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Harnessing the Indus Waters
Perspectives from Pakistan

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The Indus Water Treaty (1960) brought to an end, the 12 year old canal water dispute and became the basis of resolving any water disputes which appeared after that. The treaty consists of three parts: the Preamble, twelve articles and Annexes A-H.

Almost, fifty years after the Treaty has been in signed, today, it is under stress. The following questions need to be addressed from an Indo-Pak perspective: Does the Indus water treaty address the issue of river waters between India and Pakistan today? What are the new issues/ problems emerging, in relating to water ? What specific measures need to be pursued to effectively harness the river waters? How do we address future water needs of both countries?

I
INDUS WATERS TREATY: A SHORT INTRODUCTION

The Indus flows through the north-west of India and Pakistan. It arises within Tibet from a holy lake called Mansarovar, the mouth of the lion. After rising in Tibet, the Indus runs north-west between the Karakoram and the Himalayas. In Kashmir, the river crosses the Line of Control (LoC) and enters Baltistan. The principal tributaries of the Indus in the west are Kabul and Khurram rivers, while its five main tributaries in the East are the Jhelum, Chenab, Ravi, Sutlej and Beas rivers. The British laid the foundation of the Indus Basin River System in the late 19th Century. The system did exist prior to the British annexation of the area but in a rudimentary form. The irrigation network constructed during the British rule, especially after 1885, was based on perennial canals which led off from river-spanning weirs and headworks.

Vast areas which had remained inaccessible under the traditional irrigation system were brought under cultivation by this canal system. In the Punjab, two major systems of irrigation were developed --- Bari Doab and the Sutlej Valey Project. originally designed as one scheme. With the partition of the subcontinent in 1947 , including the province of Punjab, the Indus system was also divided; while the headworks fell to India, the canals ran through Pakistan

With a view to attaining the most complete and satisfactory utilization of the waters of the Indus basin and recognizing the need for fixing and delimiting the rights and obligations of each country in relation to the other , both states, as a part of the Indus Waters Treaty agreed to:

- All the waters of the Eastern rivers, namely Sutlej, Beas and Ravi, shall be available for the unrestricted use of India except for domestic, non-consumptive and agricultural use by Pakistan. Pakistan shall receive for unrestricted use all those waters of the Western Rivers namely the Indus, Chenab and Jhelum. India shall be under an obligation to allow the flow of these waters and shall not permit any interference except for domestic use, non-consumptive use, agricultural use and generation of hydroelectric power.
- If a party is to plan an engineering work on any of the rivers, it will first notify the other party about its plan.

Indo-Pak dialogue on Conflict Resolution and Peace Building is an ongoing project of the Institute of Peace and Conflict Studies, New Delhi.

As a part of this project, the Institute is publishing a series of background papers on various Indo-Pak bilateral issues. Besides, the Institute is also organizing track-II dialogue between the two countries in October 2009. For more information about this project, kindly visit IPCS website.

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- A Permanent Indus Commission shall be constituted comprising one Commissioner as representative of each country. The Commission will meet regularly at least once a year alternately in India and Pakistan.

- Any question which arises between the parties concerning the interpretation or application of the Treaty shall first be examined by the Commission. If the Commission fails in reaching an agreement on the question then a 'difference' will be deemed to have arisen.

- A 'difference' at the request of either Commissioner shall be dealt with by a neutral expert; if the neutral expert informs the Commission that in his opinion, the difference should be treated as a dispute, then a 'dispute' will be deemed to have arisen. A court of arbitration shall then be established to resolve the dispute.

II
DAMS ON THE INDUS: MAJOR CHALLENGES

Almost all the disputes over water that have arisen between India and Paksiatn are about dam projects constructed or being constructed by one of the two parties. The negotiations over these issues involve divergent concerns and interests, based on their interpretations of the Indus Water Treaty. The major disputes have been over the following projects:

Salal Dam

After the signing of Indus Waters Treaty, the first dispute India and Pakistan were engaged in was over the construction of the Salal Dam by India on the Chenab River. Under the terms of the Treaty, India submitted its plan to the Permanent Indus Commission for Pakistan's approval in 1968. A run-of-the-river hydroelectric project, Salal was deemed crucial for the agricultural needs of the Indian Punjab and economic progress of the country. In 1974 Pakistan officially objected to the design of Salal project arguing that it did not confirm to the criteria for design of such hydroelectric projects laid down under the Treaty. During the course of the negotiations, several options were discussed for reaching to a final settlement including resort to the arbitration procedure provided in the Treaty. Finally, India agreed to make some changes in the design of the dam including reducing the height of the dam and to the permanent closure of the diversion canal after the hydel plant had been commissioned.

