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A Triumph for the Indus Water Treaty: Transboundary Dispute Resolution in 1960

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ABSTRACT

During the partition of India and Pakistan in 1947, at the time of independence from Britain, the borders were drawn with little consideration to water resources. After nine years of negotiations, the Indus Water Treaty was finally signed on September 19, 1960, with the cooperation of the World Bank. This article presents important conflicts between India and Pakistan on sharing Indus water including, Wullar barrage, Baglihar dam and Kishenganga projects and their successful resolution. The treaty has withstood the test of time and has been successful in maintaining peace on sharing of Indus water between not so friendly nations India and Pakistan. The disagreement has been successfully contained by the Treaty's built-in mechanisms for conflict settlement at several levels, including the Permanent Indus Commissioner, Joint Secretaries, neutral expert, International Court of Arbitration, and UN.

***Key words**: Indus Water Treaty, Conflict resolution mechanism, India, dam, Pakistan*

Introduction

Ever increasing population and lack of adequate concerns for efficient water use particularly in developing world is presenting scenarios of severe water scarcity. This has resulted in an increasing demand for water resources in all sectors. The increasing scarcity of water leads to the desire for control of water resources, which in turn becomes a ground for breeding conflicts. These conflicts are manifested at interstate, intra-state levels and at country levels. Out of the seven South Asian countries, three, namely Pakistan, Bangladesh and Nepal, are involved in water sharing conflicts with India. The need for water is accentuated by the fact that these countries are mainly agrarian economies. These conflicts have not only hampered their economic development at the national level, but the region, as a whole, is not fully benefiting from the process of globalization. While sharing water resources has long been divisive, today's rising environmental, social, and financial costs of managing water exacerbate these tensions. Easing such tensions becomes imperative at a time when demands for water are rising. When water is shared by two or more countries, the obstacles to achieving efficient, equitable, and conflict-free management are even greater. Such are the situations between India and its neighbor Pakistan and among most of the nations of the Middle East.

However, the scarcity of water resources in some cases has been instrumental in developing cooperation among states. Cooperative incidents outnumbered conflicts by more than two to one from 1945-1999. The key variable is not absolute water scarcity, but the resilience of the institutions that manage water and its associated tensions. In some cases, water provides one of the few paths for dia-

logue in otherwise heated bilateral conflicts. In politically unsettled regions, water is often essential to regional development negotiations that serve as de facto conflict-prevention strategies. The Indus Waters Treaty between India and Pakistan is one of the few examples in South Asia, of the settlement of a major, international river basin conflict. However, the grievances of contracting parties, lead to the possibility that the present cooperation may turn into a future conflict.

Appropriate organizations should be established for the planned development and management of a river basin as a whole. Special multidisciplinary units should be set up in each countries to prepare comprehensive plans taking into account not only the needs or irrigation but also harmonizing various other water uses, so that the available water resources are determined and put to optimum use having regard to subsisting agreements or awards of tribunals under the relevant laws. There should be proper organizational arrangements at the national and state levels for ensuring the safety of storage dams and other water-related structures. The central guidelines on the subject should be kept under constant review for appropriate modifications. There should be a system of continuous surveillance and regular visits by experts[3]. Indus water treaty has a clear cut step wise policy of conflict resolution that has helped India and Pakistan in resolving conflicts and maintain calm despite many controversies on different projects on the tributaries of the Indus. The present article attempts to highlight major controversies and their resolution under the provisions of the Indus Water Treaty 1960.

The problem: Disputes between India and Pakistan

Following independence from Britain in 1947, India was divided into two separate nation states of India and Pakistan. During this partition, borders were drawn with little consideration to water resources. After nine years of negotiations, the Indus Waters Treaty was finally signed on September 19, 1960, with the cooperation of the World Bank. The Indus Waters Treaty between India and Pakistan is cited as one of the few examples of successful resolution of a major dispute over an international river basin. Though, limited freshwater resources, which are critical to agriculture and industrial development, remain an ongoing area of conflict between India and Pakistan.

Indus Water Treaty between India and Pakistan

The Indus Waters Treaty is a water-sharing treaty between the Republic of India and Islamic Republic of Pakistan, brokered by the World Bank (then the International Bank for Reconstruction and Development). The treaty was signed in Karachi on September 19, 1960 by Indian Prime Minister Shri, Jawaharlal Nehru and President of Pakistan Mr. Mohammad Ayyub Khan.

