

# Geo-Politics of Sino-Indian Transboundary Water Management In Brahmaputra River

Arpan Mandal <sup>1</sup>, Rengmili Engtipi <sup>2</sup>, Kripal Das <sup>3</sup>

<sup>1</sup> *Asst. Professor, Dept. of Political Science, Don Bosco College, Golaghat, Assam, India.*

<sup>2</sup> *Research Scholar, Dept. of Political Science, Assam University, Diphu Campus, Assam, India.*

<sup>3</sup> *Student, Dept. of Political Science, Dibrugarh University, Assam, India.*

## Abstract

Brahmaputra River plays an essential role to life, livelihood, food security and sustainable development for the people of North Eastern states of India. Being a trans-boundary river that runs through Tibet, India and Bangladesh it's faced with continued political, economic and ecological dilemma. With its origin in Tibet as Yarlung-Tsangpo, China have the control over the accessibility of the river and can create problems for the lower riparian states. With the continued construction of dams on the Yarlung-Tsangpo River in the Tibet region it can be a form of concern, as China will have the ability to control India's water supply. Also the plans to divert the flow of water to the barren region of North West region of China Xinjiang can be seen as a strategic form of reducing the river flow to India. Therefore, this paper will look at the relations between the two rival countries-China and India, and provide the prelude to an era of hostility due to the issue of water reserve in the Yarlung-Tsangpo region in Tibet. Also it will analyze on how China can "weaponize" this to its advantage over the lower riparian states thus demonstrating a hegemonic character that contradicts the statement of "China's peaceful rise". Therefore, there is an urgent need for establishing water treaty that can warrant sharing of information that can develop mutual understanding and trust between two rival neighboring countries. This can ensure a form of peace even in the unwarranted times of border clash between India and China. With the ongoing pandemic, the global solidarity between two giant powers: India and China could be a necessity as they could work together and combine their efforts of economic, political and strategic power to combat various problems ranging from climate, environment, border issues as well as address the question of balance of power in the Asian region.

**Keywords:** Trans-boundary, development, hegemony, strategic, water-treaty.

## I. INTRODUCTION

Brahmaputra a trans-boundary river, with its origin in Angsi glacier in Tibet is known as Yarlung-Tsangpo. The link between Brahmaputra and Yarlung-Tsangpo was established very recently in 1884-86 (Mahapatra and Ratha, 2015; 2-3)<sup>i</sup>. Yarlung-Tsangpo runs through Tibet then flows into India where it's known as Siang or Dihang in Arunachal Pradesh and then run its course through Assam as Brahmaputra and then flows through Bangladesh as Jamuna. The Brahmaputra River flows for more than two

thousand miles and is shared between India, China, Bangladesh and Bhutan.

Major Trans-boundary Rivers have their source in China. Brahmaputra River being one of the Trans-boundary Rivers can be a source of conflict as it is shared by two or more sovereign nation states. Thus in trans-boundary interaction, water acts as a medium through which politics occur (Mirumachi, 2015)<sup>ii</sup>. The decision taken by a sovereign state over the trans-boundary river will affect the decision making of another sovereign state as it can affect the live and livelihood of the people,

causing conflicts between the riparian states. Every riparian state will ensure to meet its various social, environmental and economic needs, making water not just a national concern but also an international issue implicating state sovereignty (Alam, Dione, & Jeffrey, 2009; 90-100)<sup>iii</sup>. Therefore, it is necessary to establish a mechanism that will warrant sharing of information between the riparian states to ensure that the conflict does not escalate. Trans-boundary water co-operation thus play an assisting role in Sino-Indian diplomacy, due to a long-term mistrust and territory dispute (Feng, Wang & Liu, 2019; 2)<sup>iv</sup>.

In terms of trans-boundary co-operation the states are willing to accept some limitation on their autonomy only if they see certain gains in that bargain (Alam et al., 2009; 90-100)<sup>v</sup>. Each riparian state will agree to co-operate only if they see that there is a form of benefit that they can get through various process that may vary from data sharing information to mechanism that can ensure transparency between the riparian states. Power asymmetries are the prime determinants of the degree of control over water resources that each sovereign state attains (Zeitoun, 2008; Zeitoun & Allan, 2008; Zeitoun et al., 2017; 3-12)<sup>vi</sup>. Therefore, as China is the upper stream country it can use its water policy to take advantage of the lower riparian countries while subduing them to adhere to their national security needs. Consequently, water is being used, as a political tool to remain a water hegemon in the region. As Warner stated while up-streamers use water to get more power, down-streamers use power to get more water (Warner, 2004;)<sup>vii</sup>. Thus China has an advantageous geographical position that favors them to initiate water projects that can deliberately affect the downstream states.

