



RESEARCH PAPER

Nature of India-Pakistan Water Disputes

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ABSTRACT

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This paper analyses India-Pakistan water disputes. It argues that India-Pakistan water disputes owes much to British colonial irrigation in the Indus basin. After signing the Waters Treaty in 1960, India began to build hydroelectric projects on the western rivers; the rivers the treaty had allotted to Pakistan. Pakistan objected to these projects because of its fears of downstream negative implications of the Indian projects. Pakistan not only feared the Indian projects to be detrimental to its downstream agriculture needs but its territorial integrity, as well as the water stored behind the walls of the dams, has the potential to be used as a weapon. India denied any such violation of the treaty as the treaty had allotted certain non-consumptive uses to India on the western rivers. Pakistan also fears that Indian assistance to the Afghan dams on river Kabul in Afghanistan is an extension of Indian hydro-hegemony from Kashmir to Kabul.

Introduction

The history of India-Pakistan water disputes dates back to British colonial hydropolitics in the Indus basin. As common with all the forms of colonialism, the British imperialists too had developed a vast water management infrastructure in India to extract more and more benefits from the natural resources of India. Their water management was motivated by security considerations, and much of the later problems and conflicts are viewed through this prism. The main objectives of British colonial masters to develop water management in the Indus water basin were as follows. First, the exploitation of Indian agriculture and enhancement of their industry in India. Second, massive food production to avert famines, third, increased taxation from the enhanced agricultural production.

Fourth, encouragement of a settled agriculture and thus securing their Raj in India. Fifth, demonstration of their scientific wizardry in controlling nature, and last, the creation of a new social elite which in return would augment the British Raj (Mustafa, 2007). Such a policy of water management through integrated rivers systems brought people into contact with one another. An environment of conflicting demands of different people came into existence, and water problems emerged at local and provincial levels (Miner, et al, 2009). However, when India was partitioned between India and Pakistan in August 1947, the local and provincial water disputes were overshadowed by India-Pakistan international water disputes.

This research paper investigates the nature of India-Pakistan water disputes. It is divided into five sections. Section one analyses the partition of India and its implications for India-Pakistan water disputes. Section two explains the Indus negotiations which resulted in the Indus Waters Treaty in 1960 and the nature of the Treaty. Section three explains Pakistan's apprehensions against the Indian dams on the Indus and Indian responses. Section four analyses the dispute of the cumulative storage of the Indian dams and its downstream implications. Section five discusses Pakistan's fears against Indian retention of waters from the eastern rivers and Indian assistance to Afghan dams on river Kabul; a tributary of the Indus.

The Partition of India and its implications for India-Pakistan Water Disputes

The Indus and its tributaries flow from India to Pakistan, therefore, makes India as upper riparian and Pakistan the lower riparian. When India was divided in August 1947, it also divided the hydro-resources between India and Pakistan and created water disputes between the two states (Miner, et al, 2009). The division under Sir Cyril Radcliff was based on religious grounds and was too unimaginative, hasty, and surgical, and that no attention was paid to the division of water resources and its implications for future conflicts (Iqbal, 2010).

The division was made in such a way as the headwaters of the river lay in India, and out of 26 million acres of land being irrigated by the Indus river basin, 21 million happened to become part of Pakistan, whereas the rest went under the jurisdiction of India. Being an upper riparian, India got the capacity to interfere with the flow of rivers flowing into Pakistan to irrigate its vast lands. The division of India had repercussions for the earlier local and provincial level conflicts as well. Water disputes before the division of India were predominantly amongst the provinces. With the creation of India and Pakistan as two separate states, these inter-provincial feuds were overtaken by inter-national water disputes, and inter-provincial disputes, though they still existed, crept to the back burner (Mustafa, 2007).

The Indus Waters Treaty

To maintain order between the two newly born states of India and Pakistan till the institutionalization of new agreements, an agreement- the Standstill Agreement- was reached. The agreement was incorporated into the India Independence Act of 1947. With its expiry on April 1, 1948, India stemmed few canals flowing from India

to Pakistan. This act was protested by Pakistan and was a great source of tension for the farmers of West Punjab. On May 4, 1948, an interim agreement- the Inter Dominion Accord (Delhi Agreement)-was reached according to which India had to release enough water to meet Pakistan immediate needs and Pakistan in return had to pay annual payments for the maintenance of the flow of the water (Iqbal, 2010).

