Historical Experiences on Water Sharing Disputes: Lessons for Bangladesh

Hasina Afruj Shanta*

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Abstract

Water is the most important resource for survival. Lack of sufficient water has become a major global concern. Transboundary rivers are the main sources of safe drinking water for which dispute over transboundary river water sharing is also growing. This study is a comparative discussion of the Nile, Colorado and Mekong rivers disputes with the Ganges River dispute between Bangladesh and India. Applying the case study method, the paper analyses the nature of the dispute over these rivers and the dispute solution methods followed by the basin states of these rivers. The study finds some momentous ideas that made the dispute resolution efforts of these rivers significant. As Bangladesh and India are highly water-stressed countries with a long history of transboundary water conflict, the study attempts to draw lessons for Bangladesh from these historical experiences of the Nile, Colorado, and Mekong in resolving its longstanding water dispute with India.

Keywords: *Nile River, Colorado River, Mekong River, Ganges River, water dispute, conflict resolution*

Introduction

Since ancient times, conflicts over water resources have been noticed globally. But in the early 21st century, competition over water

* Dr Hasina Afruj Shanta is an Associate Professor in the Department of Political Science at the University of Chittagong, Bangladesh. E-mail: shantaafruj@yahoo.com

resources has increased because of the scarcity of freshwater compared to the growing global population. Global scarcity of water resources has sharply increased water disputes over the common river basins. There are 263 common river basins worldwide of which disputes over several river basins stand out due to over-exploitation of water resources.[1] Among the disputes observed around the world regarding the distribution of river water, the disputes over the Nile, Colorado, and the Mekong are the most significant in terms of the gravity of the problem, significant conflict resolution methods, and collaborative efforts. Of these three, the Nile and Mekong are shared by as many as five countries. The Colorado River, on the other hand, runs through the US and Mexico only. However, seven states of the United States depend on the water of the Colorado River. Besides, the dispute over the Colorado River is linked with the Rio Grande River which further complicates the matter. The Nile, Colorado, and Mekong rivers disputes have a long history of conflict and negotiation. Yet, in terms of conflict resolution, they are more successful cases than many others. However, it is also true that when it comes to the issue of common river water sharing, it is never possible to fully protect the interests of all the co-riparian countries. Rather, an amicable solution is sought with the consent of all the basin states through which the maximum interest of each country can be secured. Similar efforts have been made in the cases of the Nile, Colorado, and Mekong rivers disputes. This paper offers a rigorous discussion on the Nile, Colorado, and Mekong rivers disputes with the long-standing Bangladesh-India water dispute on the River Ganges. It also tries to draw lessons for Bangladesh from these historical experiences to resolve its water dispute with India on the Ganges.

The Nile River Dispute

The Nile River dispute has a long history of negotiation. Negotiations to resolve the dispute began in the colonial period. So far, two agreements have been signed. One was in 1929 by Egypt and

Britain and the other in 1959 by Egypt and Sudan. The Nile flows through eleven countries, namely: Egypt, Sudan, Ethiopia, Eritrea, Uganda, Rwanda, Burundi, The Democratic Republic of the Congo, Kenya, Tanzania, and South Sudan. Among them, Egypt and Sudan are major lower riparian countries and Ethiopia, Uganda, and Tanzania are the upper riparian countries. Depleting water availability, increasing demand for water, development activities, and environmental degradation have heightened conflicts on the question of sharing the Nile River water. The fear is that the conflict over water sharing might exacerbate in the near future.[2] Historically, Egypt had always been the user of the major chunk of the Nile water flow. The core water allocation agreement on the Nile has allocated a vast portion of the Nile River flow to Egypt. Since colonial times, the United Kingdom has been dependent on agricultural exports from this region, so it had a great interest in the allocation of Nile River water among Egypt, East British Africa, and Sudan for irrigation purposes. Egypt was also interested in the water agreement as it assumed that the UK would secure the interest of Egypt and compel the other British-controlled upper riparian countries to respect the interests of Egypt. The understanding between the United Kingdom and Egypt on the question of the Nile water sharing was crystallised in the 1929 Nile Water Agreement.[3]

Controversy Over the 1929 Nile Water Agreement: A Move Towards the 1959 Agreement

