

A Study on the Historical Development of Hydro Diplomacy in South Asia

Ayushee Choudhary & Dr. D Purushothaman¹

Abstract

The South Asian region comprising countries namely India, Pakistan, Afghanistan, Nepal, Bhutan, Sri Lanka, Bangladesh, and Maldives, holds a significant geo-political and economic position. These countries share a complex history of colonialism which led to a political demarcation of boundaries resulting in various problems in sharing common sources/water bodies in the region. This paper focuses on the historical development of *hydro diplomacy* in South Asia, with an emphasis on the Indus River Basin, Kabul River Basin & Ganga-Brahmaputra-Meghna River Basin in an attempt to scrutinize water politics in South Asia. A substantial number of bilateral agreements and treaties have been signed amid different countries of the region to ensure the maximum utilization of its vast river systems. However, challenges remain in managing water resources at a regional level effectively and addressing the needs of all stakeholders. Understanding the historical development of hydro diplomacy provides insights into the complexities faced in managing transboundary water resources in South Asia. This paper highlights the importance of cooperation, negotiation, and updated agreements to ensure sustainable and equitable use of water in the region in the backdrop of legal and customary International law on transboundary river water sharing.

Keywords: Hydro Diplomacy, Water Cooperation, South Asia, Transboundary Rivers, International Law.

Introduction

The South Asian region stretches from the Himalayan mountain range in the north to the Indian Ocean in the south and extends from the Indus valley in the west to the Brahmaputra river basin in the east (Bose & Jalal, 1998). Despite the vast diversity among the eight South Asian countries, they share a deep cultural and historical background, making them a true embodiment of unity in diversity. The subcontinent has a long history of colonialism that resulted in the demarcation of boundaries, leading to significant socio-economic and political

¹ Ayushee Choudhary is a PhD scholar and Dr. D Prushothaman is a Professor at Centre for South Asian Studies, Pondicherry University, India.

upheavals in the region. Therefore, it is important to note that the ecology of this region cannot be strictly defined by the boundaries drawn on paper. In order to perpetuate peace, prosperity, and cooperation in the region The South Asian Association for Regional Cooperation (SAARC) was formed in December 1985 with the aim of promoting cooperative socio-economic growth, cultural and political development, and general welfare among the member states. Afghanistan became the most recent addition to SAARC in November 2005, during the thirteenth SAARC summit. However, any bilateral disputes between member nations are not discussed in the SAARC meetings which act like a double-edged sword as it makes cooperation both easy and difficult at the same time. There are two nuclear states (India and Pakistan) in the region which attracts the attention of the world. Also, Afghanistan has always been a battlefield for the Western powers since the bipolar world order to the present times of Taliban rule. However, it is important to emphasize that water plays an important role in shaping the history of South Asia. In any country or region, the political nature of water is blindingly obvious (Wegerich & Warner, 2010). The significance of water will increase drastically in the near future as environmental pressures increase, mainly due to several factors like over population and urbanization, industrialization, and climate change (Petersen, 2015). But the “The impact of these borders on Asia's Water is a significantly neglected part of history” (Amrith, 2018). This paper focuses on the historical development of transboundary river water sharing in South Asia with a specific emphasis on the Indus River Basin, Kabul River Basin, and the Ganga-Brahmaputra-Meghna Basin. The Indus River being one of the longest rivers in the world, flows through India and Pakistan, leading to the formulation of the Indus Water Treaty in 1960 for better utilization of the river water by Islamabad and New Delhi. The treaty has been successful in resolving disputes, but there are ongoing debates about its effectiveness and the need for an upgrade. On the other hand, the Kabul River, shared between Afghanistan and Pakistan, lacks a concrete mechanism for cooperation on river water sharing. Efforts have been made to negotiate a treaty, but progress has been limited. The Ganga-Brahmaputra-Meghna Basin, shared among India, Bangladesh, Nepal, Bhutan and China, is one of the largest and most populated river basins in the world. Water Agreements have been established between India-Bangladesh, India-Nepal and India-Bhutan to ensure the maximization of benefits from the rivers. This paper examines the current treaties and agreements concerning the transboundary river water sharing in the South Asian region. It also evaluates the efficacy of these mechanisms within the framework of international law and global practices related to the equitable sharing and maximum utilization of water resources worldwide.

