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Analyzing The Transboundary River Water Dispute Between Two Asian Giants

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Abstract
Increasing population and infrastructure development of world has deeply affected the natural resources specially water. There has been a continuous burden on the limited water resources to cope up with the pace of development and growth leading to water shortage. Water shortage has given birth to Transboundary River problems causing dispute among the nations of the world. Brahmaputra River water dispute between India and China, the two Asian Giants, is one of such disputes. This research deals with analysis of the reasons which led to water conflict between both the riparian states and keeps it ongoing till date. This further covers the present River water sharing mechanism between both the riparian states. Despite various agreements signed and deliberations held, Brahmaputra River water dispute has not yet been properly addressed and resolved. There has been no treaty or formal piece of framework made for this purpose and the dispute has been latent as of now. There is a need for effective legal framework to reduce the ongoing friction among the two neighbouring countries. Additionally, this research covers several case studies of successful transboundary river water dispute resolutions which could provide a similar framework for resolving the dispute between these two giants. Lastly, it analyses and suggests the framework which could be adopted between both the nations to resolve the decades old water dispute.
Keywords: *Transboundary River, Brahmaputra River, Water Sharing Mechanism, Asian Giants*

I. INTRODUCTION

Water is the necessity for all forms of living beings on the Earth, without water there is no life possible. Need of water everywhere has led to scarcity of the same, resulting in water disputes. In today's world due to paucity of water, surface water resources including rivers are unable to fulfil the demand of the people. There are so many rivers and tributaries in the world which flow across various countries providing and fulfilling their water needs. Growing population has miserably failed rivers in dealing with water demands of the nations, leading to water wars between the countries. A similar dispute had arisen, decades back between two juggernauts which we call as India and China in regards to Brahmaputra River flowing through these two neighbouring countries. As mentioned, that the dispute has been decades old because both the nearing countries already have border related dispute, and the growing need for freshwater resources in both, has made this conflict between the two as unending in nature. Both the nations are trying hard to extract as much water as they can from the river basin. China being an upper riparian state is putting all its efforts to divert the water of the Brahmaputra River away from India, this will eventually worsen the situation that has remained tense since the Indian - China war, 1962. It is believed that China has been planning to divert the river water since 1996[1] so that it could become an inexorable power. Both the Asian Giants are ruling the world in terms of population, initially China had the largest population in the world but India being its competitor has left China behind, in terms of population now.[2] Due to the larger population, the need of water tend to be higher and which is what making it difficult for both the nations to fulfil its water needs. Unfortunately, along with the increasing population, there have been changes in the climatic conditions causing uneven rainfall which is ultimately causing drought and water availability strenuous in India. Along with the constant fear of diversion of water of Brahmaputra River by China by constructing the hydropower projects dams, it is becoming arduous for India to meet its water needs, involving domestic water consumption and agricultural water supply. With China being an upper riverine nation, there was at once, no sharing of hydrological data of the flowing river specially during monsoon which used to often

[1] Jonathan Holslag, *Assessing the Sino-Indian Water Dispute*, Journal of International Affairs, SPRING/SUMMER 2011, Vol. 64, No. 2, Sino Indian Relations (SPRING/SUMMER 2011), pp. 19-35.
[2] S Galan, *Twenty countries with the largest population in 2025*, Statista, https://www.statista.com/statistics/262879/countries-with-the-largest-population/ (last visited Jun 11, 2025).

cause flood and devastation in the Indian terrain leading to loss of vegetation, resources and loss of life of people and destruction to flaura and fauna of such region of flowing river. In addition to this, the hunger of accelerated economic growth and utilization of renewable energy resources by China is keeping India in apprehension about the inconspicuous behaviour of China towards information sharing, as China has unmatched and undue edge as upstream state of Brahmaputra River.