As Brahmaputra River basin is rich in biodiversity, with a huge potential for irrigation development, livelihood opportunities, hydropower generation, and navigation there is an increased dependency on the river by the riparian states. However, the water interaction of Brahmaputra is inseparably linked with the regional politics involving the four riparian

countries, which are unequal in size and power (Barua, Vij & Rahman, 2017; 830)<sup>viii</sup>. Due to the uneven asymmetry of power there is a difficulty in accessing reliable water source data due to the absence of a transparent water sharing mechanism. China takes the sole advantage of being the upper riparian state as well as basin hegemony and therefore can encourage or discourage effective trans-boundary water cooperation, and consequently result in either 'positive' or 'negative' trans-boundary arrangements (ibid. 832)<sup>ix</sup>. With China continuously failing to consult any co-riparian state before starting any geopolitical progression can be seen as a form of unilateral approach that is driven due to uneven asymmetry of power among the riparian states. The Brahmaputra River can be also be of great potential to harness energy through construction of hydroelectric station such as Kopili Hydel Project in Assam, Ranganadi plant in Arunachal Pradesh, Zhangmu dam in China etc. The harnessing of electricity can be vital for developing countries like India and China, which has not been completely harnessed. China is effortlessly building infrastructure along the Yarlung-Tsangpo region to ensure connectivity with the rest of China and also to increase its stronghold over the Tibet region. India also needs the river for its developmental needs as well as for its security concerns. Therefore With its massive hydropower potential and water flows the river not only contributes to the economic development of its riparian countries, but also triggers tension and disputes (Liu, 2015; 354-374)<sup>x</sup>.

Therefore, it cannot allow China to continue with its aggressive water policy. The two rival countries are facing with water constraints and as well as the continuous conflict between the two countries can affect the accessibility to the river water Brahmaputra. China holds the power to divert the water to its water barren region of Xinjiang as much of India's river originates in Tibet, which is controlled by China. Also in 1986, International Conference of Global Infrastructure Fund was held in Alaska where the idea of diverting Brahmaputra

River was mentioned (Mahapatra and Ratha, 2015; 3)<sup>xi</sup>. With this initiation, there can be possible devastation effect in the downstream riparian states that can affect the livelihood of the people as well as cause detriments in environment and can cause natural calamity such as floods, drought, siltation etc.

## II. WATER CONFLICT

Both India and China are water scarce countries and thus are competing with each other to not face the adverse food and water scarcity challenges. India is dependent on foreign originating river and it is dependent on Brahmaputra River for water, livelihood and agriculture, while China has only 7 percent of fresh water for more than 21% of its population (Zhang, 2016; 158)<sup>xii</sup>. Both India and China are aware that water shortage could possibly be a threat to food security (Kaul, 2009)<sup>xiii</sup>. Thus massive water shortages could force both India and China to "securitize" water sources and lead to tension. According to Chellaney state vs state zero sum game are the new norms for hydro politics (Chellaney, 2011)<sup>xiv</sup>.

As Brahmaputra River originates from Tibet thus China hold a strategic advantage over the river flows as it can make decision, which can affect the volume of water being available to the downstream countries. With China controlling Tibet, China can control Brahmaputra along with other major Himalayan origin river system. Also China has 50% of the Brahmaputra river basin (Zhang, 2016; 156)<sup>xv</sup>. Thus China activities on the Brahmaputra River can have a greater impact in the downstream countries. As Chellaney has stated that "control over Tibet's water resources gives China enormous strategic latitude with its neighbors and that China is likely to use water as a source of political leverage against India"<sup>xvi</sup>. This has increased the Indian suspicion over how China can exploit the Himalayan River with the increased building of dams, hydropower projects and water diversion projects. With China home to more than 25,000 large dams and with the progress of more mega dams along

the trans-boundary river can have potential negative effects on its neighboring countries.

Although China is water independent that is the country's freshwater originates within the country itself the distribution of surface water is uneven (Christopher, 2013; 13)<sup>xvii</sup>. The South region of China is water abundant while the North region of China is water scarce. In 1952 Mao Zedong also pointed that, "The South has a lot of water, the North little... if possible, it is okay to lend a little water" (Chellaney, 2012; 143-156)<sup>xviii</sup>. Thus the South and Southwest region is water abundant leaving the North region water barren. The increasingly populated country has thus lead to urbanization and industrialization, which is likely to exacerbate water scarcity in China.

Due to this water crisis China has undertaken various hydrological project ranging from building dams to water diversion project that can significantly alter the river's course and flow, which can be detrimental to the lower riparian states. China has dammed almost all the rivers of Tibetan Plateau including the Brahmaputra, the Mekong, the Yellow River, the Yangtze, the Indus and the Sutlej (Yangtso, 2017; 49)<sup>xix</sup>. The construction of dams is a calculated strategy by China to exert control over its resources at the expenses of other riparian countries (Mahapatra and Ratha, 2015; 7)<sup>xx</sup>. Thus, like Mirumachi stated water acts as a medium through which politics occurs where China ensures to uphold economic growth, political and social stability by asserting itself as a water hegemon. The underlying reason of both dam building and water diversion project has contributed to the increased tension between the two countries along with the border skirmishes on various territorial areas such as Arunachal Pradesh, Ladakh, Aksai Chin, Galwan valley etc. China is able to take unilateral action as it wields more power in terms of political, militarily and economic aspect in relative to India. Due to this power asymmetry between the riparian countries there is an increased unilateral control by China over the Brahmaputra River.

