

# Indian Journal of Modern Research and Reviews

This Journal is a member of the '*Committee on Publication Ethics*'

Online ISSN:2584-184X



## Research Article

## Water Diplomacy and Transboundary River Conflict in South Asia

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**DOI:** <https://doi.org/10.5281/zenodo.21476893>

### Abstract

Freshwater resources are increasingly pivotal in influencing international relations, especially in areas where significant river systems traverse state borders. South Asia, which encompasses the Indus, Ganges, Brahmaputra, Teesta, and Mahakali river basins, confronts escalating issues related to transboundary water management, climate change, swift population increase, and conflicting socioeconomic objectives. These elements have heightened apprehensions about water security and converted rivers into crucial aspects of regional geopolitics. In this context, water diplomacy has become a crucial tool for conflict prevention, enhancing collaboration, and encouraging sustainable stewardship of communal water resources. This research investigates the function of water diplomacy in resolving transboundary river disputes in South Asia by evaluating the development of regional water governance, the main catalysts of interstate conflicts, and the efficacy of current institutional and legal structures. Utilising a qualitative research methodology grounded in secondary sources, the analysis is framed via the lenses of Hydro-politics Theory, Complex Interdependence Theory, Realism, and Environmental Security. The examination reveals that despite ongoing political strife, asymmetries between upstream and downstream entities, and climate-related hydrological unpredictabilities hindering interstate collaboration, persistent diplomatic efforts and formalised water-sharing agreements have markedly diminished the chances of extensive water disputes. The research determines that bolstering basin-wide collaboration, refining data-sharing protocols, augmenting climate resilience, and fortifying regional institutions are crucial for achieving fair, sustainable, and harmonious governance of South Asia's transboundary river systems.

### Manuscript Information

- **ISSN No:** 2584-184X
- **Received:** 12-11-2025
- **Accepted:** 27-12-2025
- **Published:** 30-01-2026
- **MRR:** 4(1); 2026: 295-302
- **©2026, All Rights Reserved**
- **Plagiarism Checked:** Yes
- **Peer Review Process:** Yes

### How to Cite this Article

Parashar M. Water Diplomacy and Transboundary River Conflict in South Asia. Indian J Mod Res Rev. 2026;4(1):295-302.

### Access this Article Online



[www.mrrjournal.in](http://www.mrrjournal.in)

**KEYWORDS:** Water Diplomacy, Transboundary Rivers, South Asia, Hydro-politics, Water Security, Indus Basin

## 1. INTRODUCTION

Water has become one of the most vital strategic assets of the twenty-first century, impacting economic growth, environmental viability, and global peace and security. Freshwater systems often extend beyond political borders, rendering their management fundamentally transnational. worldwide estimates indicate that around 260 river basins are jointly utilised by multiple nations, providing freshwater to about half of the worldwide populace. As a result, the governance of transboundary water resources has emerged as a progressively vital concern in international relations, where water is perceived not just as an ecological resource but also as a tool for diplomacy, regional collaboration, and geopolitical power.

South Asia exemplifies a region that is both hydrologically interlinked and politically intricate. The principal river systems—namely the Indus, Ganges, Brahmaputra, Teesta, and Mahakali—emanate from the Himalayan region and traverse several independent nations including India, Pakistan, Bangladesh, Nepal, Bhutan, and China. These rivers sustain hundreds of millions of individuals via agriculture, potable water, hydropower production, fisheries, transit, and ecological functions. In light of the region's swiftly expanding populace, hastening urban development, industrial growth, and rising demands for food and energy, the fair allocation of communal water resources has emerged as a strategic imperative for all riparian nations.

