

Transboundary Water Cooperation: Exploring Water Governance Framework between India and Nepal

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By

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Transboundary water cooperation in South Asia: Exploring water governance framework between India- Nepal

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DECLARATION

I, Vanshika Singh, hereby declare that this dissertation entitled "**Transboundary Water Cooperation in South Asia: Exploring Water Governance Framework between India and Nepal**" submitted by me under the supervision and guidance of Prof. Bhim Bahadur Subba, Department of Political Science, is a bonafide research work which is also free from plagiarism. I also declare that it has not been submitted in part or full to this or any other university or institution for the award of any other degree or diploma. I, hereby agree that my thesis can be deposited in Shodhganga/INFLIBNET

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LIST OF ABBREVIATIONS

ACEO:	Additional Chief Executive Officer
BBIN:	Bangladesh-Bhutan-India-Nepal
BIPPA:	Bilateral Investment Promotion and Protection Agreement
BRIDGE:	Building River Dialogue and Governance
CGGC:	China Gezhouba Group Corporation
CEO:	Chief Executive Officer
CPCB:	Central Pollution Control Board
CSO:	Civil Society Organization
CSP:	Citizen Science Program
DPR:	Detailed Project Report
EC:	Executive Committee
ED:	Executive Director
GB:	Governing Body
GBM:	Ganga-Brahmaputra-Meghna GBM
GBPNIHESD:	G.B. Pant National Institute Himalayan Environment & Sustainable Development
GMR:	Grandhi Mallikarjuna Rao
IBKP:	Indus Basin Knowledge Platform
ICWC:	International Centre for water cooperation
IR:	International Relations
INJAF:	Indo-Nepal Joint Action Forum
IUCN:	International Union for Conservation of Nature
KSLCDI:	Kailash Sacred Landscape Conservation and Development Initiative
KW:	Kilowatt
MGNREGA:	Mahatma Gandhi National Rural Employment Guarantee Act
MNC:	Multinational company
MoEF:	Ministry of Environment and Forests
MoU:	Memorandum of understanding
MW:	Megawatt

NAST: Nepal Academy of Science and Technology
NGO: Non-Governmental Organization
NWP: National Water Plan
PDA: Pancheshwar Development Authority
PEA: Political Economy Analysis
PRI: Panchayat Raj Institution
RBO: River Basin Organizations
R&R: Resettlement and Rehabilitation
SAARC: South Asian Association for Regional Cooperation
SIWI: Stockholm International Water Institute
TROSA: Transboundary rivers of South Asia
TWINS: Transboundary Water Interaction Network
UNCIW: United Nations Convention on International Waters
WECS: Water and Energy Commission Secretariat
WRS: Water Resources Strategy
ZOPEC: Zones of Potential Effective Cooperation

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CHAPTER 1

FRAMEWORK FOR WATER CONFLICTS AND COOPERATION

Water is a vital resource for every living being on this planet on many levels. Being one of those few resources with literally no substitute, water resources are often engulfed in multiple and contradictory usage demands. By its ever-flowing nature, they understand no concepts of modern political boundaries and institutions, making management and governance of transboundary water resources a herculean task. Nevertheless, the significant role these precious and scarce water resources play at an individual and national level makes it imperative for nations to preserve them and make institutional arrangements for their cooperation and sharing. However, historically, governments were yet to be able to address the issue with utmost efficiency, and transboundary water resources have often been the subject of conflicts between neighboring countries.

