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Water Issues and its implications Over India-Pakistan Relations

Abstract

This paper attempts to find out the water issues between India and Pakistan and its implications over relations of these bilateral states. This study investigates the conflicts over constructing dams or water storages on cross boundary rivers for example the building of Baghliar Dam, Kishanganga Plant and Wullar Barrage by India and also investigates Pakistan's response to these projects, judgment of intercontinental Court of Arbitration, responses of both sides and confidence building measures signed regarding the issue. This study explores that the water issue would prove disastrous if it was not solved in time. For peace in South Asia, solution of this conflict is necessary as early as possible.

Key Words

Water problems, Indus Water Treaty, India-Pakistan Relations, CBMs, Peace in South Asia

Introduction

Water sharing has remained a present issue although Indus Water Treaty signed, between India and Pakistan decades ago, had the distinction of a unique precedent whose magnitude has to be replicated yet, in any sphere between the two states since then. This is also the fact that security issue regarding use of water and water resources remained in place. But during recent years water has become a prominent talking point due to increased water insecurity in Pakistan and this situation has led the South Asian environment towards the legal, ethical and geographic discussions as water has become a prominent talking point now a days. In this debate Pakistan has been the natural complainer because of the lower riparian. Just as problem of terrorism and Kashmir are the unresolved points of conflicts, now the row over water has reached to such extant that it has acquired a similar stance. For the two nuclear neighbours who have fought almost four wars since independence, the issue of rivers flowing to Pakistan from Indian occupied Kashmir have emerged as a belated flash points.

Water is the most precious and essential resource for life on earth and being a vital component of human life water with its wider uses will continue to play a major role in reaching the broader objectives of development, achievement of food and improvement of quality of life in the living world.[1] International fresh waters for example lakes, rivers and streams, which navigate or serve as boundaries between two bilateral countries, remained as source of contention. Water is a mobile source that crosses the boundaries of bilateral states. It always fluctuates with time and makes its management more problematic. It is clear that use by upper riparian can surely affect the quantity and quality of water available to lower riparian.[2]

In 1947, the subcontinent got independence by partitioning. The natural line of demarcation was drawn between India and Pakistan without regarding the

natural irrigation boundaries.[3] Taking advantage of upper riparian, India one-sidedly cut off the supply of fresh water to Pakistan in April 1948.[4] Indian demand was that Pakistan must admit the Indians rights on the rivers of the Indian Punjab and Pakistani Punjab. This action of India led to a serious water row between India and Pakistan because Pakistan was an agricultural country, which could not survive without water. Almost two million acre land of Pakistan was a productive land, which was badly dependent on the waters for its productivity. This situation was unacceptable for Pakistan while India forwarded a formula that being an upper riparian country India would have rights over the rivers whereas Pakistan could only get water after entering a treaty with India.[5] India however restored some supply of water in May 1948 when a pro Indian treaty was signed by Pakistan but soon it was apprehended that without full waters, it is impossible for Pakistan to survive and even at international forum there, awareness was growing that this tension could lead both bilateral countries towards armed dispute. So after prolonged and lingering negotiations started in 1952 under the guidance of World Bank the issue was finally resolved by signing the Indus Water treaty in September 1960[6], which was very simple and easy resolution of a complicated question.[7] The proposed resolution was consisted on large-scale inter-basin transmission of river waters to frame for the loss sustained by the lower riparian, which was Pakistan. Although this was not only the way to solve the dispute, but was like an alternative choice for certain undeniable geo-political, technological and other related factors.

Essential Elements of IWT

Eighty percent of irrigated land was in Pakistan but during partition, a large number of head-works were in Indian held Kashmir. At that time, the most appropriate solution of the water problem was in the form of Indus Water agreement, which was like a beacon of light in indo-Pak gloomy relationship. This treaty has twelve Articles and eight Annexure, based on the division of rivers between Pakistan and India. There are four vital components of IWT. First is linked to the division of waters that three eastern rivers (the Ravi, the Satluj and the Beas) were allocated to India and the western rivers (the Indus, the Jhelum, the Chenab) were allocated to Pakistan.[8]

Second was a financing plan to assist Pakistan in constructing the vast replacement works like Mangla dam on Jhelum in Pakistan held Kashmir, Tarbela dam on the Indus and various link canals to store and transport water from rivers to irrigated areas of Pakistan and India contributed almost $ 1 billion dollars were required.