Pakistan considered the agreement to be a forceful one and therefore rejected it in the early 1950s. No further negotiations were conducted on the water question till 1951 when International Bank for Reconstruction and Development (The World Bank) offered to find a permanent solution to the problem. After nine (1951-1960) years of lengthy and hectic engagement, both the states signed the Indus Water Treaty (IWT) on September 19, 1960, by the then president of Pakistan, Ayub Khan, and prime minister of India, Jawaharlal Nehru, in partnership with World Bank and financial aid from the USA, the UK and other capitalist states (Swain, 2009).

The IWT defined and fixed the contending water rights of India and Pakistan and is, therefore, believed to be a remarkable achievement as it settled a serious water sharing issue. Its main features are discussed as follows. First, the treaty divided the Indus river system and its canals by giving the control of the three eastern rivers- the Sutlej, Biyas, and the Ravi- to India and the three western rivers- the Indus, the Chenab, and the Jhelum to Pakistan. Second, despite division, both the nations were allowed to use the other party rivers for irrigation, non-consumptive uses, domestic uses, and hydroelectric power generation.

Third, India was granted the right to have storage infrastructure of non-consumptive nature on the western rivers. Fourth, governments of both India and Pakistan were asked for the exchange of data every month. Fifth, India was permitted to construct hydroelectric projects on the western rivers with the agreement of Pakistan. Sixth, a Permanent Indus Commission (PIC) was created whose functions included sharing of information and tackling questions coming out of the IWT. Seventh, the treaty gives a detailed procedure for the resolution of disputes. If an issue emerges, then it has to be addressed by PIC. If it fails, then the case is to be referred to a Neutral Expert (NE). If NE fails to resolve the issue, then the dispute would be resolved either through its reference to a Court of Arbitration or by an agreement between governments of the two nations (Iqbal, 2010).

Indian Dams on the Indus: Pakistan's Apprehensions, Indian Responses

IWT is successful in many aspects as the treaty survived many upheavals and wars in Indo- Pak relations. There was no serious discontent over water issues till 1980. However, afterward, many Indian projects like the Wullar barrage/Tulbul navigational project on river Jhelum, Swalakote, and Dal Husti hydroelectric projects on River Chenab became controversial. Most recently, the Baglihar hydroelectric project on river Chenab and Kishenganga hydroelectric project on the Kishenganga or river Neelum has become highly controversial, which has pushed the IWT towards

choppy waters. Following are the details of the projects which are disputatious between India and Pakistan (Sinha, 2010).

Baglihar Dam

Baglihar dam is an Indian project on river Chenab near Dhoda District of Jammu and Kashmir, located 60 miles upstream from the border of Pakistan. The power capacity of the Baglihar hydroelectric project is 450 MW and 900 MW during phase I and phase II, respectively. The IWT grants India the right to construct non-storage structures-run-of-the-river projects, without altering or influencing the flow of the rivers allocated to Pakistan (Bisht, 2011). India started construction on the Baglihar dam in 1999. Pakistan objected to the project in 2004. In January 2005, Pakistan forwarded its objections to the World Bank.

Pakistan condemned the project on the basis that the project is not in conformity with the criteria of paragraph 8 of Annexure D to the IWT. These objections are discussed as follows. First, Pakistan stated that the design of the project is meant to raise the water level above the full bondage level, which is prohibited by the criteria of the treaty. Second, Pakistan objected that the bondage in the operating pool is more than twice the poundage necessary for firm power allowed by the criteria. Third, Pakistan objected that gated spillways were not necessary. Fourth, Pakistan objected that if the spillways are required, they shall be surface gated spillways, and the bottom of the spillways shall be at the highest level.

