

Water talks' aftermath

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TWO-day Indo-Bangla Joint Rivers Commission (JRC) water talks recently concluded in Dhaka appears to have rated as comforts. The positive elements noted in the meet are namely, (i) India will concentrate more on implementing the peninsular component of its gigantic River Linking Plan (RLP) in the south rather than implementing that of the Himalayan having bearing with Bangladesh water resources, (ii) India will provide Bangladesh with flood-forecasting data at extended lead time, (iii) India and Bangladesh agreed to undertake the erosion protection works of the common rivers after joint inspection by the Ministers, (iv) the water of the Ganges and Brahmaputra wouldn't be diverted upstream, (v) India and Bangladesh will review the "Operational Implementation" of the 1996 Ganges Water Sharing Treaty under its provisions and, (vi) India will provide Bangladesh with detail plan of Tipaimukh Hydro-power Dam (THD) beforehand; with resolution of conflicts on sharing water underway. Satisfaction in any case is taken as a step forward.

Conflicts or disputes as understood by the politicians and the professionals over sharing of waters between Bangladesh and India had its genesis with the partition of the British India when the latter's plan to dam the *Ganga* appeared for the first time in national and international media in 1951; thus germinated the monologue. Following extreme floods back in 1954 and 1955 in the eastern region of Indian sub-continent dialogue between the two sides first held in September, 1955. The next meeting in 1960 at the expert level over the waters of the Ganges, Brahmaputra, Teesta and other rivers, after nine years of persuasion since 1951, remained limited to exchange of hydrological information. Consultation continued and, results conceded and compared to water flowing from source to sea was not wasteful.

Many world rivers have been used as the tools of political gains. The number of large dams world wide as such has risen from over 500 in 1950 to 38,000 to-day and the number of water course altered for navigation has grown from fewer than 9000 in 1900 to

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almost 500,000 now. India's rivers are already in grave condition after onslaught of over such 4000 large dams and diversions completed in the last 55 years and 400 under construction. Its latest RLP would connect 37 rivers transferring water from "surplus" to "deficit" basins. Under this gigantic linking project the Indian states of Uttar Pradesh and Madhya Pradesh have entered into a Memorandum of Understanding only recently on 25 August, 2005 for connecting the Ken and Betwa rivers to enhance irrigation and water supply of the states by dam-diverting water from abundance to stress followed immediately by another three rivers namely Parvati, Kalisindh and Chambal.

One of the Indian journals observe on diversion of the Ganges that, "from

being a river which supported inland trade and passenger traffic 150 years ago, the Ganges has become a silt-choked shadow of its former self. The British used it to ship their troops from Bengal to Kanpur and Delhi during 1857 War of Independence. Today, the Calcutta port is so silted up that crores of rupees have been invested to build another port at Haldia. It was to overcome the silting of the Calcutta port that the Farakka barrage was constructed to divert more water to the Indian stream. While Farakka has led to drastically reduced flows to Bangladesh and resulted in constant diplomatic attrition with that country, it has not been able to save the Calcutta port. Where has this water gone?" The Farakka diversion has been put to question.

Of the 54 trans-boundary rivers (3 more with Myanmar), Bangladesh has only one agreement for water sharing

on the Ganges. Indian High Commissioner to Bangladesh Smt. Veena Sikri at the concluding session of the international conference on regional cooperation on trans-boundary rivers held earlier in Dhaka on December 2004 referring to ADB statistics argued that India's per capita water resources are 2,200 cubic meters per annum only marginally above the water stress level. Bangladesh on the other hand with 19,600 cubic meters is much more favourably placed. The problem with Bangladesh is more the management of water, not the quantity. Indeed water resources management in Bangladesh, as the lower riparian country, is closely interlinked with and largely dependent on trans-boundary rivers having shared basins with India.

THD as a power generation

structure has made its headway towards construction across the river Barak in India on the arguments that it will not divert flow and, therefore may not have any impact on the lower reach in Bangladesh. Same arguments may apply in case of the Brahmaputra and the others. Acceptability of these arguments shall better be judged by the water experts but can be invalidated by giving cognisance to the simple hydrological relationship between surface water and groundwater. Huge trans-boundary groundwater resources has already been diverted by such intervention upstream un-noticed and untold. THD will now add to it.