The third element relates to the use of hydroelectric potential of western rivers before they reach to Pakistan. This element was the major bone of contention in the talks. India had the legitimate desire to control the hydroelectric potential of Pakistan before they crossed the Line of Control. Pakistan was well aware that the backbone of its economy was irrigated that was built around the natural flow of rivers. Pakistan was worried that its security would be compromised if India built dams and this construction would alter the timing of waters coming to Pakistan. This risk was especially for the Chenab and for Jhelum. The compromise reached in IWT was that India would use the

hydroelectric potential on the rivers but there were restrictions on storage that India could construct on these rivers ,eliminating the possibility of dams being constructed in a way that it would adversely affect Pakistan.

The fourth element is the dispute resolution mechanism, which sets up rules to resolve the potential problems. If this mechanism fails then there are provisions for external arbitration through neutral expert appointed by World Bank or through international court of arbitration.

This treaty was considered as the only mechanism, which was working successfully between India and Pakistan for the past 50 years. It was because of intelligent design of treaty but also true that it worked because for decades India did not develop the hydropower resources on river Chenab and Jhelum in Indian held Kashmir. However, from some decades this situation has changed completely. India has started a major program of hydropower development across its Himalayan region.

India has constructed and still constructing a large number of hydropower projects on headwaters of Pakistani rivers especially over Indus, Jhelum and Chenab in Indian held Kashmir. Therefore, under this extraordinary pressure IWT is creaking. Indian point of view is that Pakistan is using the treaty to put unending obstacles for India while Pakistan's point is that New Delhi's storage of water is serious security threat for Pakistan. Same thing has been discussed by Muhammad Nasrullah Mirza that for Pakistan an unrestricted flow of river system is a question of life and death and in case of India maintaining control of it is a political tool with which to exercise power over Pakistan by controlling her essential water resources.[9]

The Baglihar Case

This project was started in 1999 on the Chenab River. It was project of 450 megawatt and Pakistan believed that this construction was violation of Indus water treaty because the dam included gated spillways which mean was that the manipulable storage was larger than that, allowed under the Indus Water Treaty. The Indian view was that if they were unable to operate the basin more flexibly, it would rapidly fill with sediments, as had happened in the Salal project. The Indian and Pakistani IWT commissioners were unable to resolve the difference, with Pakistan asked the World Bank to appoint a neutral expert in 2005. The crux of the neutral expert's verdict, presented in 2007, was that: the IWT had a provision for updating the performance of the treaty as new knowledge accumulated. It has arisen as, global good practice for silt management would be impossible with the rigidities of the treaty; and therefore India should be allowed to draw water out of the dam at lower levels than those mentioned in the treaty. Water stored behind a dam, is divided between "live storage", which the operator of the dam can manage through both gated spillways and power intakes, and lower-level "dead storage", which the operator cannot manage, as he does not have outlets in the dam low enough to release this water.[10]

The neutral expert, applied fine point, essentially argued that live storage was not the same as the manipulable storage. He argued that only storage that could be used for the operational purpose of generating power constituted as live

storage .So if India was creating more manipulable storage on the grounds of that this was necessary for sediment management, then, in the opinion of the neutral expert, this was not live storage and it should be allowed. However, this finding would only make sense if Pakistan's concern was to define exactly, where the power outlets could be in the Indian dams which it never was and is not. But it makes no sense if Pakistan's concern was India's capacity to manipulate flows into Pakistan which it always was and still is. For Pakistan, the Baglihar verdict was a great blow because it reinterpreted the Indus Water Treaty to remove the basic physical protection (limits in manipulable storage) which Pakistan had against the creation of an Indian ability to seriously manipulate the timing of flows of water into Pakistan.

