Managing Asia’s Most Precious Resource

Asia’s water problems are particularly acute. The region is home to 60 percent of the world’s population but has only 36 percent of global water resources. That stark imbalance is sobering. If Asia is to continue to prosper and do so in an atmosphere of peaceful relations among nations, then greater co-operation on water issues will be critical.
Neighborhood Tensions: India’s Trans-Boundary Water Relations

By Ramaswamy R. Iyer

Trans-border water issues in South Asia cannot be understood without discussing India’s sometimes fraught relations with her neighbors. Water tensions have been key areas of dispute for India-Pakistan and India-Bangladesh for decades; they also complicate matters with Nepal and loom as a potential problem with China.

In surveying these complex concerns, Ramaswamy R. Iyer uncovers the overarching importance of water issues and outlines a need for discussion and honest negotiations as a way forward on all sides.

A DISCUSSION of trans-boundary water relations in South Asia quickly becomes a discussion of India’s relationship with her neighbors, for the simple reason that India has a shared boundary with each, but none of them shares a boundary with any other. A look at India-Bangladesh, India-Nepal and India-Pakistan relations over river waters may be a good introduction to the issues involved in inter-country river-water relations.

Between India and Bangladesh the issue has been primarily one of water-sharing: between India and Pakistan what started before independence as a water-sharing issue became and continues as a tense relationship over control and security; and between India and Nepal the persistent failure of efforts at cooperation over river projects is one aspect of a complex, tangled and dysfunctional relationship. However, nothing is simple, and there were and are multiple issues in each case. The India-China case also presents another set of potentially thorny problems.

Below, I outline the major issues.

INDIA–BANGLADESH

The India-Bangladesh dispute over sharing the waters of Ganga — the river Ganges — was a classic case of an upper-riparian/lower-riparian conflict, and though it was resolved by the Ganges Water Treaty of 1996, its potential for re-surfacing should not be underestimated.

The dispute began with the planning and eventual construction by India of a dam across the Ganges at Farakka to divert part of the river with the aim of keeping the port of Calcutta flushed and operational and protecting the city water supply from salinity. This caused serious concern in what was then East Pakistan — later Bangladesh. A national sense of grievance grew and became a significant factor in electoral politics. In its extreme form, the nationalistic position became a myth, with India cast in the role of a demon: whether Bangladesh was afflicted by drought or floods, the responsibility was laid at India’s door. “Farakka” was blamed for all kinds of ills. Eighteen years on from the Ganges treaty, feelings still tend to run high over Farakka in Bangladesh.

We need not enter into an elaborate discussion of the details of the Ganges treaty here. It is essentially an extendable 30-year water-sharing treaty; the sharing is only during the lean season each year, which is the period from January 1 to May 31; the sharing point is at Farakka. If the flows in the river fall below 50,000 cubic feet per second, the treaty recognizes an emergency, and provides for urgent consultations between the two governments. On the whole, after some initial problems in 1997, the treaty seems to have worked to the satisfaction of both governments.

Three points need to be noted in this context. First, it was only by setting aside the vexed and contentious question of “augmentation” of the lean-season flows of the Ganges from some source that the two governments were able to reach an agreement on sharing the existing waters of the river. One no longer hears much about augmentation, which is a matter of relief, because the ideas of both India and Bangladesh on that subject are very controversial.

Secondly, the treaty envisages similar agreements on several other rivers, but there have been none so far. On one of those rivers, the Teesta, tensions between the central government and West Bengal state in India’s quasi-federal structure impede the reaching of an inter-country agreement, constitutionally a central government responsibility. The high point of the Indian prime minister’s visit to Bangladesh in September 2011 was to have been the signing of a water-sharing treaty on the Teesta, but that did not happen because of reservations on the part of the chief minister of West Bengal. At the time, it was felt that this regrettable failure would be quickly remedied, but four years later, the impasse remains. Very recently, Mamata Banerjee, the chief minister of West Bengal, visited Bangladesh, and made statements to the effect that the Teesta issue would be resolved between her and Prime Minister Sheikh Hasina of Bangladesh, but there has been no such announcement so far.

Thirdly, there were issues other than water-sharing in the Ganges waters dispute, such as security aspects, environmental concerns, cooperation on flood management and disaster preparedness and so on. There has been some progress on flood-forecasting information, but the other concerns have re-emerged in the context of India’s Tipaimukh Dam project in Manipur State and the gigantic and controversial Inter-Linking of Rivers (ILR) project. Tipaimukh, a joint India-Bangladesh panel has been studying the project, but there have been long-standing protests against the project even within India. One wonders whether it will be possible to overcome the opposition to the dam both within India and in Bangladesh, and whether the project is really worth all this trouble.