II. Historical Digest

The Brahmaputra River flows 2,900 km from its source in the Kailash range of Himalayas.[3] It flows through China, India and Bangladesh where it drains into the Bay of Bengal. There is no proper piece of legislation to guard the flow of the river and there is no formulated policy for distribution & division of the water between the countries. Brahmaputra is one of the largest rivers in the world[4] and the voluminous amount of water it carries in itself makes it more disputable within these neighbouring countries. As mentioned above there is no mechanism adopted between these riparian states of Brahmaputra River for sharing its water. The alarming concern for India is not just water scarcity which could be caused due to diversion of river water by the China. The concern for India is mismanagement of water leading to havoc caused by the floods specially during monsoon. In 2000, India had inculpated China for not sharing hydrological data on the flow of the river which resulted in large devastation and floods causing deaths of the people.[5] Later, in 2002, a Memorandum of Understanding was signed to coordinate data sharing relating to water level, discharge and rainfall. The data provided by China had helped a lot in flood forecasting and gave India, a better understanding of the river flow.[6]According to such MOU signed, any plans to divert the Brahmaputra River water were required to be informed to the Indian government by Chinese government. The similar MOU as signed in 2002 over Brahmaputra river was also signed between these Asian Giants for sharing Satluj River hydrological information in 2005.[7] In year 2003, a feasibility study for a major hydropower project was organized by scientists of the China Water Conservancy and Hydropower Planning and Designing Institute along the section of the Brahmaputra River which flows through China to India.[8] This project would have proved to be highly beneficial for China but highly devastating for India being lower riparian state. Though the Chinese government had denied any plans to divert river water but in year 2008 the Chinese Government had announced that it would commence building its hydroelectricity dam along the river basin.[9] Due to this, India feared that such project would ultimately dry up the Brahmaputra. China had even refused to share hydrological information to India on the grounds that it was deemed to be its internal matters. Again in 2013, MOU was singed for better understanding and clarity of information to be exchanged between the countries.[10] In 2014, first unit of Hydro Power Dam became operational and by the end of 2015, all six power-generating units of the Dam became operational.[11] India and China share an agreement which requires that the upstream country is required to share hydrological data of the river during monsoon season between 15th May and 15th October. India also pays an annual amount of Rupees

[3] Deryck Lodrick and Nafis Ahmad, *Brahmaputra River*, Britannica, May 30 2025, https://www.britannica.com/place/Brahmaputra-River (last visited Jun 11, 2025).

[4] *Brahmaputra River System*, Government of Assam Water Resources, https://waterresources.assam.gov.in/portlet-innerpage/brahmaputra-river-system (last visited Jun 11, 2025).

[5] *Indo-china water dispute*, Mar 1 2012, http://indochina102.blogspot.com/ (last visited Jun 11, 2025).

[6] Ibid.

[7] Supra note 2.

[8] Supra note 6.

[9] Prem Shankar Jha, Why Is China Reviving Its Plan to Build Dams on the Brahmaputra Now, The Wire, Mar 10 2021, https://thewire.in/world/china-revive-dam-plan-brahmaputra-yarlung-tsangpo-india (last visited Jun 11, 2025).

[10] Sushanta Kumar Mahapatra and Keshab Chandra Ratha, *Sovereign States and Surging Water: Brahmaputra River between China and India*, Fondazione Eni Enrico Mattei (FEEM) (2015).

[11] *China's first hydropower dam on Brahmaputra is fully operational*, India Today, Oct 13 2015, https://www.indiatoday.in/world/story/chinas-first-hydropower-dam-on-brahmaputra-is-fully-operational-267843-2015-10-13 (last visited Jun 12, 2025).

1 crore to China for providing hydrological data of Brahmaputra River.[12] In 2017, China had stopped sharing hydrological data with India and after one year's gap it resumed sharing the same. In June, 2018 after bilateral talks, again an agreement was signed and renewed for five years between both the nations to share hydrological data of the river.[13] In the same year, China had pronto reported a landslide-induced blockage downstream and had kept an hourly observation update in order to aid India for preventive steps in such situation.[14] This whole incident depicts the probable benefits of bilateral cooperation among these two neighbours in managing river-related emergencies. Though there seems to be no dispute apparently but latently it does exist, as both the nations are trying to use the water resources for their own benefit. Again in beginning of 2025, China has ingeminated its ploy to raise the world's largest dam over the Brahmaputra River in Tibet right before the river enters Indian territory, it has further clarified that the planned hydro power project has already gone through rigorous scientific evaluation and shall not in any manner have negative impact on downstream countries – India and Bangladesh.[15] All these above facts and arguments collectively indicate towards Transboundary River problem faced by both the riparian states, from where Brahmaputra is flowing across.