The Indus System of Rivers comprises three Western Rivers the Indus, the Jhelum and Chenab and three Eastern Rivers - the Sutlej, the Beas and the Ravi; and with minor exceptions, the treaty gives India exclusive use of all of the waters of the Eastern Rivers and their tributaries before the point where the rivers enter Pakistan. Similarly, Pakistan has exclusive right for use of the Western Rivers. Both the countries agreed to exchange data and co-operate in matters related to the treaty. For this purpose, treaty created the Permanent Indus Commission, with a commissioner appointed by each country.

The people of Jammu and Kashmir have demanded abrogation of the treaty as it restricts the use of the Western River waters which flow through their state. Regardless of what Pakistan may claim, the deal is kind to Pakistan. Only 20% of the water carried by the six rivers' combined flows through the eastern rivers, with the remaining 80% passing through the western rivers. Thus, Pakistan gets over $4/5^{th}$ of the Indus basin water. The treaty has well articulated provisions of right to water, data exchanges and permanent Indus commission in both countries besides stepwise procedure for resolution of any conflict arising in use of Indus water between two countries.

The Indus was divided between the two countries, with India receiving the three eastern and Pakistan the three western tributaries. This division deprived Pakistan of the original source of water for its irrigation system. In compensation, India paid for new canals to bring water from the rivers allocated to Pakistan and a consortium of countries financed the construction of storage dams to ensure Pakistan a reliable supply. At a price, the treaty defused a major source of potential conflict and allowed each country to develop its share of the basin's waters. While this longstanding treaty has governed their shared river resources, India and Pakistan continue to feud over interpretation of the agreement, with different development dam projects often serving as

a flashpoint for tensions. Conflicts/ differences in perceptions of both countries on some important dam projects are discussed in the following paragraphs.

Wullar Barrage Issue

Despite the signing of the 1960 Indus Waters Treaty, a major dispute emerged in 1985, when Pakistan learnt through a tender notice in the Indian press about the development of a barrage by the name of Tulbul Navigational Project. The barrage was to be constructed by India on River Jhelum, below the Wullar Lake located near Sopore, 25 km north of Srinagar, where the river Jhelum flows into the Lake in the South and flows out of it from the West. Pakistan views the geo-strategic importance of the site lies in the fact that its possession and control provides India with the means to intimidate Pakistan. Pakistan was thinking that a dam on that site has the potential to ruin the entire system of the triple canal project within Pakistan namely, the upper Jhelum Canal, upper Chenab Canal and the lower Bari Doab Canal. Triple canal system consists of Upper Jhelum canal, Upper Chenab canal and the lower Bari Doab canal.

According to the Indian Government, the purpose of the Wullar Barrage was to construct a control structure, with a view to improving the navigation in the River Jhelum during winters, in order to connect Srinagar with Baramulla for transportation of fruits and timber. India claimed that 90 percent of the Tulbul project would be beneficial to Pakistan, as it would regulate the supply to Mangla Dam, which would increase Pakistan's capacity of power generation at Mangla, as well as regulate the irrigation network in the Pakistani Punjab through the triple canal system. Pakistan, on the other hand, argued that India had violated Article I (11) of the Indus Waters Treaty, which prohibits both parties from undertaking any 'man-made obstruction' that may cause 'change in the volume of the daily flow of waters'. Further that Article III (4) specifically barred India, from 'storing any water of, or construct any storage works on, the Western Rivers'. According to subparagraph 8(h) of the Indus Waters Treaty, India is entitled to construct an 'incidental storage work' on Western rivers on its side only after the design has been scrutinized and approved by Pakistan; and its storage capacity should not exceed 10,000 acres' feet of water. Whereas the Wullar Barrage's capacity is 300,000 acres' feet, which is thirty times more than the permitted capacity. Regarding the building of a hydro electric plant, according to the Treaty, India is only allowed to construct a small run-off water plant with a maximum discharge of 300 cusecs through the turbine which is insufficient to generate 960 Megawatts of electricity as planned by India. India claims to have devised the project to solve the problem of navigation over a distance of 22km between Lake Wullar and Baramulla.