The management of transboundary rivers in South Asia is exacerbated by historical animosities, territorial conflicts, imbalanced power dynamics, and varying national development agendas. those situated upstream frequently aim to optimise the advantages of hydroelectric initiatives, irrigation growth, and water retention systems, whereas those downstream prioritise consistent river flow and fair distribution of water resources. Conflicting interests often lead to political strife and diplomatic discord, especially in times of water shortage or climate fluctuations. As a result, rivers in South Asia have transcended their ecological importance to emerge as crucial components of regional geopolitics and national security. Climate change has introduced an additional layer of complexity to transboundary water management by heightening unpredictability in hydrological systems. Elevated temperatures, glacial recession in the Himalayas, erratic monsoon cycles, extended drought periods, and severe flooding incidents have transformed river flow patterns across South Asia. These ecological changes jeopardise water accessibility and exacerbate current inter-state conflicts about water distribution, infrastructure enhancement, and catastrophe response. As freshwater supplies grow more erratic, authorities are necessitated to incorporate climate adaptation into local water management systems. Consequently, climate security is now inextricably linked to water diplomacy in the modern South Asian landscape. The notion of water diplomacy has risen significantly in importance as a viable strategy for overseeing communal water resources and averting intergovernmental disputes. In contrast to conventional methods that mostly concentrate on legal

contracts or technical water governance, water diplomacy prioritises ongoing political discourse, institutional collaboration, scientific partnership, trust cultivation, and negotiated resolutions among neighbouring nations. It acknowledges that transboundary rivers present both avenues for collaboration and catalysts for political discord. Water diplomacy aims to convert potential disputes into avenues for regional cooperation and sustainable progress through consistent communication, collaborative institutions, information exchange, and trust-enhancing initiatives. South Asia offers numerous significant instances illustrating the potential and constraints of water diplomacy. The Indus Waters Treaty (1960) between India and Pakistan endures as one of the most enduring international rivers accords globally, although ongoing political and military strife. The Ganges Water Sharing Treaty (1996) between India and Bangladesh exemplifies the significance of negotiated agreements in regulating seasonal water distribution. Simultaneously, persistent disputes regarding the Teesta River, apprehensions about China's upstream endeavours on the Brahmaputra, and difficulties in executing the Mahakali Treaty between India and Nepal indicate that diplomatic frameworks are still hindered by considerable political, technical, and institutional limitations. The variety of experiences in South Asia renders it a crucial area for comprehending the relationship between water administration and global diplomacy.

The strategic importance of transboundary rivers encompasses more than just water distribution. Interconnected river systems progressively impact energy security, agricultural output, ecological preservation, disaster preparedness, regional commerce, and transnational infrastructural advancement. Hydropower initiatives, irrigation systems, shipping routes, and flood management infrastructures have become essential elements of national development plans. As a result, conflicts about river governance frequently overlap with wider geopolitical factors, such as territorial disagreements, regional dominance, economic collaboration, and strategic rivalry among adjacent nations. The reliance on water resources for national security has thus transformed water diplomacy from a mere technical matter into a pivotal component of foreign policy and regional administration.

The examination of transboundary water governance can be analysed through various paradigms in International Relations. Hydro-politics Theory elucidates the impact of shared water resource control on inter-state interactions and political choices. Realist Theory views water as a critical asset that nations pursue to enhance their national security and relative strength, especially in situations of shortage and unpredictability. In contrast, Complex Interdependence Theory posits that common river systems foster interdependence among nations, promoting communication, collaborative institutions, and negotiated resolutions instead of armed conflict. Environmental Security Theory underscores the connection between ecological sustainability, climatic change, and regional tranquillity, stressing that environmental deterioration may significantly

contribute to political instability in the absence of robust cooperative governance frameworks.

Recent advancements suggest that the character of water diplomacy is experiencing considerable change. Progress in remote sensing, satellite hydrology, geographic information systems (GIS), artificial intelligence, digital water governance, and instantaneous data dissemination has enhanced the scientific foundation of transboundary river management. Concurrently, global initiatives like the United Nations Sustainable Development Goals (SDGs), especially Goal 6 concerning clean water and sanitation, have emphasised the significance of cohesive and collaborative water governance. These advancements indicate that forthcoming water diplomacy will progressively integrate technical advancements, ecological sustainability, and global collaboration in conjunction with conventional diplomatic discussions.