III. Indo- China Relations (Sharing of Water Resources)

Brahmaputra River (Yarlung Zangpo in China[16]) is one of the largest rivers in the world, which has emerged from the Tibetan Plateau. With economic growth and growing population, all riparian states of this river are facing water dearth. India, being a peninsular nation, receives an extensive amount of rainfall during its monsoon but it does lack the propensity to retain the water. India is facing water scantiness because of poor storage capacity of surface water, which is only about one-eleventh of China. China has such renewable water resources, which are twice as large as that of India, despite having a slightly lesser population. Poor water management in India arises from agriculture sector which consumes 90% of its available water supply.[17] With the increasing deforestation, climate change imperils to affect rainfall, its vigour and regularity. It is predicted that this shall affect water security in India significantly. It is not just the climate change but population explosion, urbanized societies and noteworthy industrialization shall also exacerbate water scarcity in the country. India's water demand by 2030, is expected to surpass supply by 50% of what it is today.[18] It is imperative for India now, that it improves its water storage capacity and water usage efficiency. When it comes to other Asian Giant i.e. China, it is water-rich country because its sources of water are: water from Himalayan glaciers, groundwater resources and surface water bodies. Concurrently, it is water-poor nation due to lopsided distribution of water creating scantiness in the remaining regions. The existing state is that China currently has 20% of the world's population but it has only 7% of fresh water resources. Therefore, China is listed as the thirteen most water poor nations in the world. Agricultural sector in China accounts for 70% of its water consumption and its coal industry utilizes a further 20% of water. Both agriculture and industries are located in the arid north that receives only 20% of the country's total rainfall and snow melt, making the region water dearth. China's majority cities are in scarce supply of water and

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[12] *China begins sharing data on Brahmaputra and Sutlej Rivers*, The Economic Times, Jun 10 2018, https://economictimes.indiatimes.com/news/politics-and-nation/china-begins-sharing-data-on-brahmaputrasutlej-rivers/articleshow/64527287.cms (last visited Jun 12, 2025).

[13] Ibid.

[14] *India-China Relations in Water Management: from Conflict to Cooperation*, Natstrat, Mar 17 2025, https://www.natstrat.org/articledetail/publications/india-china-relations-in-water-management-from-conflict-to-cooperation-187.html (last visited Jun 12, 2025).

[15] *China says its world's biggest dam over Brahmaputra will not impact water flows to India*, The Hindu, Jan 6 2025, https://www.thehindu.com/news/international/china-says-its-worlds-biggest-dam-over-brahmaputra-will-not-impact-water-flows-to-india/article69068250.ece (last visited Jun 12, 2025).

[16] Supra note 4.

[17] Narayan Hegde, *Water Scarcity and Security in India*, India Water Portal, https://www.indiawaterportal.org/agriculture/farm/water-scarcity-and-security-india (last visited Jun 12, 2025).

[18] *Water scarcity: India's demand may exceed supply two times by 2030*, Financial Express, Aug 13 2019, https://www.financialexpress.com/opinion/water-scarcity-indias-demand-may-exceed-supply-two-times-by-2030/1691788/ (last visited Jun 12, 2025).

remaining ones have grave water shortages.[19] With the enormous water paucity, the two Asian Giants (India and China) are fighting for the water resources in order to meet their water demands respectively. Global Warming and Climate Change are also the major reasons to cause altercation between the nations. Such changes impact river's water flow causing sometimes, the inadequacy and remaining time, the floods which directly have an impact on the flora- fauna and even the livelihood of the people of the two nations. Being higher riparian nation, China inhabits substantial parts of the Brahmaputra River and has 50% of the river basin area, due to which it's any activity impact the maximum on the river than any other nation.[20] To deter water insecurity and develop its infrastructure further, China has already constructed Zangmu Dam on the Brahmaputra River, which became functional in 2015.[21] This dam was erected with the agenda of hydroelectric power production making use of run-of-the-river technology. This created a major controversy and grave risk to lower riparian nations including India and Bangladesh, causing likelihoods of surge in water meagreness. The Brahmaputra River water diversion plans and projects shouldered by China for engendering electricity and for meeting domestic water needs, has left detrimental effects of water diversion projects on lower riparian i.e. India, which are: decline in flow of the river; rise in the concentration of pollutants and ousting of sediments; variance in river habitat; Inter-basin water transfer transpose the hydrological regime of each water system and can also lead to erosion of entire aquatic foliage - faunas. China has been avowing that it is not maliciously being inimical to India but even then, discord may still worsen if either nation deceitfully believes it is under threat from another. Although continuous dread and distrust has been created in India because of previous circumstances where the government of China had been reluctant in bestowing the particulars of its hydro-projects, and the time it gave, there were inconsistent information which caused defilement in India.

