Water Dispute between India and Pakistan: An Analysis

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Abstract

Water disputes between India and Pakistan revolve around river basins and are rooted in the region's geography, shared history, and culture. Tensions about water issues in South Asia have escalated significantly due to the deteriorating relations between Pakistan and India, stemming from India's inequitable practices in water allocation. Pakistan and India engaged in conflict over the Indus basin rather than negotiating the 1960 Indus Waters Treaty, which both nations have upheld for over 63 years despite two wars and the nuclear age. The water issue between India and Pakistan is a protracted conflict that worsens each day. The presence of nuclear arsenals in the region has added to the volatility of water disputes. This situation requires that water conflicts between Pakistan and India be studied, and possible alternate options and strategies may be explored to lessen the intensity of the water conflicts between Pakistan and India. Thus, the study examined the water disputes between the two countries. The hydro-hegemony framework was put in to understand the water disputes between India and Pakistan because India lands in the graph of negative hegemony. The study suggests that both countries' water management should have feasible regional arrangements where all the stakeholders sit together to sketch out a joint mechanism to address the issues.

Keywords: India and Pakistan, Water Dispute, Indus Water Treaty, Hegemony.

Introduction

Water is an important component of the earth. It is a symbol and source of life on earth. Water remained the mainstay of civilization on earth in the past. Without water, life is not possible on any planet in the universe. Depending upon their uses, the water sources can be categorized into seawater and freshwater. Fresh water is mainly the source of sustainable life on earth. Water ensures the perpetuity of life and improves the quality of life worldwide. Harvesting and processing fresh water are important processes linked with water use. Water distribution sometimes yields disputes/quarrels among the stakeholders (Arif, 2024). Streams, rivers, and lakes are often characterized as international fresh waters, mainly when they are present at the country's border. They are water sources that navigate and act as boundaries between two bilateral countries. However, many disputes arise about these international fresh waters. The roots of contention over using fresh water under any water system can be traced to the following areas. First, water mobility keeps them from respecting international borders; it may cross the boundaries of the adjacent states. Then, with time, the course of a water system shifts from one direction to another, and managing it becomes challenging. Finally, if some actions are taken by the countries upstream, it will influence the quantity and quality of water in lower riparian (Ghani, 2009).

In this study, disputes about the Indus water system will be discussed in particular. The water body between Pakistan and Western India is known as the Indus water system, and it consists of the river Indus and its five main tributaries, i.e., Jhelum, Chenab, Ravi, Beas, and Sutlej. The distribution of water over the Indus basin has been a point of contention for centuries now; it

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started as a conflict among the provinces of the sub-continent, and the Government of British India was responsible for resolving this issue. The British Indian government resolved this first significant dispute (1935) through the arbitrations carried out by the Anderson Commission. The Indus River system became an international river boundary with the inception of Pakistan in the region. India controls Pakistan's irrigation water due to its upstream position on the Indus River System. The water conflict between India and Pakistan started in 1948 when India claimed autonomous rights over the waters passing through its territory and diverted the water of the Indus System away from Pakistan. This illegitimate control of rivers threatened to start a war following India's refusal to agree to Pakistan's proposal of neutral arbitration to resolve this conflict. Later, the World Bank offered neutral services to resolve the dispute; India and Pakistan decided to have the World Bank act as a neutral arbitrator. (Abbasi, 2012; Beach et al., 2000; Salman & Uprety, 2002; Malik, 2005; Arora, 2007).