The Indian ILR project has caused much concern in Bangladesh beginning with the initial announcement in 2002. For a while, it appeared that the project was going to become a major issue between India and several neighbors. However, New Delhi made it clear that the Himalayan component of the project was not being looked at for the present and that before doing so Bangladesh and Nepal would be consulted. That muted protests in those countries.

Unfortunately, the moribund ILR project was...
brought back to life on Feb. 27, 2012, when the Supreme Court ordered the government of India to set up an implementation committee to take the project forward. The anxieties of Bangladesh were roused again. The present Modi government in India is committed to the project, and this does not augur well for India-Bangladesh relations.

Whether the Ganges Treaty will continue to work well, whether agreements will be reached on the Teesta and other rivers and whether the controversies over the Tipaimukh and ILR projects will be satisfactorily resolved, are political questions that transcend water. The political relations between the two countries and the internal politics of each country will both influence and be influenced by water-related issues.

**INDIA–PAKISTAN**

Turning to India-Pakistan relations, the 1947 Line of Partition cut across the Indus River system, leaving the head-works of irrigation canals on the Indian side of the border and irrigated areas in Pakistan. When a one-year Standstill Agreement expired in April 1948, the Indian province of Punjab stopped the flows, causing acute anxiety in Pakistan. Intervention by the then prime minister, Jawaharlal Nehru, restored the flows, but the sense of insecurity continued to haunt the Pakistani psyche. Negotiations over the sharing of the Indus waters started and after 10 years resulted in the Indus Waters Treaty of 1960, allocating the three western rivers (the Indus, Chenab and Jhelum) to Pakistan, and the three eastern rivers (Ravi, Beas and Sutlej) to India. No principles guided this sharing: it was merely a compromise between conflicting claims through a process of negotiation mediated by the World Bank.

This surgery on a total system was perhaps not the best thing to do, but given the bitter circumstances of Partition, a second-best solution was all that could be hoped for. The water-sharing was regarded in both countries as unfair, but a settlement arrived at after such prolonged negotiations and approved at the highest levels was doubtless the best outcome possible under the circumstances. Despite sporadic expressions of dissatisfaction in both countries, the water-sharing continues to be in force.

Two points must be noted here. First, the Indus Waters Treaty (IWT), regarded internationally and nationally as a successful example of conflict-resolution, was not a grand Treaty of Cooperation but essentially a limited partitioning treaty: the land was partitioned in 1947 and the waters were partitioned in 1960.

Secondly, while allocating the western rivers to Pakistan, the treaty allowed some limited use of the waters by India (drinking water, existing agricultural use with limited expansion and the building of “run-of-the-river” hydroelectric projects subject to strict conditions). Thus, while water-sharing was settled, a new fraught relationship emerged, marked by persistent and intractable differences between the two countries over Indian projects on the western rivers. While this partly reflects the bitterness and political hostility between India and Pakistan, the origins of differences and disputes lay in the treaty itself.

As mentioned above, the IWT permits India to build run-of-the-river hydroelectric projects on the western rivers, but these provisions are hemmed in with stringent conditions and restrictions to ensure that Pakistan is protected from stoppage of flows or harmful flooding. The balancing act between permissive and restrictive provisions was easy to write into the treaty but not so easy to implement. India tries to utilize the permissive provisions to the full, and Pakistan tries to apply the restrictive provisions stringently. The two countries thus pull in opposite directions, leading to a permanent tug of war in the Indus Commission. Given that background, the treaty can at best creak along, and will continue to do so.

In two cases there was recourse to arbitration, and it is interesting to look at the nature of the issues involved. In the case of the Baglihar hydroelectric project on the Chenab River, the points of difference raised by Pakistan related to design, engineering and operational issues, and to the question of full conformity to the conditions and restrictions laid down in the IWT. The differences were referred to a neutral expert, and though he did suggest some minor design changes, his findings by and large upheld the Indian project. The dispute over a dam on the Kishanganga River (which is called the Neelum River in Pakistan) involved interpretations of the treaty (including one which arose out of the Baglihar arbitration) and went to a Court of Arbitration, as provided for in the IWT.

