

Influence of China-India Water Diplomacy on Water Resources Management in Western China

Zixun Qiao *

Department of Qiao Zixun, Shanghai University of International Business and Economics,
Shanghai, China

* Corresponding Author Email: qiaozixun040607@outlook.com

Abstract. The China-India water diplomacy, a significant diplomatic interaction in cross-border water resources management and utilization, has had a profoundly positive impact. With the rapid economic development of the two countries, the rational distribution and protection of water resources has become a common concern. China's active measures in the hydropower development of cross-border rivers, such as the Yarlung Zangbo River, and India's river networking program, aimed at optimizing domestic water allocation, are key components of this diplomacy. This positive impact is evident in the water resources management strategy, water resources distribution in the watershed, and the environment and ecology in western China, and it has been instrumental in promoting the sustainable utilization of water resources and regional peace and stability. By studying the diplomacy of China and India in water resources management, this paper resolves the conflict and cooperation between the two countries in water resources management, which is of great significance in promoting peace and stability in the two countries.

Keywords: China and India water diplomacy, water resources management, cross-border river.

1. Introduction

1.1. The Concept of Water Diplomacy

Water diplomacy refers to the diplomatic interaction and cooperation between countries in the management, protection, and utilization of water resources. It concerns the sharing of transboundary rivers and lakes, equitable distribution of water resources, effective management and environmental protection. The core goal of water diplomacy is to resolve water resources disputes through peaceful and cooperative means and promote the sustainable use of water resources while maintaining national and regional stability [1]. This includes joint management and protection of water resources through bilateral or multilateral agreements, information sharing, technical cooperation and joint projects. Water diplomacy also focuses on the impact of climate change on water resources and how these issues can be addressed through international cooperation. It is not only a part of the country's foreign policy but also an essential part of the global environmental governance and sustainable development agenda. Through water diplomacy, countries can jointly strengthen cooperation to address problems such as water shortage, water pollution, and ecosystem degradation to ensure the long-term security of water resources and regional peaceful development [2].

The diplomatic interaction between China and India regarding water resources is a complex and multi-dimensional topic involving the distribution and utilization of water resources and the sharing of international rivers. However, because the specific data and detailed information may change due to time, policy changes, and other factors, it is not easy to give exact specific data to elaborate on the full content of China-India water diplomacy. To be transparent, China and India are not without differences and challenges in water resources. With both sides' rapid economic development and population growth, the demand for water resources is also increasing, which naturally leads to some competition and tension. However, both governments recognized the importance of addressing these issues through dialogue and cooperation and, therefore, conducted a series of exchanges and cooperation in water resources management.

Specifically, the cooperation between China and India in water resources includes, but is not limited to, the following aspects:

Cooperative management of river basins: for international rivers of common concern, such as the Brahmaputra River (the Nujiang river), the two sides have strengthened cooperation in basin management to ensure sustainable utilization and protection of water resources. Such collaboration often involves data sharing, environmental monitoring, and developing and implementing relevant policies.

Water resources protection and technical exchanges: both sides are working hard to improve the technical level of water resources protection and utilization efficiency and to share experiences and best practices through technical exchanges and seminars. This cooperation helps promote both sides' common progress in addressing the water challenges.

Construction of cross-border water resources cooperation mechanism: to deal more effectively with cross-border water resources issues, China and India are working hard to establish and improve relevant cooperation mechanisms, including regular meetings and information-sharing platforms. These mechanisms provide a more formal and institutionalized communication channel between the two sides, helping to enhance understanding and reduce misunderstandings.

2. China-India Water Resources Diplomacy Strategy

China's water resources diplomacy strategy reflects its responsibility as a global power, and it is committed to realizing the fair, rational and sustainable utilization of cross-border water resources through cooperation and dialogue. Under the guidance of this strategy, China has actively established and improved bilateral or multilateral cooperation mechanisms with its neighbors, enhancing mutual understanding and trust by sharing hydrological data, holding regular water resources dialogue and consultations, and conducting joint research and project cooperation [3]. In the development and utilization of transboundary rivers, China has always adhered to the principle of environmental protection and ecological balance and adopted scientific management and technological innovation measures to ensure the environmental friendliness of water resources projects [4]. At the same time, China actively participates in the international water resources governance and promotes the establishment of fair and reasonable international water resources utilization rules, to promote the sustainable management of global water resources. The Chinese government has always stressed that its water development activities will not adversely affect the downstream countries and that it is committed to resolving possible water disputes through cooperation and dialogue. In the context of China-India cross-border water resources cooperation, China follows the principles of the water law of the people's republic of China and actively promotes the rational development and utilization of water resources. The law provides a legal basis for China's hydropower development projects on cross-border rivers such as the Yarlung Zangbo river, ensuring the legitimacy of water resources development. At the same time, China also refers to the principles of cooperation in the convention on the use of international waterways. Although China has not formally joined the convention, it is still committed to cooperation and dialogue with downstream countries such as India to manage and protect cross-border water resources jointly.