India and Pakistan signed the Indus Waters Treaty (IWT) in 1960 under the auspices of the World Bank. The Treaty characterizes the Indo-Pakistan River resource relationship to reach a water-sharing consensus. The Treaty is said to be the technical solution to a political problem. Under this Treaty, India and Pakistan agreed to partition the Indus water system. India got control of the three eastern rivers of Ravi, Beas, and Sutlej, while the power of three western rivers i.e., Chenab, Jhelum, and Indus, was entrusted to Pakistan. The soaring conflict between Pakistan and India has spread over many issues, and resolving disputes between these neighbors has always been challenging. Pakistan and India have gone to war over the contentions about the Indus basin rather than negotiating like the 1960 Indus waters treaty. The strength of the IWT remained tested for almost half a century under the two wars and the nuclear regime in the region. However, the depletion of freshwater resources in the Indus Water System has worsened the water dispute between India and Pakistan. With the growing demands, some experts believe water can be the new 'core issue' between Pakistan and India and require more attention than Kashmir. (Alam, 2002; Abbasi, 2012; Beach et al, 2000). The fate of the IWT (Indus Water Treaty) is becoming more unpredictable as tensions rise on both sides of the border. Many analysts in India and Pakistan advocate that the Indus Water Treaty is irrelevant anymore, and there is an urgent need to make amendments if it cannot be thrown out altogether (Alam, 1998; Malik, 2005).

Pakistan claims that India has violated the provisions of the Indus Water Treaty on many occasions. The 690 MW Salal Hydroelectric Project is just one example of these violations; India started constructing this project in 1970, and the Wullar/Tulbul Barrage Project is another example, the construction which began in 1984, when Pakistan found out a protest report was filed in 1986. The 330-MW Kishanganga Hydroelectricity Project is another prominent example of the violation of the IWT. A conclusion has yet to be reached on these issues; however, the good thing from this scenario is that India and Pakistan believe in arbitration for their claims on the Indus Water Treaty. According to Pakistan, these projects are a direct violation of the provisions of the Treaty. However, as per India's stance, these projects are designed under the provision of the Treaty (Mustafa, 2013). Pakistan is worried that the projects initiated by India on the Indus Water System will deprive or have the potential to deprive the share of water for Pakistan. India is not only involved in building dams on the western rivers but evidence has also been found that exposes India's efforts to prevent Pakistan from building storage dams on Pakistani rivers (Kazi, 2011; Iftikhar, 2011; Javaid, 2011; Parsai, 2022; Mustafa, 2013).

In this study, the water dispute between India and Pakistan has been analyzed in detail. This study aims to identify what intensifies the two countries' water conflict. The effects of the water disputes on the region's security have also been investigated. Furthermore, the intensity of water disputes is examined through the hydro-hegemonic framework in this study. With this research, the author tried to identify the elements of water supremacy and power imbalances.

Finally, the author analyzes the effects of water disputes on the diplomatic relations between the two neighboring countries, and suggestions to overcome water disputes are furnished at the end.

Objectives

- To analyze the impact of water disputes on regional peace and security in South Asia.
- To examine the effects of water conflicts on the bilateral relations between India and Pakistan.
- To assess India's exercise of water hegemony and its implications for Pakistan.

Literature Review

Khan et al. (2022) examine the water conflict between two neighboring nuclear-armed nations, India and Pakistan, marked by their strained relationships, mistrust, and wars. In 1961, both countries entered into a bilateral water treaty in collaboration with the World Bank. While the Treaty is often cited as one of the few successful examples of global water treaties, it has encountered challenges over the past two decades. This study advises that the government should consider the warning issued by the UN in 2013 concerning the impending water crisis that Pakistan is expected to encounter in the next decade. The government should prioritize the prompt completion of large-scale dam projects and implement the necessary measures to reduce domestic and commercial water losses on a war footing.

Riffat and Iftikhar (2021) also covered the disputes between India and Pakistan regarding the distribution of water resources and their impacts on their mutual relations. The authors' research establishes that if such water issues are not resolved, they are likely to erupt into a massive conflict that will include other South Asian countries that are allied to the two states.

Mirza (2016) sought to understand the reasons behind the water disputes and the intensified complications between India and Pakistan. He stated that one of the most efficient strategies for eradicating the conflict was to enhance water governance in the region and improve water resource management.

Ali and Faizu-ur-Rehman (2015) discuss the Indus Water Treaty (IWT) process and the problems that arose from such a treaty. The authors propose that it is imperative to strengthen the Treaty by involving the stakeholders of the Indus River system in improving the areas that led to the contention.

