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INDIAN VIOLATION OF INDUS WATER TREATY: CHALLENGES FOR PAKISTAN

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Abstract

Six rivers are flowing from Indian occupied Kashmir (IOK) to Pakistan, a water source for millions of people in Pakistan and northwestern India. Distribution of rivers water emerged as a bone of conflict between India and Pakistan shortly after the Sub-continent partition. Since then, multiple agreements have been signed between two nuclear power countries to solve the water sharing issue. Finally, with the World Bank's cooperation, on October 19, 1960, Indus Water Treaty (IWT) was signed between Indian and Pakistan in Karachi, and the problem stood resolved. However, time and again, India has been violating the Treaty. The study aims to understand hydro challenges and Indian violation of IWT by constructing multiple dams on the rivers in Pakistan's share. The Indian prime minister's statement that blood and water cannot flow altogether and bluntly threaten abrogation of IWT has created a new escalation of hydro clash in the region. To strategise its policy options, it is the need of the hour to engage academia discourse. Pakistan requires to enhance water storage capacity abruptly.

Keywords*: Indus Water Treaty, India-Pakistan, Hydro-Conflict, Water Management, Indus River*

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1. Introduction

Undoubtedly, water is a great blessing of nature, but the world is faced with an acute shortage of soft water. Proper utilization of this resource is of the utmost importance because water deficiency is rising rapidly in recent times. It has become a cause of inter and intrastate conflicts worldwide. The average rainfall in Pakistan has recorded less than 255 millimeters annually, which is insufficient considering the amount of land under farming. (Qaiser, 2016).Pakistan is an agricultural economy mainly dependent on an annual inflow of Indus water system. About 240 billion cubic meter water entering from the seven rivers: Indus, Kabul, Jhelum, Chenab, Sutlej, Ravi and Beas (Iqbal, 2010). This water originates from the bordering countries and comes mainly from snowmelt in the Himalayas. Pakistan is home to some enormous glaciers of the world that make up almost 3% of Upper Indus Basin mountainous region. It covers nearly 13,680 sq. km. The only other lands that have more glaciers than Pakistan are North and South Pole. Excess water enters the rivers during summers because of the melting of these glaciers. To avoid conflicts, Pakistan and India concluded the Indus Basin Treaty in 1960 to determine their water share. Since then, India has been violating the Treaty repeatedly. There is an acute need for this conflict to be resolved with suitable and acceptable solutions (Sharif, 2010).

Besides this, Pakistan also had enduring water problems with India, since she claims ultimate right over the waters passing through its land and sidetracking the water entering Pakistan since partition. Resultantly, the issue became a bone of contention between both countries, which was later resolved by the World Bank's involvement. However, time and again, the Indian government creates problems for Pakistan by the construction of the Kishanganga Dam on River Neelum in the India IOK and on the other rivers entering Pakistan (Majeed, 2018). The questions raised include: -

- What are potential challenges for Pakistan on western rivers under the IWT?
- What is Pakistan's plight, being a lower riparian,in renegotiating/reinterpreting the IWT?
- Can India, being an upper riparian state, obstruct water flows into Pakistan?
- Can India revoke the IWT?

- What measures can be undertaken to guarantee the Treaty's better functioning and streamline cooperation for addressing the glaring challenges of climate change and management of Indus waters?