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The resolution of this dispute was hailed in both countries and is still quoted as a case of successful dilpomacy over water sharing between Pakistan and India due to the concessions made under the Salal Agreement signed in April 1978.

Wullar Barrage/Tulbul Navigation Project

The second challenge to the treaty came regarding the construction of the Wullar Barrage, as it is called by Paksitan, or Tulbul Navigation Project as termed by India. The dispute arose in 1984 when India began to build the barrage and navigational project at the mouth of the Wullar Lake on the River Jhelum. In 1986, Pakistan referred the case to the Indus Commission, and in 1987 work was halted on the project by India. The main point of dispute is that Pakistan views the project as a storage work while India claims that it is a navigational project. These divergent positions are further urged in the light of specific provisions of the Indus Waters Treay. For Pakistan, the project violates Article I (11) that prohibits both parties from undertaking any 'man-made obstruction' that may cause a change in the volume of water. Article III (4) prohibits India from storing any water on the western rivers. Further, sub-para 8 (h) entitles India to construct incidental storage work on the western rivers only after the design has been scrutinized and approved by Pakistan. Its storage capacity should not exceed 10,000 acre feet of water. Pakistan argues that the existing water level in the Wullar Lake is enough for small boats to navigate between Baramula and Srinagar, so there is no need to store additional water. It further argues that the dam's storage capacity was 32 times more than the 10,000 maf capacity provided under the Indus Waters Treaty.

India, on the contrary, contends that despite the broad principles governing the Treaty, India has been allowed, under certain conditions, to construct a barrage in the light of Article 3 (4) conditions, which are enlisted in Annex D and E of the Treaty. India views the project as an atempt to make the Jhelum navigable, not a reservior. Controlling water for navigation is permissible under the Treaty.

More than a dozen rounds of talks have been held to date over the construction of this barrage but it

remains the oldest and longest lasting water dispute between India and Pakistan.

Kishanganga Hydroelectric Project

The Kishanganaga project is another controversial water issue between the two countries. The 330 MW hydroelectric project is located about 160 kilometers upstream of Muzaffarabad and involves diversion of Kishanganga or Neelum River, as is known in Pakistan, to a tributary, Bunar Madumati Nullah of the River Jhelum through a 22-kilomtre tunnel.

Pakistani objections are based on the grounds that the project will have an adverse effects on the Neelam-Jhelum link project that Pakistan initiated in 1988. A second diversion of the water of Kishenganga river to Jehlum would ruin the Neelam valley in Pakistan. It is feared that the project could reduce Pakistan's total water availability from an estimated 154 maf to about 140 maf, a shortage of about 8-9 per cent. Further, it is also expected to reduce the flow of water in the River Jhelum in Azad Kashmir by 27 per cent, affecting power generation capacity of the 1.6 billion Neelam-Jhelum hydropower project in Pakistan.

By May 2004, India confirmed that it had started constructing some components of the project. On severe critisicm in April 2006, India offered to modify this project and submitted a revised plan in July 2006. In the revised plan India agreed to convert the storage and power generation project into a run-of-the-river project and construct pondage in accordance with the Indus Waters Treaty. However, Pakistan rejected the plan maintaining that the project still had objectionable aspects. Pakistan communicated these objections to India later in a detailed report. The issue figures on the agenda of talks every time between the two countries; however, bilateral talks have so far failed in reaching a settlement.

Baglihar Hydel Power Project

Located on the River Chenab in Doda district, the Baglihar hydropower project is one of the nine major hydroelectric projects identified by India on the Chenab. Divided into two phases, the project would install 900 MWs of electricity capacity. The design of the dam was submitted to Pakistan in 1992 and, without much delay, Pakistan protested over the design of the dam and demanded a halt to its construction. However, the construction continued as the two sides exchanged further details.