IV. Potential of Conflict between Asian Giants: Analysis

Both the Asian Giants are trying hard to use the maximum river water in order to curb their own water scarcity issues. China being an upper riparian has constructed hydropower dam and water diversion projects along the Brahmaputra River and it is matter of a security concern that could impact on Indo- China relations.

1. Discontentment over Water Dispensation

India, being the lower riparian of the Brahmaputra River, is incessantly disgruntled with no mechanism for sharing river water among the riparian nations. Although China is constantly trying to divert as much water as it can, by construction of multiple hydropower dams especially recent one near the border where the river enters in India, have raised serious concerns. China is also focusing on fulfilling its water needs as it faces uneven rainfall throughout the country. On the other hand, India is concerned about repercussions of diversion caused by dam construction on to the flow of the river, the water shortage it would cause towards drinking water and agricultural purpose. There is absolutely no criteria to distribute water between the nations, no mechanism to keep a check over which country is consuming or blocking how much quantity of water.

China has not yet signed any treaty with any country with which it shares its water resources.[22] Moreover, neither India nor China did sign the UN Convention on the Law of the Non-Navigational Uses of International Watercourses, 1997 which came into effect in year 2014.[23] The Convention has set the legal framework for rules and co-operation between more than hundred nations and their relevant international watercourses. Interestingly, China voted against the Convention and India abstained from voting, although India already has international water sharing mechanisms with Pakistan, Nepal and Bangladesh respectively.[24] This clearly shows that both the countries, India and China, have latent dispute against each other. In addition to this, Convention

[19] *Domestic and Global Shocks of the Growing Water Crisis in China*, Foreign Policy Association, https://fpa.org/the-domestic-and-global-shocks-of-the-growing-water-crisis-in-china/ (last visited Jun 12, 2025).

[20] *India-China Cooperation In Water Resources: Expert-Level Mechanism*, Natstrat, Mar 18 2025, https://www.natstrat.org/articledetail/publications/india-china-cooperation-in-water-resources-expert-level-mechanism-188.html#:~:text=An%20assessment%20based%20on%20statistical,are%20mainly%20responsible%20for%20this. (last visited Jun 12, 2025).

[21] Supra note 12.

[22] Supra note 11.

[23] *China and India ignore UN watercourses convention,* Dialogue Earth, https://dialogue.earth/en/climate/7229-china-and-india-ignore-un-watercourses-convention/ (last visited Jun 12, 2025).

[24] Supra note 11.

on the Protection and Use of Transboundary Watercourses and International Lakes[25] was also not ratified by both the countries. There is a necessity for both the nations to work together to protect the shared water resources which shall absolve each other from water insecurity during low rainfall or high demand of water.

2. Truancy of Integrated Management of River Basin

In general scenario, effective operational river basin management necessitates harmonized planning across borders between the riparian nations, coherent sharing of data, ecological conservatory steps, and most significantly infrastructural development. Nevertheless, management of the Brahmaputra River basin is transpired independently by each riparian government. China trails hydropower dam projects under its own national development goals, whereas India emphases on water management during flood season and water usage including domestic & agriculture purpose independently. The absenteeism of a combined river basin management or mutual aid mechanism results in spalled planning, mis apprehensiveness due to deficient communication among the neighbours, and mediocre outcomes for both nations. India, in such situation is more susceptible to changes in upper riparian diversion patterns owing to dearth of prior communication or joint efforts towards resources utilization along with China. India has poor water management and impoverished infrastructure which puts its food and water security at peril. For China, its population and unequal natural water availability impend its security. Considering the decades old, strained relations between the two neighbours, Effective and efficient water management accompanied by cooperation of both the riparian states is essential for food security, economic growth, population, its health, social stability and long-term sustainability. Holistic approach ought to be adopted by these juggernauts for managing water as a scarce resource further reducing the potential for future water wars.

3. Lack of Requisite Environmental Safeguards

China has undertaken various dam building projects over the river basin including Zangmu Dam[26] and recently announced construction of world's biggest dam on the bank of river, right before it enters India[27], have received backlash by the environmentalists as there have been minimal or no endeavours being taken towards scrutiny from environmental aspects concerning the downstream states of the river. India, being the downstream state is apprehensive about impact of such projects undertaken on the ecosystem of the river basin involving erosion of soil, sediments and vital components, desertification of fertile region due to anthropogenic activities and loss of aquatic flora and fauna of the stream. In addition to this, Environment Impact Assessment which has become an integral component for every new project to be undertaken, must be done collectively by the riparian states and not alone as China does it always, should further keep in mind, its untoward effects on to the lower riparian like India. In most cases, China does not share information related to the activities, it commences on to the river basin of Brahmaputra, worrying negligibly about the ecological impacts of its own conduct on to the India. The brittle ecosystem of Himalayas is already transposing due to human induced climate change, extensive and rapid urbanization, without cooperative safeguards might further worsen river bank degradation and breakdown of ecosystem of downstream.