Of the two issues referred to arbitration, India won on one (with some qualifications) and Pakistan on the other. The complex details are not discussed here, but the point to note is that arbitration is provided for in the IWT, and recourse to it does not indicate a breakdown of the treaty.

(A digression: It will be noted that the IWT, apart from being a water-sharing treaty, is essentially an instrument for the protection of the lower riparian from harm. Security concerns lie at the heart of the IWT, and this aspect of the treaty was highlighted by former Pakistan President Pervez Musharraf from a military perspective. Even as he was exploring a settlement of the Kashmir issue through back-channel negotiations, he was taking a tougher stand on water and making it a new core issue between the two countries. There are several possible explanations for this elevation of water as a major issue, but without going into them, we may note that the new aggressive thrust on water has continued after Musharraf. Water is now on top of the agenda for India-Pakistan talks, whenever they are resumed.)
Pakistan is currently worried about a reported diminishing of flows in the western rivers, and about the cumulative impacts of multiple Indian projects on those rivers. These concerns do not arise from the actual provisions of the IWT, but will need to be taken note of.

Finally, the treaty was inevitably based on the state of knowledge, technology and opinion at the time of its negotiation in the 1950s and 1960s. Both sides’ negotiators saw river management and water use in terms of dams, barrages, canal systems and power houses. That is why the bulk of the treaty, after a few pages on water-sharing, is about the engineering details of projects.

It was thus an engineering treaty of 1960 and the technological developments of the future could not have been anticipated. At the time, further environmental impact assessments were unknown and concepts such as “environmental flows” came much later. Climate change and related issues could not even have been imagined in the 1950s. It is no surprise that the treaty makes no reference to any of these matters. It was thus an engineering treaty of 1960 and the technological developments of the future could not have been anticipated. At the time, further environmental impact assessments were unknown and concepts such as “environmental flows” came much later. Climate change and related issues could not even have been imagined in the 1950s. It is no surprise that the treaty makes no reference to any of these matters.

A new chapter in Indo-Nepal relations seemed to open with the Mahakali Treaty of February 1996. The treaty, signed after extensive consultations with a view to avoiding the mistakes of the past, and celebrated then as a major event, remains stalled over issues relating to interpretation and implementation. The issues are not particularly difficult, but they are caught up in the complexities of the bilateral relationship. The result is that the treaty has remained a dead letter, contributing to a worsening of India-Nepal relations rather than a dramatic improvement as had been hoped.

There are two different but inter-related ambivalences in Nepal: ambivalence about India and ambivalence about large projects for the generation of electric power for export. On India, there is deep distrust, suspicion and resentment toward a large neighbor perceived as hegemonic and interventionist; there is also recognition that geography, history and culture make closeness between the two countries inevitable. This leads to an oscillation between co-operation and drawing back that has been accentuated by Indian insensitivities and blunders.

The other ambivalence is toward large hydroelectric projects. On the one hand, there is a feeling that water is Nepal’s prime resource and should be used to generate wealth, as Bhutan has done, through large projects for the export of power. On the other, there are doubts about that export-led model of development, worries about major projects in the Himalayas and apprehensions about the excessive closeness to India that such projects would bring because India would be the largest customer for electricity. These complexities have made the relationship between the two very difficult and fragile; neither country has handled it well.

During the last few years, prolonged political instability in Nepal has made serious talks between the two countries difficult. Moreover, whenever anything goes wrong in Nepal, the tendency at the popular level seems to be to blame India. Without going into the merits of these accusations, one is not excessively optimistic about the prospect of normal, stable and constructive relations between the two countries in the near future. However, there is no option but to keep trying. At one time, this writer thought that India should refrain from seeking excessive closeness to Nepal, but aim instead at friendliness, correctness and a reasonable distance, but that does not seem to be an option.

Summing up, the India-Nepal relationship is not primarily a water question; it is a much larger and more difficult problem. India has been high-handed and insensitive, while Nepal has been hyper-sensitive and resentful, ready to cast India’s actions in the worst light. This is further complicated by the presence of China on the other side of Nepal. The result is a very difficult and complex relationship that is not easy to disentangle. It remains to be seen whether the Modi government will achieve the breakthrough that has eluded previous governments.