2. Ground Water in Pakistan

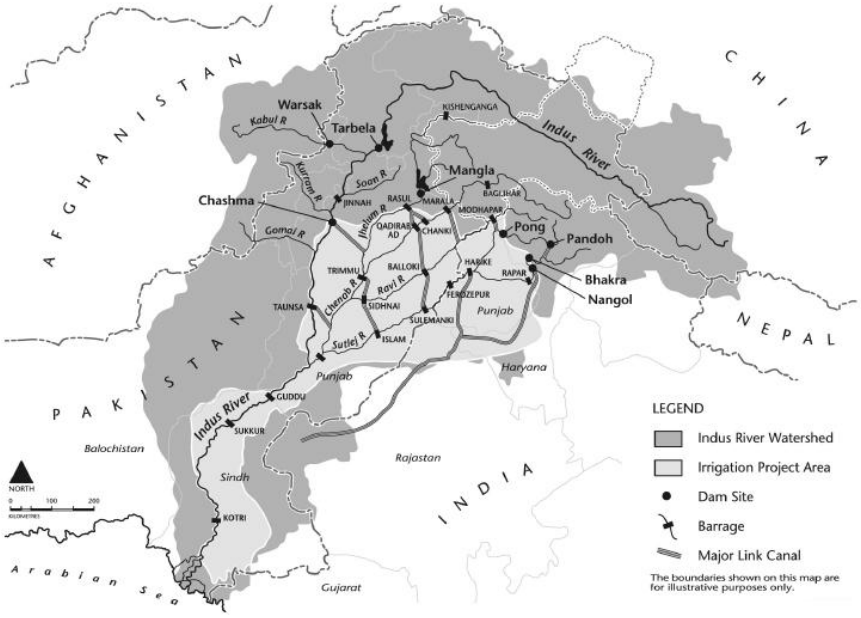
In Pakistan, groundwater is considered the primary water source in most rural areas and significant cities. Apart from these areas, some highly populated cities like Karachi and Islamabad rely on some other sources. Groundwater availability is dependent on the number of factors, including rainfall as the major one. Pakistan is an arid country, which creates limitations for groundwater supply in many areas most notably southeast of Pakistan and the many regions of Balochistan. In addition to this, Pakistan's flawed irrigation system, including tube well design and management creates many problems. This issue gets worst in many cities where water tables fall to dead levels. The Quaternary Alluvial Aquifers of the Indus plain are most productive. In Pakistan, the quantity of groundwater has always been a major concern rather than its quality.

Approximately, 70,000 tube wells functioned by farmers and 5000 public sector operating tube wells have been installed that consume the aggregate groundwater of 42 MAF water out of 56 MAF and is utilized after the complete expansion of surface water resources. The alarming situation is water usage at an alarmingly high pace that is declining the pumping depths to the unachievable levels where saline water's intrusion creates further problems. On the other hand, some areas where pumping or drainage persists are badly affected by water logging.

3. Geographical Location

The Indus River begins from Lake Manasarovar in Tibetan Plateau and flows towards Jammu and Kashmir's Ladakh region. It enters Pakistan in Gilgit-Baltistan then runs across Pakistan from north to south ending in the Arabian Sea near Karachi, Sindh. Its drainage area goes above 1,165,000 km2 (450,000 sq mi). It is the twenty-first largest river globally in terms of annual flow at 243 km(58 cu mi), twice that of the Nile River. It has eleven tributaries: Zanskar in Ladakh the Chenab, the Jhelum, the Ravi, the Beas, and the Sutlej from the left bank and the Shyok, the Gilgit, the Kabul, the Gomal, and the Kurram at the right bank.

Figure 1. Indus Basin and Its Major Infrastructure



Source: Mustafa, D. (2010). Hydro-politics in Pakistan's Indus Basin. United States Institute of Peace

4. Water Distribution between Pakistan and India - IWT

At the time of this sub-continent partition of the subcontinent, there was one integrated irrigation system in West Pakistan. The waters of all the six rivers in West Pakistan, which flowed through the plains and fell into the sea, had been harnessed by the construction of barrages, dams and a network of canals, to irrigate lands in the plains. Valuable crops of cotton, wheat, sugarcane etc., were sown in those lands, resulting in enormous prosperity of the various regions. The credit for constructing this vast and integrated canal system goes to the former rulers of the sub-continent. The Head Works of most of the canals remained in India due to partition of the country. Pakistan was faced with the difficult problem of getting supplies for some of the trenches, which flowed through the plains of the various provinces of West Pakistan. In the beginning, the Indian authorities stopped the water flow from the canals that took off from the rivers Sutlej, Bias and Ravi, but could not cut off the canals fed by the other three rivers, Indus. Jhelum and Chenab, because they could not divert these three rivers' waters to India. As a temporary measure, India agreed to supply water from these three

rivers on payment for ten years, for irrigation lands in West Pakistan, until Pakistan could make alternative arrangements.