The Kishenganga Case

The Kishenganga project in Indian-held Kashmir was started in 1994.[11] In India the westward-flowing river, Jhelum has two main tributaries. The northern tributary, which flows at a considerable higher altitude in the foothills of the Himalayas, is the river Neelum. The southern tributary, which flows at a much lower altitude, is Jhelum itself. The two tributaries join just after they enter Pakistan. This odd pattern offers a unique opportunity to build a barrage across the Neelum, to build a tunnel down to the Jhelum, to put a power station at the bottom and generate significant amounts of power. There are two evident sites where this can be done one upstream in India and one downstream in Pakistan. The engineers who drafted the IWT were well aware of these potentials and predetermined that India could build its project only if there is no existing use, which will be affected in Pakistan. India is now building the 330 MW Kishenganga project while Pakistan is building the western scheme the 1,000 MW Neelum-Jhelum project. The instant stakes and investments are large approximately $350million in India and $1,000 million in Pakistan.

Disappointed with the neutral expert process after Baglihar, in May 2010 Pakistan declared this as a dispute to be taken to a Court of Arbitration. The situation has become further knotty by the fact that India has a series of hydropower projects being planned and constructed on the headwaters of Pakistan's three rivers, which will create live storage of 40 days on the Chenab alone. From the Pakistani viewpoint this ability to hold and release water constitutes a serious threat to water security in Pakistan. The Neelum-Jhelum case is unique because it is the one case in the Indus Basin, where there is a fundamental conflict between India and Pakistan. In all of the other cases upstream storage of water in India could if normal relations pertained, easily be translated into benefits for downstream Pakistan. These benefits will include the more trustworthy timing of flows, storage of water during floods and perhaps even energy sharing.[12]

Wullar Barrage

According to the Indus Water Treaty India cannot construct any dam on the chief shaft of River Jhelum. Only 0.75 MAF (Million Acre Feet) storage can be built on the branches of Jhelum while location of Wullar barrage is forty kilometer upstream of the LOC on the main of the Jhelum River in Baramula district, IOJ&K.[13] The construction of this barrage was started in 1984 to alter the

natural Wullar lake into a dam which capacity was .03 MAF. Over this construction a strong and severe protest was showed by Pakistan which resultantly halted the work of Indian government in 1987.[14] Since then the issue is under consultation with India and both governments have signed various confidence-building measures on their own behalf because the commission was unable to solve the issue.

Pakistan's point over this issue is that he construction of dam over the Jhelum would enable India to capture the flow of the river while India's stance is that this dam is or navigational use which is allowed in the Indus Water Treaty. Conflicts like the Baghliar project, Kishenganga hydroelectric project and Wullar barrage are considered in Pakistan as the tries to deprive the country from its legitimate share of waters.

The International Court of Arbitration's Decision

There is no doubt that the marine situation in South Asia is worsening rapidly. Because frustration of Pakistan over the Indian attitude was visible that's why in January 2005, it passed on the issue of Baghliar Dam on Chenab River to the World Bank. The judgment of an impartial specialist, selected by the bank eventually sorted the problem in February 2007. This verdict lodged both the parties and each side considered that its particular position and demand had been attending and tackling. But the issue could not finish there because within four years of the decision both countries were back again for mediation over the hydral issue and this time bone of contention was the erection of the Kishanganga Storage Project on River Neelum by Indian government.[15]

It was pointed out "The matter is sensitive because not only the dam will curtail the flow of water for agriculture, but Pakistan is also constructing the Neelum-Jhelum Hydroelectric Project on River Neelum, downstream of Kishanganga Project." [16] Pakistan filed its appeal against India that Indian government is redirecting the course of the river and defying the Indus Water Treaty, signed between two countries. The response of the court was quick and it forbade India from constructing any of the storage over the river, which suspends it,'s the natural flow. Court also directed both countries to organize mutual surveys of the site in order to check the accomplishment of the court's order. Basically Pakistan's claim was that according the treaty India is forbidden to divert the course of river Neelum because in this case fifteen percent water share of Pakistan would be wasted. Pakistan also claimed that this move of India was to halt the Pakistan's Neelum-Jhelum hydero electricity plant.[17]

A stop work order was required for Pakistan, which could stop India from taking any steps regarding Kishenganaga Project. However, India compiled a rejoinder to highlight its position before the International Court of Justice. ICA has ordered India to present information on ecological danger of the environment due to this project.