In light of this context, the current research investigates the function of water diplomacy in resolving transboundary river disputes in South Asia. It examines the historical development of regional water management, investigates the primary factors contributing to interstate river conflicts, reviews current diplomatic and institutional frameworks, and analyses their efficacy in fostering collaboration among riparian nations. The research also examines the ramifications of climate change, geopolitical rivalry, and nascent water security issues for prospective regional stability. The paper aims to enhance the expanding body of knowledge on hydro-politics, environmental diplomacy, and regional collaboration in South Asia by amalgamating theoretical frameworks with comparative analyses of the Indus, Ganges, Brahmaputra, Teesta, and Mahakali river basins. The research concludes that enduring peace in the area relies not on singular dominance over common waterways but on established water diplomacy based on fairness, openness, reciprocal trust, and sustained collaborative governance.

## 2. Evolution of Water Diplomacy in South Asia

The evolution of water diplomacy in South Asia has paralleled the political, economic, and environmental shifts within the region. The Indus, Ganges, Brahmaputra, Teesta, and Mahakali river systems have traditionally underpinned agriculture, livelihoods, and economic advancement. Subsequent to the partition of British India and the formation of new sovereign entities, these rivers evolved into transboundary resources that need global collaboration. The focus of water diplomacy has transitioned from settling bilateral disagreements to encouraging cooperative management of river basins, bolstering climate resilience, and supporting sustainable development.

### Historical Foundations

Water diplomacy in South Asia originated in the post-independence period, characterised by the division of several important river basins by international borders. States that had oversaw these rivers within a singular administrative structure now faced the necessity of negotiating water distribution,

irrigation privileges, and infrastructural progress. This alteration heralded the commencement of cross-border water governance in the region and recognised water as a significant factor in foreign relations and regional dynamics.

### Development of Water Treaties

The initiation of water diplomacy was marked by bilateral treaties with adjacent states. The Indus Waters Treaty (1960) between India and Pakistan is considered one of the most successful accords for river sharing in the world, despite enduring political discord. Likewise, the Ganges Water Sharing Treaty (1996) between India and Bangladesh created systems for the allocation of river flows in the dry season. Treaties regarding the Mahakali River between India and Nepal fortified regional partnership. These accords exemplify how diplomatic discussions may create stable systems for the management of shared water resources, even in times of political discord.

### Emergence of Hydro-Diplomacy

Throughout the twenty-first century, the realm of water diplomacy broadened into hydro-diplomacy, which amalgamates diplomatic efforts, scientific research, technological innovation, and environmental stewardship. Instead, then solely concentrating on water distribution, hydro-diplomacy advocates for holistic river basin management, including data sharing, flood forecasting, climate adaption, and sustainable resource management. This strategy understands that efficient river governance demands persistent partnership between governments, technical authorities, and local entities.

### Geopolitical Transformation

The connection between water diplomacy and regional geopolitics has intensified. Projects related to upstream infrastructure, the development of hydropower, and the construction of dams have shaped strategic interactions among countries in South Asia. China's involvement in the Brahmaputra River, India's policies for river management, and the downstream issues faced by Bangladesh and Pakistan have established shared waterways as vital factors in regional security and foreign affairs. Thus, water resources are perceived not solely as environmental treasures but also as pivotal resources shaping interstate dynamics.

### Climate Change and Modern Water Diplomacy

The impact of climate change has drastically reshaped water diplomacy in South Asia. The melting of glaciers in the Himalayas, inconsistent monsoon rainfall, recurrent inundations, protracted dry spells, and variable river flows have amplified uncertainties regarding water resources. These environmental obstacles compel governments to increase collaboration through shared oversight, research initiatives, disaster preparedness, and resilient water governance in the face of climate change. Thus, climate adaptation has transformed into a fundamental goal of current water diplomacy.