Pakistan had no option, but to accept the offer made by India, on the terms proposed. After this temporary agreement had been arrived at, negotiation started between the Government of India and Pakistan, with the aid of some friendly countries and the World Bank, for resolving the dispute and, ultimately, in September 1960, the Indus Basin Treaty was signed by the President Field Marshall Muhammad Ayub Khan and Indian Prime Minister Jawaharlal Nehru in Karachi. President of the World Bank, Mr Eugene R. Black was the principal witness (Mushtaq, 2017). Through this agreement, the water of these rivers was to be shared between Pakistan and India. Despite the three wars between the two, this accord has been hailed victorious as it has survived since its implementation(Piesse, 2015). According to the agreement, Pakistan was given eighty per cent of water over Indus, Jhelum and Chenab Rivers including river Kabul barring some limited uses for India in IOK. While India was authorised full rights of River Sutlej, Ravi, Beas, and a few minor tributaries are joining Ravi River (Ranjan, 2012).

Generally, IWT was not welcomed by the people of both countries, but they reacted differently. As three eastern rivers were handed over to India, people of Pakistan criticised the accord(Allouche, 2005). While in India, the loss of three western rivers was frequently criticised by the masses (Verghese, May 25, 2005).

5. The Conflict and Pakistan's Concern

Indus Water Treaty (IWT) was made to avoid conflicts and achieve peaceful relations between India and Pakistan, but India ignored it for the last two decades. She is constructing Bagh Lehar dam and Rattle dam on the Chenab River, and Kishanganga Dam on the Neelum River. The development of these hydropower projects would significantly sabotage the water supply for agriculture in Pakistan and ultimately threaten the agricultural economy (Ali et al., 2015).

Kashmir is the bone of contention between the two neighboring countries. It resulted in three wars. Owing to Kashmir being the source of river water, neither state is willing to withdraw its claim to the region (Qureshi, 2016). According to Pakistani experts, Indus Water Treaty (IWT) consists of the provisions of a minimum supply of water. Still, it does not consider water distribution and does

not calculate demographic expansions within each country, which modifies and alters water demand.

6. India's Dual Policy

Fast-growing population and booming economy push India to improve her energy efficiency to meet future demands. More hydropower projects are being constructed on Himalayan Rivers (Saran, 2012). India is playing a double game in its upper riparian; it has partially destroyed Nepal's dams. For lower riparian, more and more barriers are being built on western rivers. The essential element of the water strategy of India is constructing dams on lower riparian and blocking and abolishing these in upper-riparian Nepal (Rashid, 2013). Indian authorities believe that ongoing hydro power-projects are sanctioned by agreement and within the criteria of accord and as planned twenty-seven projects on Pakistan's western rivers(Mustafa K., 2018). However, Pakistan's objections that construction of all the projects violate the Treaty and a conspiracy to sabotage Pakistan's agricultural economy have frustrated India's experts.

7. Pakistan's Apprehensions as Lower Riparian

Water emerged as a serious issue between India and Pakistan after partition when India stopped water to Pakistan. It was resolved by signing IWT in 1960 with the cooperation of the World Bank.IWT has since survived all ups and downs of Indo-Pak relations (Qureshi, 2016). The recently updated fact sheet reveals that India is deliberately violating the international norms by constructing Kishanganga Hydroelectric Project (KHEP) describing it a storage work for power generation only. However, Pakistan has rationally and lawfully proved her stance that Indian design of the KHEP would divert water from the Neelum River into the Bonar Nallah violating of Article 111 (2) of the IWT, which specifies that the entire flows of the western rivers belong to Pakistan. Article 4 also safeguards the rivers' natural flow, and India is violating this article.