Adhikari (2014) proposed that the water resources of the South Asian River systems can be considered as a positive step towards framing the relations between riparian states. The author also suggested that the countries cooperate to conserve water instead of creating disputes concerning water distribution. The enhancement of relations would require the states to cooperate by setting aside their hostilities and enhancing trust through the water system for the good of all nations.

Wirsing et al. (2013) provide a succinct explanation of the relations between Pakistan and India and how these relations are impacted by the disputes over water resources. The authors also provide domestic imperatives and faltering bilateral diplomacy contributing to the issues emerging in the feud between Pakistan and India, as well as the substantial threat of worsening interstate conflict.

Research Questions

- How does the water dispute between India and Pakistan affect the perception of regional peace and security?
- How have specific incidents of water conflict shaped their bilateral relations?
- To what extent does India exert water hegemony in its relationship with Pakistan?

Significance

The results obtained from this study can be used to inform policymakers on both national and international levels, foreign or environmental ministries, and particularly the Indus Waters Commissions in Pakistan and India about the importance of cooperation and the establishment of a global water law or Treaty.

Research Methodology

Research Method

This study opts for the qualitative research method. Data is collected from secondary sources, including journals, books, articles, magazines, newspapers, and reports. Content analysis is used to draw themes and patterns out of the data to build a narrative.

Research Design

Both descriptive and historical research designs are employed in this research. The historical research design helps collect, verify, and synthesize evidence from other research and sources to create facts to refute or defend the established narratives. The design also describes past occurrences and largely depends on observed data (Cowan,2020). On the other hand, descriptive research design helps systematically and accurately describe a phenomenon, situation, or population (Nassaji,2015).

Theoretical Framework

Hydro-hegemony describes the behavior of any regional power concerning the smaller countries sharing the standard river system. Further, the hydro-hegemony is closely linked with the hydraulic power politics played among the countries sharing international river basins (Zeitouna & Warnerb, 2006).

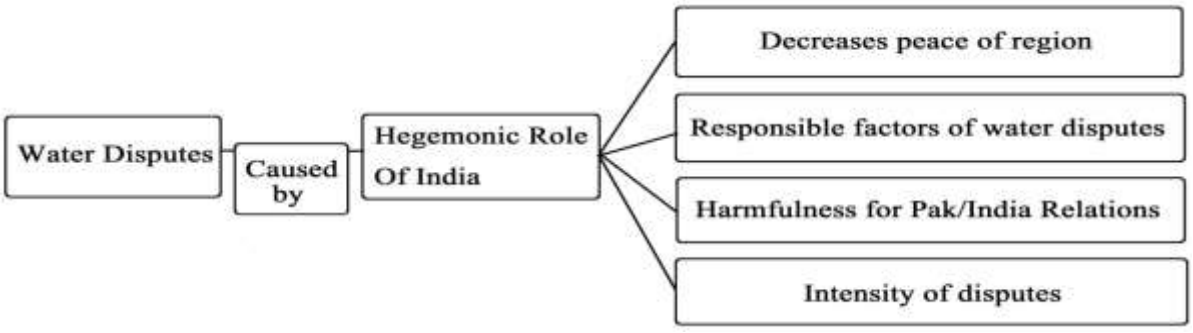
In this study, the Hydro-Hegemony theory was applied to analyzing water disputes over Indo-Pak relations, which explored the matter in three ways:

1) Finding the factors driving these water disputes and their intensity.
2) Potential threats and consequences of such disputes.
3) The authoritative role played by India in such conflicts

The hydro-hegemony framework was used to understand the water disputes between India and Pakistan. India is an upper-stream riverain, while Pakistan is a downstream riverain. Water disputes remain the main agenda of Indo-Pak meetings. Indian higher authorities have threatened to block water passages, which threatens regional peace. India uses uncooperative tactics to gain control over water resources.

The diagram below illustrates conceptual framework for dissecting the Indo-Pak relations.