### Contemporary Significance

At present, water diplomacy acts as a significant mechanism for encouraging regional harmony and enduring prosperity. By

means of bilateral treaties, cooperative river commissions, information dissemination, and technical collaboration, countries in South Asia effectively oversee their shared water resources while reducing the potential for conflict. Notwithstanding the enduring political conflicts, the progression of water diplomacy reveals that institutional collaboration and mutual communication are the most effective strategies for securing equitable and sustainable management of transboundary rivers.

### 3. Theoretical Perspectives on Water Diplomacy

Comprehending transboundary river disputes in South Asia necessitates a robust theoretical framework, as water conflicts are shaped by environmental, political, economic, and strategic elements. Numerous International Relations theories elucidate the reasons for state cooperation or competition about shared water resources. This research employs four principal theoretical frameworks—Hydro-politics Theory, Realism, Complex Interdependence Theory, and Environmental Security Theory—to examine the intricacies of water diplomacy in South Asia.

#### 3.1 Hydro-politics Theory

Hydro-politics Theory analyses the connection between communal water resources and political authority. It contends that rivers traversing national borders frequently serve as catalysts for both collaboration and discord, contingent upon the management practices of adjacent nations. Nations situated upstream typically exert more influence on river flows via dams, reservoirs, and diversion initiatives, whereas downstream nations rely on a steady supply of water. This disparity could engender political strife, especially in scenarios where water resources are limited or where developmental initiatives impact downstream water flow.

In South Asia, the river systems of the Indus, Brahmaputra, Ganges, and Teesta distinctly exemplify the significance of hydro-politics. Water diplomacy is thus crucial for reconciling national interests while promoting fair and sustainable use of common river resources.

#### 3.2 Realism Theory

Realism perceives water as a vital asset intrinsically connected to country strength and security. This theory posits that nations chiefly aim to advance their own national interests and strive to enhance their relative superiority within a chaotic international framework. Collaboration transpires solely when it is congruent with national security goals.

This viewpoint elucidates the rationale behind nations' substantial investments in dams, hydroelectric initiatives, and irrigation systems. In South Asia, apprehensions surrounding the China–India dynamics on the Brahmaputra River and the India–Pakistan conflicts over the Indus Basin illustrate that water governance is frequently shaped by overarching geopolitical and security factors rather than solely environmental issues.

#### 3.3 Complex Interdependence Theory

Complex Interdependence Theory, formulated by Robert Keohane and Joseph Nye, posits that nations are progressively linked through various economic, environmental, and institutional ties. In these circumstances, collaboration proves to be more advantageous than conflict, as nations rely on each other for sustainable progress.

The theory posits that in the context of water diplomacy, shared rivers foster ongoing discussions, treaty deliberations, collaborative commissions, scientific partnerships, and the exchange of information. The Indus Waters Treaty and the Ganges Water Sharing Treaty exemplify how institutional frameworks can promote collaboration despite ongoing political tensions. Consequently, communal water resources may serve as tools for regional stability instead of discord.

#### 3.4 Environmental Security Theory

Environmental Security Theory posits that the deterioration of the environment and the shortage of resources can have a direct impact on political stability and human safety. Climate change, glacial retreat, diminishing freshwater resources, inundations, and arid conditions have intensified stress on transboundary river systems throughout South Asia.

From this viewpoint, water diplomacy encompasses not only conflict mitigation but also climate adaptation, disaster risk management, ecosystem preservation, and sustainable water governance. Collaborative environmental management allows riparian nations to tackle common ecological issues while minimising the likelihood of future conflicts stemming from climate-related water scarcity.

### 4. Major Transboundary River Basins in South Asia

South Asia hosts numerous significant transboundary river systems that sustain millions through agriculture, potable water, hydropower production, fisheries, and industrial endeavours. These waterways are utilised by several nations, rendering their governance an ecological and geopolitical concern. Although they offer avenues for regional collaboration, disparities in water usage, infrastructural advancement, and national agendas have led to diplomatic conflicts. The subsequent river basins are essential to water diplomacy in South Asia.