The Baglihar water dispute is the most specific of all these disputes between the two countries foregrounding their, fears, perceptions and dilemmas on water sharing. For the first time, the neutral expert clause in the Indus Waters Treaty was invoked. In May 2005, Raymond Lafittee, a Swiss civil engineer, was appointed by the World Bank as the neutral expert. After a detailed analysis of about 13,000 dams across the world, talks with both parties and visiting the dam site, he gave his verdict on Baglihar in February 2007. Both parties agreed to abide by the final verdict. Yet, this decision was not followed.

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III
IWT: INTERNAL PROBLEMS

Besides these dam project, there are several internal and regional issues that strain the Indus Waters Treaty. The most important is the view of the people in Jammu and Kashmir who see the Treaty as exploiting their rights by both India and Pakistan. And their call for its annulment as an economic liability. People of the northern areas in Pakistan are also opposed to n dam projects in Pakistan like the Mangla dam.

Second, hostile anti-Pakistan segments in India view the Indus Waters Treaty as giving undue concessions to Pakistan, which Prime Minister Nehru signed to 'purchase peace'. Since it did not bring peace to Kashmir, they want to revisit the concessions given to Pakistan under the Treaty.

Third, Pakistan also has serious problems regarding the sharing of Indus waters among its four provinces. This is evident with entrenched controversy being present in the country on every planned dam. The shortage of water has deep political, economic and social effects. For example, farmers in Sindh point their fingers at Punjabi landlords, and accuse them of 'stealing their share' of the Indus's water.

Finally, there are environmental and ecological changes which call for consideration. Because of climate change, the Himalayan glaciers are melting at an alarming rate. For water resources, this means an increase in water initially due to flooding. Within the next 50 years, however, experts believe there will be a 30 to 40 percent

drop in glacial melt because the glaciers will have receded. A strategy to create more storage capacity for water is the only option available, but one has to remember that glacial melt is not only water but also silt that will reduce the capacity of the reservoirs. This aspect has not been considered at the political level or at least has not gained prominence.

Essentially the following two features have shaped Pakistan-India water politics:

- The underlying concern of both states is the political aspects that water entails. This aspect is believed to be the catalyst behind the hydropolitics in which both countries are engaged. Thus, the discussion on water issues has always been there in almost every dialogue between India and Pakistan, and now it figures in the high level talks that reflects the dominance of water issues.

- Most of the time, Pakistan being the lower riparian follows up on these issues on sharing of waters more vigorously. It has objected to almost all the projects planned by India on the western rivers calling them a violation of the Indus Water Treaty. Nonetheless, India does not accept this view and takes defensive positions.

III
RECOMMENDATIONS

Keeping in view the different dynamics of the water problem, experts are talking of an Indus Water Treaty II both in India and Pakistan. One feels that this issue should be taken up seriously and negotiations on the Indus Waters Treaty II be taken up in good faith. If India and Pakistan take a political decision to restructure their relations, they will have to ensure that water serves as a link to bring them together, rather than taking them further towards conflict. Water needs to be managed as a commodity. It is essential to jointly set up an organization with representatives from both countries, whose functions would entail identifying short term and long term supply capacity of the basin and its integrated development, setting up of infrastructure and coordinating activities of the different technical agencies.

India and Pakistan should adopt a transparent approach to development problem relating to sharing water and invite interdisciplinary communications. Often, the findings of geologists escapes the notice of sociologists, anthropologists and economists, but the reverse is also true. Therefore, a holistic approach is required to understand the background and functioning of highly sophisticated irrigation systems.

Besides, it is time that India and Pakistan along with other countries in the region come up with conservation policies, instead of creating more storage, that they have focused on for long. Dams are environment issues of great complexity. They are expensive to build, involve destruction of habitat and heritage, and relocation of whole communities. They also need water, and storage strategy does not consider where the water to fill dams and reservoirs will come from. It is time for the strategy to harness our water resources to change from being a large-scale capital- and technology-intensive and environmentally degrading option to management-intensive and ecologically balanced development relying on indigenous technology.

Political considerations, of course, cannot be ignored while dealing with the water issue on technical grounds, especially keeping in mind the present distrust in India-Pakistan relations and their history of antagonism. Hence, the two countries should seek international support, perhaps again with the World Bank taking the lead to negotiate a sound water sharing and usage mechanism. Mediation in case of water disputes resolution has worked between India and Pakistan in the past and would solve another great concern -- financing the projects if India and Pakistan agree on something.