Being the indispensable resource that it is, water has been one of the most prominent causes behind the many conflicts, mostly non-violent (Wolf, 1998)¹ all over the world. Before assessing the linkage between water and related conflicts, it is prudent to define how this study defines water conflicts in the first place. This study builds on the definition of water conflicts (Perlman et al., 2017)². It defines transboundary water conflicts as hostile activities, whether oral, financial, or military, between parties regarding the access to global water supplies or the right to use those waters for a particular purpose. Factors like unsustainable use of water resources, overpopulation coupled with the adverse effects of climate change, rapid urbanisation, and increased domestic and industrial use have exacerbated the stress in the water resources across regions. Moreover, around 263 rivers in the world, covering about 45.3%³ of the land surface on the earth and accommodating 40% of the world's population, are shared by

¹ Aaron Wolf, "Conflict and cooperation along international waterways," *Water Policy* 1, no.2 (1998): 252, <https://transboundarywaters.science.oregonstate.edu/sites/transboundarywaters.science.oregonstate.edu/files/Publications/Wolf%20-%201998%20%20Conflict%20and%20cooperation%20along%20international%20water.pdf>
Jacob D. Petersen-Perlman, Jennifer C. Veilleux & Aaron T. Wolf, "International water conflict and cooperation: challenges and opportunities," *Water International* 42, no.2 (2017): 2, <https://transboundarywaters.science.oregonstate.edu/sites/transboundarywaters.science.oregonstate.edu/files/Publications/Petersen-Perlman%20et%20al.%20-%202017%20-%20International%20water%20conflict%20and%20cooperation%20chal.pdf>

³ "Major River Basins of the World," GRID-Arendal, February 2021, <https://www.grida.no/resources/5782>

more than one state and hence have the transboundary character to their basins. These international basins can act as the hotspots for potential water conflicts since state actors involved in the basin, with different interests, often disagree on water allocations.

Water Scarcity and Water Conflict Linkages

In such situations, the discourse around transboundary waters is likely linked with national security, thereby making it nationalized or securitized. This nationalization or securitization of the narrative of water might lead to more confrontation rather than cooperation. This assumption treating transboundary water interactions as a zero-sum game laid the basis of the dominant narrative around “water wars,” popularised in the 1990s and early 2000s. The water-war theory had assumptions based on the neo-Malthusian concept that links acute resource shortage with imminent violent conflicts. Often primarily associated with non-renewable resources like coal, oil, etc., this theory has also been applied to renewable resources like food and freshwater resources based on the premise that the output will not be able to keep pace with the rising demand (Gleditsch, 2020)⁴.

Many scholars have refuted the supposition that directly links water scarcity coupled with population growth and climate change consequences with violent historical conflicts and future battles of the 21st century. The primary point of their argument is that in the history of humanity, no war has ever just been fought over water (Wolf, 1998⁵; Biswas, 2006⁶). Further, Biswas (2006)⁷ states that water could be the “10th or 15th reason” for such a conflict but never among the primary three reasons. The belief central to most of the scholars who refuted the water-war discourse is that water-related disputes are not centrally related to the natural scarcity or lack of freshwater resources or overpopulation and affluence; they are generally due to the inadequate way in which these resources are governed and managed (Carius et al., 2004)⁸.

Criticizing the one-dimensional causality between scarcity and conflict, this approach argues that environmental and resource-based conflicts usually have more than one cause. Hence, there

⁴ N. P. Gleditsch, “This time is different! Or is it? NeoMalthusians and environmental optimists in the age of climate change.” *Journal of Peace Research* 58, no 1 (2020): 179, <https://doi.org/10.1177/0022343320969785>

⁵ Wolf, “Conflict and cooperation,” 251

⁶ Asit Biswas, “Challenging Prevailing Wisdoms: 2006 Stockholm Water Prize Laureate Lecture.” Third World Centre for Water Management, March 9 2021, <https://thirdworldcentre.org/wp-content/uploads/2019/05/Challenging-Prevailing-Wisdoms-Asit-K.-Biswas-lecture.pdf>