Currently, Pakistan is faced with an acute shortage of freshwater due to a population explosion at a rate of 1.43 per cent annually (Fact Book, 2018). Adverse climate change and global warming are creating drought and erratic monsoon patterns (Akhtar, 2010). Agriculture of Pakistan mostly depends upon the Indus River and tributaries which emerge from China and Jammu and Kashmir- a disputed territory between Pakistan and India. However, disagreement

over Jammu and Kashmir is directly interlinked with water dispute. Former President of Pakistan, Parvez Musharraf, stated that Kashmir issue is primarily based on the distribution of Indus Basin's waters and its tributaries between India and Pakistan if these waters are distributed impartially, the other would not exist. Predominantly, India is enjoying more control and authority over upper riparian, which places Pakistan in a perilous position over the Indus Basin and its other water resources (Malik, 2015). Currently, India is constructing multiple hydropower projects in IOK on rivers flowing into Pakistan, which will disturb water supply to Pakistan. These projects are Salal, Kishanganag, Wullar Barrage, Baglihar, Uri Nimo-bazoo, Pakal Dul, Kiru, Kwar, Kirthai, Bursar in the Chenab Basin and the largest of which is the Swalkote plan which will generate 1856-megawatt electricity and the combined installed capacity of power generation is (6,352 MW) at a projected cost of INR 567 billion (USD 9 billion)(Parvaiz, 2017). Pakistan considers these projects a severe threat to the inhabitants, land, and property during the entire country's sowing season. From the security point of view, these projects once developed, can be operated to cause flooding at the time of military confrontation. Indian intentions are to generate electricity from these projects and dominate Pakistan strategically(Ali, 2015). Construction of Wullar Barrage will enhance the military position of Indian troops, and it will be used to enter Pakistan in case of war (Akhtar, 2010)

Undoubtedly,Indo-Pak relations saw many ups and downs, but IWT sustained even during the worst situation. For the first time, the Hindu Nationalist government of Narendra Modi asserted that “blood and water cannot flow together” and called for abolishing IWT. The current Indian government has lost its credibility and capability to deliver, raising the slogan to harm Pakistan by abrogating IWT (Bozdar, 2017). Experts believe that if the gap between water availability and supplies broadens, recruitment and terrorist operations will increase in the region (Waslekar, 2005).

8. Hydro-hegemony of India

Ismail Serageldin, Ex- Vice-President of the World Bank, sent shockwaves among politicians worldwide when he asserted that in the 21st century, countries would go to war not due to conflicts over oil or land but because of water. Similarly, the Pentagon also deemed water as a critical issue which would give impetus to border disputes. It estimated that in the coming years, controversies

related to water would dominate global politics. The problem would aggravate to such an extent that there would be conflicts among countries and even among states, and rural and urban populations (Vidal, 2010).IWT is amongst the only thing in India-Pak relations that works. It does not allow India and Pakistan to cancel the agreement unilaterally. According to Article 12(4) of the IWT, termination is only possible, if both India and Pakistan draft a treaty in this regard and then ratify it. Using the IWT as a talking point in political posturing, India has already undermined the Treaty's integrity and its international stature.

China, Nepal, India, and Bangladesh have been disputing each other's claim over the water of rivers originating from the Himalayas and flowing across the countries as mentioned above, providing water to nearly 500 million people on their path (Vidal, 2010).

According to the Madrid Declaration of 1911, a state cannot change the regime of rivers and lakes, contiguous or successive, to the detriment of a co-riparian neighbor without its consent. Therefore, the international laws in practice forbid India, an upper riparian state, from stopping or diverting the Indus River's water so the detriment of Pakistan's people without a beforehand and overt approval from Pakistan effect(Zaman, 2016).In its Buenos Aires Conference on November 1957, the Interim American Bar Association adopted a statement of the current international law which stated in Article 3 that upper riparian are obligated to refrain from making alterations which may harm the use of water by co-riparian, until the time these changes are made under an agreement or a decision of an international court or tribunal(Bhutto, 1961). With global water increasing at more than twice the rate of growth of the human population in the last century, water security is fast becoming a top priority globally. Water being the most essential and crucial fluid for all life forms, humankind has two very different yet clear choices: conflict or cooperation(Loki, 2014).