Historical Development of Hydro Diplomacy in South Asia

1. Indus River Basin

Indus is a transboundary Himalayan river which stretches about 3,200 kms making it one of the longest rivers in the world. It originates from the Bokar Chu glacier at Mount Kailash. Its main tributaries are Jhelum, Chenab, Ravi, Beas and Satluj. These five rivers join together to form the Panjnad River in Punjab Pakistan. The Indus River is fed by snow from the Himalayan glaciers hence the flow of water varies across seasons being minimal during winter while causing floods during the monsoon season. The people of the Indus river basin are largely dependent on agriculture hence during the British period canals were constructed to maintain irrigation but after partition borders were drawn between two nations and disputes began which created a need for negotiations. This resulted in a water treaty between the two countries i.e the *Indus Water Treaty of 1960*. The treaty was signed in 1960 to promote cooperation on the issue of transboundary water sharing between India and Pakistan (Aslam, 2022). It was formulated for optimum utilization of water in the Indus system of rivers. In accordance with this treaty the eastern rivers namely Ravi, Beas and Sutlej were given to India for domestic usage as well as for projects that would not disrupt the flow of these rivers. On the other hand the western rivers including Indus, Jhelum and Chenab were given to Pakistan on the same conditions. India has the advantage of being an upper-riparian state as the river and its tributaries flow through India into Pakistan making Islamabad as the lower-riparian state. This scenario makes Pakistan insecure about the usage of the Indus river system as a weapon or deliberately depriving Pakistan of its required share of water during the time of any crisis by New Delhi. The Indus Water Treaty of 1960 has an excellent apparatus in place for resolving disputes on the Indus River between India and Pakistan. It arranged for the formation of a permanent *Indus Commission* that has representatives from both the countries. Any dispute or disagreement amid New Delhi and Islamabad is presented to the commission which if fails to resolve would go to a neutral expert appointed by the World Bank. The Indus Water Treaty also has other features like exchange of data and information to build trust amongst the two nations over the usage of the Indus river system. IWT is considered as one of the most successful bilateral treaties in South Asia amid two nations that barely see eye to eye. These two countries have tested nuclear weapons in the late 1990s and possess nuclear warheads for several years to come (Sasikumar, 2019). "India and Pakistan fought about three wars (1965, 1971, and 1999) also political tensions keep rising every now and then (1989, 2001, 2008, 2016, and 2019) however, despite all these

upheavals, the Indus Water Treaty has survived for 60 years”(Ranjan, 2020). There are also some apprehensions about the treaty. For instance some scholars opine that the treaty needs an upgradation in accordance with the International laws on transboundary river water sharing. B.G. Verghese advocates for an Indus- II Treaty for a better utilization and power generation for both the countries. Also, according to Pakistan it happens to be at a lesser advantageous position for the usage of the Indus Water system due to its lower riparian status.(Verghese, 2010) Therefore, “Despite its success, the IWT has been subject to dissatisfaction and disputes from Pakistan, especially due to the development of hydropower projects on the Indus River on India’s side.” (Gardezi, Z., Borello, A., & Sheikh, R. 2020) One of the major Disputes occurred between New Delhi and Islamabad on the Construction first hydroelectric power plant built at Chenab River in Jammu and Kashmir. Pakistan raised questions on the design of the dam which initiated talks at bilateral level. After making certain changes in the plan both the countries came to an agreement in 1977 and the construction of the dam was completed in two phases. “In 1978, the National Hydroelectric Power Corporation (NHPC) started its construction and in 1987, the first phase of the Salal dam was commissioned. This was followed by the second phase, which was commissioned in stages in June 1993, February 1995, and March 1995.” (Amit Ranjan, 2020)The other project that arose in the dispute between New Delhi and Islamabad is Baghlihar dam. It is built at the Chenab River in Jammu and Kashmir. The construction of this project began in 1999. It is one of the most media highlighted disputes. Pakistan raised a number of objections to this project. Islamabad described it as a gross violation of the Indus Water Treaty 1960. Pakistan claimed that this project will reduce the flow of water causing a bad impact on its agriculture as well as the power generation capacity. The major objections were registered on the height of the dam and location of spillways. Since 1992 the contradictions have been discussed between New Delhi and Islamabad in the permanent Indus Commission. However, on not being able to resolve the issue Pakistan went forward with the neutral expert appointed by the World Bank in 2005. This incident is considered a failure of bilateral diplomacy between the two countries. Nevertheless, after consultation with the stakeholders the World Bank appointed Raymond Lafitt, a Swiss professor as the neutral expert to determine the claims. The neutral expert opined that “Pakistan’s contention was valid when seen strictly in the context of the treaty but modern day technology provided ways of addressing Pakistan’s concerns regarding the project (Khattak, 2008). The neutral expert, hence accepting the first three objections of Pakistan, suggested lowering the height of the dam to 1.5 mts, pondage capacity to be reduced by 13.5 percent and to change the location of spillways. Pakistan