Mekong River that originates from Tibet is controlled by China thus affecting the South East Asian countries, which is at a receiving end. Thus the four countries mainly Laos, Cambodia, Thailand and Vietnam depend on this river for food, water and transportation, which faces distress due to the continuous China's dam building activities. Dams on this river have been held responsible for drought in some of these countries (Jayaram, 2015; 4)<sup>xxi</sup>. The riparian countries remained silence about the impact of dams built by China due to the uneven asymmetry of power attributed by China's economic weight. Thus the continued dam building by China on the Yarlung-Tsangpo region has created tense environment among the Indian government officials where it sees that there is a high risk of flash floods and landslides and can also cause environmental damage that will affect the downstream countries.

Thus China is seen as unilateral in its actions, particularly in building dams, and unforthcoming with information (Barua, Vij & Rahman, 2017; 835)<sup>xxii</sup>. With China maintaining a 'strategic silence' on its water diversion project it's difficult to maintain a cordial and mutual relationship between the two hostile countries as India continues to be suspicious of China's water policy. Thus China can be viewed, as a hydrological hegemony where from the realpolitik perspective it can use the water sharing issue to subdue its lower riparian countries in adhering to its national security needs. However, there is a need for China to maintain a stable relationship with its neighboring countries to provide a condition for China's peaceful rise.

### III. INDIA'S CONCERN

For India, the Brahmaputra is of special importance for two reasons: first, the Brahmaputra accounts for 29% of the total runoff of India's rivers and therefore represents a potential source of available water; and second, of India's total hydropower potential, roughly 44% lies in the Brahmaputra basin (Biba, 2014; 37)<sup>xxiii</sup>. Therefore, Brahmaputra River plays an essential role in terms of

providing livelihood and ensuring electricity for India's entire population.

Nehru understood the strategic importance of the Himalayan region as he stated in the Parliament "For my part I attach probably most importance to the development of our big scheme- river valley schemes- than to anything else. I think it is out of those that new wealth is going to flow into this country." (Nehru, 1950; 152)<sup>xxiv</sup>. He understood the importance of river basin and as India is majorly an agricultural country there is a need for accessing the river water for irrigation as well as transportation and livelihood impetus. With the continued population expansion and economic growth there is an increased water shortage in the riparian states. Therefore, the two most populous state and water thirsty countries China and India are at loggerheads due to the continuous water conflict, which can further complicate the lingering border conflict.

With China turning to the Tibetan Plateau as a solution to its water scarcity problems can trigger a deadly water race with China controlling the source of the river. It is understandable the China would wish to harness the energy potential of the Brahmaputra River due to its rich hydropower potential. Also with Tibet under the control of China, it remains to be both de facto and de jure controller of the river resulting to become a hydrological hegemony in the region (.). China being the upper riparian country can directly affect the volume of water available to its downstream neighbors, and of the numerous rivers crossing from China into India and Bangladesh, the Brahmaputra is the most important (Christopher, 2013; 17)<sup>xxv</sup>. China also could also use its upstream advantage over India in the future due to the deepening military relationship between the India and United States. Given China's desire for regional power, the improving relationship between New Delhi and Washington could increase the likelihood of China engaging in destructive upstream activity (Lovelley, 2016; 6)<sup>xxvi</sup>. Thus China can be seen as a hydrological hegemony that has the power to

affect the live and livelihood of the riparian countries.

The continuous aggressive approval of dam building projects and as well as water diversion project by China can be seen as a form of exploiting the river's power generation that can affect its relationship with the neighboring countries. The initiation of a feasibility study to examine the possibility of undertaking a "major hydropower project" located at the Brahmaputra's Great Bend undertaken in the year 2003 as stated in the China's state newspaper (ibid; 18)<sup>xxvii</sup>. This can be worrying for the Indian government and officials as China's water diversion plan at Great Bend could lead to Brahmaputra River running dry in the near possible future enough to create serious consequences downstream. Also nutrient rich sediments that enrich the soil of these regions would be held back in the reservoir instead of reaching the river's delta (Mahapatra and Ratha, 2015; 6)<sup>xxviii</sup>. China's dam building is also adding to geological vulnerability where in instances in the year 2008 Wenchuan earthquake was supposedly triggered by the nearby Zipingpu Dam (Adams, 2013)<sup>xxix</sup>. Thus the construction of dams is ecologically unsafe with serious and disastrous consequences (Chellaney, 2011)<sup>xxx</sup>.