Although the lakes of Central Africa, the Blue Nile, and the Atbara River of Ethiopia are major tributaries of the entire flow of the Nile, the 1929 agreement allocated 48 billion cubic metres (bcm) of water per year to Egypt out of 84 bcm while Sudan was allocated only 4 bcm per year. Another 32 bcm per annum remained unallocated for the use of upstream riparian states. This agreement undermined Sudan's interests in the face of Egypt and made it dependent on Egypt's approval for any kind of irrigation, power, and water diversion

projects. In other words, it gave Egypt the right to inspect any project related to the Nile water that had the potential to affect the water flowing through its territory. During the 1950s, when Sudan expressed its dissatisfaction about the water allocation stipulated in the 1929 agreement, the Egypt-Sudan confrontation led to a military confrontation regarding the Sennar Dam project of Sudan on its portion of the Blue Nile. However, when the military regime under Gamal Abdel Nasser came to power in Egypt in 1958, negotiations restarted between Egypt and Sudan and finally on 8 November 1959, a new agreement was signed considering the political and agricultural changes since 1929. According to this new agreement, the share of Egypt increased and stood at 55bcm per year while the share of Sudan also increased and stood at 18bcm per year and 10bcm per year remained unallocated for the upper riparian states.

Entebbe Agreement 2010

Only Egypt and the United Kingdom were the signatories in the first two agreements. Even though the Nile River flew through eleven riparian countries, the other upstream countries were not directly party to the agreement.[4] Both the agreements kept the door open for upstream and downstream riparian conflicts and, as expected, the upstream countries, particularly Ethiopia, raised their voices and articulated displeasure about the treaty. It also raised questions about the validity and binding nature of the treaty. Other riparian states like Tanzania and Kenya also followed Ethiopia and refused to abide by these agreements because they were not parties to these treaties. They were not even consulted on the issue before the signing of the treaty. Recently, Kenya and Uganda expressed their interest in expanding small and medium-scale irrigation projects in the region of Lake Victoria and some members of the Kenyan parliament have robustly disagreed with the compulsory aspects of the 1959 treaty.[5] Strong upstream collaboration in recent years resulted in the Entebbe Agreement in 2010 which restructured the allocation and

control over the Nile resources. Six countries including Ethiopia, Rwanda, Uganda, Kenya, Tanzania, and Burundi signed the Entebbe Agreement. Soon, South Sudan will also join the Entebbe Agreement. This agreement allows all the riparian states to construct dams and other related projects which were restricted in the previous agreement. It also brought into force the Nile River Cooperative Framework (NRCF). Although Egypt and Sudan refused to sign on to the agreement and some other riparian states are yet to sign it, the agreement still represents a big change in the management procedure of the Nile River water.[6]

Cooperative Initiative for Basin Development

Recently the initiative for Nile River basin development has been taken up by the basin states. The independence of South Sudan has added a new element to the Nile water management issue as it has changed the geographic balance. After independence, it joined the Nile Basin Initiative (NBI) in 2012 which increased the NBI membership to 10. It means that all the basin states of the Nile have joined the NBI and the eleventh riparian state, Eritrea, was working as a working observer in the NBI. Egypt and Sudan suggested some changes to the NBI so that the Nile River resources could be developed with the support of all the riparian countries and could take such projects that are beneficial for all. Complications on the Nile River water were thickening when Ethiopia began to construct a hydroelectric dam on the Blue Nile. This dam is projected to be the world's eighth-largest dam. The $5 billion Grand Ethiopia Renaissance Dam (GERD) was projected to have produced almost double the current electricity generation. Although Ethiopia says that this dam would cause no harm to Egypt, Cairo believes that less water would end up flowing through Sudan and then into Egypt as a result of the project and will decrease the present yearly available volume of water from 55 bcm. While this was the situation, Abdel Fattah el-Sisi, Egypt's new President unexpectedly took a new turn and expressed his

intention to reach an agreement with Ethiopia over the Nile River water.[7] As an important breakthrough, Egypt, Ethiopia, and Sudan signed a collaboration contract on the project approving the principle to allocate the water and not injure each other's interest.[8] Egypt's decision to negotiate with Ethiopia perhaps is just because of its tension over the Nile water as it considers it a matter of life and death. That is why Egypt also proposed to include the World Bank as a neutral party. Egypt also assumes that Sudan's current stance with Ethiopia is probably because of the longstanding strained relationship between Egypt and Sudan over border disputes around a strip of bordering territory. Ethiopia's dam project will ultimately end the seasonal fluctuations of the river, regulate the river flow, and help increase production in Sudan. Unlike the previous single crop rotation, now there will be two or three.[9] As a downstream country, Egypt has no control over the upstream flows. Therefore, Egypt considers it better to enter into full dialogue with Ethiopia and Sudan and with the other countries of the Nile basin to develop the Nile resource in a coordinated way and ensure mutual benefit for all the co-riparian countries.[10]