claimed it as its victory whereas India considered the suggestions as minor changes and claimed the dam wasn't much affected. Also in the final verdict the expert supported India's position to go ahead with the construction of the dam. The next tension occurred on the Kishanganga hydro-power project. It is situated at the Kishanganga River which is a tributary of river Jhelum in Jammu and Kashmir. It was designed by India in 2009 but was inaugurated in May 2018. Pakistan argued that this project is a violation of Indus Water Treaty 1960 signed by both the countries. This issue when could not be solved through bilateral talks, Pakistan moved to the Permanent court of Arbitration. "In 2010, Pakistan invoked the court of arbitration mechanism over India's construction of the Kishanganga Dam, which would redirect water from the Kishanganga/Neelum River into the Jhelum" (Zawahri & Michel 2018). Pakistan claimed that this project would divert water and reduce the flow jeopardizing its Neelum-Jhelum Hydroelectric Project. Though the court instructed India to ensure a minimum of 9 cumecs flow of water downstream into Pakistan and to go ahead with its project. Some scholars argue that Pakistan planned its Neelum-Jhelum project to counter India's Kishanganga project. Although it is significant to note that it is one of the major elements of Pakistan's vision of 2025 program for energy development. The construction of the Neelum-Jhelum project started in 2008 and it was completed in August 2018. Tensions again began between the two countries India proposed to build Tulbul Navigation project on the mouth of Wular Lake at the Jhelum River in Jammu and Kashmir in 1984. However Pakistan complained about this project in 1985 on the grounds that it would restrict the flow of water in Jhelum River affecting the production of electricity at Mangla and agriculture in the region of Sindh. Pakistan argues that this project is in violation of the Indus Water Treaty (Thapliyal, 1999). Further there are claims that it would disrupt the triple canal project i.e upper Jhelum canal, upper Chenab canal and the lower Bari Doab canal. Also, Islamabad apprehends that India could use this project as a geo-strategic weapon during a war as tensions are usually high amid both the countries. Negotiations began between the two countries through the mechanisms provided in the Indus Water Treaty 1960 however after thirteen rounds of talks this issue is not resolved yet. In September of 2016 militants allegedly backed by the Pakistani army attacked an Indian army camp at Uri. As a consequence of this India conducted surgical strikes on the training camps of militants inside the territory of Pakistan. There were apprehensions of the tensions escalating into a nuclear war amid the two nations. "Pakistan flatly denied that a cross-border strike had taken place in September 2016, saying merely that Indian troops had fired small arms across the LoC, killing two soldiers and injuring nine" (Sasikumar, 2019). The international community also largely

considered this step of India as a proportionate step that did not escalate into a battle. However, this whole episode worsened the diplomatic relations between the two countries. It was in this context that India proposed a new Hydroelectric project (Ratle, a run-of-river hydropower project) at Chenab River (Kishtwar) in Jammu & Kashmir. Although this project is yet at the permitting and the construction of this project is yet to begin. Pakistan Objects on this project claiming an eventual water shortage on its side.