4. Threats of Repudiation

Beijing (China) and New Delhi (India) have signed ample number of Memorandum of Understanding, recognizing that trans-boundary Rivers are an important asset to the development of all riparian states. Both countries have always agreed to strengthen communication and strategic trust. China had agreed to provide more hydrological information to India at the start of the flood season. Despite all the MOUs (there have been earlier ones) information sharing was never improved. India and Bangladesh being lower riparian may find strength by jointly acting to achieve multilateral co-operation with China, however, China was never in favour of sharing its water resources with any one and specially India, its biggest competitor neighbour. In fact, China has previously suppressed flood related information in 2017 for almost a year, stating technical reasons.[28] Such actions of China,

[25] Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 1992.
[26] Supra note 12.
[27] Supra note 16.
[28] Supra note 13.

hint towards usage of information of river water and water management as a premeditated tool by the country and probably even repudiate the non-binding agreement signed between both the arch-rivals in times of strained relations. For India, there is persistent distress as it has to be reliant on its upstream state for the information and hydro data, also need to stay prepared for untimely natural calamities be it floods in Assam or scantiness of water.

5. Incessant Animosity

Water has never been the immediate reason for armed conflict between both the riparian states but it has been one of the reasons of strategic tension amongst the two nations. There has been presence of geo political tension since the beginning accompanied by border disputes due to claims over territories. There have been multiple standoffs between the armies of both the nations, indicating presence of open enmity between the two. Due to such strained relations, the water sharing mechanism was never chalked out. Although China has never signed any water treaty or water sharing agreement with any of its riparian countries, it uses water as a political weapon against its neighbouring countries specially India. Repeated Dam constructions and hydro projects over Brahmaputra River hint towards intentions of China. Despite, several requests made to China to share information related to changes made on to the banks of the river and share hydrological data, but it seems to pay no heed on to such requests made by India. In such situations, water sharing has always been affected and thus remain a latent dispute on which no solution has been ever suggested. Moreover, China's dam construction will reduce river flow in lower riparian state i.e. India and Bangladesh. The damming effect increases soil salinity and affects agriculture, forcing people to relocate and sometimes migrate. As there is no sharing of hydrological data between both the riparian states, lack of sharing of hydrological information may even lead to floods and sometimes water scarcity. This calls for efficient river water management regime which is essential to further reduce the severity of future food and water crises, which will eventually reduce the risk of repeated conflicts and on-going animosity.

V. Plausible Future Course of Action

Chalking Out the Treaty in light of Convention

Both India and China shall adopt framework in form of Treaty or Agreement which must comprise of indispensable principles which are enshrined in the Convention on the Protection and Use of Transboundary Watercourses and International Lakes[29] also known as Water Convention or Convention on the Law of the Non-navigational Uses of International Watercourses[30] also known as Watercourses Convention. Considering these two Conventions or either convention as reference, both the riparian states shall prepare a lay out for sharing water without any adversity. This would denote that principles would be incorporated regarding equitable distribution of water, further developing a regime relying on the factors as listed out in the above two conventions. When it comes to Convention on the Protection and Use of Transboundary Watercourses and International Lakes[31], the objective of the Convention is to build up measures and actions necessary to protect the transboundary water bodies at all levels be it local, national or international. There is a dire requisite to conserve water (ground and surface). The Convention mentions measures for prevention and control of water pollution, cooperation and harmonization among the riparian states, minimization of conflicts, regular exchange of water related information among the riparian states, emission of waste water in best possible manner, maintaining ecological balance and sustainable development of water. The parties shall be following precautionary principle and polluter pays principle to avoid harm to environment and water bodies.[32] The Convention even aims that water resources should be managed so that the needs of present generations are met without compromising the ability of future generation to meet their demands.[33] This Convention came into force in year 1996 and since