The mentioned criteria of the treaty recommend that if gated spillways are necessary, their location should be structured in such a manner as the lower level of the spillways shall be at the highest position. Fifth, Pakistan raised objections in this regard on the basis that the location of the intake for the turbine is not at the highest level. This contradicts the treaty, which says that the intake location shall be at the highest position and in conformity with the economic construction and functioning of the plant as a run-off-river plant. Last, Pakistan objected to the Probable Maximum Flood of 16500 cusec as well. Both the states tried their level best to resolve the issue through bilateral negotiations but to no avail. When the mutual negotiations failed, on January 15, 2005, Pakistan invoked the treaty and asked World Bank to appoint a NE so to resolve the difference (Mohammad, 2011).

It was the first time in the history of water disputes between India and Pakistan that a water issue was referred to a NE. Raymond Laffite- a Swiss Civil Engineer Professor of Swiss Institute of Technology in Lausanne-was appointed by the World Bank as NE to look into the issue. In February 2007, Laffite gave his decision. The summary of the Laffite decision is as follows. First, the poundage capacity was reduced from the Indian proposed level of 37.7 MCM to 32.58 MCM. Pakistani proposed level was 6.22 MCM. Second, the height of the freeboard was reduced to 3 meters as against the Indian claim of 4.5 meters and Pakistani proposal of 1.5 meters. Third, India was permitted to construct gated spillways as necessary for de-sedimentation and flood control as against Pakistan claim that gated spillways are not necessary.

Fourth, the lowering of the spillway by a further 8 meters even then the level proposed by India was recommended as against the Pakistani proposal of at the highest level. Fifth, the Indian figure of 16,500 cusecs of the Probable Maximum Flood was accepted as against Pakistani proposed one of 14,900 cusecs. Last, water intake was raised to 821 meters as against 818 meters designed by India and at 835 meters asked by Pakistan. The Laffite award was not that much in Pakistan's favor. Though both India and Pakistan claimed their respective victories, as a report in *The News* mentioned that, "The common people found it strange as to how a ruling could simultaneously satisfy two conflicting claims" (Bisht, 2011).

In 2008 the dispute once again emerged when India started filling the dam in the dry season in August 2008 and continued till September 2008. Pakistan lost nearly 2 MAF of water between August 25 and September 4, 2008, inflicting a heavy loss of Rs 23 billion on Pakistani agriculture. Pakistan objected that the reduction in the flow of water and the timing of the filling was a clear violation of the treaty as according to the IWT, India must maintain a minimum of 55,000 cusecs of water above Merala and that the filling must be done from June 21 till August 31, 2010, whereas the filling continued till September. If the filling had been started in July as against August, the water level would not have dropped (Bakshi & Trivedi, 2011).

Iyer, an Indian water expert, responded that the filling was exactly stopped on August 28. However, he concedes the second argument that the filling reduced the flow to 20,000 cusecs above Merala. Indian side further defended itself that the filling could not be initiated in July because the construction was not completed till July. Since it was completed in August, that's why India had little choice in this regard. If the dam was not filled in August, then they would have waited for a year. Further, India pleaded that it was a one-time shortfall that remained only for a single day and therefore shall not be considered a violation of the treaty. However, the issue was resolved through negotiations as India assured Pakistan to remain careful in the future and pledged to chart a proper procedure of consultation for filling the dam and avoid such controversies.

Wullar Barrage

Wullar barrage or Tulbul navigational project was started by the state of Jammu and Kashmir on river Jhelum in 1984. The barrage is located 25 km north of Srinagar near Sopore in the Indian Held Kashmir below Wullar Lake. The project comprises a 439 ft long barrage along with a gated weir, under sluices, and a 12-meter wide navigational lock on the opening of the Wullar Lake. Its maximum storage capacity is 0.30 million acre-feet and has a power generation potential of 960 MW. Dispute on the barrage surfaced in 1984 when Pakistan came to know about it through a tender notice in newspapers. Pakistani ambassador to India registered a complaint against the Indian government in this regard in February 1985.

Pakistan filed its complaint on the basis that the project violates the IWT. The treaty asks for allowing unrestricted flow of the western rivers except for domestic,

non-consumptive, agriculture, and hydro-electric generation uses. Annexure D of the IWT provides that India could utilize the waters for hydro-generation. Similarly, Annexure E stipulates that a barrage not exceeding 10000 acre-feet could be built on the Jhelum main and Chenab main. Pakistan objected to the project that its capacity is 300,000 acre-feet which violated the IWT. Pakistan leveled additional objections against the project, which are discussed as follows (Thapliyal, 1999).