⁷ Biswas, “Challenging Prevailing Wisdoms,” March 9, 2021

⁸ Alexander Carius, Geoffrey D. Dabelko, Annika Kramer, and Aaron T. Wolf. 2004. “Water Conflict and Cooperation.” Wilson center, April 25, 2021, https://www.wilsoncenter.org/sites/default/files/media/documents/publication/ecspr10_unf-caribelko.pdf

appears to be no automation between water scarcity and conflicts (Wolf, 1998)⁹. This leads to the argument that the two countries would never choose war over solely water-related issues. Instead, they will decide to solve the problem and effectively manage the transboundary waters through institutional agreements, treaties, and cooperation projects. Several examples from all over the world, like the Nile, Mekong, and Jordan basin, demonstrate that water, by definition, can persuade even the most adverse nations to collaborate¹⁰. One of the most famous empirical studies to substantiate these arguments was conducted by the Oregon state university through its “International Freshwater Treaties Database,” which studied and documented 1831 transboundary water interactions among water adversaries, the majority of them of 1228, which has been cooperative.

Moreover, another incentive that encourages states to cooperate over waters than fight over it is that water treaties, when compared to cooperative institutions on other subjects, tend to be more durable in nature (Frolich 2012)¹¹. For example, the Indus water treaty between India and Pakistan has survived despite the multiple violent conflicts and military wars these countries have engaged in. Thus, the above neo-liberal institutionalists theorists believed that when given a chance, and if strengthened by proper institutions in place, co-riparians would choose (and have chosen to, in the past) to opt for transboundary water cooperation than engage in conflicts over it.

Transboundary Water Cooperation and Diplomacy

Before further delving into the importance of institutional mechanisms in transboundary water cooperation and other diverse approaches, it becomes imperative to define what this study means by the term water cooperation and the other two terms that will be regularly used, namely, water governance and water diplomacy. The United Nations defines water cooperation as the harmonious managing and utilization of water sources among the many parties and sectors at local, state, region, and global scale.¹² Taking cues from this definition, cooperation over transboundary waters, the aquifers, lakes, and river basins shared by two or more countries, can be termed transboundary water cooperation. In this regard, transboundary water cooperation can be used as an umbrella term that attempts to build, strengthen, or set the

⁹ Wolf, “Conflict and cooperation,” 262

¹⁰ Anamika Barua et al., “Re-Interpreting Cooperation in Transboundary Waters: Bringing Experiences from the Brahmaputra Basin.” *Water* 11, no.12: 2589 (2019): 2, <https://doi.org/10.3390/w11122589>

¹¹ C, Frolich, “Water: Reason for Conflict or Catalyst for Peace? The Case of the Middle East,” *Europe in Formation* 365, no 3 (2012), <https://www.cairn.info/revue-l-europe-en-formation-2012-3-page-139.html>

¹² “Water cooperation,” International Decade for Action 'Water for Life' 2005-2015, March 15 2021, https://www.un.org/waterforlifedecade/water_cooperation.shtml.

foundation for institutional agreements and formal or informal water-related discussions¹³ and encompasses all the technical, managerial, decision-making, diplomatic, and development efforts around shared waters. Water governance and diplomacy hence can be considered as two sub-parts that constitute the larger ambit of water cooperation. Transboundary water governance is associated with political, societal, financial, and administrative frameworks that affect how water is used and managed.¹⁴ The concept of water governance might also concern itself with the questions on the justice aspect of water allocation, like who gets “what water,” how and when they get it, how much right they have over water, its related services, and its benefits.

On the other hand, water diplomacy is concerned with applying diplomatic instruments to resolving conflicts and existing and emerging disagreements over shared water resources for cooperation, regional stability, and peace.¹⁵ Water diplomacy, therefore, seeks to facilitate the process of transboundary water cooperation by developing cooperative water governance structures to achieve fair and sustainable results¹⁶ and might include mechanisms for transboundary water interactions, negotiations, dispute resolution platforms, consultative and interactive forums or institutions for joint fact-finding missions and research. Building on all the above aspects and taking a cue from the Multi-track Water Diplomacy Framework, the definition of water diplomacy:

“Includes all measures by state and non-state actors that can be undertaken to prevent or peacefully resolve (emerging) conflicts and facilitate cooperation related to water availability, allocation or use between and within states and public and private stakeholders.”¹⁷

It includes formal state-level diplomatic interactions and negotiations between co-riparians, trust and relationship-building platforms, and unofficial initiatives by civil society organisations. It involves third-party members or representatives from local communities who may be included in the interactions over transboundary waters.