In India, the demand for water resources is rising with the rapid development of domestic economy and population growth. The Indian government has proposed the "river network plan", which hopes to achieve the unified allocation of dozens of rivers across river basins through the construction of main diversion channels and supporting channels, and the construction of dams and reservoirs. The plan is mainly focused on the Himalayan water system and hopes to transfer the rich water resources of the Himalayan water system to the southern and western parts of India through reservoirs and interconnected canal systems. India plans to build over 15,000 kilometers of main diversion canals and hundreds of [5] reservoirs. In implementing these water development projects; India is also seeking cooperation with its neighbors to ensure rational use of and water resources and stability in the region.

Bilateral agreements and cooperation: the cooperation between China and India on water resources can be traced back to 2002, when the two sides signed the implementation plan on China's provision

of flood season hydrological data of Brahmaputra River to India, and China began to provide flood season hydrological data to India. This cooperation was further extended in 2004 to include the sharing of hydrological information on the Langkhin Zangpo - Sutlej River.

Expert-level mechanism: in November 2006, China and India established an expert-level mechanism to discuss cooperation on hydrological flood reporting and emergency handling of cross-border rivers. The mechanism has held several meetings from 2007 to 2018, although it was suspended in 2017 due to the Doklam standoff.

Joint statement and consensus: in May 2015, China and India issued a joint statement, reaffirming the consensus of the two sides on water resources cooperation, including the continued provision of hydrological data during the flood season and assistance in emergency response.

Water pressure: according to the world resources institute, China and India will face extremely high-water pressure by 2040, which could affect their cooperation and strategy on water management.

International cooperation and diplomacy: China and India are also actively promoting water resources cooperation on the global stage. For example, the two countries have coordinated and cooperated on water resources in multilateral mechanisms such as the BRICS countries and the G20.

"Desecurity" perspective: some scholars have proposed that transforming the cross-border water resources issue from the security perspective will help promote the cooperation between the two sides on water resources and reduce the potential crisis risks caused by security.

3. The Status of Water Diplomacy in China's Relations with India

Water diplomacy occupies a core and strategic position in China's relationship with India, because the sharing of water resources makes the cooperation between the two countries in water resources management a key for regional peace and stability. The cross-border river shared by China and India is not only a critical water resource for the two countries, but also an essential support for the economic and social development of the two sides. In its relations with India, China regards water diplomacy as an essential way to enhance mutual trust and promote cooperation. By establishing and improving bilateral cooperation mechanisms, such as regular hydrological data sharing and water management dialogue, China has demonstrated its image as a responsible major country, committed to resolving water disputes peacefully. At the same time, China always adheres to the principle of fairness and rationality in developing and utilizing transboundary rivers, fully considering the interests and concerns of India and other downstream countries, and strives to realize the sustainable utilization of water resources.

3.1. Hydrological Information Sharing Phase (April 2002-November 2006)

In April 2002, China and India signed the implementation plan on the flood season hydrological data of the Yarlung Zangbo river, and China began to provide hydrological data in flood season to India.

In June 2004, the Pari river, a tributary of the Langqin Zangbo River in Tibet, burst its dike, causing floods to pour downstream into Himachal Pradesh, causing serious loss of life and property to the region.

In April 2005, during his visit to India, the Chinese leader signed the memorandum of understanding on providing hydrological data on the —— Sat Reji River during the flood season.

The construction stage of transboundary water resources exchange mechanism (November 2006-present):

In November 2006, China and India established an expert-level mechanism to discuss cooperation on hydrological flood reporting and emergency handling of cross-border rivers.

From 2007 to 2018, the mechanism held several meetings, almost once a year, except for a pause in response to the 2017 cave lang standoff.

Even though China and India have made some progress in water resources diplomacy, there are still challenges, such as border disputes and the allocation and management of water resources.

According to xiao yang's research, China should further increase the development and utilization of relevant soft international political resources, so as to provide more choices for the surrounding "water diplomacy". This includes scientific and technological resources, institutional resources, organizational resources and concept resources. Status details are shown in the following table (Table 1):

Table 1. Historical Change of China-India Water Resources Diplomacy Strategy

Time	Event	Describe
In April, 2002	Hydrological information sharing agreement	China and India signed an agreement allowing China to provide India with hydrological data on the Yarlung Zangbo River.
In June, 2004	The Parry River flood events	This led to heavy losses in Himachal Pradesh, India, which subsequently promoted closer sharing of hydrological information.
In April, 2005	Memorandum of understanding	China has agreed to provide India with hydrological information on the Pari River's flood season
In November, 2006	The expert-level mechanism was established	China and India have established an expert-level mechanism to discuss hydrological flood reporting and emergency handling of cross-border rivers.
2007-2018	Expert-level mechanism meeting	Besides the 2017 suspension, it was held annually, showing the continuity of cooperation.