First, Pakistan calls it "Wullar 'barrage'," as is shown by the design of the project and claims its purpose is storage. Second, the IWT doesn't allow India to construct storage works on the Chenab and Jhelum more than 10000 acre-feet (0.01 MAF) whereas the capacity of the Wullar barrage is 300,000 acre-feet (0.3 MAF). Third, it affected Pakistani entire triple-canal project consisting of the upper Chenab canal, upper Jhelum canal, and Lower Bari Doab canal. Fourth, it would empower India to control the flow of the river Jhelum during the winter season. Fifth, it would adversely affect the downstream Mangla dam in Pakistan and consequently its hydroelectric production and irrigation capacity. Sixth, it would affect Pakistan's Neelum Jhelum project. Finally, the barrage could be used to hamper Kishenganga waters which could convert 5.6 million acres of Punjab lands into a desert. Since it would affect the flow of the Indus, therefore, the irrigation in the province of Sindh would also be affected.

India defends the projects on seven main arguments, which are as follows. First, India calls it the "Tulbul 'navigational' project" to control the water to make the river navigable in the lean months from October to February. During the lean period, the river becomes non-navigable as the flow of water reduces to 2000 cubic feet per second and the depth to 2.5 feet. Second, the barrage is for navigation and is meant for the welfare of the people of Jammu and Kashmir to manage trade between Baramulla, Srinagar, and Anantnag. Third, the project would be modified in accordance with the conformity of the IWT. Fourth, instead of decreasing water flow in Jhelum, it would augment the flow during the lean months of the year (Bakshi & Trivedi, 2011).

Fifth, it would enhance the capacity of the power projects downstream and would also buttress the triple canal system. Sixth, it would enhance Mangla dam of Pakistan as 40 % of its capacity has been lost due to silting. India further claimed that 90 % of the project would benefit Pakistan as it would regulate the flow of the Jhelum. Seventh, it would make the irrigation network efficient in Pakistan. As it would provide salt-free water and regulate and control flood downstream on which Pakistan has spent Rs 87 billion since 1978, therefore, Pakistan should also bear its expenditure.

Invoking the arbitration clause of the IWT, Pakistan referred the issue to the PIC in 1986, but the commission failed to reach an agreement. The issue was then referred to World Bank the same year but favored India and let her carry on its construction. Pakistan then sent the case to the Court of Arbitration in 1987. The court asked India to stop construction on the project, and India suspended construction on the project in 1987. The issue has been under discussion again since 1987, and after eight rounds of talks, both sides agreed on a draft agreement in October 1991. India agreed to the following modifications in the agreement.

First, it was agreed that for the Tulbul navigational project 6.2 meters of the structures would be kept un-gated, having a crest level at 15490 meters. Second, 0.30 MAF of the general capacity would be foregone as permitted to India on river Jhelum (Annexure E of the IWT). Third, the project was allowed to obtain its full operational level of 5177.90 ft each year, and filling of the lake would be done below the Dead Storage Level. In case the PIC doesn't reach an agreement, then India could fill it from June 21 till August 20. Fourth, India will have to let the flow of the Jhelum unhindered except for the uses specified in the IWT and provisions of the 1991 agreement on the Tulbul navigational project. Yet, the 1991 draft didn't materialize into an agreement. Recently, Pakistan put forward a new draft on the issue, whereas India is insisting on moving forward on the basis of the 1992 negotiations. Till 2010 India and Pakistan conducted 13 rounds of secretary-level talks, but the issue is still unresolved, and the construction on the project has been suspended since 1987 (Mohammad, 2011).

Kishenganga Project

Kishenganga project is located in the Indian held Kashmir on river Jhelum 160 km upstream of Muzaffarabad, Azad Jammu and Kashmir (AJK). Its features, as envisaged in the proposed project, include the construction of a concrete dam having a length of 268 meters and a height of 75.48 meters. The dam would be having a reservoir capacity of 0.18 MAF and power storage of 0.14 MAF. The project through a tunnel of 22 km would divert waters for roughly 100 km. It would take water from the most significant tributary of the Jhelum known as Kishenganga in India and Neelum in Pakistan to another tributary called Bunar-Madmati Nallah.