The US-Mexico Dispute on the Colorado River

The United States and Mexico have a long history of transboundary water conflict over the Colorado River. Increasing water stress and reduced water supply due to the drought turned the transboundary water challenges over the Colorado River into a bitter tussle between the US and Mexico. Moreover, the water-sharing disputes over the Colorado River were linked with another major river, the Rio Grande, which made it more complex. The Colorado River runs through seven states of the United States: parts of Wyoming, Colorado, Utah, Nevada, New Mexico, Arizona, and California covering 242,000 square miles in the US and 2,000 square miles of Mexico.[11] Around 97 per cent of its basin area lies in the United States.[12] The US-Mexico water dispute was mainly resolved by the bi-national 1944

water treaty. International Boundary and Water Commission (IBWC) consisting of the US and Mexico was authorised to issue 'minutes' to resolve the conflict. Minutes are considered as the solutions for new issues formalised in amendments to the 1944 water treaty. Under this treaty, the new developments and water issues can be solved through agreed-upon interpretations of the treaty.[13]

The US-Mexico dispute on the Colorado River came to attention in 1920 with the creation of the Colorado River Compact (CRC), the construction of the Boulder Canyon Dam (BCD) in the upper basin of the Colorado River, and the All-American Canal (AAC). According to the 1904 Mexican concession, Mexico was allowed to distract 50 per cent water of the Imperial Canal on which the USA was reliant for water. Shifting river tracks, rising river beds, as well as the distraction of river water through Mexico scratched a large portion of land in the Imperial Valley which led the US to form the CRC, BCD, and AAC. Tension arose between the US and Mexico when the US rejected Mexico's proposal to connect with the CRC as a party because these projects were fully domestic. To balance the situation, the government of Mexico took irrigation development projects on the Mexican tributaries of the lower Rio Grande River to settle the landless Mexican peasants there. These projects carried almost 70 per cent water of the lower Rio Grande and frightened the Texan farmers along the Rio Grande River on the US side. Eventually, realising the complexities of the issue, the US and Mexico agreed to sit for negotiation on this issue.[14]

Rio Grande: A Bargaining Chip for Mexico

The negotiation process was not easy because the seven US basin states of the Colorado River objected to sharing river water with Mexico by denying the lawful and ethical rights of Mexico on the water of the Colorado River. They were even unwilling to share Colorado River water in exchange for the water of Rio Grande. While these seven basin states of the US presented their arguments based on the

Hermon Doctrine, the Mexicans based their right to the Colorado River water based on the principles of the Commonwealth. They demanded 4.5 million feet of water (MAF). However, the refusal of the US to share the water of the Colorado River compelled Mexico to take a bold step of objecting to sharing the water of the Rio Grande and thus the negotiations failed.[15] However, later in the 1930s, the Government of Mexico undertook a massive irrigation project and expanded its cultivated land from 50,000 acres to 424,000 acres by 1935 in the Colorado Delta and started constructing the Retamal Canal, also with a plan to construct El Azucar Dam on the Rio Grande, which forced the US to return to the negotiating table with Mexico. Realising the complexities of both sides, once again, they tried to settle the issue. Mexico lowered its demand from 4.5 MAF to 2 MAF of the Colorado River water and, through negotiation, they settled on 1.5 MAF. On the other hand, the US got approximately 43 per cent of the lower Rio Grande's average annual flow. Eventually, the treaty was signed on 3 February 1944.[16] The 1944 treaty charged the IBWC with the power to settle all the issues and complications arising in the process of water sharing. In this case, doors were kept open to settle the issues through diplomatic channels, if needed.