#### 4.1 Basin of the Indus River

The Indus River Basin commences in Tibet, traverses India, and reaches Pakistan prior to discharging into the Arabian Sea. It constitutes a vital river system in South Asia, especially for the agricultural and economic sectors of Pakistan.

Water management in the basin is chiefly governed by the Indus Waters Treaty (1960), facilitated by the World Bank. The agreement designates the three eastern rivers (Ravi, Beas, and Sutlej) to India and primarily assigns the three western rivers (Indus, Jhelum, and Chenab) to Pakistan. Notwithstanding episodes of political strife and armed warfare, the treaty has continued to function, rendering it one of the most effective instances of international water diplomacy. Nonetheless, disputes regarding hydroelectric initiatives and the



interpretation of treaties persist in generating diplomatic obstacles.

#### 4.2 Basin of the Ganges River

The Ganges River Basin is predominantly divided between India and Bangladesh and sustains one of the most populous regions globally. The river is essential for agricultural, potable water provision, transportation, and cultural activities. A significant concern in this basin has been the allocation of water during the dry season, especially at the Farakka Barrage. To tackle this issue, India and Bangladesh ratified the Ganges Water Sharing Treaty (1996), which created a structure for allocating river water in dry periods. Despite the treaty enhancing bilateral collaboration, apprehensions about seasonal water accessibility and climate-related alterations in river flow persist as significant challenges for both nations.

#### 4.3 Basin of the Brahmaputra River

The Brahmaputra River, referred to as the Yarlung Tsangpo in China, begins on the Tibetan Plateau and traverses through India and Bangladesh. It ranks among the greatest rivers globally for water output and harbours significant hydroelectric potential.

In contrast to the Indus and Ganges, the Brahmaputra Basin lacks a thorough water-sharing agreement. China's development of dams and hydroelectric initiatives in upstream regions has sparked apprehensions in India and Bangladesh about water accessibility, environmental consequences, and the exchange of information. As a result, the Brahmaputra has emerged as a significant topic in regional hydro-politics, underscoring the necessity for enhanced diplomatic interaction and clear data-sharing protocols.

#### 4.4 Teesta River Basin

The Teesta River begins in the eastern Himalayas and traverses India before entering Bangladesh. It serves as a vital resource for irrigation and agricultural advancement for people in both nations.

Notwithstanding years of diplomatic discussions, India and Bangladesh have yet to finalise a comprehensive accord over the allocation of Teesta waters. Disparities in water distribution, especially in the arid season, have postponed the finalisation of an official agreement. The Teesta matter illustrates how internal political factors and regional priorities can affect international water discussions.

#### 4.5 Mahakali River Basin

The Mahakali River delineates the border between India and Nepal and plays a crucial role in irrigation, hydropower production, and flood control. Collaboration concerning the river is regulated under the Mahakali Treaty (1996), which seeks to foster fair water usage and collective infrastructure advancement.

While the treaty created a structure for bilateral collaboration, its execution has advanced sluggishly owing to disparities in project design, benefit-sharing agreements, and political agendas. Nonetheless, the Mahakali Basin exemplifies the

prospects and obstacles linked to collaborative river governance among adjacent nations.

#### Comparative Examination of Principal River Basins

Despite the variations in physical attributes and political circumstances of these river basins, they possess numerous similarities. Water distribution, competing upstream and downstream interests, hydropower advancement, climate variability, and national security issues affect diplomatic interactions throughout all basins. Simultaneously, agreements, collaborative committees, and ongoing discussions illustrate that institutional collaboration can markedly diminish the likelihood of conflict.

#### 5. Drivers of Transboundary River Conflicts

Conflicts over transboundary rivers in South Asia stem from a confluence of geographical, political, economic, and environmental elements. While communal rivers present avenues for regional collaboration, divergent national interests and escalating demands on freshwater resources frequently generate conflicts among bordering nations. The primary catalysts of these disputes are elaborated about below.