This can cause problems to the lower riparian countries that can have an adverse impact on the agriculture activities as well as affect the livelihood of the people. Thus China continuous dam building and water diversion project is a reflection of "zero-sum" mentality that can cause direct conflict with India along with the persisting border conflict. This can bring about regional instability in the South Asia region and thus ensue the water conflict as India is far more powerful and ambitious country than Mekong downstream countries

Also Grand Western Water Diversion Project (GWWD) proposed by China water expert Guo Kai, that intends to divert water from upstream of Mekong, Brahmaputra and Salwan River to dry areas of Northern China through a system of reservoirs, tunnels and natural river (Zhang, 2016; 158)<sup>xxxi</sup>. Thus China's plans to

develop four hydropower dams on the Brahmaputra River and water diversion project increase India's suspicions of Chinese intentions (Yasuda, Aich, Hill, Huntjens, & Swain, 2017)<sup>xxxii</sup>. Indian official remained oblivious to China's water project policy as China remains unforthcoming in its information on water sharing data. The \$ 1.2 billion Zangmu dam on Brahmaputra is one form of example where the Indian officials were kept in the blind as China withstood the information by not consulting about the construction of dams with Indian official until several months into construction. Also the continued release of blueprint by Water expert in China about channeling water away from rivers like Brahmaputra indicates that China is continuing with its hegemonic activities that could cause problems to the downstream countries.

Thus, China has not been transparent of its plans to build dams on the Brahmaputra River. The unilateral Chinese harnessing of resources causes a political discord between two Asian giants and water has become a potential source of enduring discord (Mahapatra and Ratha, 2015; 7)<sup>xxxiii</sup>. China's dam building and river rerouting activities have huge potential for manifold negative effects on downstream countries in ecological, economic and political terms (Goh, 2004; 29)<sup>xxxiv</sup>. With the amalgamation of China's opaqueness in its hydro project and the continuous border skirmishes advanced by China, has led to confrontation of diplomatic challenges in the South Asia region. China pursues upstream strategy by rejecting multilateral framework for managing its trans-boundary river. Thus water has become a security issue between the Sino-India relations.

#### IV. CHINA'S CONCERN

China vehemently argues that water security issues played by India are an exaggerated propaganda in order to gain sympathy and support from the international community. Also the Tibetan government in exile is creating political hype about the Chinese dams in order to win international support. Thus, to China the water wars narrative is a form of justification to India's own dam construction plan along the

section of Brahmaputra River particularly in the disputed Arunachal Pradesh (Zhang, 2016; 158)<sup>xxxv</sup>. China believes that India's dam building and setting up of dozens of hydro power stations is to reinforce its actual control and occupation in the disputed area (Patranobis, 2013)<sup>xxxvi</sup>. The setting up of hydro project by India in the disputed area of Arunachal Pradesh will strengthen their claims to the disputed area and will be able to counter China's claim against the legitimacy of rightful occupation. Thus the disputed area of Arunachal Pradesh in the South Asia geopolitical context remains the reason of historical enmity and high level of mutual suspicion between China and India that further complicates the issues of Brahmaputra River (Yangtso, 2017; 55)<sup>xxxvii</sup>.

According to report published by the Chinese authorities in 2013, the number of river in China decreased from 50,000 to almost 23,000 over a period of 20 years in 2011 (Zhang, 2016; 158)<sup>xxxviii</sup>. Also around 500 million people living in northern region get access to only one fifth of total fresh water in China whereas Southern part gets four fifth of fresh water with a population of 700 million (Mishra, 2010)<sup>xxxix</sup>. In terms of qualitative dimension more than 75% of the river water running through China's urban areas is regarded as inappropriate for drinking or fishing, and around 30% of the river water throughout the country is deemed to be unfit for use in agriculture or industry (Economy, 2007; 43)<sup>xl</sup>. Thus the extreme shrinkage of the availability of river water and the uneven availability of fresh water may be the case for China to lean towards the water diversion project to solve the water crisis. China thus faces water problems both in terms of quantity and quality.

China also wants to address the electricity shortage faced in Tibet where China initially sought to transfer electricity from neighboring province such as Qinghai and Xinjian (Zhang, 2016; 160)<sup>xli</sup>. However, the electricity diversion projects remain to be extremely costly and inefficient. On these grounds China wants to explore the Tibet's rich hydropower potential that could help generate electricity not only in

the Tibet region but as well as the neighboring states. China ensures that building of the dam is merely a run-of-the river water project aimed at generating power that will not hold the water of the lower riparian states. This can be seen as a form of China following the New Foreign Policy of Doctrine Under Xi Jinping where it upholds to bring amity, security and common prosperity in the neighborhood (Zhang, 2016; 161)<sup>xlii</sup>. This policy was adopted in the 18<sup>th</sup> Community Party of China National Congress in November 2012.