Figure 1: Water disputes details



Applying Hydro-Hegemony Framework (HHF)

Table 1: The table on the summary of hydro-hegemony pillars

Riparian Position	Power	Exploitation potential
Downstream/Upstream	The first dimension (Military/Economic) The second dimension (ability for active stalling and incentives) The third dimension (securitisation and regime of sanctions)	Infrastructure technical capacity

There are three pillars of Hydro Hegemony Framework as shown below.

The Pillars of Hydro-Hegemony

Riparian Position (Pillars I of Hydro-Hegemony)

Geographical Location: The Indus River is among the largest rivers present on the face of this planet earth. This river significantly controls the economy of Pakistan. The Mansarovar Lake, a small lake in Tibet, yields the Indus River. The river acquires many of its water reservoirs from the Himalayan glaciers and it completes its journey by merging into the Arabian Sea. It trails across the southern path of Pakistan through its Northern areas by flowing in the Jammu and Kashmir. It eventually enters the Gilgit and Baltistan region of Pakistan. It not only acts as the main source of irrigation for these areas but enhances the scenic factor also. From east to the west, the Indus River is linked through various tributaries. The Tochi, Kabul, Ghizer, Gomal, and Swat rivers are the main tributaries from the west. While Ravi, Jhelum, Sutlej and Chenab connect it from east. The Indus water system consists of the Indus itself as well as its main tributaries. The major tributaries of the Indus on the right bank are: The Kabul River and Kurram River, which connect the Indus as soon as it exits the highlands and other areas in the lower plains. River Jhelum, Chenab, Ravi, Beas and the Sutlej constitute the left bank. The heads of the river Jhelum and Chenab are located in Kashmir, which is a disputed territory between India and Pakistan. The head of river Sutlej and Ravi and most part of Beas lie in the Indian territory.

Pakistan reaps maximum benefits from the River Indus though. However, the river crosses through three countries namely; India, Pakistan and china. The river basin of the Indus is spread over 1.12 million km² and it shares 47% trans boundary with Pakistan, 39% with India, 8% with China and 6% with Afghanistan.

Table 2: Country Area in the Indus River Basin

Basin	Area Km^2	% of the South Asia	Countries Included	Area of Country in basin(km^2)	As % of total area of the basin	As % of total area of the country
Indus	1120000	5.4	Pakistan	520000	47	65
			India	440000	39	14
			China	88000	8	1
			Afghanistan	72000	6	11

Indus covers about 520 000 km² or 65% of Pakistan's territory. It is present in all four provinces, including the entire Punjab and Khyber Pakhtunkhwa, most parts of Sindh, and the eastern part of Baluchistan. The Indus River occupies around 440 000 km² or 14% of the catchment area in

India, with a presence in Punjab, Chandigarh, Himachal Pradesh, Rajasthan, Haryana, Jammu, and Kashmir. The Woodrow Wilson International Centre for Scholars issued a report in 2009 indicating that since the early 1950s, Pakistan's water availability has dropped by 70% to 1,500 cubic meters per capita. The situation is expected to deteriorate further in the next 25 years when the country's water reservoirs reach 1,000 cubic meters per capita. According to international standards, this level is considered scarce (Hanasz, 2014). There is a visible imbalance in the Indus-related waterpower.

Among the riparian states, India can cut the water supply entirely from Pakistan's West Punjab region, the country's agricultural backbone (Mandakini, 2015). These riparian neighbors signed the Indus Water treaty in 1960, which ascertained that Pakistan would receive 55,000 cusecs of water. However, in the winter of 2009, Pakistan only got 13,000 cusecs; in the summer, it received a maximum of 29,000 cusecs (Haines, 2017). Internationally, Pakistan is often found wailing about India stealing its share of water. In this water arrangement between India and Pakistan, India enjoys the upper riparian advantage, which offers it significant control over the Indus waters. India's control over the water from the Indus Basin is further strengthened by numerous hydro projects and dams built on the western waterways. Pakistan labels India's stance as 'the drying up of Pakistan.' These water disruptions can result in stark conflicts among these riparian neighbors. Pakistan is present on the lower end, making it dependent on water flowing from India. Pakistan's agricultural area will become a desert if India initiates its water hegemony over the Indus waters. These hydro-hegemony projects can enable India to either discontinue the water supply to Pakistan totally or to store the water and release it later, which will cause floods in Pakistan.