##### 5.1 Asymmetry Between Upstream and Downstream

Nations situated upstream exert more influence on river currents via dams, reservoirs, and diversion initiatives, whereas downstream nations rely on consistent water supply. This disparate geographical location frequently engenders disputes concerning water distribution and river governance.

##### 5.2 Climate Change and Water Scarcity

Climate change has profoundly transformed river systems due to glacial melting, erratic monsoon precipitation, flooding, and extended drought periods. These modifications heighten unpredictability in water accessibility and exacerbate rivalry for communal water assets, complicating international collaboration.

##### 5.3 Hydropower and Infrastructure Development

The establishment of dams, barrages, and hydropower initiatives is crucial for economic advancement, yet it provokes apprehensions among downstream nations about diminished water flow, ecological harm, and environmental viability. Infrastructure advancement has consequently emerged as a persistent catalyst for diplomatic conflicts in South Asia.

##### 5.4 Population Growth and Rising Water Demand

Accelerated population increase; urban development, industrial growth, and intensified agriculture have significantly heightened the need for freshwater. Restricted water resources, coupled with escalating demand, intensify the strain on transboundary river systems, heightening the likelihood of inter-state conflicts.

##### 5.5 Political Mistrust and Security Concerns

Historical confrontations, territorial disagreements, and geopolitical tensions frequently impact water talks. In some

instances, water-related challenges are intricately associated with national security, complicating diplomatic resolutions beyond mere technical agreements on water distribution.

### 5.6 Weak Institutional Cooperation

Despite the existence of numerous bilateral agreements, many river basins are devoid of robust institutional structures for ongoing dialogue, the exchange of scientific data, and collaborative river governance. Ineffective implementation strategies and a lack of trust among riparian nations diminish the efficacy of regional water management.

The catalysts of transboundary river conflicts indicate that water disputes in South Asia seldom arise only from water scarcity. Conversely, they arise from the interplay of ecological transformations, developmental imperatives, political antagonisms, and institutional constraints. Enhancing water diplomacy, fostering regional collaboration, and advocating for transparent river administration are crucial for mitigating future disputes and guaranteeing the sustainable management of shared water resources.

## 6. Water Diplomacy and Cooperative River Governance

Water diplomacy is essential for alleviating conflicts and fostering collaboration among nations that share transboundary rivers. Instead of viewing water as a catalyst for discord, it promotes conversation, reciprocal trust, and collaborative governance of communal water assets. In South Asia, many diplomatic frameworks have aided in enhancing regional water management.

### 6.1 Bilateral Water Treaties

Bilateral agreements establish the legal structure for the equitable distribution of water resources and the resolution of conflicts. Pacts like the Indus Waters Treaty (1960) and the Ganges Water Sharing Treaty (1996) illustrate that negotiated resolutions can foster enduring collaboration despite political divergences.

### 6.2 Joint River Commissions

Joint River commissions facilitate the sharing of information among surrounding nations, oversee river flow dynamics, deliberate on technical matters, and resolve arising conflicts. These organisations enhance dialogue and diminish misconceptions among riparian nations.

### 6.3 Data Sharing and Scientific Cooperation

Disseminating hydrological data, flood predictions, and climatic information enhances water resource management and catastrophe readiness. Collaborative scientific efforts utilising remote sensing, GIS, and hydrological modelling facilitate informed decision-making and foster trust across nations.

### 6.4 International Water Law

Global tenets including fair and judicious use, avoidance of substantial detriment, and collaboration among bordering nations offer direction for the administration of communal

waterways. These tenets promote nations to reconcile domestic priorities with regional obligations.