2. Kabul River Basin

Afghanistan has four major transboundary rivers namely the Amu Darya which it shares with central Asian countries, (Tajikistan, Uzbekistan & Turkmenistan) Harirud-Murghab shared between Afghanistan and Iran, the Helmand that runs across Afghanistan-Iran border and Kabul river which is situated in the eastern Afghanistan and northwestern Pakistan. Kabul River is about 435 miles long out of which 350 miles run through Afghanistan. Kabul River is largely used for irrigation and domestic purposes by Kabul and Islamabad (Yousaf. S, 2017). The major tributaries of Kabul River are Logar, Panjshir, Alingar, Surkhab, Kunar, Bara and Swat. Afghanistan has a long history of war and conflict due to which there is a dearth of development in engineering and technology. Therefore, Afghanistan is yet to utilize the full potential of its water resources. Kabul River originates from the glaciers which creates apprehensions amid both the nations about the future of its water flow. Some occasional dialogues took place between the two nations however, at present there is no existing concrete mechanism of cooperation between Kabul and Islamabad on river water sharing. In 2003 Pakistan formed a committee to draw a treaty between Kabul and Islamabad for the first time. Following which in 2013 World Bank tried to negotiate and formulate a treaty between the two countries on the lines of Indus Water Treaty however the efforts went useless (Gupta 2016). It was in 2013 that the two finance ministers of the two countries met for the first time to discuss the construction of a joint hydropower project at the Kunar River. It is important to note that from 2003 till 2013, there has not been notable progress toward reaching some kind of transboundary cooperation mechanism. The only water treaty Afghanistan has is Afghan-Iran Helmand Water Treaty of 1973 formulated for a better utilization and sharing of the Transboundary River between Iran and Afghanistan. Kabul was also planning to build about twelve dams on Kabul River with the assistance of India and World Bank which raised tensions on the Pakistan side (Yusuf, S., 2017). Islamabad considered it as a plan of India to encircle Pakistan from the other side. India and Afghanistan signed a MOU in February 2021 for construction of Shahtoot dam at the Maidan River a

tributary of Kabul River in Kabul province to provide irrigation facilities and drinking water. Another major hydroelectric project famously known as the Afghan-India friendship (Salma Dam) was built in 2016 in Herat province of western Afghanistan. Some other power projects also exist at the Kabul River in Afghanistan like Naghlu dam and Darunta dam built by the Soviet in the 1960s. Meanwhile Pakistan constructed Warsak dam at Kabul River on its side in 1960 with the assistance from the Canadian government under the Colombo plan. This hydropower project produces 240 MW of electricity and ensures irrigation in the Peshawar valley of Pakistan. Islamabad objects to the dam construction on the Afghan side as it will dry up the water in Warsak dam affecting power production and agriculture output in the region. However, all the projects in Afghanistan have been jeopardized with the return of the Taliban in 2021. India has also adopted a wait and watch policy on Taliban. In fact in June 2022 India sent a team led by the joint secretary of Ministry of External Affairs on a visit to examine the status of Indian projects undergoing in Afghanistan as well as to the humanitarian assistance being provided by New Delhi.

3. Ganga-Brahmaputra-Meghna Basin

Ganga-Brahmaputra-Meghna basin is one of the largest and most populated river basins of the world. It comprises three rivers the Ganges, Brahmaputra and Meghna. It is shared among five countries namely India, Bangladesh, Nepal, Bhutan and China. The Ganga River originates in the Himalayas at Gomukh, Gangotri. At Devprayag two rivers i.e Bhagirathi and Alaknanda join together to form the river. It flows through north India and joins with river Padma in Bangladesh. Brahmaputra originates in the north of Kailash ranges of Himalayas in Tibet. It flows through Bhutan, India and Bangladesh. Its various tributaries are Lohit, Dibang, Subansiri, Jiabharali, Dhansiri, Manas, Tosra, Sankosh, Burhidihing, Desang, Dekhow, Kopili and Teesta. It joins the Ganga in Bangladesh and forms river Padma which eventually flows into Meghna and falls into the Bay of Bengal. The first water agreement happened between India and Bangladesh in 1972 to form an Indo-Bangladesh Joint River Water Commission (JRC) to ensure maximization of benefits, formulate and implement flood control plans and cyclone warnings. "Since 1972, water relation between the two countries has been a work-in-progress with both parties attempting to realize equitable water sharing" (Aktar, 2021). The Ganga water dispute between India and Bangladesh began in 1951 when India proposed to build Farakka Barrage to preserve the port of Calcutta as well as to ensure navigability of the Bhagirathi Hooghly river system. To resolve this dispute the Ganga Water Treaty 1996 was signed between Dhaka and New Delhi.