Pillars II of Hydro-Hegemony (Structural, Ideational Power and Bargaining)

1. Structural Power: (Economic Strength, Military Power and Political Support)

A country's economic, military, social, technological, quality of mobilization, governance structure, and diplomatic and intelligence penetration, when combined with its overall power structure (Zeitoun & Warner, 2006), can be used to influence others to behave in the manner they want, or to resist other's unwelcomed advances. According to Waltz and Perkovich, power is measured by the extent to which one affects others instead of affecting oneself. In a similar context, India's ability to control other states and repel unwelcome advances is an outcome of its different forms of soft and hard power (Parsai, 2022). A state's economic strength may be ascertained through its gross domestic product (GDP). Pakistan's GDP, for instance, is at $ 338.4 billion compared to India's $ 3.55 trillion. The agricultural yield of Pakistan has been below the potential, while India is striving to achieve the ultimate goal of being a developed country with an annual growth rate of 7.6% (World Bank, 2024). Pakistan's GDP breakdown is as follows: two-thirds, or 66%, is a product of exports; one-fourth comes from agriculture; and approximately half from employment. The livelihood of the rural population significantly depends on Agriculture. However, it is seen that in the past years, Pakistan's agricultural yield has significantly been below potential. Factors like lack of fresh water for irrigation and extreme drought conditions also contribute to lower crops. At the same time, India has successfully achieved international attention due to its economic progress. The international community deems Pakistan as one of the most dangerous places on the planet because it nests Islamic militants. It is for the same reason that the financial world's attention is drifting away from Pakistan (Adhikari, 2014).

India improves its military budget every year. By 2020, the country's budget had exceeded $67 billion, with just five countries spending more than India in defense. By 2023, the country's defense budget had increased to $71 billion, while Pakistan's was at $6.267 billion (Sharma, 2024). India's rise as a military giant in South Asia has increased tension for Pakistan. India is politically much more potent than Pakistan.

Moreover, India's investment and economic growth has dramatically enhanced its status. The strategic race between India and Pakistan is changing with time. India is at the advantage of growing comprehensive national power, and this progress is expected to continue. However, both Pakistan and India are continuously involved in the development and expansion of their nuclear weapon capabilities (Khalid et al., 2014). India seems stronger in every aspect of national power, i.e., progressive economy, better geographic position, and pluralistic democracy. The economic boom in India, which started in the early 1990s and is still going strong, has definitely influenced the strategic landscape in South Asia (Ali & Faiz-ur-Rehman, 2015). An inverse relation between India and Pakistan's international position was observed during the 1990s and 2000s. The security situation has further harmed the global position of Pakistan as well as the dismissal and overthrow of civilian governments by military leaders, and as claimed by the US, its tolerance, refuge to violent extremist groups, and using non-state actors for achieving its perceived security interests in South Asia (Kozacek,2016). India will fundamentally remain stronger than Pakistan in terms of power. The efforts made by Pakistan to compensate for these fundamentals have made it more vulnerable. Pakistan has failed to compete with India's military capabilities, which are larger and wealthier. Pakistan has lower military strength than India. The nuclear weapons, however, have helped Pakistan to scare India off (Parsai, 2022).