Views from Both Sides of the Border

Pakistan is like Egyptian country built around a single river system.[18] Securing its water supply is a central, essential challenge, which has remained a

high priority for every government of Pakistan. Pakistan's water security is now under a series of extraordinary threats. Threat one comes from rapid internal population growth. At Partition, there was 5,000 cubic meters of water for every Pakistani but today the population is five times increased, and availability is down to 1,000 cubic meters per person, well below the globally accepted entrance for water scarcity.[19] Threat Two comes from poor water management in Pakistan, with low agricultural output per unit of water, and extensive quantities of land and water rendered unfeasible due to salinity. It was said by Indus Water commissioner Jammat Ali Shah that, the shortage of river water is due to poor management and climate change not because of Indian theft.[20] They are right no doubts India is constructing dams but if one will not take or mange its share then the other will definitely take the advantage as now India is taking.

Threat Three comes due to climate change. Of all the great rivers that rise in the Himalayas, the Indus is only one of its kinds that it is in a low rainfall region. While the ice which dissolves, adds only 8 per cent of the water of the Ganges and 12 % of the water of the Yangtze, where as it adds 45% of the water of the Indus river.[21] While the major ice glaciers of mountainous region, Himalayas, as the Intergovernmental Panel on Climate Change has declared, be left by 2035[22] and there is no second point in that snowmelt, changes in environment and in icy formation in the Himalaya area represents a huge threat to the water sanctuary of Pakistan.

Threat Four is because such a large marine share of Pakistan's water comes from its neighbours. The river Kabul contributes 20 per cent of the water of the Indus. There is no treaty with Afghanistan, which has determined plans to develop the resources of this river.[23]. This general depiction can be understood in every respect in well our country. Now a day much of Pakistan's press is dealing with the theme of "India is stealing our water".[24] Both because of its vulnerability and because of its scarcity inside Pakistan, water has considered a major security suffering for Pakistan. Seriousness of the time can be judged by the statement of ex CEO of where he said that water had replaced the other issues, which are of primary concerns then Kashmir.[25]

On the other side Indian authorities were denying the fact that India was constructing dams because their point was in the presence of Indus Water Commission how India could divert the route of waters.[26] According to Indian point of view the Indus Water Treaty predicted and permitted India to continue its plans on the western waters and so these projects cannot be the infringement of the accord. Violations can be in only case if India diverges away from the certain provisions and in case of violations these violations can be questioned only by the Indus Commissioner for Pakistan.

CBMS and Multi Track Diplomacy

Both India and Pakistan can be categorized in the list of third world countries with cavernous socio economic and other problems. Therefore the need of the time is to solve the water problem through negotiations, multi-track diplomacy and by focusing on confidence building measures which are very vital in every respect to normalize the situation and to end the clash.[27] India should also keep this in mind that no measures of confidence building would be effectual if it

would not deal with the water apprehensions of Pakistan.[28] In this regard, many CBMs have been signed since 2011.[29] One was signed in mid-September of 2011 in which construction of a barrage[30] was abandoned.[31]

According to him, it was a little start with bigger impacts as the discarding the construction of a barrage was an important confidence building measure as well as move between trouble relations of India and Pakistan.[32] It was also said that the work on Wuller barrage was stopped in 1984 when Pakistan objected over its construction that this barrage would not only create water scarcity but also act as a natural weapon.[33] The minister for irrigation, Jammu and Kashmir, who told that the Indian government had stopped the barrage in favour of non-permanent rubber dams, discussed same point. These rubber dams can actually work in very flexible and effective way because modern technology can help both neighbors to solve problems. He (Minister for irrigation Jammu and Kahmir) was also convinced that these dialogues and CBMs would try to sort out the tensions between the both bilateral countries.[34]