¹³ “Water Cooperation,” UNDP Water Governance Facility, March 22, 2022, <https://siwi.org/undp-siwi-water-governance-facility/work-areas/water-cooperation?ipproject=undp-siwi-water-governance-facility>

¹⁴ UNDP Water Governance Facility, “Water Cooperation”

¹⁵ Susanne Schmeier, “What is water diplomacy and why should you care?” Global Water Forum, May 25, 2021, <https://globalwaterforum.org/2018/08/31/what-is-water-diplomacy-and-why-should-you-care>

¹⁶ “Water Cooperation and Diplomacy,” IHE Delft, May 25, 2021, <https://www.un-ihe.org/water-cooperation-and-diplomacy>

¹⁷ Patrick Huntjens et al, *The Multi-track Water Diplomacy Framework: A Legal and Political Economy Analysis for Advancing Cooperation over Shared Water*, (Hague Institute of Global Justice, 2016), 3

Importance of Institutional Mechanisms in Water Cooperation

Now that the study has defined the core idea around transboundary water cooperation, governance, and diplomacy, we can move forth with the importance of institutional mechanisms in fostering such cooperation or diplomacy. In this regard, Douglass North's institutional environment model, which uses the neo-institutional economics theory to highlight the importance of institutions in governance, describes institutions as constrictions devised by people to alleviate unpredictability by giving structure to their everyday existence.¹⁸ However, his concept of institutional environment is constituted by the meshwork of not just formal but informal institutions and their enforcement structures. The definition propounded by North fits very well in the sphere of transboundary water cooperation as well, where formal and informal institutions can act as stabilizing structures and give the process of water cooperation a significant level of certainty and predictability that is usually very difficult to achieve.¹⁹ Though North's definition of institutional mechanisms includes a range of institutions from formal to informal, it doesn't say much about the role of local customs, social norms, and traditional attitudes that, though may not be formalized, exercise considerable influence in structuring people's lives and their actions. Thus, building on the definition by North, a more inclusive description of institutions was given by Calhoun²⁰ by which he means that Institutions are deep seated structures of societal norms or behaviours that are important to the society's organization. Institutions can cover a wide range of social constructs, from the nuclear family to the fundamentals of political existence. Sometimes they develop a hierarchical or bureaucratized organisational structure, where they more closely resemble institutions in the sense that the term is used today.

Institutions like bilateral treaties, agreements, or joint-level institutions like river basin organisations which operationalize vague principles²¹ on cooperation and create a duty to

¹⁸ Ahmed Taiya, "Transboundary Water Conflict Resolution Mechanisms: Substitutes or Complements," *Water* 11, no 7 (2019), <https://doi.org/10.3390/w11071337>

¹⁹ McCaffrey, S. C. (2003) "The need for flexibility in freshwater treaty regimes" *Natural Resources Forum* 27, no.2 (2003): 160, <https://doi.org/10.1111/1477-8947.00050>

²⁰ Patrick Huntjens, and Rens de Man. 2014, "Water Diplomacy: Making Water Cooperation Work," Planetary Security Initiative, The Hague Institute for Global Justice, April 6, 2021, https://www.planetarysecurityinitiative.org/sites/default/files/2017-04/PB_Water_Diplomacy_WG_4.pdf

²¹ Sussane Schmeier, and Birgit Vogel 2018. "Ensuring Long-Term Cooperation over Transboundary Water Resources through Joint River Basin Management." In *Riverine Ecosystem Management*, eds, Editors: Stefan Schmutz, Jan Sendzimir (Cham: Springer, 2018) 347-370

collaborate²² for all parties, are considered to be much more effective than institutions that render significant discretion to the parties.