The increased flow of the Bunar-Madmati Nallah would produce hydroelectricity at a 330 MW powerhouse located at Bunko. According to reports, the tunnel has been completed, whereas the hydro powerhouse will be completed by 2016. The tributary would then join the main Jhelum River flowing through the Wullar Lake near Bandipur town in Baramula district of the Indian Held Kashmir (IHK) instead of the original rendezvous of the Neelum and Jhelum at Domail. Domail is the site of the 969 MW Neelum Jhelum hydel project near Muzaffarabad in the AJK.

Pakistan criticizes the project on ten grounds. First, the diversion of one tributary to another violates the IWT as it asks for 'the maintenance of the natural channel (Iqbal, 2010). Second, the project would affect the downstream eco-system and irrigation of 133,209 hectares of land in the Neelum valley. The lives of 600,000 people being associated with agriculture and fisheries would be affected. Third, the entire valley of Gurez would be submerged. Fourth, it would decrease 11 % of water flow downstream in summer and 27% in winter. Fifth, it would adversely affect the 969 MW Neelum Jhelum hydroelectric project's potential by 11-16 % which is to be completed in 2015, one year before the Indian project.

Sixth, it would decrease the total availability of 154 MAF of water downstream. Seventh, the downstream Mangla dam storage capacity would also be affected negatively due to such a decline in water flow. Eighth, the Pakistani project of Neelum

Jhelum project has acquired favor as per the feasibility study. Ninth, the spillways are not necessary for the project, and their location must be lower than the Indian proposed one. Last, India is not sharing information with Pakistan, though as per the treaty, both the nations are required to share it six months before the actual starting of project construction (Iqbal, 2010).

India contends that there are three objectives of the project. First, to increase Uri hydel power project potential further by the increased flow of the river, second, to raise the level of water in Wullar Lake in the lean months and third, to provide electricity to the Indian states of the Punjab, Chandigarh, Himachal Pradesh, Rajasthan, and Delhi. Interestingly, India provides eleven points in its defense for the project. First, annexure D of the IWT allows for the inter-tributary diversion for hydel projects. Second, India made major changes in the project in 2004 to suit Pakistani objections. Third, the quantity of water would remain constant as before. Fourth, the project (in relation to Pakistan's Neelum Jhelum project) authorized first would be given priority.

Fifth, the spillways at the height proposed by India are necessary for desiltation, maintenance, and efficiency of the dam and technical soundness, as shown by the Baglihar case NE decision. Sixth, the spillways are to stop the flow of the silt downstream. Seventh, to prevent the submergence of the Gurez valley, certain modifications in the project have been made in 2006 as its height has been reduced to 37 meters from 77 meters, its live storage capacity reduced to the level permissible by IWT to 8 MCM from 174 MCM.

Tenth, Pakistan has initiated the Neelum Jhelum project in 2008 without signing an agreement with the AJK govt. and getting a NOC from the environmental protection agency (EPA) of the AJK (Wolf, 1998). Therefore the Indian project is preferable to the Pakistani Neelum Jhelum project. Eleventh, after taking a thorough study of the impacts on the ecology of the areas surrounding the river Neelum, India would arrange for its remedies through other alternatives. Next, India assured Pakistan of the sharing of information. Last, adopting a different approach to dispute resolution by skipping the NE this time would be wastage of time, spiralling up of costs, and the delay and suspension of both Indian and Pakistani projects. The Indian price on the Kishenganga project soured to 68 % and Pakistani on the Neelum Jhelum project by 98% as estimated.

Pakistan came to know about the project in 1988 though India officially acknowledged it in 1994. In May 2004, negotiations went ahead between the two states after the Indian promise of suspension of work on the project to assuage Pakistani objections. From November 2004 till November 2005, five meetings were held but to no avail. In 2006 India produced the revised plan, but Pakistani rejected it. Pakistan is still objecting to the diversion of the river. According to a report in *The Nation* in 2010, the fresh rounds of talks between the two nations were termed failed as the earlier ones. India is insisting on a bilateral approach toward the issue, whereas Pakistan insists on the involvement of the World Bank. Therefore, for the first time in the history

of water disputes between India and Pakistan, Pakistan involved the Court of Arbitration.