4. The Influence of China-India Water Diplomacy on China's Tibet Region

In China, the Yarlung Zangbo River is the largest river in the Tibet autonomous region. The rich water resources in its basin play an important role in ensuring the safety of drinking water for local residents, promoting agricultural irrigation, and supporting energy development. Especially in Tibet, the water resources of the Yarlung Zangbo River are an essential basis for promoting the local economic development and improving people's livelihood. The annual runoff of the Yarlung Zangbo River basin is about 165.4 billion cubic meters, ranking third in China. The hydropower reserves exceed 113 million kilowatts, accounting for about 1/6 of the national total. The mainstream hydropower reserves are nearly 80 million kilowatts, ranking second in China. These data show that the Brahmaputra River is not only important to water supply and energy development in China, especially in Tibet, but also provides essential support for water resource utilization in northeastern India. For India, the Brahmaputra River, known as the Brahmaputra River after flowing out of China, is an essential source of water in northeast India. The river also plays an irreplaceable role in agricultural irrigation, hydropower development and maintaining ecological balance in India. India is also highly dependent on the water resources of the Yarlung Zangbo River, so it remains susceptible and concerned about any water development activities that China may carry out upstream.

4.1. Economic Impact

The friendly and cooperative relations between China and India have brought great opportunities for the economic development of Tibet. First of all, with the continuous development of China-India relations, the trade volume between Tibet and India has increased year by year, bringing more market opportunities and economic growth points to Tibet. At the same time, India, as a vast consumer market, has a massive demand for goods and services in Tibet, which helps to promote industrial upgrading and economic restructuring in Tibet. In terms of water resources cooperation and management, the partnership between China and India in water conservancy has also brought new development opportunities for Tibet. For example, the two sides can carry out exchanges and cooperation in water resources protection, water-saving technology and water conservancy projects, which will not only help improve the level of water resources management in Tibet, but also promote the development of related industries, thus further promoting the economic growth of Tibet.

Tourism cooperation between China and India has also brought more tourist resources to Tibet. With the increasingly frequent exchanges between the two countries, more and more Indian tourists choose to visit China, and Tibet has become one of their important destinations with its unique natural landscape and cultural charm. This cross-cultural communication not only enriches people's life experience, but also promotes dialogue and understanding between different civilizations.

The economic development of Tibet is relatively lagging behind. The development of hydropower resources in the Yarlung Zangbo River can provide a stable power supply for the local people, promote the development of industry and tourism, increase employment opportunities, and improve the living standards of local residents. The rational utilization and management of water resources contribute to the protection of ecological environment and biodiversity in Tibet. Therefore, the differences between China and India on the management of water resources in the Yarlung Zangbo River will hinder the stability and development of Tibet. If not handled properly, it will aggravate the tensions between the two countries and affect regional peace and stability. Therefore, while promoting the development of water resources in the Yarlung Zangbo River, China also needs to strengthen communication and consultation with India through diplomatic channels and seek cooperation plans acceptable to both sides.

4.2. Social Impact

Sino-India water diplomacy has positively impacted the social development in Tibet. On the one hand, the friendly relations between the two countries have created a more stable social environment for Tibet. The two sides have enhanced mutual understanding and trust through dialogue and cooperation, reduced unnecessary misunderstandings and conflicts, and strongly guaranteed social harmony and stability in Tibet.

On the other hand, the cultural exchanges and integration between China and India have also injected new vitality into the social development of Tibet. Some elements of Indian culture are similar to Tibetan culture. Communication between the two can learn from each other, inspire each other, and jointly promote the innovation and development of culture. Such cultural exchanges will not only help to enhance the friendship and understanding between the two peoples but also promote the diversified and inclusive growth of the Tibetan society.

Therefore, the contradiction between China and India in managing the Yarlung Zangbo River has a long history. On the one hand, China's water development activities on the upper reaches of the Yarlung Zangbo river will impact the water supply downstream of India, which is a major concern of India. India is concerned that China's upstream water development will change the rivers' natural flow patterns, thus affecting the hydrological conditions and ecological environment in the downstream region.

According to the Helsinki rules of international river water resources utilization, all countries should make fair and reasonable use of international river water resources and should not cause significant damage to other countries. This principle requires that China and India seek mutually acceptable solutions through cooperation and dialogue in developing and utilizing water resources in the Yarlung Zangbo River. However, due to historical problems and geopolitical factors, there are some contradictions and differences in the management of water resources in the Yarlung Zangbo River. India is concerned that China's water development upstream may affect the water supply and ecological balance in downstream regions. At the same time, China needs to ensure its water utilization while considering the interests and concerns of downstream countries.