Approaches to Transboundary Water Cooperation: Literature Review

The mainstream international relations theories on transboundary waters have pitched the terms conflicts and cooperations as two opposite ends of a spectrum, giving a strong value-judgment to the character of the two. An emphasis on cooperation as a means and not as end could be more prudent. In this context, scholars from the critical theory have come up with a counter-narrative that instead of approaching cooperation as a policy goal, there's a need to question how it is implemented and who gains from such cooperation. They problematize the concept of all cooperation as good and all conflicts as bad. Signing treaties and establishing institutions for cooperation doesn't guarantee cooperation, and lack of institutions doesn't necessarily entail states fighting for water.²³ Sometimes, institutions of water cooperation, such as treaties and river basin organisations, can manifest the status quo and already prevalent power asymmetries among the states,²⁴ which can be highly unjust to the lesser powerful parties, thereby strengthening the discord between them. Such cooperation could primarily be built on coercion or by the exercise of hydro-hegemonic powers of the dominant party giving limited bargaining space of negotiation to the non-hegemony.

1. Hydropolitics Approach: Hydro-Hegemony and TWINS framework

In this context, the Hydropolitics approach to water conflicts and cooperation considers the role of power and politics in determining transboundary water interactions. Since power asymmetries can significantly determine who tends to get “what, where, when, and why,”²⁵ likewise, Hydropolitics can be defined as “the authoritative allocation of values in society concerning water”²⁶ and accounts for the role of politics in facilitating such allocations.

²² Anton Earle, “Implementing transboundary water cooperation through effective institutional mechanisms: The legal and institutional design dimensions of selected African joint water institutions: creative lessons for global problems?” *Journal of Water Law* 24, no. 3 (2015): 100-114, https://link.springer.com/chapter/10.1007/978-3-319-73250-3_18

²³ Jeroen Warner and Neda Zawahri, “Hegemony and asymmetry: multiple-chessboard games on transboundary rivers.” *International Environmental Agreements: Politics, Law and Economics* 12, no. 3(2012): 215-229, 10.1007/s10784-012-9177-y

²⁴ Anamika Barua 2016. “Dialogue and Water Cooperation in the Brahmaputra River Basin.” IPP REVIEW, March 19, 2021, <https://ippreview.com/index.php/Blog/single/id/243>.

²⁵ Harold Lasswell, *Politics; who gets what, when, how* (Papamoa Press, 2018), 35, Kindle

²⁶ Anthony Turton and Roland Henwood, eds. *Hydropolitics in the developing world: a southern African perspective* (Pretoria: African Water Issues Research Unit, 2002), 16

Developed by the London Water resource group some two decades back (2005), the hydropolitics approach came up with two very important frameworks on water interactions: the Hydro-hegemony framework and the TWINS framework.

The Hydro-hegemony framework places at its center the role of power asymmetries among states in constraining (or facilitating) transboundary water interactions. Cascao and Zeitoun (2006) define Hydro-hegemony as manifesting itself when the more powerful actor solidifies command over transboundary streams at the basin level. Hydro-hegemony occurs when one state exercises its existing overt and covert forms of power over the other co-riparian to maintain its control over transboundary water interactions and the allocative water politics of the region. The hegemon can exercise its control on the interactions by its material, bargaining, and ideational power capabilities,²⁷ riparian positions or geography, and potential for water resource exploitation.²⁸ According to this framework, these power asymmetries can reflect in the water interactions and govern the strategies used for allocating, managing, and sharing transboundary water resources between states.