'Minutes': A Way to Solve New Challenges to the Colorado-Rio Grande Issue

In the treaty of 1944, the IBWC was also given some flexibility regarding the water allocation without doing something harmful to other basin states. After the 1944 treaty, a series of agreements was made between the US and Mexico on various issues. Those deals, known as minutes, are a way to solve the new challenges that arise in water-related issues between both sides. Minutes were adopted on a range of issues together with water transfer during droughts, construction of dams, water salinity problems, and many other issues.[17]

So far, a good number of deals have been signed between the US and Mexico on water quality. For instance, in 1960 and later on, salinity issues emerged as a major concern in water sharing. To resolve it, Minutes 218 and 242 were adopted which are still in force and the US continues to comply with their provisions.[18] Besides, minutes were adopted to resolve the complications which may arise during the water allocation as well. Minute 234 was adopted to sort out the complexities arising out of the failure to meet the minimum flow obligation of Mexico stipulated in the 1944 Water Treaty. Minute 318 was adopted to solve the complexities related to the quantity of allocated water for Mexico in the 1944 Treaty. This minute was brought into effect in the situations of water flow of the Colorado River to deliver more or less quantity of water. It also indicated cooperative measures to address the continued effects of the April 2010 earthquake in Mexico Valley, Baja California. In 2012, Minute 319 was signed between Mexico and the US to improve the understanding of water management options for the restoration of the ecosystem.[19] As Minute 319 was about to expire soon, a new deal known as Minute 323 came into attention focusing on maintaining a more steady flow of water to sustain the wetlands south of the border and encouraging teamwork between the US and Mexico. It also had the provision of involving nongovernmental organisations to secure water for environmental purposes.[20]

Dispute on the Mekong River

The Mekong River dispute is significant in many senses. It is the first successful application of a wide-ranging approach to resolving a dispute over an international river as well as having an intensive plan to develop the Mekong River basin through collaborative efforts among the riparian states. The Mekong is also considered an exceptional river basin compared to the other basins for not being an exotic stream which is in another way helping to manage water conflicts. And this is the optimism that there is no sharp conflict

between the water-affluent upstream nations and the water-poor downstream neighbours.[21] Moreover, the Mekong River Basin also established the fact that the larger institutional capability can operate to avoid water tension and help enhance collaboration in international basins.

Mekong River Basin comprises six basin states, namely, Cambodia, China, Laos, Myanmar, Thailand, and Vietnam. Originating from the Tanggula mountain range in Qinghai province in China, it runs 4,800 km through the six basin states and finally terminates in the South China Sea after draining over 795,000 km. Of all the basin states, Thailand and Laos share 23 and 25 per cent of the total basin area respectively which is the highest percentage while Vietnam shares the lowest 8 per cent of the basin area though it has the highest population density along the basin which is 236 persons per km.[22] Among the six basin states, China and Myanmar are the upper riparian states while Cambodia, Laos, Thailand, and Vietnam are the lower riparian countries. Around 90 million people of these six riparian states depend for their livelihood on this river. At present, they are working collectively to develop the Mekong River Basin for their common interest.[23] Mekong River Basin has great significance because of the increasing dependency of the basin states on its water, for which the basin states have taken initiatives to construct dams, and diversions to make the proper utilisation of the river water and to ensure economic benefit. The need for water for irrigation to meet the increasing agricultural demand in China and Thailand, the necessity for electricity in the industrial sector in Thailand and Vietnam, and the necessity for poverty mitigation in Laos and Cambodia are some of the major reasons for reforms and physical alterations all over the basin.[24]

Extensive Dam-Building Projects and the Rise of Conflict on the Mekong River

The Mekong River dispute arose mainly because of the rapid changes that occurred in the Mekong River Basin due to extensive