The Baglihar Dam issue

Under dispute since 1992, the Baglihar Dam on the Chenab River. The river runs from India directly through Jammu and Kashmir and then into Pakistan. The project entails a 144.5-meter concrete gravity dam with a 450-megawatt hydroelectric plant, with potential to expand to 900 megawatts. The project also includes substantial storage capacity and gated spillways that would allow for flood-control and reduction of sedimentation for the greater region. However, Pakistan has opposed the hydroelectric plant's construction, arguing that its design violates the Indus Water Treaty because of its potential to store or divert waters destined for Pakistan (Sahai, 2007). Formal talks between the two nations began in 2000 to address India's resolve to move forward with the Baglihar hydroelectric plant. [1]

Kishenganga dam issue

The dispute over the proposed Kishenganga dam also remains unresolved. Under the plan, India seeks to build a 330-megawatt hydroelectric plant on the Jhelum river in the Jammu and Kashmir region. Construction on the project began in 2007 and is expected to be complete in 2016. As with the Baglihar and Tulbul project, Pakistan claims the project violates the Indus Water Treaty because of its down- stream effects. Pakistani officials and environmentalists also argue that this project may "submerge vast tracts of land in the Gurez area and displace local residents". Though India has agreed to review the portions of the project to which Pakistan objects and both sides have gone through several rounds of negotiations, but without any concrete result.

Other controversial project issues

Pakistan has objected to other four hydel power projects proposed to be constructed by India in the Chenab basin in Jammu and Kashmir, claiming it could reduce flow of water into its territory, thus

depriving its agriculture of an essential input. These four projects include Ratle (850 MW), Miyar (120 MW), Lower Kalnai (48 MW) and Pakal Dul (1000 MW) hydroelectric projects on Chenab river. In June 2013, Indian Prime Minister Manmohan Singh had kick-started work on the Ratle project on Chenab river as part of efforts to tap hydroelectric potential in Jammu and Kashmir. The Miyar project envisages an installation of 120 MW capacity. The project component comprises construction of a 25-metre-high diversion structure, about 6.6 km long head-race tunnel, an open to sky restricted orifice surge tank and a surface powerhouse complex on the right bank of river Chenab near Udaipur town.

Role of Permanent Indus Commission (PIC)

In accordance with the treaty both India and Pakistan have each created a post of Commissioner for Indus waters. The two commissioners together constitute the permanent Indus Commission whose purpose is to establish and maintain co-operative arrangements for the implementation of the treaty, to promote co-operation between the parties in the development of the waters of the rivers and to settle promptly any question arising between the parties. The Commission is also required to undertake periodical inspection of the rivers for ascertaining the facts connected with the various developments and works on the rivers. The Commission meets regularly at least once a year. From 1960 to June 2007, the PIC held 99 meetings. During their meetings, the commissioners exchange data and information on the progress of their projects.

In fulfillment of the obligations of Indus Waters Treaty, India has supplied the requisite data of 30 Projects on Western Rivers including Small Plants, Run-of-River Plants etc. to Pakistan. Every month, the data with respect to the flows in and utilization of the waters of the rivers of Indus basin are being exchanged. Also every year before 30th November, India furnishes to Pakistan the data of irrigated cropped area (ICA) from the western rivers.

In addition to the mandatory tours, each commissioner can request a special tour to inspect any site along the river system. The Pakistani commissioner, for example, can request a special tour of construction sites inside India and the Indian commissioner must grant this request. Similarly, the Indian commissioner can request a special tour of construction sites within Pakistan, which must be granted. In the first 28 years of its existence, the PIC conducted 85 tours of inspection (Sharma, 1990). In March 2007, the commission conducted its 106th inspection tour of the river system.

Over the years, the commission negotiated the size of agricultural land that India is permitted to irrigate from the western tributaries. For Pakistan, this is an important issue because it directly influences the quality and quantity of water in these tributaries. The more land India is able to irrigate in Jammu- Kashmir, the lower the quantity and quality of water Pakistan receives. The dispute over whether it would be 2,80,000 or 2,60,000 hectares was discussed from 1960 until its resolution in 1982. According to the 1982 resolution, India can irrigate up to 2,60,000 hectares.