Therefore, China argues that it wants to uphold a stable and favorable external environment and does not wish to aggravate the lower riparian states. This is considered vital to China's peaceful rise and continued economic growth. China government also ensures that the water project will be taken with the consideration of the lower riparian countries. This hydro project "is not of a big capacity and has no need for storage of water and it will not affect the ecology and environment" (The Economics Times, 2012)<sup>xliii</sup>. As Xi Jinping stressed that "water conservation be given top priority and economic, social and environmental impacts and sustainability of project must be thoroughly evaluated"<sup>xliv</sup>.

China's international hydro-politics take place is somewhat contradictory: on the one hand, there is China's worsening domestic water crisis, which has the potential to adversely affect neighboring countries; on the other hand, China has a continuing need for a stable periphery, in order to maintain economic growth and social stability (Biba, 2014; 29-30)<sup>xlv</sup>. Thus China is faced with major challenges where it has to address the internal water security needs as well as considerate the needs of its immediate downstream neighbors. China is aware that it needs to project itself as a country that upholds the laws and rules of international principle. Thus the Ministry of Water Resource of PRC states that it "sticks to principle of putting people first, emphasizing equality and rationality, balancing development and protection and enhancing good neighborly friendship and co-operation (Yangtso, 2017;

49)<sup>xlvi</sup>. China's emphasis on "Peaceful Rise" can however be refuted with the continuous activities on the Brahmaputra Basin that could affect the downstream countries.

## V. INSTITUTION MECHANISM

China is perceived as water hegemon because of the uncooperative behavior in terms of their passive roles in international water governance and also due to its reluctance to co-operate with downstream countries. China unwillingness to sign any binding agreement with downstream countries over trans-boundary river is an evident that China is insisting on an absolute sovereignty of water principle. China's reluctance to sign a binding agreement or comprehensive international river treaties with its neighbors may be due to the water scarcity faced in their North-West region. Thus China continues to remain taciturn on its information of river management policies with lack of transparency that can culminate into increased tension or conflict between China and India.

China follows an "upstream strategy" with rejection of multilateral framework for managing its trans-boundary Rivers. It believes that multilateralism will infringe on its sovereign rights and freedom of action in managing natural resources (Yangtso,2017; 51)<sup>xlvi</sup>. Therefore China along with Turkey and Burundi voted against the 1977 UN Convention on the Laws of Non-Navigation use of International Water Course (UNWC) and also remains absent from Mekong River Commission (MRC) (Zhang, 2016; 157)<sup>xlvi</sup>. Both UNWC and MRC relates to trans-boundary river co-operation with the neighboring states that set the legal framework for rules and co-operation between their relevant international watercourses. The management of shared water resources is based on the principles of limited sovereignty and community of interests (Fry and Chong,2016; 262)<sup>xlvi</sup>.

China shares Trans-boundary River with fourteen neighboring countries and it has been able to successfully set up multiple trans-boundary rivers co-operation mechanism with twelve neighboring countries (Yangtso,2017;

49)<sup>i</sup>. However there is no effective multilateral working mechanism to deal with trans-boundary river issues among China, India and Bangladesh nor any bilateral water treaty signed between China and lower riparian countries (ibid. 162)<sup>ii</sup>. The various conflicts lingering from border disputes to various security issues could not produce conducive environment for cooperation in the Brahmaputra River.

India unlike the Mekong riparian countries have made it difficult for China to solely steer the discourse on bilateral water issues as it continuously addressed the concerns to China. Therefore China had to show its co-operative stance where it signed memoranda of understanding with India confirming the Chinese provision of hydrological information during the flood season (Holslag,2011; 22)<sup>iii</sup>. However, this provision of hydrological information was in response to India's flooding concern when in June 2000, a flood killed 30 Indians and left 50,000 homeless, after a break in a natural dam formed by a landslide on a tributary of the Yaluzangbu River in Tibet (Feng, Wang & Liu, 2019; 5)<sup>iii</sup>.

By 2006, China agreed to set up an expert-level mechanism to discuss interaction and cooperation regarding hydrological data-sharing, as well as emergency management and other issues regarding trans-boundary rivers (Holslag,2011; 22-23)<sup>iv</sup>. In 2008 both sides renewed their 2002 memorandum on the provision of hydrological information, when Indian Prime Minister Manmohan Singh was then reported to have raised Indian concerns once again when he met with Chinese President Hu Jintao in Beijing in 2008 (ibid. 23)<sup>iv</sup>. There is however a lack of bilateral treaty that makes China's governance system seem non-transparent. Also India's call for a water commission or an inter-governmental dialogue or a treaty was struck down by China in 2013 ('China Spikes India's Proposal for Joint Mechanism on Brahmaputra', 2013)<sup>vi</sup>. China refused to divulge hydrological information to India on the grounds that it was deemed to be internal matters. Thus there is a lack of hydrological data exchange between the two

countries and India's apprehensive about China's water policies.