[29] Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 1992.
[30] Convention on the Law of the Non- navigational Uses of International Watercourses, 1997.
[31] Supra note 30.
[32] Article 2 Clause 5 (b), Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 1992.
[33] Article 2 Clause 5 (c), Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 1992.

then it has been considered a model for cooperation by the riparian states who share same waterbodies. Many regional river conventions, treaties and agreements are based on this model, for example- Danube River Protection Convention[34], Agreements on Lake Peipsi[35], Kazakh- Russian Agreement[36], Moldovan- Ukrainian Agreement[37] etc. This Convention was a regional convention when it initially came into force, as it was appliable to those countries which were member of United Nations Economic Commission for Europe (UNECE)[38], later in 2013, this saw a transition from regional to global convention, paving a way for many nations to get associated with this Convention.[39]The subsequent convention suggested here, Convention on the Law of the Non-navigational Uses of International Watercourses[40] the objective of this Convention is to make all the riparian states (countries sharing same waterbodies) cooperate in sharing water thereby reducing chances of disputes to nil. The convention has provisions for systematic exchange of data and hydrological information, sharing of information on steps and measures taken for usage of international waterbodies, proper procedures for notifying and replying by all the riparian states about the steps taken for use of water resources, protection of ecosystem, prevention of pollution, avoidance of harmful conditions, settling away of disputes between the parties to convention. A riparian state should utilize international waterbodies in equitable and reasonable manner.[41] According to the Convention, a riparian state while utilizing the international water resource or waterbody should ensure that it does not cause harm to the other riparian states.[42] The Convention was adopted in year 1997 and came into force in year 2014. A peculiar example of a treaty which has encompassed the principles of the Convention is the Nile Basin Cooperative Framework Agreement, 2010[43]. Although no member nation to the Nile Framework Agreement is party to this Convention, some of the principles of this agreement are cognate. There has been no Treaty signed between India and China in regards to Brahmaputra River water. Additionally, none of the countries have ratified the UN Convention on the Law of the Non-Navigational Uses of International Watercourses, 1997[44] but both the countries should ratify this Convention in order to tackle this dispute arising situation. If ratified by both the nations, they will be bound to follow the principles under the convention. Both nations are rising powers in the South Asian region, with India's growth expected to surpass China's in the near future. Competition between the two Giant powers creates a sour relationship for water sharing which makes cooperation difficult but the process of negotiation can still resolve this. If not negotiation, ratification of UN Conventions only by both the countries will tackle the water conflict.

Developing a Treaty as form of Cooperation

Whenever any transboundary resource around the planet has been in dispute, the riparian states have tried to fix the issue by signing a pact or agreement with each other, keeping no room for altercation. Brahmaputra River water dispute between India and China is not the only dispute which has arisen between the neighbours, there have been many nations which got embroiled into controversies, disagreements, fights over transboundary river water but in the long run chose to fix such water wars. There are several treaties and agreements signed by different riparian countries to work out on the water conflict which set examples for the rest of the world to resolve water related disputes. Some of the successful treaties are:

Tripartite Interim Agreement[45] between Mozambique, South Africa and Swaziland (now Eswatini) was made in order to tackle Transboundary water dispute on Incomati River and Maputo water bodies. The Agreement was

[34] Convention on Cooperation for the Protection and Sustainable Use of the Danube River (Danube River Protection Convention), 1994.
[35] Agreements on Lake Peipsi, 1997.
[36] Kazakh- Russian Agreement, 2010.
[37] Moldovan- Ukrainian Agreement, 1994.
[38] United Nations Economic Commission for Europe, 1947.
[39] The Water Convention and the Protocol on Water and Health, https://unece.org/environment-policy/water (last visited Jun 12 2025).
[40] Supra note 31.
[41] Article 5, Convention on the Law of the Non- navigational Uses of International Watercourses, 1997.
[42] Article 7, Convention on the Law of the Non- navigational Uses of International Watercourses, 1997.
[43] Nile Basin Cooperative Framework Agreement, 2010
[44] Supra note 31.
[45] Tripartite Interim Agreement for Co-operation on the Protection and Sustainable Utilization of the Water Resources of the Incomati and Maputo Watercourses, 2002.

made with intention of distributing water between all three countries in just, equitable and reasonable manner. It was decided under the agreement to exchange Incomati River and Maputo bodies water related information amongst all the riparian countries, in order to benefit all three states. This Agreement has thrived in refining technical cooperation among the three nations specifically in data sharing of hydrological information, also supported cooperative actions in terms of challenged posed by climate change and increasing demands of water. Despite certain challenges faced, it depicts a success story of coordinated and cooperative planning leading to effective sharing of transboundary water resources.