dam-building projects undertaken by the basin states. More than 130 dams were designed in the basin which are likely to harm roughly 100 per cent of sediment transport and collision on migratory fish. It is predicted that the Mekong is going to be the second river on account of its adverse impact on biodiversity in the world after Amazon. Following the completion of the dam and diversion projects, the recurring fluctuations based on the monsoon flow are likely to be hindered, generate random fluctuations, wipe out forests, and alter precipitation and temperature together with an alarm to destroy local natural resource-based economies.[25] Building dams on the transboundary river is not a new practice. Recently, Thailand and Malaysia jointly announced the building of dams on the lower Mekong River while China also commissioned five storage dams on the Mekong in the last decade. These dams are likely to have substantive benefits for the country's economy. But it is also threatening to relocate communities in the surrounding area of the project.[26] In recent years, Chinese officials have accorded substantial attention to the potentiality of the Mekong River Basin. After the liberalisation of the Chinese economy, the population growth, the increasing need for agricultural produce, the rising demand for water for household and other uses, and the need for electricity led China to redirect its focus towards the development of the upper Mekong River basin. Chinese proposal to build 15 dams on the Mekong River would have a probability for larger implications for the downstream. China is already done with the two major dams on the Lacang-Mekong mainstream of the Chinese part. Besides, the proposal of several other dams in this area is formulating a legal framework and technical guidelines so that the potentiality of conflict can turn into beneficial opportunities for all.[27]

Collaborative Efforts of the Lower Riparian Countries and Establishment of the Mekong River Commission

Aiming to develop Southeast Asia, the United Nations Economic Commission for Asia and the Far East (ECAFE) was formed in 1947 to work towards cooperation between Cambodia, Laos, Thailand, and Vietnam, the four lower riparian countries of the Mekong River Basin. According to the study report of 1957, ECAFE emphasised the necessity for closer cooperation among the co-riparian countries for comprehensive development of the basin and drafted a charter for the coordination committee. After comprehensive discussions among the lower riparian basin states of Mekong themselves, they established the Committee for Coordination and Investigation of Lower Mekong and signed the statute on 17 September 1957. Since the establishment of the Committee, it has been operational for the promotion, management, development, exploration, and oversight of water resource development in the lower Mekong River basin.[28] Although the Committee became the interim Committee in 1978 due to the absence of a representative government in Cambodia, in 1991, it rejoined the Committee as a full member and requested the reactivation of the Mekong Committee which ultimately resulted in a new agreement, signed on April 1995. Finally, the Mekong Committee turned out as the Mekong Commission. Despite the absence of the two uppermost riparian states of the Mekong River, China, and Myanmar in the agreement of 1995 focusing on sustainable development, the Mekong River Commission has implemented many plans so far and numerous agendas are underway. Two major dam-building projects (Pak Moon Dam in Thailand and Theun-Hin Boun Dam in Laos) have also been implemented under the Mekong River Commission.[29] During the construction of the Xayaburi Dam in Laos, the dam proposal was discussed by four downstream countries and the principles of the 1995 agreement are functional to discuss and resolve the transboundary dispute.[30]

Despite the promising activities of the Mekong River Commission, lower riparian countries, particularly Cambodia and Vietnam, are anxious about the impact of the Chinese plans. However, the optimistic sign is that the Chinese government has realised the common benefits of the development projects of Mekong. They want to ensure a balanced development of water resources for sustainable economic development and environmental safety.[31] Additionally, even though China did not express its interest in joining the Mekong River Commission, it has articulated its willingness to the Asian Development Bank's Greater Mekong Subregion Program and ASEAN's Mekong Basin Development Program and eagerly contributes to it.[32] It may also brighten the hope of the Mekong River Basin Development through the basin states in a cooperative manner.

Comparative Discussion Between Ganges Water Dispute and Historical Experiences

After taking a closer look at the historical disputes over the Nile, Colorado, and Mekong Rivers discussed above, some similarities and dissimilarities are found concerning the Bangladesh-India water dispute. The disputes over these rivers relate to the conserved basin states because of the high level of water anxiety and extreme water-related contention. But as these river basins are different from each other, located in four different geographic areas, the complications that arose in these basin areas are also different in many respects. These differences led to several dissimilarities which do not align completely with the Bangladesh-India water dispute. Yet, Bangladesh and India can take some lessons from these historical experiences and apply them to resolve their long-lasting tension over the sharing of the common rivers running through these two countries.