Pakistan recommended Bruno Simma of the International Court of Justice (ICJ), and Jan Pauson, Head of Norwegian International Law Firm, as its nominees. From the Indian side, the nominees were Peter Tomka, Vice President of ICJ, and Lucius Cafilisch-a Swiss Professor at the Graduate Institute of International Studies. However, both the countries rejected their mutual nominees. On Pakistan's appeal, on September 25, 2011, India was asked by the Court of Arbitration to stop working on the Kishenganga.

Other Dams and Projects

Along with the aforementioned controversial dams and projects, there are other dams-some sources fix the number of such disputed dams at 100 which is adding to the present Indo-Pak water disputes. A brief account of some of the major dams already constructed or under construction is as follows. First, Salal Dam. Salal dam is a medium-size dam located downstream of Baglihar on river Chenab. The dam was built in 1987. Second, Dul Hasti. Indira Gandhi initiated Dul Hasti hydel project in 1983. It was damaged by Kashmiri freedom fighters in 1990 however completed, and its test runs were conducted in 2007. The Dul Hasti project consists of a diversion dam at Dul and a powerhouse at Hasti on river Chenab. Its gated spillways are a source of fear for Pakistan. Third, Tawi-Ravi Link. India has built the Tawi Ravi link canal to lift water from river Tawi, a tributary of the river Chenab-one of the rivers belonging to Pakistan and pour it into river Ravi (Shah, 2012).

Next, Nimoo Bazgo Dam. Nimoo Bazgo dam is located 70 km from Leh on river Indus. It is a 187 meter high gravity dam that was initiated in 2006 and is planned to be completed in 2010. This dam, too, is controversial as India claims it to be a run-of-the-river project whereas Pakistan contests it. Moreover, no data has been published by the Indian side on the project. Fifth, the Dumkhar Hydel Project. The Dumkhar hydel project too is located near village Dumkhar on river Indus 128 km from Leh. It's a 42 meters high concrete dam that has two diversion tunnels. No doubt the project is a run-of-the-river one, yet the water's diversion would affect the downstream flow of water. Similarly, no data on the project is available.

Sixth, Chutak Hydel Project. Located near Kargil airfield, the Chutak hydel project is under construction on river Suru. River Suru is a significant tributary of the river Indus. Seventh, Pakal Dul project. According to an MOU signed on October 10, 2008, Pakal Dul and two other projects will be built on river Chenab and its tributaries. With a gross storage capacity of 125.4 MCM, the Pakal Dul project is located on river Marusadar-a tributary of river Chenab- in the Doda district of Jammu and Kashmir. It's the first Indian dam with a reservoir and is therefore controversial (Shah, 2012).

Eighth, the Bursar Dam. The Bursar dam too is proposed in Doda district on river Marusadar. It's the biggest project amongst many of the projects on river Jhelum

and Chenab. Its height is 252 ft, and its generation capacity is 1020 MW. According to Pakistani objections, the project would decrease the flow of water by 2.2 MAF downstream. Alongside the project would inflict great ecological damage and submerge a considerable portion of land, and the population of the Hanzal village would be displaced entirely.

Similarly, the Pakistani side claimed that the project would have serious ramifications for the wildlife of the locality. However, the Indian media or the concerned authorities have not yet commented on the issue. Next are the Uri-I and Uri-II Power Projects. Located in the Uri town of Baramula district in JHK on river Jhelum, the Uri-I has a dam of 52 meters in height and 152 meters in length with four spillways. Indian side claimed the project to be a run-of-the-river, whereas Pakistani contended it and objected upon its ecological and other local side effects. The Indian government has also envisioned Uri-II, which would be built downstream of Uri-I.