Furthermore one of the features of the treaty was that it would be revised every five years as per the need but this task was not even once undertaken by the stakeholders. Another major irritant in Indo-Bangladesh relations is the dispute over Teesta river water sharing. This issue began in 1951 however the negotiations over this dispute started in July 1983. A round of dialogues took place amid the two countries and eventually it was decided that each country would get 40 percent of the Teesta river water while 20 percent would be saved for the environment. However India did not sign the agreement neither in 2011 nor in the year 2019 as according to the Indian constitution the subject of 'rivers' falls under the state list of subjects and all the stakeholders have not agreed upon terms of this negotiation. Other objections that Bangladesh holds against India is on its river water Linking Project. India planned an enormous task of linking all its rivers from north to south for maximum utilization of its water resources and to combat the water related crisis across the nation. India proposed to "divert water from "water-surplus areas" to "water-deficit areas" (Adhikari, 2014). However, other neighboring countries including Bangladesh and Nepal have vehemently objected to this proposal. "The plan includes the construction of an interlinking canal system backed up by adequate storage spaces to transfer water to meet the needs of drought affected areas with each other to resolve its internal water related issues". Bangladesh being the lower riparian state is specifically apprehensive that it would deprive its river of the adequate flow of water. Furthermore, this project would negatively impact the ecosystem of these rivers. There have also been disputes between Dhaka and New Delhi over Tipaimukh embankment dam proposed to be built in the Indian state of Manipur at Barak River. The two countries have continuously delayed the construction due to a lack of understanding and consensus on this project (Misra, A. K., Saxena, A., Yaduvanshi, M., Mishra, A., Bhadauriya, Y., & Thakur, A., 2007). On the other Hand Bhutan's is a success story in terms of hydropower projects and river water sharing with its lower-riparian state India. Not only Bhutan manages to suffice its own electricity requirement but also exports the extra power generated to India which in turn contributes to its economy. India and Bhutan have shared a cordial relationship since 1968 when diplomatic ties were established between the two countries. Bhutan is one of the countries in South Asia that has used the potential of its water resources for power production to a very great extent. Bhutan has four major transboundary rivers namely Drangme Chhu which is shared between Bhutan and Arunachal Pradesh. It flows through Assam (Manas river) into Brahmaputra, Wang Chhu river which drains into Brahmaputra, Mo Chhu river situated in the north of Bhutan which crosses into Assam (Sankosh river), Torsa Chhu which flows into West Bengal, India. "The close and friendly ties between

Bhutan and India have provided the necessary political will and the market for Bhutan's power, as India has a huge power deficit" (Tshering, S. & Tamang, B., 2004) For instance Jaldhaka hydel power project is one of the oldest projects built at the international boundary of India and Bhutan. There have been a number of hydroelectric projects in Bhutan with Indian assistance like Kurichhu HEP, Tala HEP, Chukha HEP and the Mangdechhu HEP, Punatsangchhu- I HEP, Punatsangchhu- II, HEP Mangdechhu HEP, Sunkosh reservoir, Kuri-Gongri HEP, Amochhu reservoir, Kholongchhu HEP, Chamkharchhu HEP, Wangchhu reservoir, Bunakha reservoir. Meanwhile India shares three transboundary rivers i.e. the Kosi, Gandaki and Mahakali with Nepal. The water relations between Kathmandu and New Delhi had begun even before 1947 during the British period. The first treaty was signed between the two nations in 1920 i.e. the Sharada Barrage Treaty. With an exchange of land amid the two countries Sharada Barrage was constructed by India at the Mahakali River. Nepal has an enormous capacity of hydropower generation however due to lack of finances and technology it has failed to adequately utilize its water resources. Nepal has the advantage of being an upper riparian state to India whereas New Delhi has the economic and technological advancement to assist Kathmandu in hydro power generation projects. Several agreements have been signed amid the two nations but scholars in Nepal opine that the earlier treaties are one sided and exploitative towards Kathmandu. These bilateral treaties have constantly ignored the International law on water sharing and drawn provisions that stand favorable towards India. After India's independence, the governments of India and Nepal signed a landmark treaty to construct the Kosi Project in Nepal in 1954 (Jha, 2013). The Kosi Treaty of 1954 is, however, considered as one-sided by Kathmandu. On the contrary, New Delhi argues that difficulty in implementation occurs due to the lack of will from the Nepalese side. It leads to loss of life and property as there is a lack of cooperation amongst the technical teams in ensuring the technical maintenance of the barrages and other structures. Other contentious issues between Kathmandu and New Delhi include land ownership, water and power use, navigational and fishing rights and dispute settlement mechanisms (Adhikari, 2014). The second largest project between India and Nepal was the construction of Gandak river barrage (1968-69) to facilitate irrigation, hydropower generation and flood protection for the benefit of both the nations. Furthermore, the Mahakali treaty was revised in 1964 leading to construction of the Pancheshwar project. In some circles within Nepal, there exists a feeling of distrust regarding the Kosi and Gandak agreements. However, it is worth noting that India has shown a positive response to Nepalese grievances on multiple occasions promptly addressing concerns and rectifying shortcomings in the

initial agreements through revisions. Despite these efforts, progress on the water deal between India and Nepal, including projects like Mahakali, Sapta Kosi High Dam Project will remain stagnant until there is change in the mindset.

