

Untapped water

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Asit K Biswas and Cecilia Tortajada | March 14, 2016

On World Water Day that falls on March 22, people need to mull over why water is not high-up on the national or international political agenda. Politicians become interested in water only when there are prolonged droughts and serious floods. The moment these events are over, interest evaporates.

This is mainly due to the way water issues are currently framed. Discussions focus on supply and quality of water. They are seldom placed in a larger framework, for instance on how water can act as an engine for economic development or poverty alleviation that could interest politicians.



The Koshi River

Last month, International Centre for Integrated Mountain Development (ICIMOD), Department of Foreign Affairs and Trade of Australia and Bihar State Disaster Management Agency organised a meeting in Patna, India. The discussion was on how poverty in the vast stretches of the Koshi Basin can be alleviated—Koshi is a trans-boundary river of Nepal and India.

Framing of issues for this meeting was different. The Koshi Basin is a fertile flood plain, with good soil, water and sunshine. This should have made the basin a breadbasket for the area and should have given the people of this region good quality of life. But in spite of these natural endowments, the Koshi Basin is home to some of the most impoverished people of the world. Young and able-bodied men from Bihar now work all over India in low-paid jobs which keep them trapped in poverty.

The situation in Nepal is equally bleak. Political turmoil, security problems and consistent poor policies over the past several decades have meant that Nepal's sagging economy has failed to meet the aspirations of its people. This has forced young Nepali men to emigrate to the Middle East or Southeast Asia, and undertake difficult, dirty as well as dangerous jobs. During 2006-2014, more than 1,000 Nepali workers died in Malaysia. More than a hundred die in Qatar each year. Construction activities for the FIFA World Cup of 2022, Qatar, may claim the lives of some 4,000 migrant workers, majority of whom are likely to be from India and Nepal.

ICIMOD and AusAid's choice of the Koshi Basin for a pilot project for water-based regional development has the potential to improve regional standard of living significantly. Moreover, as the Koshi Basin covers only one Indian state, Bihar, this endeavour is pragmatic. In India, states are responsible for managing their water and land resources. Rivalries and mistrust between Indian states in water are intense and have long histories. Since the Koshi Basin includes only one Indian state, it should be simpler than considering other Nepal-India transboundary rivers that include two or more Indian states.

Mountains and people

Mountains cover 22 percent of the world's land mass. In 2012, some 915 million people, 13 percent of global population, lived in mountainous areas. Nearly 90 percent of mountain people live in the developing world. But plights of mountain people are mostly unknown in the world.

Contributions of mountains to plains are often grossly underestimated. Take water for example. Mountains are responsible for providing between 60-80 percent of world's freshwater. Yet, mountain people in developing countries rarely have access to clean and safe water or adequate wastewater treatment services.

The Food and Agriculture Organisation estimates that 41 percent of mountain people living in developing Asia are vulnerable to food security. They suffer from lack of infrastructure, like highways and housing, as well as availability of essential services like education, health and communication.

The Koshi Basin is no exception. People in the region continue to live in poverty. Major source of income in North Bihar and Southern Nepal is remittances from people living outside the region. But this should not be the case. With proper policies and good relations between Nepal and India, the Koshi Basin should have been a prosperous region of the subcontinent.

Regular floods and droughts, poor agricultural productivity, low cropping intensities, lack of infrastructure preventing market access of farmers, consistent mistrust between Nepal and India, absence of adequate energy, and neglect of this region in both countries, have contributed to the perpetuation of poverty. Opportunities have existed for decades to develop water infrastructures, which could have controlled floods, reduced impacts of droughts and generated hydropower. This would have improved livelihoods of people of the Koshi Basin.

Future possibilities

Nepal has a hydropower potential of over 50,000 MW. Yet, only about 800 MW have been developed. Nepal's electricity requirements have been growing at about nine percent annually and supply has fallen sharply behind. Consequently, even in the capital, Kathmandu, residents and industry face 8-12 hours of power cuts daily.

If hydropower potential of the Koshi River and other trans-boundary rivers are harnessed, Nepal could easily sell excess electricity to India. Electricity sale could be the largest export earner for the country. Instead, Nepal currently imports electricity from India to supplement its grossly inadequate power generation.

In this regard, a good model is India-Bhutan collaboration. With cooperation and collaboration with India, Bhutan now covers all its expanding electric needs through hydropower developments, and sells the excess electricity to its southern neighbour. Hydropower is now a major export of Bhutan. Over the past four years, it has contributed to about 60 percent of Bhutan's total export income. Because of hydropower, Bhutan now has the highest per capita GDP in South Asia and electricity use. It has significantly enhanced its social and economic development.

Both Nepal and India should realise that hydropower is not like oil or minerals, which can remain in the ground until they are developed. If water is not used for electricity generation and agricultural production, these benefits are lost forever.

Water can be the engine for regional development in the Koshi Basin through hydropower generation, prevention of floods and droughts, agricultural development and construction of essential infrastructure. The Koshi Project has another distinct advantage. It can use the lessons learnt, both positive and negative, from the development of the Murray-Darling

Basin (MDB) of Australia. It is one of the best river basin plans available at present. The reason it has received considerable criticism in Australia is primarily because the process through which it was developed had many fundamental flaws, but not the plan itself.

The lessons of the MDB Plan can be modified appropriately to suit the social, economic and environmental conditions of the Koshi Basin. In our view, the current effort has the potential to nudge India and Nepal to use water as an engine for the Koshi Basin development. AusAid could be the catalyst and ICIMOD could act as the 'honest knowledge broker'. They could bring Nepal and India together to improve the social and economic conditions of people living in the Koshi Basin. It has the potential for all the four parties, India, Nepal, Australia and ICIMOD, to have a successful joint venture, which individually they would not be able to achieve for decades.

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