## 6.5 Integrated River Basin Management

Integrated River Basin Management (IRBM) advocates for the synchronised planning of water resources by simultaneously addressing environmental, social, and economic considerations. This methodology promotes sustainable water use, safeguards river habitats, and fosters enduring regional development. Successful water diplomacy necessitates more than mere formal accords; it relies on ongoing political discourse, institutional collaboration, scientific partnership, and reciprocal confidence. Enhancing these systems will allow South Asian nations to convert common rivers from possible conflict zones into pillars of regional collaboration, sustained progress, and enduring tranquillity.

## 7. Policy Implications and Future Prospects

The future of water diplomacy in South Asia depends on strengthening cooperative governance and adopting sustainable water management practices. The following measures can enhance regional cooperation and reduce transboundary river conflicts:

- **Strengthen Regional Cooperation:** Expand diplomatic dialogue and institutional collaboration among riparian countries to build mutual trust and improve conflict resolution.
- **Enhance Data Sharing:** Establish transparent mechanisms for exchanging hydrological, meteorological, and flood-related information to support informed decision-making.
- **Promote Integrated River Basin Management (IRBM):** Adopt basin-wide planning that balances economic development, environmental conservation, and social needs.
- **Address Climate Change Impacts:** Develop joint strategies for glacier monitoring, flood management, drought mitigation, and climate adaptation to improve regional water security.
- **Modernize Water Governance:** Utilize advanced technologies such as Remote Sensing, Geographic Information Systems (GIS), Artificial Intelligence (AI), and real-time monitoring systems for efficient river basin management.
- **Strengthen Legal and Institutional Frameworks:** Improve the implementation of existing treaties and establish effective dispute-resolution mechanisms for transboundary water governance.
- **Encourage Stakeholder Participation:** Involve local communities, academic institutions, environmental organizations, and policy experts in water management to ensure inclusive and sustainable decision-making.
- **Support Sustainable Development Goals (SDGs):** Align regional water governance with SDG 6 (Clean Water and Sanitation) and other international commitments to promote long-term environmental sustainability.

- **Expand Hydro-Diplomacy:** Move beyond water-sharing negotiations by integrating cooperation in energy, navigation, disaster management, biodiversity conservation, and environmental protection.
- **Build a Regional Water Security Framework:** Develop a comprehensive South Asian framework that promotes equitable water sharing, peaceful cooperation, an resilience against future environmental and geopolitical challenges.

Overall, the future of water diplomacy in South Asia lies in shifting from conflict management to collaborative river basin governance. Strong institutions, scientific cooperation, and sustained diplomatic engagement will be essential for ensuring water security, regional stability, and sustainable development.

## 8. CONCLUSION

Water diplomacy has become an essential component of regional cooperation and sustainable water governance in South Asia. The region's major transboundary rivers—the Indus, Ganges, Brahmaputra, Teesta, and Mahakali—are not only vital for economic development and human livelihoods but also play a significant role in shaping interstate relations. While growing water demand, climate change, upstream–downstream asymmetry, and geopolitical rivalries continue to create challenges, they have also highlighted the importance of diplomatic engagement and institutional cooperation. The study demonstrates that bilateral treaties, joint river commissions, scientific collaboration, and international water governance principles have contributed to reducing tensions and promoting cooperative management of shared water resources. Although several disputes remain unresolved, existing agreements illustrate that sustained dialogue and mutual trust are more effective than unilateral approaches in addressing transboundary water issues. From the theoretical perspective, Hydro-politics Theory, Realism, Complex Interdependence Theory, and Environmental Security Theory collectively explain the complex relationship between water resources, national interests, and regional cooperation. These perspectives indicate that water should not be viewed solely as a source of conflict but also as a catalyst for peace, confidence-building, and sustainable development. In conclusion, the future of water diplomacy in South Asia depends on strengthening regional institutions, improving data sharing, adopting climate-resilient water management practices, and enhancing cooperative river basin governance. As environmental and geopolitical challenges continue to evolve, effective water diplomacy will remain indispensable for ensuring water security, regional stability, and long-term sustainable development across South Asia.

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