Resemblances and Differences with the Historical Experiences

Some dissimilarities are found between the Nile River dispute and the Ganges water dispute. The major dissimilarity is that to resolve

the Nile River dispute both the core agreements of 1929 and 1959 were imposed based on the colonial legal system. After the independence of these basin states, questions were raised on the binding force of the treaty and its legality. Moreover, recently some basin states have moved towards a comprehensive framework through an agreement which is yet to get any legal structure and not all the basin states have joined the framework.[33] The basin states of the Nile River are coming together and creating a comprehensive framework because of their belief that the 1929 and 1959 treaties over the Nile were partial to one basin state rather than ensuring equitable benefit for all the basin states. However, in the case of the Ganges water-sharing dispute, both states are bound by the 1996 Ganges Treaty. Although Dhaka believes that the treaty needs some revision, it still agrees with the principles of this treaty. When the Ganges water-sharing dispute is compared with the Colorado River dispute, it is noticed that in both cases of the disputes, demarcation of the boundary sowed the seeds of conflict and made it difficult to find a peaceful solution without sacrificing the rightful share of water. Both the disputes were influenced by domestic politics. Yet, there is a big difference between the two cases. Bangladesh's strategic position is much weaker than that of Mexico. Bangladesh has no bargaining chip like Mexico which had control over the 70 per cent of river flow of the Rio Grande to use it as a leverage against the US. Bangladesh has nothing like this and it fully depends on India for the transboundary water which makes its position much more vulnerable than Mexico. In addition, Bangladesh and India have one more issue, disagreement on the proposal to augment the dry season water flow of the Ganges which is creating complications in the Indo-Bangladesh water-sharing relations. On the contrary, the US and Mexico were not facing any complications regarding augmentation at all.[34]

Like the Nile and Colorado River disputes, when a comparative analysis was done on the Ganges River dispute with the Mekong River

dispute, a different regional political environment was noticed. Water politics creates additional room for wider political interaction among the countries that share rivers in a region. So, the position of any of the countries is affected by the surroundings of that area. In comparison to South Asia, conflicts in Southeast Asia are not so complicated because of a high degree of cooperation at the multilateral level which makes the solution of problems through negotiation easier. But the picture is quite different in South Asia where distrust and security dilemmas make the issues more complex for negotiation.[35] In the context of domestic politics, a significant similarity has been found between the role of China as an upper riparian state in the Mekong basin and India as an upper riparian country in the Ganges basin. China's cooperation with other basin states as member states of the Greater Mekong Sub-region (GMS) is motivated by the hydropower requirements of Yunnan and other provinces. Yunnan is a potential hydropower site in China and an important contributor to meet the energy requirements of other provinces, mainly, the coastal areas. The infrastructural development of Yunnan province is an integral part of the GMS. Things are similar in the case of Ganges also. For the success of the negotiation over the Ganges dispute, the Indian state of West Bengal, particularly the former chief minister of the state Jyoti Basu, played a major role in finalising the treaty. As West Bengal's interest is very much integrated with the Farakka barrage, its involvement meant a lot in finalising the treaty.[36] In both cases, domestic issues played a vital role in the cooperation and negotiation.

What Can Bangladesh Learn?

From the above comparison of the disputes over the Nile, Colorado, and Mekong Rivers, it is noticed that in cases of the Nile and Mekong River disputes most of the basin states moved toward a comprehensive approach to ensure equitable benefit for all. In the case of the Mekong River, for the first time, basin states took the successful initiative for a comprehensive approach towards the

development of the Mekong River Basin intensively in a collaborative way. This is a noteworthy step for dispute resolution. The biggest success of the Mekong River agreement is the reorganisation of the Mekong River Commission under which the basin states have agreed to cooperate for the development of the basin. Although China has not joined the Mekong River Commission (MRC) as a full member, it participates in the MRC only as a dialogue partner like Myanmar. Yet, the significance of the MRC is huge. It raised optimism. So far it has taken many cooperative efforts for basin-wide development which is noteworthy.[37] China is not a part of the 1995 Mekong Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin. Despite that, it is playing a positive role in multilateral cooperation. It initiated the Mekong Forum involving all the riparian states on the Lancang-Mekong River Dialogue and Cooperation. Assessing the mechanisms taken by the basin states in both the Mekong River dispute and the Ganges River dispute it seems that the lack of multilateral cooperation on the disputes suggests a lower level of cooperation among the co-riparian states on the Ganges issue. Even today, Bangladesh and India are stuck with bilateral negotiations to deal with the issues.[38] It is high time for Bangladesh and India to move beyond bilateralism and move ahead with multilateral cooperation to ensure equitable benefits for the basin states.