Suggestions

These two countries are over-flowing with misconceptions and leave no effort to repeat hate and to demonize the contacts of both South Asian states.[35] Basically there is hope only if both countries are sincere with each other to avoid water war both governments should decide first that it is in their own interest to solve the issue because Pakistan is weak water dependent country and it will come to the table of negotiations happily. Now a big move from Indian government is required, as it knows that better and stable Pakistan is in its interest. Both should provide the transparent and neutral data of hydro projects running in both sides. Such mutual plans should be constructed which benefit both sides and such operating rules on Indian dams should be formed which profits the flow of water on both sides. Pakistan's water concerns can only be addressed by negotiation between India and Pakistan but this is a tricky process, which cannot be attained without the presence of the mutual trust and third party. India has resisting the involvement of any third party to sort out the differences between both countries since partition.[36] The major reason of this resistance is Kashmir issue because since 1947 India is denying the involvement of any of third party for the solution of Kashmir dispute. This rejection desire is now strengthened because it has appeared as a solid country on the global stage. Therefore, under these conditions, much of this ball is in the court of India no doubt Pakistan's stance also matters but only these countries can solve their difference by their own.

Conclusion

Pakistan is a heavy populated country with shortage of water which needs to project as many water sources as possible so that it can meet the current and futuristic necessities of the country. It must keep sharp eyes over Indian policies, agenda and purposes. Because water worries creating anger and discomfort between both countries as both are questioning each other's moves and objectives. Basically water conflicts between bilateral countries have four aspects like Indus Water Commissions differences, media insights, geopolitics and environmental realties. To sort out the water differences and cool down the situation, there is a

dire need for sharing of more cross border information and concentrating on realities rather than sentiments while addressing the water problems.

There is also a dire need to preserve the IWT because no doubt it has stood the test of time secondly there is no proper alternative of this treaty. That is why by concerning the global warming, changes in environmental conditions, melting of glaciers and the possible usage of modern technology a great cooperation can be developed between India and Pakistan on water troubles. Nevertheless this thing to happen there is a need to improve the understanding and mutual trust between the bilateral countries. This insufficiency of water can manipulate the livelihood and betterment of a large number of people living in South Asia so both countries should try to solve the issue with determination and sincerity.

Being the lower riparian Pakistan is facing more grave challenges but there is a hope that by means of talks both countries would take measures to avoid the serious threats. Because with shrewd political leadership, not only in India, but also in Pakistan, a bridge can be built over these distressed waters and the Indus could, again, become a medium for cooperation. It is also true that until unless there is a spirit for harmony, water cannot be a hurdle for the establishment of good relations but if both countries want causes to fight then it can provide enough chances. The targeted and better cooperation on water issue between both India and Pakistan can encourage calmness and richness in the entire area. Failures in doing so would bring nothing but keep both countries under permanent stress.

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[1] K.M.Arif, *Estranged Neighbors*,(Islamabad: Dost Publications, 2010),174.

[2] World Water-Day March-2009, celebrated by Pak Engineering Congress, "*Transboundry Waters" Shared Water-Shared Opportunities* (theme),Eng.Usman-e-Ghani, *"Transboundry Waters-perspective of Indus Water Treaty-1960",17-18.*

[3] This plan came about at the very last minute when, upon the insistence of the Indian leaders, the partition award turned over to India three vital districts that were originally allocated to Pakistan, with the sole objective of providing India with access to Kashmir. The three remaining western rivers on which Pakistan now relies upon all originate in or pass through Kashmir before entering Pakistan. In other words, India, after acquiring the waters of the three eastern rivers also got control of three western rivers as well. Asif H. Kazi, "Misusing the Indus Treaty".*The News*. Islamabad, July 01, 2011.

[4] Khursheed Mehmood Kasuri, *Neither a Hawk Nor a Dove: An Insider's Account of Pakistan's Foreign Policy*, (Karachi: Oxford University Press, 2015), 247.