Consequently, they have negotiated, modified the design and overseen the construction of several major hydrological infrastructures built along the Indus river system during the past 46 years. These infrastructures include the Uri I (480 MW), lower Jhelum (105 MW), and Salal I and II (combined 690 MW) dams in Jammu-Kashmir. Since its formation, the PIC has maintained India's drainage systems, which collect the agricultural runoff and deliver it into Pakistan. To appreciate the importance of these drains, consider India's breadbasket, Punjab. Because the Indus River irrigates over 90% of landlocked Punjab and one-quarter of its land is waterlogged, upstream India is highly dependent on downstream Pakistan's maintenance of the drainage systems to prevent further water logging and salinization of otherwise fertile soil within Punjab (Dhillion, 1983). Currently, the commissioners are negotiating over the design and construction of several dams including the Dulhasti (390 MW), Kishanganga (330 MW) and Uri II (280 MW) dams.

Decisions are made by unanimous agreement, "the two commissioners have to agree or disagree in regard to a particular matter after discussions"[20]. In fact, when the commissioners disagree it is acknowledged in their report and the issue continues onto the agenda of future meetings until it is either resolved or the commissioners decide to initiate the conflict resolution mechanisms.

Bilateral Negotiations

Pakistan referred the Wullar Barrage case to the Indus Waters Commission in 1986, which, in 1987, recorded its failure to resolve it. When India suspended the construction work, Pakistan did not take the case in the International Arbitral Court. To date,

eight rounds of talks have been held. In 1989, Pakistan agreed to build a barrage conditional to Pakistani inspection, which India rejected. The two sides almost reached an agreement in October 1991, whereby India would keep 6.2 meters of the barrage ungated with a crest level of 1574.90 m, and would forego the storage capacity of 300,000 acre feet. In return, the water level in the Barrage would be allowed to attain the full operational level of 5177.90 ft. However, in February 1992, Pakistan added another condition that India should not construct the Kishenganga (390 MW) hydropower-generating unit. India refused to accept this condition. According to Pakistan, the Kishenganga project on River Neelam affected its own Neelam-Jhelum power-generating project, located in its Punjab province. The issue of Wullar Barrage was one of the disputes on the agenda highlighted for the Indo-Pak talks, both at the Lahore meeting in February 1999, and at the Agra Summit of July, 2001 (IUCN, 2010).

Five member Pakistan delegation with Pakistan Indus Commissioner visited New Delhi for discussions under Article VIII (5) of the Indus Water Treaty, 1960.The meeting was held at New Delhi from 22nd to 25th September, 2013. During the four-day deliberations, both the sides exchanged views on these four projects but no major headway was made between India and Pakistan on the water sharing issue during talks which concluded on September 25, 2013, barely three days ahead of the September 29 meeting between Indian Prime Minister Manmohan Singh and his Pakistani counterpart Nawaz Sharif on the sidelines of the UN General Assembly in New York.

Attempts at Conflict Management

When the commission is unable to resolve an issue, several conflict resolution mechanisms are available under the treaty. First, the issue is sent to member states' foreign secretaries for bilateral negotiations (Article-VIII, 1, IWT). During these negotiations, the Indus commissioners assist the foreign secretaries and negotiate the technical details. Once resolved, the agreement is sent to the PIC for implementation. If, however, the foreign secretaries fail to resolve the issue, the second conflict resolution mechanism is to appoint a neutral expert (Article-IX). A third path is to appoint a court of arbitration consisting of seven judges (Article-IX). To date, the states have resolved most of their questions within the PIC. However, one issue was resolved at the foreign secretaries' level, one difference was settled by a neutral expert, and the foreign secretaries are currently negotiating another issue.

India first envisioned the multipurpose Salal dams in the mid-1960s and in 1970; it presented their design to the PIC. The Salal project involved the construction of two dams, a diversion canal and a powerhouse across the Chenab River about 30 miles from the ceasefire line. After five years of negotiations and several visits to the construction site, the commissioners were unable to resolve questions over the dams' location, height, sluice gates and water storage. In 1975, the commissioners sent their questions concerning the issue to their foreign secretaries. Several rounds of fast-track negotiations took place in Islamabad and New Delhi. Two tracks of negotiations occurred during these meetings, one between the Indus commissioners and their team of engineers and the second between the foreign secretaries. In between the formal meetings, the Indus commissioners held four additional meetings and they drew on the PIC's institutional capacity to inspect the construction site. On the 21 October 1976 meeting, the foreign secretaries initiated an agreement. On 11 April 1978, a formal agreement over the Salal dams was signed. In this agreement, India conceded to lower the height of the spillway gates to 9 meters, not to deplete the reservoir's dead storage capacity and to permanently plug all sluice gates within one year of the reservoir's filling.