2. Ideational power

There is a strong relationship between the ideational power of India and its power of bargaining owing to the complete dependence of Pakistan on Indus waters passing through the disputed state of Jammu and Kashmir, which is another primary reason for the interstate tensions (Haug, 2010). In light of Article III of the IWT, India cannot obstruct the flow or storage of any water using dams on the western rivers to Pakistan. However, India has already constructed dams on all these rivers, and some are still under construction, particularly in Kashmir, for diverting water away from Pakistan and storing it. Fundamentally, the Harmon Doctrine is followed by India, which dictates the principle of Absolute Territorial Sovereignty to the state having access to the upper riparian and rights to use water resources passing through its lands (Tajammal, 2010). Zeitoun and Warner (2006) stated that control over shared water is a political strength as fresh water plays an essential role in the progress of the national economy. According to past experiences, most stability arises when the water resources are shared. However, with sharing, there arises the need for a hegemon to negotiate a water-sharing agreement, which is agreed upon by all parties, laying the foundation for forming a positive form of hydro-hegemony. If one of the hegemons wants more control of water resources, a hostile or dominant form of hydro-hegemony occurs. Consequently, unstable hydro-relations are caused by this kind of hydro-hegemony. The dominant form of hegemony is attained by using different tactics by the hydro-hegemon to achieve three strategic outcomes: resource capture, integration, or containment.

Containment/Integration Strategy: The presence of freshwater resources in Kashmir makes the conflict even more critical as it is a battle for survival. There have been political efforts in India to turn Kashmir into a Holy Land and its rivers into religious symbols. Festivals such as Sindhu Darshan have been created to create the impression that the Indus is a Hindu river with religious significance (Haug, 2010). The Indian intention to contain Kashmir is part of the plan for Pakistan's destruction by cutting off the water supply and, consequently, threatening its security; there have been prominent efforts on Pakistan's part to draw the attention of the international community to this matter (Adhikari, 2014).

Resource Capture Strategy: Resource capture can be explained as when the group with more power allocates the resources such that they benefit from it, and the poor and weaker groups of the society live under a scarcity of resources (Homer-Dixon, 2001). Resources can be

controlled by the acquisition of land, land annexation, or the construction of large-scale hydraulic works; however, to get away with this, facts on the ground are manipulated such that it does not raise questions on ethical grounds (Zeitoun & Warner, 2006). The resource capture strategy of India in the Indus basin is the construction of projects like the Baglihar Hydro Power Project (BHP), Tulbul Navigation Project (TNP), and the Kishanganga Project and Pakistan has raised voice and stated concerns that with the construction of these projects flow of water in Pakistan maybe affected drastically and even lead to floods downstream. The 450-MW Baglihar Dam, which India constructed on the Chenab River, is the primary concern of Pakistan (Michel, 2020). India is believed to have gained control over the Indus Waters by constructing the Baglihar Dam on the Chenab River (Yang et al., 2014).

Bargaining power: Two main aspects give India its bargaining power. First, India's position as the upper riparian country in the Indus basin gives her the power to divert, stop, or reduce water flow to countries present downstream. Secondly, India's strategy with the world's superpowers also strengthened its power in the Indus Basin (Ranjan, 2010). Both the US and the UK support India when it comes to the issue of turning the Line of Control into an internationally recognized frontier, even though the activists in Pakistan and Kashmir oppose this (Qureshi, 2017). Pakistan has raised alarming concerns regarding the design of the Baglihar Dam, under which India can divert over 7,000 cusecs of water per day from the Chenab for irrigation purposes. Therefore, the construction of the Baghlihar Dam is detrimental to Pakistan's agriculture, which is the mainstay of the country's economy. The 1960 Indus Basin Treaty allowed India to generate electricity from these resources but prohibited river water diversion. The construction of the Baglihar Dam violates not only the IWTviolates not only the IWT but also the fundamental human rights of Pakistani citizens. India can stop water use for about 26 days during December, January, and February by storing 164,000-acre feet of water. Pakistan argued that during the filling of the Baglihar Dam reservoir in 2008, India temporarily reduced water flow, impacting Pakistan's agricultural water supply (Zafar & Wirsing, 2017).

Pillar III: Exploitation Potential

India is relatively well equipped for the construction of dams. In that order, India is second only to the US and China in the list of countries with the most dams globally. It has built approximately 5334 dams after China and the US (World Bank, 2024). Several projects commenced by the government of India are currently complete or close to completion. Pakistan, on the other hand, has voiced its concerns mainly on the construction of the Baglihar Hydro Power Project (BHP), Kishenganga Project, and Tulbul Navigation Project (TNP) as the construction of these dams would negatively affect the flows of waters of the rivers into Pakistan (Michel, 2020).