[5] K. M. Arif, *Estranged Neighbors*,161.

[6] It was signed by Pakistan's President Muhammad Ayub Khan , India's Prime Minister Jawaharlal Nehru and Mr W.A.B. Illif of the World Bank. Momin Iftikhar, "Tackling the Kishanganga Knot", *The Nation*. Islamabad, October 03, 2011.

[7] Wolfgang Zingel, "Economy and Ecology as Factors in South Asian Cooperation" in ed. Muhammad Iqbal Chawla (ed.) *Socio-Economic Cooperaation Between India and Pakistan: Challenges and Prosects*, (Lahore: University of the Punjab,2016),140.

[8] Ibid.

[9] M.Nasrullah Mirza, *Water, War and Peace Linkages and Scenarios in India Pakistan Relations*, (Sarbrucken: Lambart Academic Publishers, 2011),5.

[10] John Briscoe, "Troubled Waters: Can a Bridge Be Built Over the Indus"? *Economic and Political Weekly* (Mumbai),11 December,2010,Regional Press vol.xlv,no.50,29.

[11] K.M.Arif, *Estranged Neighbors*,168.

[12] John Briscoe, "Troubled Waters",29.

[13] Indian Occupied Jammu and Kashmir.

[14] K.M.Arif, *Estranged Neighbors*,172.

[15] Iftikhar Momin, "Tackling the Kishanganga knot".*The Nation*. Islamabad. October 03, 2011.

[16] Ibid.

[17] Syed Irfan Raza, "India told to stop work on Kishanganga dam". *Dawn*. Islamabad. September 24, 2011.

[18] Abdul Latif Sindhu, "The Pakistan-India Water War", *Pakistan Observer*, 24 Feb, 2011.

[19] Jhon Brisco, "Troubled Waters: Can a Bridge Be Built over the Indus"? 30.

[20] Jammat Ali Shah,"India Not Accused Of Stealing Water". *The News* ,Lahore. 27 June, 2010.

[21] Ibid.

[22] *The Guardian*, 20 January, 2010.

[23] *The News*, 20 January, 2013.

[24] Jhon Brisco, "Troubled Waters: Can a Bridge Be Built over the Indus?" 30.

[25] Ibid,4.

[26] Former Secretary, Water Resources, Ramaswamy R Iyer said , So far as one knows, India has not built any storage, not even the 3.6 MAF permitted by the Treaty, nor does it intend to cause harm to Pakistan by diverting Indus waters. In any case, there is such a thing as the Permanent Indus Commission. How can India store or divert waters to the detriment of Pakistan under the watchful eyes of the Indus Commissioner for Pakistan". Ramaswamy R. Iyer, "Pakistan: Water on the Boil Again", *The Hindu*. Delhi. July 26, 2011.

[27] Jyoti M. Pathania, Ajay Saksena, *India and Pakistan Confidence Building Measures*, (New Delhi: Deep and Deep Publications, 2012), 195.

[28] Umbreen Javed, "Confidence Building Measures in Nuclear South Asia: Limitations and Prospects", *A Research Journal of South Asian Studies*, Vol. 25, No. 2(2010), 352. http://pu.edu.pk/images/journal/csas/PDF/10-Dr.%20Umbreen%20Javaid.pdf

[29] So far (2009) 13 rounds of Secretary level talks including four rounds of India-Pakistan Composite Dialogue have been held. K.M.Arif, *Estranged Neighbours*, 172.

[30] This barrage was on the place where Jehlum meets the Wullarlake in north Kashmir. Sankarshan Thakur, "Wullar Thorn Out of Indo-Pak Talks", *The Telegraph.* Calcutta. August 19, 2011.

[31] Ibid.

[32] Ibid.

[33] Ibid.

[34] Ibid.

[35] Muhammad Iqbal Chawla (ed.) *Socio-Economic Cooperaation Between India and Pakistan: Challenges and Prosects*, (Lahore: University of the Punjab,2016), v.

[36] Jhon Brisco, "Troubled Waters: Can a Bridge Be Built over the Indus", 32.