Danube River Protection Convention[46] was developed with an aim to encourage water management in a sustainable manner for benefit and betterment of all the riparian states on Danube Basin. The members of this Convention are: Austria, Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Moldova, Montenegro, Romania, Serbia, Slovakia, Slovenia and Ukraine. The Convention comprised of clauses for equitable and reasonable water management, protection of ecosystem and environment, prevention of pollution in water bodies, directions for waste water usage, regular exchange of hydrological data etc. All the measures which aim for protection of the Danube River are based on the Polluter pays principle and the Precautionary principle**.**[47] This convention emerged as a successful multilateral treaty between fourteen countries of Europe as it contributed in long term sustainability of transboundary freshwater resources. The joint efforts of all these riparian states aided in notable enhancement in water quality thereby contributing to the restoration of the ecosystem of the Black Sea.[48]

Boundary Waters Treaty[49] was signed between United States and Canada to resolve dispute over Transboundary water, in year 1909. Under the same treaty, International Boundary Waters Treaty Act[50], was enacted to further regulate the water sharing relation between both the countries. The Treaty and the Act are made in such a way putting restriction on both parties to change the course of transboundary waters and its level without the approval of International Joint Commission[51] (a body constituted to resolve water disputes, instruct and regulate diversion of water bodies etc.). The treaty has put up reasonable restrictions on both the parties for usage of water from transboundary water resources and thus eliminating scope of water conflicts. The treaty has been evidently effective in today's era as it is working towards modern problems involving effects of climate change, water diversions and increasing water demands by executing noteworthy scientific research-based resolutions.

Agreement between Mongolia and Russia on Protection and Management of Transboundary Water[52] was made with sole purpose of protecting and managing transboundary water in the year 1995. The agreement focuses on rational and reasonable management of water bodies shared by both the riparian states, prevention of pollution of water resources, proper exchange of hydrological information, prevention of floods and droughts, equitable distribution of water from all the common resources of both the countries. Over the years, both the riparian states have continued diplomatic discussions including joint water quality monitoring initiatives and cooperative transboundary environmental impact assessments, via the Agreement. Effectiveness of this Agreement is discerned due to regional cooperation, avoidance of conflicts, coherence and coordination in efforts by both the neighbouring states.

Agreement on Cooperation for Sustainable Development of Mekong River Basin[53] was signed between Cambodia, Lao People's Democratic Republic, Thailand and Vietnam which aimed at cooperation amongst all the parties for sustainable development, conservation of water bodies of Mekong River, protection of aquatic life and maintenance of ecological balance of the river, ensuring rational and reasonable utilization of water of the river. One of the significant and notable achievement of this Agreement is that it emphasizes on data sharing of water resources, joint planning involving all the member parties and unanimous decision making on the

[46] Supra note 35.
[47] Article 2 (4), Danube River Protection Convention, 1994.
[48] *European Waters – Assessment of Status and Pressures 2021*. European Environment Agency, EEA (2021).
[49] Boundary Waters Treaty, 1909.
[50] International Boundary Waters Treaty Act, 1911.
[51] Boundary Waters Treaty, Northwest Power and Conservation Council, https://www.nwcouncil.org/reports/columbia-river-history/boundarywaterstreaty/ (last visited Jun 12, 2025).
[52] Agreement between the Government of the Russian Federation and the Government of Mongolia on Protection and Management of Transboundary Water, 1995.
[53] Agreement on Cooperation for Sustainable Development of Mekong River Basin, 1995.