Therefore, we can see that China co-operates with the neighboring country where it sees to gain benefits from co-operation and are thus sometimes willing to accept to limit its sovereignty and autonomy. Thus China's cooperative behavior has primarily been of a reactive and short-term nature (Biba, 2014; 42)<sup>lvii</sup>. Co-operative behavior follows suit when it wishes to avoid the escalation of water issue conflict and when pressure subsides China returns to the continuation of its activities along the trans-boundary river. Therefore, China's discrete water utilization and water committal approaches are equally provocative (Mahapatra and Ratha, 2015; 6)<sup>lviii</sup>.

## VI. CONCLUSION

Both India and China faces water shortages in its varied form and therefore Water issue should be recognized as a form of "securitization actor". Water has become an issue that could possibly create a bilateral tension between two countries namely China and India. Water is thus recognized as an existential threat that could possibly lead to "Water wars" between the two countries. Water security issue is seen and treated as an issue of national, or regime, security by both India and China (Biba, 2014; 29)<sup>lix</sup>. Therefore, water insecurity can explain China's un-cooperative and unilateral action. Water issues thus determine the foreign policy of each sovereign state and therefore we can acknowledge that the issue could detriment the relationship between the two countries.

The continued building of dams and water re-routing activities to meet the population demands could further bring a hostile environment to the downward riparian countries. China should therefore strike balance between meeting the population demands as well as maintaining stable relations with peripheral countries. While China may not want to aggravate relations with its peripheral states too much, its long run priority is still most likely to be guaranteeing sufficient water supplies for its own people (ibid; 43)<sup>lx</sup>. Therefore, this domestic imperative could affect

China's foreign policy that stresses on promoting amity, security and common prosperity in the neighborhood.

From India's perspective China could use water as a political tool. India therefore should join hands with neighboring countries such as Nepal, Bhutan, Bangladesh the lower riparian states, to cease China from implementing such unilateral activities that could possibly affect water security in the South Asia region. India as one of the largest democracy state should persuade the international institution and community to pressurize China to respect the 'commons' principle when it comes to trans-boundary waters (Jayaram, 2015; 7)<sup>lxi</sup>.

As China is a water hegemon state it should involve the use of soft-power as the primary use of negotiation and diplomatic action if it is to avoid destabilizing the region (Lovelley, 2016; 7)<sup>lxii</sup>. Therefore there is a need for developing mutual trust and goodwill between the two countries. This can be done through undertaking joint research projects in the region and sharing water data more extensively (ibid; 7)<sup>lxiii</sup>. These can help develop strong bilateral ties and also could limit potential future conflict. As the international laws are weak in the governance of water, the best way for India to manage hydro-politics with China is through co-operative approach and institutional mechanism (Mahapatra and Ratha, 2016; 97)<sup>lxiv</sup>. Therefore, communication between the riparian states is necessary as it is essential by China to reassure its hydro-intentions and reduce the potential for conflict caused by mistrust.

There is a need for strong bilateral connection between the two states and also there should be an initiation of international water treaty that could help reduce the potential for conflict. This could possibly reduce the mistrust between the Brahmaputra riparian state as the outcome of an international treaty would be born out of political willingness genuine communication and administrative agreements. Also Co-operation between the two states through joint multipurpose projects, improving the management of water resources, monitoring changes in glaciers, coping with floods and

strengthening natural disaster management could potentially benefit all the riparian states (ibid; 97)<sup>lxv</sup>. The co-operation must be based on transparency, information sharing, dispute settlement mechanisms and a mutual commitment to promote regional stability.

The intertwining of territorial disputes between China and India with complication over the use of resources significantly complicates the management off Brahmaputra River. In these times of border clashes there is an unwarranted need for promoting peace between the countries and issues that could promote hostilities between the two states should be prevented and resolved peacefully. Both the states should believe in the act of co-operation and not fall under the premises of false threat that could escalate the water conflict. Even in times of water scarcity the ideal of maintaining an essential peace between two states should be of importance. The two state activities of India and China will have a decisive impact on the prospect for stability in the Asian region. Therefore, water should become a source of co-operation and not of conflict. Both the nation state as a significant regional and global power should come to a mutual understanding to prevent the conflict from leading to “water wars” and instead set stage for increased transboundary water co-operation.