The Cumulative Storage

Pakistan fears that the individual projects discussed above may be well per the provisions of the IWT. Yet, their cumulative storage capacity may drastically reduce water flow in the rivers allocated to Pakistan under the IWT. According to a World Bank official, John Briscoe's article "*War or Peace on the Indus?*," "if Baglihar were the only dam being built by India on the Chenab and the Jhelum, this would be a little problem. But following Baglihar is a veritable caravan of Indian projects Kishengaga, Swalakote, Pakadul, Bursar, Dul Hasti, and Gypsa, the cumulative storage will be large, giving India an unquestioned capacity to have a major impact on the timing and flows into Pakistan".

The same issue of cumulative storage was raised by a report from the US Senate in February 2011. According to the report, India is building 33 projects on the western rivers whose cumulative storage could be of great concern for Pakistan. The Indian side responded that the number of projects was not essential but the design. B.G Varghese- a researcher of the Centre of Policy Research-denied such an impact by arguing that "there is no drying up because the run of the river projects depletes water only at filling time of new dams. Whether there are 50 or 100 it doesn't matter. You can't store running water" Similarly, Jammal Ali Shah, Pakistan's Indus Water Commissioner has confirmed this Indian stance in one of his interviews in April 2008 by saying that so far, India has not constructed any storage dam, and all of their hydel projects are run of the river ones which are permitted according to the IWT.

Indian Retention of Water from Eastern Rivers and Assistance to Afghan Dams on River Kabul

The Ravi, Biyas, and Sutlej constitute 20 percent of the water of the Indus river system. The IWT granted these eastern rivers to India, yet Pakistan could also utilize its waters for a limited purpose. However, its flow has been retained by India to the extent that these rivers have almost lost their dynamic flow, and virtually these rivers are of no use for Pakistan. In the case of the Ravi, its flow often equals the wastes and

sanitation of Lahore, and that's why it has been termed a "large open sewer" by the Wildlife Fund Pakistan.

In its drive for reconstruction in the wake of American invasion, Afghanistan planned to build 12 dams on the river Kabul. To construct these dams, India and World Bank extended their help. These dams are a source of tension for Pakistan. Pakistan fears that since she is the lower riparian of river Kabul (it also claims to be the upper riparian) therefore any such structures would be having adverse effects upon the downstream flow of water. Pakistan objects the Indian assistance to Afghan dams as the Indian drive for water hegemony extending from Kashmir to Afghanistan.

This issue of Indian assistance to Afghanistan in dam constructions was first brought to the fore by Arshad H Abbasi-a, water expert from Sustainable Development Policy Institute, Islamabad- by writing a letter to Pakistan's President Asif Ali Zardari and Prime Minister Yousuf Raza Gillani. Indian side justifies their help on the grounds that all the Afghan projects which India would assist are located in Panjshir and Logar sub-basins and not in the Konar sub-basin, which is fed by the Kunar River originating from Pakistan. Moreover, it is also argued that Kabul-due to extensive warfare- has not developed storage facilities for irrigation and hydel needs and is therefore in need of such a development. Similarly, the storage capacity is also important for the prevention of drought and floods.

Conclusion

This paper analyzed the nature of water disputes between India and Pakistan. The paper argued that India-Pakistan post-partition water disputes owed much to the British colonial irrigation practices in India. When India was partitioned, the newly independent state of India began to claim the waters that run through its controlled territories. Pakistan resisted Indian claims which ensued in water disputes between India and Pakistan. After a long series of World Bank led mediations, the Indus Waters Treaty came into existence in 1960. The treaty awarded the three eastern rivers to India and the three western rivers to Pakistan. India was also granted the right to use the western rivers for certain purposes, especially hydro-electric generation.

When India started constructing different hydel projects on western rivers in the state of Jammu and Kashmir, Pakistan objected these projects on the grounds that these projects were against the Indus Water Treaty and have caused negative impacts downstream in Pakistan. Moreover, Pakistan considers the Indian projects as a threat to its national integrity and the agriculture-based economy as these projects could be used as a weapon by upstream India. India assures Pakistan of no such intentions and defends the projects as in conformity with the Indus Water Treaty. Moreover, Pakistan also fears that India is pursuing hegemonic designs on the Indus by retaining waters from the eastern rivers as well as extending assistance to Afghan dams on river Kabul which is an important western tributary of the Indus.

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