Hydro Diplomacy in South Asia

In the South Asian region, the river basins cover an extensive area that span through multiple countries, each with their own unique political interests and circumstances. This presents a significant challenge in establishing cooperation among these nations due to the diverse economic and political interests involved. This issue is compounded by the inadequate implementation of existing agreements and unnecessary delays caused by ever-changing domestic politics. Furthermore, the development of hydro-power projects becomes a point of contention among these countries, exacerbating tensions and concerns. Currently, all the treaties, agreements and memoranda of understanding (MOUs) between these nations are bilateral, lacking a comprehensive *basin-wide legal framework* to effectively address water-related issues and political matters in the region. To address these challenges and to promote harmonious relations, there is a crucial need to foster integrated regional cooperation guided by international law and established practices (Wouters, 2013). International law comprises a system of legal rules, encompassing norms, general principles, substantive regulations and procedural guidelines, which govern the interaction between states in various domains of human activities, environmental protection and the utilization of transboundary natural resources. These legally binding norms can be encountered in a multitude of international treaties and are also evident in the principles of customary international law, which is derived from the practices of states (Wouters, 2013). The international legal system, when considered as a whole, does not possess the intricate framework of specialized institutions (such as executive, legislative, judicial and administrative bodies) that are present in modern national legal systems. However, it would be erroneous to deduce from these absences that international law is inadequate or ineffective (Dellapenna, 2001). When addressing the sharing of transboundary rivers among different countries, a common concern arises amid the lower riparian states, fearing that they may not have sufficient opportunities to utilize the river basin. On the other hand, the upper riparian states often seek to assert their sovereignty over the usage of the river system, aiming to exploit it without limitations. This is where the concept of *restricted sovereignty*, known as equitable utilization, becomes crucial and forms the foundation for numerous treaties governing internationally shared

waters worldwide. Equitable utilization is built upon two fundamental principles: A.) Ensuring fair and equitable usage, B.) Obligation not to cause harm. Against the backdrop of these principles it becomes both a right and a duty of the state to adhere to agreements based on such guidelines which not only ensure the maximum and equitable utilization of the water resources by the stakeholders but also focuses on the conservation of the river systems. There are five core elements for scrutinizing the effectiveness of transboundary river water sharing and management i.e. Scope (Geographical parameters & parties to the agreement), Substantive rules (Adherence to the basic principles of river water sharing), Procedural rules (Rules for practical implementation of treaty), Institutional mechanisms (Bodies, commissions & conferences) & Dispute settlement (mechanisms for resolving conflicts) (Wouters, 2013). Upon analyzing the existing treaties and agreements among the South Asian region, it can be observed that these treaties generally align with the mentioned components. Nevertheless, it is essential to acknowledge that broadening the scope of these agreements from bilateral to basin-wide arrangements could enhance the effective management and utilization of transboundary river water systems. While the adherence to substantive rules for sharing river water is praiseworthy, there is room for improvement in adhering to procedural rules. Additionally, most of these bilateral treaties have established commendable mechanisms for resolving disputes, exemplified by the Indus Water Treaty of 1960. However, Occasional challenges arise, making it difficult to address these issues effectively. Nevertheless, even slight improvements in the dispute resolution mechanism can lead to significant positive outcomes.