## REFERENCES

1. <sup>i</sup> Mahapatra and Ratha, S. K. K. C. (2016). Brahmaputra River: A bone of contention between India and China. *Water Utility Journal*, 13, 91-99. [https://www.ewra.net/wuj/pdf/WUJ\\_2016\\_13\\_08.pdf](https://www.ewra.net/wuj/pdf/WUJ_2016_13_08.pdf)
2. <sup>ii</sup> Mirumachi, N. (2015). *Transboundary Water Politics in the Developing World*. SAGE Publications. <https://doi.org/10.1177/1464993416687686>
3. <sup>iii</sup> Alam, U., Dione, O., & Jeffrey, P. (2009). The Benefit sharing principle :Implementing sovereignty bargains on water. *Political Geography*, 28(2), 90–100.
4. <sup>iv</sup> Feng, Wang and Liu, Y. W. J. (2019). Dilemmas in and Pathways to Transboundary Water Cooperation between China and India on the Yaluzangbu-Brahmaputra River. *Water*, 11(10), 1–16. <https://doi.org/10.3390/w11102096>
5. <sup>v</sup> Op.cit. Alam et al. 2009. Page 90-100
6. <sup>vi</sup> Zeitoun, M., & Allan, J. A. (2008). Applying hegemony and power theory to transboundary water analysis. *Water Policy*, 10(S2), 3–12.
7. <sup>vii</sup> Warner, J. (2004). Water, wine, vinegar and blood. On politics, participation, violence and conflict over the hydro-social contract. Proceedings from Water and Politics Conference, 26-27 February 2004, Ch. 3, World Water Council, Marseilles, France.
8. <sup>viii</sup> Barua, Vij and Rahman, A. S. M. Z. (2017). Powering or sharing water in the Brahmaputra River basin. *International Journal of Water Resources Development*, 34(5), 829–843. <https://doi.org/10.1080/07900627.2017.1403892>
9. <sup>ix</sup> ibid. Page- 832
10. <sup>x</sup> Liu, Y. (2015). Transboundary water cooperation on the Yarlung/Sangbo/Brahmaputra—a legal analysis of riparian state practice. *Water International*, 40(2), 354–374.
11. <sup>xi</sup> Op.cit. Mahapatra and Ratha. 2016; Page 3
12. <sup>xii</sup> Zhang, H. (2016). Sino-Indian Water disputes: the coming water wars. *Wiley Interdisciplinary Reviews: Water*, 1–13. <https://doi.org/10.1002/wat2.1123>
13. <sup>xiii</sup> Kaul, Vivek. (2009). Melting of Himalayan Glaciers The biggest threat to food security, *Daily News and Anaylysis*.
14. <sup>xiv</sup> Brahmy Chellaney, Water: Asia’s New Battleground (Washington, DC: Georgetown University Press, 2011).
15. <sup>xv</sup> ibid. Page- 156
16. <sup>xvi</sup> Op. cit. Chellaney. 2011
17. <sup>xvii</sup> Christopher, M. (2013). Water Wars: The Brahmaputra River and Sino- Indian

