factor to regional security in India

By **Asit K Biswas, Cecilia Tortajada and Udisha Saklani**

WATER planning in India has been on an unsustainable path for centuries. In the 16th century, Mughal Emperor Akbar decided to build a new capital in Fatehpur Sikri (City of Victory). In 1589, Robert Fitch, one of the earliest English travellers to India, noted that Agra and Fatehpur Sikri were “two great cities, either of them much greater than London and more populous”.

The history of the new capital was not so auspicious. Emperor Akbar used it only for 13 years and then abandoned it to return to his old capital permanently. The main reason was very severe water scarcity.

Fatehpur Sikri is a magnificent monument to India’s poor water planning. Over the centuries India’s water planning has improved incrementally whereas its drivers of water use have increased exponentially, making its water situation worsen steadily with time.

Take population, only one driver of increasing water use. In 1947, the total population of undivided India was 390 million. By 2050, the total population of the three countries of undivided India will be 2,206 billion, a 5.66-fold increase in little over a century. India is expected to overtake China around 2022 as the most populous country in the world.

Population growth, rapid urbanisation and industrialisation, and exponential growth in human activities over the past century have resulted in higher water requirements for all types of water uses: human, thermo-industrial and agricultural.

Furthermore, for centuries domestic and indus-

trial wastewaters have been indiscriminately discharged to water bodies without any, or partial treatment. Consequently, all water bodies within and near population centres have already been contaminated seriously with domestic and industrial pollutants. This has posed serious health and environmental problems.

In addition, with steady economic growth, higher literacy and increasing skill levels, the number of Indian middle class families has gone up exponentially. The median income of Indian households is expected to reach over US\$10,000, by 2030, in 2014 prices. Direct results of this affluence have been rapid changes in dietary patterns and energy consumption levels. As the country has prospered, people have moved to a higher protein-based diet such as milk products, fish and meat, all of which need significantly more water to produce than cereal-based diets. Their energy consumption has gone up because of increasing use of refrigerators, washing machines and cars. All these need extra energy and no energy can be generated without significant amount of water.

In terms of water, the country is now facing a perfect storm. This means water management practices in India need to change dramatically in the coming years. However, we do not see any sustained political will which will be essential to take some hard decisions in the future.

The problem is further exacerbated by the fact that all important rivers in India are interstate, and water management is basically a state subject on which the Centre has very limited control.

Because of poor water management in all the Indian states and steadily increasing water demands, India is now witnessing increasing con-

flicts on water allocations in interstate rivers. This has become a serious challenge to the regional stability of the country.

Interstate water allocation conflicts have triggered numerous protests, violence and property destruction. If these conflicts continue and grow, they may prove to be one of the biggest political constraints to India’s future economic growth and social cohesion.

A major challenge now is the absence of permanent and efficient dispute resolution mechanisms for water allocation in interstate rivers. Under the Interstate Water Disputes Act of 1956, ad-hoc tribunals can be established on a case by case basis whenever conflicts between two states cannot be resolved by mutual discussion. The objective of this Act was to allow the states to discuss and resolve the conflicts before engaging in adjudication.

Our research indicates that tribunals have often contributed to long-drawn negotiation processes which have led to hardening of the positions of the individual states, instead of promoting compromises. It has accentuated the rivalries between the states so that each can receive higher allocation of waters which is physically impossible.

There are several problems with the existing tribunal system. First, there are no uniform, logical and common processes. They have considerable discretions in terms of processes to arrive at settlements and also underlying concepts under which settlements are made. Fundamental assumptions have often varied from one tribunal to another significantly.

Second, tribunal results are non-binding to the

states. Third, Central Government has been reluctant to establish institutions for implementing the awards. Fourth, there is no fixed stipulated timeframe for negotiations and adjudications. The Cauvery Tribunal took 17 years. Karnataka then promptly decided to file a Special Leave Petition to the Supreme Court to thwart the final award, further delaying the settlement.

An important factor linking water disputes to its state politics is the power of the state campaigns in distracting voters from real issues of poor governance and lack of administrative skills and actions. Water has now assumed the role of a political weapon.

With a number of states defying orders of tribunals and the Supreme Court, water is becoming an important threat to Indian’s federalism and future social and economic development.

In the absence of functioning water institutions at central and state levels and a lack of political wills to take hard decisions at all political levels, interstate water allocation problems will become increasingly more difficult to resolve. This does not even include future complexities and uncertainties that will be imposed by climate change or the creation of additional new states.

This proves Mark Twain’s adage “Whiskey is for drinking, water is for fighting over.”

■ Prof Biswas is distinguished visiting professor, Lee Kuan Yew School of Public Policy, NUS, Singapore. Dr Tortajada is a senior research fellow, Institute of Water Policy, in the same school. Ms Saklani is an independent researcher working with Institute of Water Policy.

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