9. Pakistan’s External Conflicts over Water Resources

Construction of water storage dams and canals for hydropower and irrigation by India has resulted in drying up long stretches of the Indus River, contributing to the destruction of the Indus plain's ecosystem. Such projects have also forced many people to vacate their lands, thus causing population displacement on a large scale (Ofori-Amoah, 2004). Unpredictable, tensions between Pakistan and

India amidst depletion of natural resources, population growth, and global warming may cause all-out war. Experts at the United Nations believe that the aspects mentioned above could lead to conflict between two nuclear-powered countries. Because the two nations are nuclear powers, their military confrontation could become a global disaster (Tikhonova, 2016). Former President of Pakistan Asif Ali Zardari's article published in Washington Post also indicates that "the water predicament in the country is directly associated with India" and "could fuel the fires of discontent that lead to extremism and terrorism"(Atique, 2015). India and Pakistan had limited water brawl in 1948 when India stopped the West Punjab's water channels. It was the step to destroy the Punjab and Sindh economy because rivers are the source of irrigation in these areas. The subcontinent's partition affected the flow of the waterways. India was given the advantage of controlling the main headwaters located in its territory that made India capable of cutting off primary irrigation water for our agricultural needs. The crisis became serious when India managed to deprive Pakistan of its share. India built up Bhakara dam and barrage to control the water flow to West Pakistan. Pakistan protested vehemently against it and brought the matter in the notice of the world. After the international community's involvement,both countries were brought to the table to negotiate the issue, but it went vain (Fazil, 2017).

10. Recommendations and Conclusion

Time has proved that the Indus Water Treaty resolved the water-related conflict between India and Pakistan amicably. Given its productivity now, IWT can be revised and adjusted with existing international law's assistance by the region's demographic changes.

The water dispute between both countries can prove more disastrous than the long-standing Kashmir issue because the blockage of water entering Pakistan will question Pakistan's very existence. The arbitration continuity of this matter will also help solve this issue to avoid another brawl. BRD can fulfil this responsibility to resolve this alarming issue at earliest.

The political will of both the nations with the support of technical professionals will also enhance the possibility of a long-lasting solution. In this respect, both

governments may maintain Indus basin institutions at government level to find out constant and comprehensive collaboration.

Poor management of water, politically and materially, encourages India to construct news dams on Pakistani waters. Pakistan is required to enhance water management efficiency.

If the steps as mentioned earlier, do not yield positive results and stubborn Indian attitude continues Pakistan may help China to threaten India by stopping the Brahmaputra River water, which enters India from China and irrigates five Indian states.

The government launched an awareness programme, besides ensuring the provision of the latest scientific tools to cater to the ill effects of the overflow of water, its contaminants on biodiversity, and the conservation of prevalent delta system.

There is a need to evolve the practice of "water measurement" as an instrument for managing water for all the provinces, which will restore trust among the provinces. This practice will help allocate water in both situations, whether less and excessive water is available. Once this arrangement is permanently made and transparently practiced, Pakistan will demand that India provide flow data through the telemetric system. The adoption of water measurement tool among provinces will establish trust among these federal units. It will also offera judicious allocation of water when available in less quantity or abundance. This successful water measurement practice will put Pakistan in a position to press India to show the water flow through the telemetric system.

It is a fact that while more than 95 percent of water generating from Indus basin is reserved for agriculture sector, its efficient use is not more than 36 percent, which reveals that there is an institutional drawback. An improvement in irrigation-water-use and its simultaneous increase through efficient engineering as well as further reforms, has the possibility to do away with water scarcity. Moreover, water scarcity and inequality in its supply will generate violence or threats to human safety depends on how water-related organizations behave. This argument also reveals the global dimension of the issue and the necessity to recognize the problems of Pakistan in the aftermath of an Indian adventure in the Indus basin. In other words, permitting the international water specialists to visit and discuss the

details of planned Indian water schemes in the context of the Indus Water Treaty is the best course of action for Pakistan.

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