The Wullar Barrage/Tulbul Navigation project (WB/TN project) is another example of these states invoking the conflict resolution mechanism to manage a highly disputable matter. This project involves the construction of a 134-meter barrage, two under sluices and a 12-metre wide navigation lock at the outfall of Wullar Lake in the northern Kashmir Valley city of Ningli on the Jhelum River. As a former Indian High Commissioner to Pakistan during this period said, "this was an important project and there was great pressure to complete it". India hoped to achieve several objectives. First, it sought to improve the navigation for 22 km between two cities, Baramullah and Srinagar, from October to February, and facilitate the transportation of fruits and timber. Second, the barrage would permit the regular discharge of water and therefore ensure that the two lower hydropower plants the Lower Jhelum and Mohara can operate year round and at full capacity. Finally, India sought to build a large hydropower plant, capable of generating 900 MW, imme-

diately below the barrage.

India began constructing the WB/TN project in 1984, and since it envisioned it as work on a "natural reservoir" and outside of Pakistan's concern, the Indus Commissioner did not feel obligated to introduce the issue into the PIC. The PIC discussed the barrage in May, July and December 1986. The major question between the commissioners was whether the project involved storage work, as the Pakistani commissioner argued, or whether it was only a navigation project, as the Indian commissioner argued. India continued with construction of the project until July 1987, when, after completing more than 40% of the project, it conceded to Pakistan's request to halt construction. Meanwhile, discussions continued in the PIC throughout 1988. But the commissioners were unable to resolve several questions and by March 1989 they moved the issue to the foreign secretaries. The foreign secretaries, along with the Indus Commissioners, held seven rounds of negotiations and on the last round, held in October 1991, they reached a compromise. According to this understanding, India conceded that the barrage involved storage and agreed to use its allotted storage capacity under the IWT. India also modified the structure's design, agreeing to keep 6.2 meters ungated and maintain a fixed crest level. However, the parties could not agree on a related dispute that was incorporated into the negotiations, the Kishanganga dam; India wanted to build the dam and Pakistan wanted assurances that it would not be built. From 1992 until 1998, all negotiations over the barrage were halted. But, in 1998 the foreign secretaries agreed to restart the negotiations where they ended in 1992. The project remains under negotiation between the foreign secretaries and the Indus Commissioners.

For the first time, the PIC and the foreign secretaries with the PIC's assistance were unable to resolve questions over the design and construction of a dam along a western tributary, the Chenab River. The argument over the 450 MW Baglihar dam began in 1990 when the issue was taken up in the PIC. After years of negotiations over the structure's design, in 2003 the commissioners sent the issue to the foreign secretaries for further negotiations. With the participation of the PIC commissioners, the foreign secretaries negotiated over such things as the structure's storage capacity, the dam's height or freeboard, spillway gates and power intake level. In the Salal dams and WB/TN project, the Pakistani Commissioner feared that, as it currently stands, the Baglihar dam's design would increase India's capacity to control the Chenab river's flow and deprive Pakistani farmers of water during sowing season. Yet, for energy poor India, the US$ 1 billion Baglihar project is important for meeting its insatiable electricity needs and pacifying discontent within Jammu-Kashmir.

After several rounds of negotiations at the foreign secretaries' level and with the PIC's direct involvement, little progress was made. Unlike the WB/TN project, India refused to stop or slow down construction of the dam until a compromise was reached. In fact, according to reports, by 2005 a substantial portion of the project about 60 % of the powerhouse and 35 % of the reservoir was completed[15]. As provided under the treaty, when a stalemate in negotiations is reached, there is an option of referring the issue to a neutral expert. After a contentious meeting, on 15 January 2005 Pakistan formally initiated the neutral expert mechanism by notifying the World Bank that a difference arose. It is important to note that the decision to refer a difference to a neutral expert does not constitute a threat to the IWT, nor to the states' ability to maintain cooperation it is rather a mechanism available to resolve a highly contentious issue and enable the states to select the negotiation path in order to prevent defection from cooperation.