The Water Dispute as a Threat to the Peace of the Subcontinent

For more than 76 years of separation, Pakistan and India have failed to formulate a cordial relationship in the face of an acute issue of water scarcity. In the form of violent confrontations, a significant risk is most likely to present itself in terms of sharing river resources between the two countries in the coming years. A peace process must be undertaken to ensure the de-escalation of confrontation between India and Pakistan (The Express Tribune, 2021). With water disputes creating an ambiance of tension and mistrust, working together towards an amicable agreement - a better treaty would alleviate the stress. Pakistan and India have fought four wars over Kashmir due to water disputes (Haines, 2017). While Pakistan believes that Indians misuse their control over the water heads by blocking water flowing into Pakistan, Indians have always rejected such allegations and pledged to abide by the IWT.

Results and Discussion

The water dispute between India and Pakistan has negatively impacted the development of the inhabitants of the Indus basin. The dispute's origin can be traced to historical developments of water resources on the Indus River System. Water-sharing issues, for instance, led to the acquisition of new dimensions after the establishment of the subcontinent, with factors of political and economic interests, social aspects, geography, and the absence of the negotiation culture causing the severity of the Indo-Pak dispute. India came into existence after partition, which positioned it as an upper riparian country. It then tried to establish its hydro hegemony in the area in 1947. It also amassed the global community's support, which accelerated its negative role in the distribution of water resources. However, under the auspices of the World Bank, Pakistan, and India signed the IWT to eradicate the water disputes that had been experienced. The IWT offered a technical solution to the water issue between Pakistan and India. Both countries were required to work together in an environment of tranquility and peace through the guidance of the World Bank. The Treaty also offered a framework for conflict resolution. In case the countries failed to discuss and resolve their water dispute mutually, they were advised by the Treaty to invite external mediators. However, Pakistan and India's growing energy and economic requirements accelerated the development of challenges such as water scarcity and the threat of peace between the two countries. India violated the IWT by constructing hydroelectric projects for the Indus water system. It is an attitude that Pakistan considers as a negative hydro hegemony design. Also, India's stance on Kashmir stance placed the Indus water treaty at stake.

Based on the review of literature sources identified for this study and regarding the Indo-Pak water issues, it is conclusive that given blatant signals accelerated the countries' unadorned conflicts, which could turn into a full-fledged war. The war will likely affect the region and the world, considering both states' nuclear power capabilities. The HHF's application offers the understanding that cooperation between India and Pakistan can be established. However, there is the possibility of violent outcomes between India and Pakistan - considering that Pakistan is not ready to accept India's hegemonic behavior. Therefore, the creation of a permanent solution must involve the settlement of the Kashmir issue to avoid any future wars. Climatic variations and environmental problems arising from violating the developed Indus Water Treaty must also be solved. Settlement of the discourse associated with water issues requires the creation of a culture of negotiation between countries and the region. Comparatively, an urgent need exists to create a comprehensive plan for water management - as agreed upon by Pakistan and India, to resolve the soaring demand for water in the Indus Basin.

It is identified, therefore, that the water issue between India and Pakistan seems to be more of a water management concern in terms of handling water resources and initiating governance mechanisms. The aspect of water governance requires that the resources and rights of inhabitants are equally distributed. There is also a serious need to discuss this water issue at the regional level. However, other ways to resolve the water issue are identified below:

- India and Pakistan's water management strategies must include feasible arrangements for regional discussions, where stakeholders could collaborate and sketch a joint mechanism to discuss the water issue.
- Both states must develop strategies for water resource management through proper planning at the domestic level. On the other hand, creating a joint water project between them or with other riparian states would enhance cooperation and mutual trust.
- Creating more watercourses also ensures the maintenance of water flow. Such watercourses are imperative to re-routing the national flow of the rivers or reducing the diminishing of cross-border water supplies.
- Water storage projects on international rivers have to embrace transparency. However, peaceful management of inter-country water competition in Asia requires transparency of

national projects (as long as they could potentially cause transboundary implications). Also, collecting and sharing reliable figures and facts must be the foundation for interstate cooperation.