Conclusion

In conclusion, the South Asian region's history of colonialism, diverse cultural backgrounds, and vast geographical landscape have created complex challenges in managing transboundary river water resources. The formation of the SAARC aimed to promote cooperation and socio-economic growth among member states. However, the absence of discussions on bilateral disputes during the SAARC meeting presents both opportunities and obstacles to cooperation. The historical development of hydro diplomacy in south asia, particularly in the Indus River Basin, kabul River Basin & Ganga-Brahmaputra-Meghna Basin, highlights the complexities of water-sharing arrangements. There is a need for upgradation in certain aspects of these treaties as there are several debates regarding their effectiveness and a need to conform to International laws on transboundary river water

sharing. Similarly, issues such as hydropower projects and water diversion plans have generated tensions, demonstrating the need for equitable utilization and cooperation among riparian states. In managing transboundary river water resources, adherence to International law and principles of equitable utilization is crucial to foster integrated regional cooperation. Development of a comprehensive basin-wide legal framework and addressing domestic political changes that may impede progress are essential steps toward ensuring peace, prosperity, and sustainable development in the South Asian region. There is a need for collaborative efforts among riparian states, facilitated by dialogue and trust-building & to harness the potential of their shared water resources.

References/Bibliography

- Adhikari, K. N. (2014). Conflict and cooperation on South Asian water resources. *IPRI J*, 14(2), 45-62.
- Aktar, F. (2021). Water Diplomacy and Water sharing problem between Bangladesh and India: a Quest for Solution. *International Journal of Research and Scientific Innovation (IJRSI)*, 8.
- Amrith, S. (2018). *Unruly waters: How Mountain Rivers and Monsoons have shaped South Asia's history*. Penguin UK.
- Aslam, B. (2022). Hydro-diplomacy and the prospects of environmental peacebuilding between Pakistan and India. *Journal of Humanities, Social and Management Sciences (JHSMS)*, 3(1), 204-216.
- Bose, S., & Jalal, A. (1998). *Modern South Asia: history, culture, political economy*. Taylor & Francis.
- Dellapenna, J. W. (2001). The customary international law of transboundary fresh waters. *International journal of global environmental issues*, 1(3-4), 264-305.
- Gardezi, Z., Borello, A., & Sheikh, R. (2020). The Effectiveness of the Indus Waters Treaty 1960: A Case Study of the 1999 Baglihar Hydroelectric Project and 2007 Kishenganga Hydroelectric Plant. *The Interdisciplinary Journal of International Studies*, 10(1), 53-69.
- Gupta, J. (2016, July 2). The Watercourses Convention, Hydro-hegemony and Transboundary Water Issues. *The International Spectator*, 51(3), 118–131.
- Jha, H. B. (2013). Nepal–India cooperation in river water management. *Strategic Analysis*, 37(2), 217-230.
- Misra, A. K., Saxena, A., Yaduvanshi, M., Mishra, A., Bhadauriya, Y., & Thakur, A. (2007).

- Proposed river-linking project of India: a boon or bane to nature. *Environmental Geology*, 51, 1361-1376.
- Khattak, A. R. (2008). World Bank Neutral Expert's Determination on Baglihar Dam: Implications for India-Pakistan Relations. *Pakistan Horizon*, 61(3), 89-108.
- Petersen, S. (2015). Instrumental Securitization: An Investigation of Contemporary Indo-Pakistani Hydro-Political Dynamics.
- Ranjan, A. (2020, October 19). India-Pakistan hydroelectricity issues: “questions” “differences” and “disputes.” *India Review*, 19(5), 427–447.
- Sasikumar, K. (2019). India’s surgical strikes: Response to strategic imperatives. *The Round Table*, 108(2), 159-174.
- Thapliyal, S. (1999). Tulbul navigation project—an irritant in Indo-Pak relations. 22:10, 1625-1628
- Tshering, Sonam & Tamang, Bharat (2004). Hydropower - Key to sustainable, socio-economic development of Bhutan, United Nations Symposium on Hydropower and Sustainable Development to be held from 27 to 29 October 2004, Beijing, China. https://www.un.org/esa/sustdev/sdissues/energy/op/hydro_tsheringbhutan.pdf
- Wegerich, K., & Warner, J. (Eds.). (2010). *The Politics of Water: A Survey* (1st ed.). Routledge. <https://doi.org/10.4324/9780203849187>
- Wouters, P. (2013). International law—facilitating transboundary water cooperation. *Published by the Global Water Partnership, TEC Background Papers*, (17).
- Yousaf, S. (2017). Kabul River and Pak-Afghan Relations. *Central Asia (1729-9802)*, (80).
- Zawahri, N., & Michel, D. (2018). Assessing the Indus Waters Treaty from a comparative perspective. *Water international*, 43(5), 696-712.