Thomas E. Sowers II of Florida State University in a research on management of international river basins found that the manner in which the bordering countries manage international rivers greatly impact the international political relations. The countries that plan to maximise the basin-wide development, rather than the development within itself are more likely to have positive political interactions regarding other issues. On the contrary, the countries that attempt to focus solely on its own demands are more likely to become involved in more conflictual interaction with its fellow riparian. The study included Colorado, Danube, Niles, and Ganges. International river experts are therefore of the single opinion that bulk-volume water transfers in any case worsen social, economic and environmental problems instead of solving them.

JRC has all the way been mined and grown in an enclave with extreme privacy sans institutional linkage with the national think tanks; rather performing, allegedly, as the politician's billfold. The common people simply bruise their foreheads at its opaque role with a very low profile feeling that water sharing is a sensitive issue and that the upstream diversion shall have impacts. The institutional weakness of the commission impedes its performance to the satisfaction of the people and therefore, needs to be reformed so as to open avenues for participation by different stakes.

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Addressing the water crisis of Dhaka city

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THOUGH three-fourth of total surface of the earth remaining covered with water, this huge volume of water exists only to balance the natural order. Drinkable water registers less than three percent of the total water resource. Definitely it gives a warning how much austere and strategic should we be in using and dealing with water. Much dependence on surface water and less dependence on ground water ensures sound natural balance. As we are doing just the opposite, imbalance in the form of various disasters appears before us.

Rural population uses surface water, which is contaminated in various ways. They drink tube-well water though not all of them. Out of sixty-four districts the tube-wells of forty-nine districts have been identified as arsenic contaminated. Deep tube-well water is thought to be pure but most of the people don't have access to deep tube-well water. So, water crisis appears severe in rural areas as well.

Dhaka city experiences severe water crisis for its ten million population. It gets further acute during dry season. Really it is difficult to meet the necessity of this huge population. The concentrated population on a small area is normally problem prone. It again creates dangerous situation when voluminous amount of water is extracted from underground. We must find out new ways and means to replace this extracting of water from underground with immediate effect.

People belonging to all classes must be made fully and effectively aware of the water constraint. I can still remember how university students misuse water. Students shave for ten to fifteen minutes everyday and during this total period they keep the tap open to drain water for nothing. I got astonished to see this sort of 'awareness' of wasting water among the would be leaders of the country. The water we use is economic water as it is processed through different stages meaning huge cost. If all kinds of people are not careful and aware of the use of water, the crisis of water cannot be overcome.

The following ways may give us some solutions to ensuring drinkable water for city dwellers:

i. During rainy season from June to



October the adjacent areas of the city remain flooded with natural water (rain and flood water). During this period we can use this water without extracting water from underground. Some special mechanisms can be installed to rectify this natural water. WASA should take immediate steps to rectify this water. In this respect we can follow the good examples of Johannesburg

ii. Again everyday we use one crore litres of water. This used water can be used again through proper management. It is a must for saving our environment. We have engineers, water scientists and hydrologists to turn this polluted water into safe water.

iii. We have moderate to heavy rainfall during the rainy season. The rainwater can also be used through proper management in the city. Every big building can have a store for retaining rain water and purifying system. We can install following a local device.

The city corporation of Johannesburg satisfactorily met its water needs. It must be a good example for the city of Dhaka. Dhaka experiences serious water crisis particularly in the dry season. One fourth of its population does not have access to WASA supplied water. The WASA water collected from underground cannot meet the increasing need of the people.

Again continuous collection of huge amount of underground water from a concentrated area may invite disaster.

In Johannesburg the city corporation is supplying pure drinking water to its citizens. Every citizen gets six litres of pure water which can be used without boiling and purifying. In ten years time the city corporation has materialised the project. Citizens can have more water for which they need to pay through pre-paid billing system. But six litres they get free of cost. We must give serious thought to such matter.

We get water from WASA but it is not drinkable. To drink it we must boil it which necessitates extra consumption of gas and time meaning huge national loss. The Johannesburg city corporation has implemented such a plan as all the used water of the city is brought under this special programme. The separated filth from the water is used as fertiliser and the water is extremely purified so that the citizens need not boil it again. Dhaka City Corporation may immediately go for such a reusing method.

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