INDIA-BHUTAN

This paper will not devote much space to Bhutan because there are no “trans-boundary water issues” between India and Bhutan. There is cooperation on hydroelectric projects largely for the supply of electricity to India, and this has been fairly non-problematic. The tariff might have been low to start with, but that has been taken care of through subsequent revisions. India gets its electricity and Bhutan gets the large revenues that make it a rich country.
Projects expand and multiply, but in fact “success” and “prosperity” are themselves the real problems. The proliferation of projects bodes ill for the ecological health of Bhutan, and goes against Bhutan's longstanding traditional commitment to the preservation of its natural heritage. However, these are essentially Bhutan's concerns, not India-Bhutan issues. Of course, if the Bhutanese get seriously worried about disappearing natural and cultural heritages, a rethink on the projects might begin and a tendency to blame India could arise, but those possibilities lie in the future.

India-China

Finally, going beyond South Asia a bit, we come to India-China relations over the Brahmaputra River, known as the Yarlung Tsangpo in Tibet. Occasionally there are alarming media reports and articles about Chinese plans to divert its waters northward. Until recently, water did not figure in talks discussed in China for many years, at academic levels about Chinese plans to divert its waters northward. But the possibility of future diversion cannot be discounted.

It must be stated further (without elaboration) that run-of-the-river (RoR) hydro projects can do immense harm. It follows that RoR hydro projects on the Brahmaputra in China are a matter of utmost concern to lower riparian countries. We must question the Chinese constantly on their plans and express our apprehensions. We have to do our best to ensure that the Chinese do not undertake any major intervention on the river, or that in doing so, they take Indian concerns fully into account. It appears that the Indian government is fully seized of this in the talks with the Chinese. One can only say that it is necessary to be extremely watchful and take timely action, because there is not much point in complaining about reductions in flows or other impacts after a dam has been built.

What can a lower riparian country demand from an upper riparian one under customary international law? Both the old Helsinki Rules and the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses lay down the principle of equitable utilization, but there are multiple criteria for what is “equitable.” A lower riparian cannot veto an upper riparian's interventions in a river, but can ask for prior notice of intention, detailed technical information, due regard for the concerns of the lower riparian, advance consultations, and the acceptance of the principle of avoidance of “substantial harm” (Helsinki language) or “significant injury” (UN Convention language) to the lower riparian.

Is China likely to be responsive to such a demand by India? If it is, it will not be because international law says so, but perhaps for political considerations. If China feels that good relations with India are desirable, it may be willing to pay heed to India's concerns.

In a way, Indian concerns about Chinese interventions in the Brahmaputra are similar to Pakistani concerns about Indian interventions in the Indus system. The difference is that there is the Indus Waters Treaty, and the Permanent Indus Commission, to address Pakistan's Idian concerns, whereas India has no such treaty or institutional arrangement vis-à-vis China. We need a treaty on the Brahmaputra, but it cannot be only between India and China; it must cover China, India, Bhutan and Bangladesh, with a multilateral Brahmaputra Commission similar to the Mekong Commission. Will China agree? Very unlikely, but we must keep trying. The effort would be slightly more tractable if India could make common cause with Bangladesh on this matter.

The difficulty is that India is constructing many projects in its own territory, giving rise to domestic protest movements. If it is all right for India to go on a project-building spree on the Brahmaputra, with what moral justification can India object to China doing so? Besides, how is a Chinese project for south-north water transfer different from the massive Interlinking of Rivers Project India wants to undertake and which has caused a great deal of concern and anxiety in Bangladesh?

It is clear that India needs to reconsider its thinking about rivers, and achieve a degree of consistency between what it does internally and what it expects its neighbors to do, and between its behavior toward its downstream neighbors and the behavior that it expects from China.

For the time being, India can draw some comfort from an official Chinese statement some time ago, which said that China had no plans for diverting Brahmaputra waters, giving three reasons: technological difficulty, major environmental impact and considerations of state-to-state relations. Those are not the statement's exact words, but, subject to correction, roughly what it said. The same three points were also made by Chinese academics at a conference in New Delhi two years ago, but one academic went further and said that the diversion was not needed because China has successfully lowered its water requirements. If true, there is a lesson in water management to be learned from China.

Finally, the Brahmaputra — the Yarlung Tsangpo — is not just a source of water and electricity to be fought over by India and China, it is part of life for Tibetans who have been living with the permafrost (the Third Pole) harmoniously and safeguarding it, but now face the melting of that permafrost due to global warming. They have the first right to the river. In our greed for natural resources originating in Tibet, we must not marginalize the Tibetans.

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