development projects which may hamper river flow or ecology of the basin. The efforts ensued under the Agreement in improving the fishing management, reduction in risks associated with flood and most importantly, adaptation to climate change. Although challenges do persist in form of environment degradation, construction activities over river basin and climate change but this regime of cooperation plays pivotal role in maintaining peace among the riparian nations. The above successful treaties pave a way for India and China to fix their dispute over water. Indo- China Brahmaputra River water dispute has always been a source of tension between both the countries. To curb and avoid such conflict, various ways can be adopted including: a treaty like mentioned above should be signed between India and China for governing equitable distribution (reasonable and effective) of water. Following years of chaos and differences, the different nations mentioned above too, signed the treaty which included directions and safeguards to ensure the flow of the rivers through all the riparian states. As a result of the treaty, all countries were able to create dam storage solutions along the parts of the river basin respectively, meeting their water needs. Similarly, these two Asian giants shall embed some kind of criteria to distribute water.Although certain memorandum of understandings is signed between India and China but it needs to be rigorously followed by both the countries. MOUs have been signed between both the parties various times but it lacks implementation. Most of the times, China does not share the Hydrological data and works on its own wishes & whims. The hydrological data should be exchanged between the countries without fail as it happens in Boundary Waters Treaty[54] between US and Canada. The exchange of hydrological data which tend to maintain peace between both US and Canada in regards to water sharing, can be adopted as an ideal model.
The water boundary dispute between Indo- China can be deciphered following a proper regime in order to govern water sharing process. There is a need of permanent body which can keep a check on activities of both the riparian states for maintaining peace and harmony and for peaceful sharing of water resources. As in the event of a dispute, Danube River Protection Convention seek advice from a International Commission for the Protection of the Danube River[55], Canada and US seek assistance from International Joint Commission[56], and Mongolia & Russia seek aid from Joint Mongolian-Russian Commission on the Utilization and Protection of Transboundary Waters[57] in the similar way there is essential requirement for India and China to consult or get guidance from such a kind of dispute resolving body.

VI. CONCLUSION

For avoiding destabilizing of the region, there is a need for good governance and legal framework and that can only be achieved through negotiation and diplomatic actions. There is a need for communication between the two Asia's emerging protagonists, to reassure riparian states of its hydro-political intentions and reduce the potential for conflict caused by misunderstandings and mistrust. For sake of regional stability, it is crucial that no country feels, it is under threat of acute water shortage as a result of upstream dam construction activities or diversion projects. Thus, there is an overall need to take steps to curb this latently existing water dispute. There is a need to understand the river structure and devise a way for effective and efficient distribution of Brahmaputra River water. There is a need for both nations to develop mutual goodwill and harmony. Undertaking joint research projects in the river basin area and sharing water data more frequently and considerably can foster stronger bilateral relations. Moreover, developing an understanding of shared water resource challenges will eventually help in limiting the potential for conflict.
An amalgamation of bilateral co-operation and strong leadership with proper management can influence the future and reduce not only the water dispute but even other tensions between the two neighboring countries, which have been existing since decades. A lack of communication and consultation between India and China has given birth to Indian concerns about Chinese dam-building and water diversion projects. A treaty or MOUs or bilateral agreements between these two neighboring nations would however, help to reduce the potential for friction between both the riparian. Although by negotiations or by genuine communication, greater volatility and political willingness and administrative agreements, it can be better ensured that there shall exist peaceful water relations and such an outcome would benefit all of the Brahmaputra's riparian states. If these steps will be

[54] Supra note 50.
[55] Supra note 35.
[56] Supra note 52.
[57] Supra note 53.

followed then there will be no chance of water dispute between both countries as seen in instances of several Treaties cited above and eventually there will be equitable distribution of water in all the riparian states.
Conservation of water and sharing it by cooperating with each other is a global need now. For existence of mankind, it has become essential for the global society to share the water resources in a systematic manner. By applying the principles envisaged in the Water Convention and Watercourses Convention including equitable and just distribution of resources, cooperation and joint efforts, public participation and information exchanges, the feeling of sourness existing in the region shall diminish. International law should be made such, which is able to serve the purpose of conservation of natural resources and is able to ensure cooperation among the countries in serving the global need of their people. Such cooperation will not only help in conservation of natural resources but it will act as a measure for social development of the people. It is the need of global nations to not just protect and preserve the water resources but to conserve them as well for the benefit of the whole society. Such steps will bring global world closer and will lead to development of society as a whole by following the concept of optimum utilization of scarce resources.
There is a dire requisite to stop the water wars occurring between various countries of the world. India and China should adopt such strategies in order to tackle their water war over Brahmaputra River water. All the countries should work towards achieving Sustainable Development goals[58] (Water management and its conservation[59] is one of the Sustainable Development Goals), this way they will be able to coordinate and cooperate in development of nations of the world and will be able to utilize the resources in most efficient manner. Water which is an utmost necessity will be conserved only after joint efforts made by all the countries altogether. Not just India and China should adopt cooperation & coordination schemes in water sharing but all the countries who are at an edge of having water war amongst them should also come together to adopt such water sharing mechanism, which will not only solve their purpose but will also call for world peace and international social development of the society.

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