In the case of the Mekong River, MRC, as an essential part of basin development, is helping the basin states for utilisation, management, and protection of the water and water-related resources of the Mekong basin. It also coordinates the new projects, assesses the impacts on the basin states, and administers the procedure of notification and consultation. Although the coordinating function of MRC is not strong enough because it failed to mitigate the disagreements in the cases of hydropower projects, several steps of MRC still proved to be fruitful in improving water security. It is particularly working as an important platform for basin-wide dialogue,

introducing an environment for stakeholders to raise their voices for water resource management in this region. Besides, MRC is working to mitigate the impacts of climate change which is also noteworthy.[39] This initiative is a significant step for the Ganges River dispute resolution. By following the MRC model, the basin states of the Ganges River can also think about the formation of the Ganges River Commission or something like that to initiate extensive cooperation among the basin states. It will make the resolution of the dispute over Ganges water allocation easier and may help find a long-lasting way to augment the dry season water flow of the Ganges.

In the case of the Mekong River, the MRC proved to be a significant concept and structure in establishing the necessary management framework. It also helps ease the conflict situation much ahead of the rise of a sense of urgency.[40] Observing the water disputes in the Nile, Colorado, and Mekong rivers, it is seen that often a single action of a basin state of a transboundary river turned the water relation critical and led to a conflict situation. But quite remarkably, in the case of the Mekong River dispute, an institutional framework was established jointly for dispute resolution before the emergence of any possible dispute. Besides, the Mekong River Commission (MRC) has also played a significant role in water management among the riparian states despite the presence of extreme political disputes.[41] In addition, in the case of the Mekong River, special attention was given to a pre-emptive approach. According to the Mekong agreement, if any country claims that the activities of other basin states are harmful to the interest of that basin state and if there is sufficient and valid evidence of substantial damage against that state, the alleged basin state(s) will be asked to cease the alleged cause of harm immediately. This provision seems consistent with the UN convention and, to some extent, goes beyond that.[42] Increasing water stress in Bangladesh and India also has the potential to hamper the negotiation process in future over transboundary water issues. Water experts think that it is

necessary to form a strong management framework to handle disputes with efficiency before the issues turn into emergencies. Moreover, the thirty-year water treaty of 1996 on the Ganges River water sharing is coming to an end soon. Making stronger the provision of protection from the harmful activities taken by the other basin states can also be an effective initiative to avert further contention.

Conclusion

It is evident from the Bangladesh-India water conflict that both Bangladesh and India are water-dependent and water-stressed countries. So, the conflict of interest between the two countries is very acute and at the same time, a source of concern for both countries. Realising the importance of peaceful co-existence and cooperation, both countries are looking for peaceful resolution of the disputes. In this respect, following the international water law as guidance, they are trying to take innovative steps to solve the transboundary disputes. But, it is also true that the growing demand for water and attempts to satisfy this demand compelled these countries to harness the transboundary river water in many ways, which often appears as a matter of confrontation between the co-riparian countries. As water is a key to development for a country, upstream India's several proposed plans, and water projects, to some extent, seem contrary to the principles of transboundary water laws. So far, following the international water law as guidance, Bangladesh and India have tried to resolve the Ganges water dispute. But, considering the comparative discussion on the international dimensions and historical experiences with the Ganges water dispute, it seems both sides need to apply international dimensions and historical experiences together to resolve the dispute properly. Bangladesh and India must acknowledge the fact that they should come to an understanding with each other to develop a smooth working relationship. As the transnational river flow is not limited within the territorial boundary of any of these two countries, they need to think more broadly, go beyond bilateralism,

and shift to the multilateral approach, to ensure the rights of all basin states. Historical experiences reveal that forming an institutional framework for basin-wide development with all other basin states on a cooperative basis could be an optimistic step for dispute resolution. Bangladesh and India together framed the Joint Rivers Commission (JRC) back in 1972. Although JRC was not established for any individual river basin development and conflict resolution, its role has long been questionable because of its lack of timely meetings and failure to find a mutually acceptable augmentation plan. Both sides also signed the Ganges water sharing treaty a long time ago in 1996 but due to lack of proper implementation of the provisions of the 1996 Ganges water sharing treaty, the Ganges water issue has remained a matter of contention between Bangladesh and India. Considering these flaws, the establishment of an institutional body free from the limitations and responsibilities of basin states towards its rules will create an effective environment for dialogues among the co-riparian states. After all, successful resolution always depends on the proper implementation of the principles as well as procedures.

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