4.3. Cultural Influence

In the cultural field, the exchanges and cooperation between China and India have profoundly impacted Tibet. First of all, regarding the protection of intangible cultural heritage, both China and India have rich cultural heritage resources. The exchanges and cooperation between the two sides in the intangible cultural heritage will help to jointly protect and inherit this precious spiritual wealth of mankind. Through this cooperation, the traditional culture and art forms in Tibet can be better

inherited and developed, and the cultural soft power of Tibet has been enhanced. The exchanges and cooperation between China and India in education have also brought new development opportunities for the education cause in Tibet. By exchanging international students and sharing educational resources, the two sides can promote exchanges and cooperation in education and improve the education level and the quality of talent training in Tibet. Such exchanges and cooperation will not only help to cultivate talents with international vision and cross-cultural exchange skills but also promote the scientific and technological progress and the improvement of innovation capacity in Tibet.

4.4. Geopolitical Influence

From a geopolitical perspective, the friendly cooperative relationship between China and India is of great significance to maintaining the stability and security of Tibet. First of all, by strengthening the bilateral relations and multilateral cooperation mechanism construction with India, the differences and problems between the two sides can be effectively controlled and solved, and the occurrence probability and scope of influence of geopolitical risks can be reduced. This is crucial to maintaining border security and stability in Tibet. The cooperation between China and India will also help to enhance Tibet's status and influence on the international stage. With the deepening development of bilateral relations, Tibet will play a more prominent role as an important bridge and link between China and south Asian countries. This will help to enhance Tibet's international visibility and status and further promote Tibet's open development and foreign exchanges and cooperation.

To sum up, the influence of China-India water diplomacy on China in Tibet is multifaceted and far-reaching. It has not only brought new opportunities and challenges to the economic development of Tibet but also promoted social progress and cultural prosperity, as well as geopolitical stability and security. In the future development, we should continue to strengthen the friendly and cooperative relations between China and India, deepen the construction of exchanges and cooperation mechanisms in various fields, and inject more decisive impetus and support into the all-round development of Tibet.

5. Conclusion

China-India water diplomacy has had a significant impact on water resources management in western China, promoted the adjustment of water resources management strategy, promoted the fairness and efficiency of water resources distribution in river basins, and strengthened the protection of environment and ecology. Through cooperation with downstream countries such as India, China has not only made progress in ensuring the rational use of water resources and regional peace and stability, but also made efforts to make water management more scientific and sustainable. In the future, China and India should continue to strengthen communication and cooperation to jointly respond to the challenges in water resources management, realize the sustainable utilization of water resources, and make greater contribution to regional development and environmental protection.

References

- [1] Hu, Y., 2020. Research on Transboundary Water Resources Issues in Sino-Indian Relations. PhD. Wuhan University.
- [2] Zhang, L., 2019. Determinants, Development Trends, and China's Responses to the "Indo-Pacific" Strategy. *South Asian Research Quarterly*, (1).
- [3] Zhang, L., 2021. Determinants, Development Trends, and China's Responses to the "Indo-Pacific" Strategy. *South Asian Research Quarterly*, 2019 (1), pp. 1 - 7.
- [4] Liu, X. & Guo, H., 2021. Transformation of the East Asian Geopolitical Structure and China's Strategic Choices under the "Indo-Pacific" Concept. *Northeast Asian Forum*, 30 (4), p. 16.

- [5] Yan, Z., 2017. The Impact of Sino-Indian Water Disputes on Bilateral Relations: A Case Study of the Yarlung Zangbo-Brahmaputra River. *Journal of Chifeng University: Philosophy and Social Science Edition*, 38 (11), p. 3.
- [6] Dong, F., 2014. India's Practices in Resolving Transboundary River Disputes in South Asia and Its Impact on Sino-Indian Water Disputes. Wuhan University.
- [7] Li, B., 2018. India's Peripheral Diplomacy and Its Impact on Sino-Indian Relations. *Journal of Yangzhou University (Humanities and Social Sciences Edition)*, 22 (03), pp. 5 - 14.
- [8] Song, Y., 2019. Sino-Indian Border, Tibet Issue, and India's Diplomacy towards China. *China's Borderland History and Geography Studies*, 29 (02), pp. 194 - 202+217.
- [9] Wu, T., 2020. Prospects of Sino-Indian Relations under Xi Jinping's Peripheral Diplomacy Concept. *Modern Business and Industry*, 41 (13), pp. 41 - 42.
- [10] Huang, M., 2020. A Comparative Study of Sino-Indian Energy Diplomacy towards Africa in the 21st Century. MA. China Foreign Affairs University.
- [11] Hong, G., 2022. Mao Zedong's Diplomatic Thoughts on Sino-Indian Relations. *Journal of Fuyang Normal University (Social Science Edition)*, (04), pp. 96 - 100.