- Solving water issues and averting fears of war between India and Pakistan require renegotiating the IWT Treaty to address the raised concerns.
- Collaborative efforts within the region emerge daily. The Asia-Pacific Water Forum (APWF), initiated in 2006, purported that the Asian Development Bank had to offer a platform for the region's water resources officials to discuss and formulate cooperative strategies (Yu,2013). The APWF organizes Asia-Pacific summits to discuss the most appropriate approach to enhance awareness and instill a sense of realization among the masses regarding the challenges when conversing about water resource management.
- With different subcontinental collaborative forums, including the SAARC, all states in the South Asian region can efficiently mediate on water issues and help India and Pakistan resolve their conflicts.
- Mediation through secret diplomacy can help find peaceful solutions to problems. Secret diplomacy can succeed if the persons involved in it have great influence on the government.
- The inefficient use of water (excessive/overuse) and land utilization patterns have aggravated the problems of deforestation and soil degradation in the Indus Basin. These practices will cause negative climate change, which will undoubtedly further reduce the water supply in the Basin. Prediction and avoidance of climate change for the improvement of water management is a current dimension that has been added to water conservation practices.

Conclusion

Water disputes between Pakistan and India have negatively affected the development of the masses inhabited in the Indus Basin. The very genesis of the conflicts can be traced from the history of the development of water resources on the Indus River System. The issues of water sharing of the Indus River System have gained new dynamics after the partition of the subcontinent. Different factors like the geography of the Basin, social, economic, and political interests of both the countries and the absence of a culture of negotiation in the regions had added to the severity of the dispute.

The location of the Indus Basin was bifurcated between the two riparian countries of Pakistan and India in 1947. As an upper riparian country of the Basin, India has tried to establish hydro hegemony in the region since the partition. However, India's negative role is supplemented by the international community's actions. Under the World Bank's umbrella, both countries signed the Indus Water Treaty in 1960. The Treaty is widely rated as one of the best water treaties in the world. It is called that the Treaty has provided a technical solution to a political problem. Under the guidance of the World Bank, both countries worked in an environment of peace sole and tranquility. The Indus Water Treaty provides a framework for conflict resolution in water disputes. If both countries fail to solve the dispute by mutual discussion, they can invite external forces for mediation. The growing economies and expanding energy needs of India and Pakistan are developing the challenges of water secrecy and threats to the peace of both countries. India's negative hegemonic role was observed even after the signing of the Indus Water Treaty in 1960. The violation of the Treaty, committed by India during the construction of hydro projects on the Western Rivers of the Indus Water System, reflects India's negative hydro hegemonic design.

Further, the stance over the Kashmir Issue, adopted by both the riparian countries, had placed the Indus water treaty at stake. Based on a review of available literature regarding the water issue, it is concluded that some blatant signals led the two countries towards unadorned

conflicts, which may turn into full-fledged wars. Considering the nuclear power capabilities, such wars will affect the region and the world.

Misuse of water with the last drops means a violation of the Treaty. The current disputes have potential threats not only for future water development but also have a negative effect on Pakistan-India relations. The application of HHF provides the understanding that there is some cooperation, but mainly in the interest of India, which is proof that would lead the two countries towards violent conflicts because Pakistan is not prepared to accept India's hegemonic behavior. In the previous decades, crucial disputes over water sharing have intensely affected India-Pakistan relations. A permanent solution will involve settling the Kashmir issue to avoid future wars. Environmental worries and climate variation developed after the Treaty time. Settlement of water issues demands a culture of negotiation in the region, not only at the state level but also at people-to-people contact among the masses of both countries. There is an urgent need to evolve a comprehensive water management plan agreed upon between the two countries to address the growing demand for water in the Indus Basin.

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