Role of the World Bank

Though senior government officials and even both head s of state met regarding the Baglihar dam project, no agreement was reached. On January 15, 2005, Pakistan appealed to the World Bank to name a neutral arbitrator who would formally rule on the compliance of India's design with the Indus Water Treaty. According to the IWT, the World Bank's role in facilitating the conflict resolution mechanism is to compile a list of individuals capable of performing the function of a neutral. Consistent with the IWT's procedures, the Bank delivered to India and Pakistan a list of three experts. From the list, a Swiss expert, Raymond Lafitte, was selected by the riparian states.

Neutral expert intervention

The neutral expert was asked to deliver decisions on six points of differences that existed between the riparian states over the Baglihar dam's design. Formally appointed on 12 May 2005, Lafitte promptly initiated his investigation by meeting with the ripar-

ian states in Paris on 9 and 10 June 2005. During the meeting, an agreement was reached that the riparian states would present their position to the neutral expert through a written memorandum followed by replies and rejoinders. After an exchange of memos, four additional meetings were held between the states and the neutral expert. Accompanied by the Indus Commissioners, the expert also visited the Baglihar dam's construction site and the dam's model in Roorkee. During these meetings and visits, the Indian and Pakistani delegations consisted of high-ranking government officials including ministers of water and power, water commissioners and lawyers and the Indus Commissioners.

On February 12, 2007, Lafitte delivered his decision to the Indian and Pakistani embassies in Switzerland. Lafitte recommended the reduction of the planned storage from 37.5 million cubic meters to 32.45 million cubic meters, the reduction of the free board from 3 meters to 1.5 meters, and the increase of the water intake by 3 meters. Lafitte also found the gated spillways to be in compliance with the Indus Water Treaty, international practice and state-of-the-art technology. The neutral expert's decision, according to the IWT, is binding on both states. India and Pakistan have agreed to comply with the decision India conceded to make modifications to the Baglihar dam and incur economic losses; the total additional costs for the modifications are estimated at approximately US$1,000 million. Pakistan's acceptance of the structure presents a potential loss because it increases India's ability to control the Chenab River's flow.

Mr. M.A. Salman (2008), lead counsel to the World Bank, notes, Pakistan "seemed to have viewed the difference as largely a legal one, involving the interpretation of the Treaty, while India seemed to have viewed it mainly as an engineering one, regarding hydropower plants." Though Lafitte ruled favorably toward India on three of the four main criteria, both nations claimed victory. Pakistan may have hostile view over to India regarding the construction of this dam but in reality India was under pressure to meet the water and power requirement of J&K and Himanchal Pradesh people. Changing climatic situations and population pressures, are putting tremendous pressure on India to meet its food and power requirement.

The Kishanganga hydroelectric project envisages a dam built on the Kishanganga River – a tributary of River Jhelum on the Indian side – that would divert a substantial quantity of water through a 22-kilomtre long tunnel to a hydroelectric project near Bonar Nullah – another tributary of the Jhelum in India. The water flow would then return to River Jhelum through the Wular Lake and then flow downstream to Pakistan. Pakistan had objected on the design and operations of the dam, which Pakistan said were in violation of the Indus Water Treaty. This conflict was referred to the International court of Arbitration for its resolution by Pakistan. There were three major appeals filed by Pakistan at ICA: first, the flow of water to be at a minimum of 10 to ideally 100 cumecs towards Pakistan's Neelum-Jhelum River; second, to permit Pakistan to have an access of monitoring of water; and last, restrict India to divert the water to its hydroelectric project near Bonar Nullah.

The International Court of Arbitration intervention

As of March 2009, the Pakistan Commission of Indus Water notified India that it would request a World Bank neutral arbitrator to resolve the conflict on Kishenganga project. The spokesman further clarified that Pakistan had sought from India an undertaking for construction in the light of international law which the latter had rejected. Pakistan then approached International Court of Arbitration on Kishanganga issue. The International Court of Arbitration (ICA) had issued an interim order on June 6, 2011, restraining India from going ahead with the controversial hydro power project over river Kishanganga in Gurez area of Jammu Kashmir. Under the ICA order, India will not construct a permanent structure over River Neelum / Kishanganga, as per statement issued by a Presidential spokesman. The media in Pakistan heralded the interim 'stay order' on the Kishanganga Dam project, stipulated by the International Court of Arbitration (ICA), but the media in India chose to focus on the fine print. "India can continue all but permanent works on Kishanganga: ICA," read *The Hindu*'s headline. "India can 'continue with all works' related to the Kishanganga hydro-electric project in Jammu and Kashmir except any permanent work on the riverbed that may inhibit restoration of the river's full flow," the paper quoted ICA's ruling as implying. However, both India and Pakistan did criticize the controversy created by the media, which it said stemmed from a lack of understanding of the legal issues.