- Relations. *Water Wars: The Brahmaputra River and Sino- Indian Relations*, 11–47. <https://digital-commons.usnwc.edu/ciwag-case-studies/7>
18. <sup>xviii</sup> Chellaney, Brahma. (2012). Asia's Worsening Water Crisis. *Survival*. 143-156. 10.1080/00396338.2012.672806.
  19. <sup>xix</sup> Yangtso, L. (2017). China's River Politics on the Tibetan Plateau: Comparative Study of Brahmaputra and Mekong. *The Tibet Journal*. 42(2), 49-58. Retrieved October 24, 2020, from <https://www.jstor.org/stable/90024493>
  20. <sup>xx</sup> Op.cit. Mahapatra and Ratha. 2015. Page-7
  21. <sup>xxi</sup> Jayaram, D. (2015). China's Dams & Regional Security Implications An Indian Perspective. *Institute of Peace and Conflict Studies*, 1–9. <https://www.jstor.org/stable/resrep09032>
  22. <sup>xxii</sup> Op.cit. Barua, Vij and Rahman.2017. Page 22
  23. <sup>xxiii</sup> Biba, S. (2014). Desecuritization in China's Behavior towards Its Transboundary Rivers: The Mekong River, the Brahmaputra River, and the Irtysh and Ili Rivers. *Journal of Contemporary China*, 23(85), 21–43. <https://doi.org/10.1080/10670564.2013.809975>
  24. <sup>xxiv</sup> Nehru, J. (1950). *Independence and After: Collection of speeches, 1946-1949*. Ayer Company Publisher.
  25. <sup>xxv</sup> Op.cit. Christopher. 2013. Page 25
  26. <sup>xxvi</sup> Lovely, M. (2016). Co-operation and the Brahmaputra: China and India Water Sharing. *Strategic Analysis Paper*, 1–8. <https://www.futuredirections.org.au/wp-content/uploads/2016/03/Co-operation-and-the-Brahmaputra-China-and-India-Water-Sharing.pdf>
  27. <sup>xxvii</sup> Op.cit. Christopher. 2013. Page 27
  28. <sup>xxviii</sup> Op.cit. Mahapatra and Ratha. 2015. Page-7
  29. <sup>xxix</sup> Adams, P. (2013, August 20). Are Dams Triggering China's Earthquakes. *The Huffington Post*. <https://journal.probeinternational.org/2013/04/29/are-dams-triggering-chinas-earthquakes/>
  30. <sup>xxx</sup> Chellaney, Brahma (2011): "Water: Asia's New Battle Ground". *Georgetown University Press*, Washington, D.C.
  31. <sup>xxxi</sup> Op.cit. Zhang.2016. Page 158
  32. <sup>xxxii</sup> Yasuda, Aich, Hills, Huntjens and Swain, Y. D. D. P. A. (2017). Transboundary Water Cooperation over the Brahmaputra River: Legal Political Economy Analysis of Current and Future Potential Cooperation. *The Hague Institute for Global Justice*, 32–45. [https://www.siwi.org/wp-content/uploads/2018/01/Brahmaputra-basin-report-final\\_design.pdf](https://www.siwi.org/wp-content/uploads/2018/01/Brahmaputra-basin-report-final_design.pdf)
  33. <sup>xxxiii</sup> Op.cit. Mahapatra and Ratha. 2015. Page-7
  34. <sup>xxxiv</sup> Evelyn Goh. (2004) China in the Mekong River Basin: The Regional Security Implications of ResourceDevelopment on the Lancang Jiang. *Institute of Defence and Strategic Studies*, 69. <http://www.rsis.edu.sg/publications/WorkingPapers/WP69.pdf>.
  35. <sup>xxxv</sup> Op.cit. Zhang.2016. Page 158
  36. <sup>xxxvi</sup> Patranobis, Suthirtho (2013): "India making up claims on water issue to gain sympathy: China", *Hindustan Times*, Beijing, Oct 8th October
  37. <sup>xxxvii</sup> Op.cit. Yangtso.2017. Page 55
  38. <sup>xxxviii</sup> Op.cit. Zhang.2016. Page 158
  39. <sup>xxxix</sup> Mishra, Binod Kumar (2010): "Chinese eyes on Brahmaputra waters", *Look East*, September
  40. <sup>xl</sup> Elizabeth Economy, 'The great leap backward?', *Foreign Affairs* 86(5), (2007), p. 43
  41. <sup>xli</sup> Op.cit. Zhang.2016. Page 160
  42. <sup>xlii</sup> *ibid*. Page 161
  43. <sup>xliii</sup> The Economics Times (2012): "China claims Brahmaputra dam not affecting water flow to India", *The Economics Times*, 2nd March

- 
45. <sup>xliv</sup> China champions new Asian security concept: Xi. Available at: [http://news.xinhuanet.com/english/china/2014-05/21/c\\_133350781.htm](http://news.xinhuanet.com/english/china/2014-05/21/c_133350781.htm). (Accessed June 1, 2015).
  46. <sup>xlvi</sup> Op.cit. Biba.2014. Page 29-30
  47. <sup>xlvi</sup> Op.cit. Yangtso.2017. Page 49
  48. <sup>xlvi</sup> Op.cit. Yangtso.2017. Page 51
  49. <sup>xlvi</sup> Op.cit. Zhang.2016. Page 157
  50. <sup>xlvi</sup> Fry, J.D. and A. Chong (2016), "International Water Law and China's Management of its International Rivers" *Boston College International and Comparative Review*, 39 (2); 227-266
  51. <sup>i</sup> Op.cit. Yangtso.2017. Page 51
  52. <sup>li</sup> ibid. Page 62
  53. <sup>lii</sup> Jonathan Holslag, 'Assessing the Sino – Indian water dispute', *Journal of International Affairs* 64(2), (2011), p. 22.
  54. <sup>liii</sup> Op.cit. Feng, Wong & Liu. 2019: Page 5
  55. <sup>liv</sup> Op.cit. Holslag. 2011. Page 22-23
  56. <sup>lv</sup> ibid. Page
  57. <sup>lvi</sup> China Spikes India's Proposal for Joint Mechanism on Brahmaputra', *The Hindu* (17 April 2013), [Online], Available: <http://www.thehindu.com/news/national/china-spikes-indias-proposal-for-joint-mechanism-on-brahmaputra/article4627285.ece>, [20 August 2013].
  58. <sup>lvii</sup> Op.cit. Biba.2014. Page 42
  59. <sup>lviii</sup> Op.cit. Mahapatra and Ratha. 2015. Page-6
  60. <sup>lix</sup> Op.cit. Biba.2014. Page 29
  61. <sup>lx</sup> ibid. Page 43
  62. <sup>lxi</sup> Op.cit. Jayaram.2015. Page 7
  63. <sup>lxii</sup> Op.cit.Lovelle. 2016. Page-7
  64. <sup>lxiii</sup> ibid. Page 7
  65. <sup>lxiv</sup> Op.cit. Mahapatra and Ratha.2016. Page 97
  66. <sup>lxv</sup> ibid. Page 97