In its final order on December 20, 2013, the court

upheld India's right under the bilateral Indus Waters Treaty to divert waters from the Kishenganga for power generation in Jammu and Kashmir. The court, however, decided that India shall release a minimum flow of nine cubic metres per second (cumecs) into the Kishenganga river (known as Neelam in Pakistan) below the project at all times to maintain environmental flows.

Although the decision is binding on both the parties and cannot be appealed, the court, chaired by Judge Stephen M. Schwebel (United States) decided that either India or Pakistan may seek reconsideration of the final order through the bilateral Permanent Indus Commission and the mechanisms of the Indus Waters Treaty after seven years from the first diversion of waters from the Kishenganga/ Neelam river.

Role of the United Nations

Kofi Annan, Secretary General, United Nations (UN) in March 2001 pointed out that Fierce competition for fresh water may well become a source of conflict and wars in the future. But the water problems of our world need not be only a cause of tension; they can also be a catalyst for cooperation…If we work together, a secure and sustainable water future can be ours. Water is a powerfully unifying resource, but because of its centrality to human life and our ecosystem, its management is generally diffused among the world's agencies and institutions. The UN is no exception. Water-related expertise is spread throughout the system, including such bodies as UNDP, UNEP, UNESCO, UNICEF, FAO, and the UN Economic Commissions, and partners such as the World Bank and the Global Environment Facility. The fragmentation of this impressive expertise has historically prevented the UN from taking the lead in water-related conflict mitigation.

By establishing a program of preventive diplomacy focused on water, the UN could coordinate its extensive but diffuse expertise. Such a program would assess basins at risk and bolster the early-warning process for regions with conflict potential. The UN would also enhance institutional capacity between nations (including reconciling national legal frameworks over water issues) and craft a "one-stop shop" with tools to develop programs to encourage transboundary cooperation. Through a global fund for water with special emphasis on understanding the Southern perspective and integrating conflict prevention units - the UN could improve water management and facilitation skills, reduce duplicate efforts, and use water to build confidence and prevent conflict.

UN should seek to strengthen the capacity of parties to negotiate contested water issues. Disparities in capacity and knowledge have often led to mistrust between riparian countries, hindering cooperative action. Strengthening the negotiating skills of less powerful riparian's can therefore help prevent conflict, as can strengthening their capacity to generate and authorize relevant data.

Conclusion

Both India and Pakistan are agrarian economies which rely on water to produce an ever-increasing amount of food for their growing populations. The Indus River System is a significant water source for both Pakistan and India. The Indus Water Treaty of 1960 has endured the test of time since it allowed India and Pakistan to peacefully manage the Indus River's flows. The treaty's built-in processes for resolving disputes at several levels, including the appointment of a Permanent Indus Commissioner, are what make it successful. Unresolved issues at PIC level are taken up by Joint Secretaries of both countries. In case of disagreement even at that level appointment of neutral expert, approaching International court of arbitration and UN with mutual consent has worked very well in keeping the conflict within manageable limits. The development of water conservation technologies and more effective modern water application techniques like drip and sprinkler irrigation systems have to be encouraged in light of the ever-increasing demands for Indus waters from both countries. In order to sustain regional peace and development, India must enter into agreements for the sharing of waterways with its neighbors.

Creative outcomes resulting from resolution process

In a creative avoidance of a potential and common conflict, the parties agreed that any data requested by either side would be collected and verified when possible, but that the acceptance of the data, or the inclusion of any topic for study, would not commit either side to its "relevance or materiality." Water was separated out from other contentious issues between India and Pakistan. This allowed negotiations to continue, even in light of tensions over other topics. Water problems were to be viewed as "func-

tional" rather than political. When both sides were unable to agree on a common development plan in 1953, the Bank suggested that each prepare its own plan, which the Bank would then inspect for commonalities. This active strategy to breaking impasses is currently being attempted with the riparians of the Jordan River watershed in conjunction with the multilateral working group on water.

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