The second framework that the London water research group came up with is the Transboundary Water Interaction Network (TWINS) framework. This framework was propounded to explain the concurrent “existence of conflict and cooperation” in international water relationships. It proposed that at any given time, two countries can cooperate on a river basin while also being involved in one or the other degree of conflict. The degree of cooperation is measured by the existence or absence of four factors among the water-sharing states, such as “shared goals; joint action mechanism(s); will participation in joint action mechanism; and confidence that other parties will participate in collective action.”²⁹ Simultaneously, the intensity of conflicts between them is evaluated at a given moment on four levels, “non-politicized, politicized, securitized, and violised.”

2. Critical Hydropolitics Approach

While the hydropolitics approach and TWINS framework have broadened the debates around transboundary water interactions from the binary frames of conflict and cooperation to make

²⁷ Ana Elisa Cascao and Mark Zeitoun, “Power, Hegemony and Critical Hydropolitics.” In *Transboundary Water Management: Principles and Practice*, eds. Anton Earle, Anders Jägerskog, Joakim Öjendal (New York: Earthscan, 2010), 31

²⁸ Paula Hanasz, 2014. “Power Flows: Hydro-hegemony and Water Conflicts in South Asia,” *Security Challenges* 10, no. 3 (2014): 98, <http://www.jstor.org/stable/26465447>

²⁹ Naho Mirumachi and John Allan, “Revisiting Transboundary Water Governance: Power, Conflict, Cooperation and the Political Economy,” *Ne Water*, August 3, 2021, <https://www.newater.uni-osnabrueck.de/caiwa/data/papers%20session/F3/CAIWA-FullPaper-MirumachiAllan25Oct07submitted2>

them inclusive of the role of power, politics, hegemony, and domination, scholars have advocated for further refinement in the concept.³⁰ The literature and the theories discussed so far have tried to look at transboundary water relations from a pure state-centric lens. The most dominant narratives around water interactions, including power, politics, and hegemony, have been approached in terms of the engagement of state actors on the issue. In this regard, critical hydropolitics literature has contributed significant insights to the debate. While criticising the state-centered analysis of the issue, critical hydropolitics theorists argue that dominant discourses on transboundary water interactions have several conceptual blind spots and try to simplify the complex socio-ecological dynamics around the same. Critical hydropolitics aims to evaluate various nodes of transboundary water interactions and their engagement with multiple networks of political-economic, discursive, and eco-hydrological processes around the same that have been ignored in the conventional literature.³¹ More importantly, it intends to create alternate imaginations and bring forth marginalized narratives around transboundary water resources from the lens of non-state actors involved in multiple ways across the basin for their livelihood, sustenance, or governance. They argue against the treatment of national actors (states) involved in transboundary water governance as homogenous units and the omission of the other subnational and international actors playing a significant role in the same.³² Therefore, critical hydropolitics literature advocates for the inclusion of non-state actors and perspectives of diverse stakeholders in transboundary water interactions.

In this context, my study proposes to analyse the role of non-state actors and other informal and customary institutions in transboundary water interactions in South Asia, especially between India and Nepal. These informal institutions and actors have been actively involved in natural resource management in the Himalayan region and can play a critical role in sustainable governance across the basin. However, most of the conventional literature on the issue is focused on political distrust and polemical assertions that frame transboundary water cooperation as a zero-sum game in the region. In this regard, the study attempts to connect the gap and explore India-Nepal transboundary water cooperation in the Mahakali basin from a multi-track diplomacy framework that highlights the neo-institutional and political-economy perspectives on water cooperation. The study examines the multiple initiatives and institutions, both formal and informal, active across the basin and tries to fit them into the framework

³⁰ Anamika Barua et al., “Re-Interpreting Cooperation in Transboundary Waters: Bringing Experiences from the Brahmaputra Basin” *Water* 11, no.12: 2589 (2019): 5, <https://doi.org/10.3390/w11122589>

³¹ Anamika Barua et al., “Re-Interpreting Cooperation,” 4

³² Anton Earle and Neal Marian, “Inclusive Transboundary Water Governance.” In *Freshwater Governance for the 21st Century*, eds Karar Eiman (Pretoria: Springer, 2017), 148

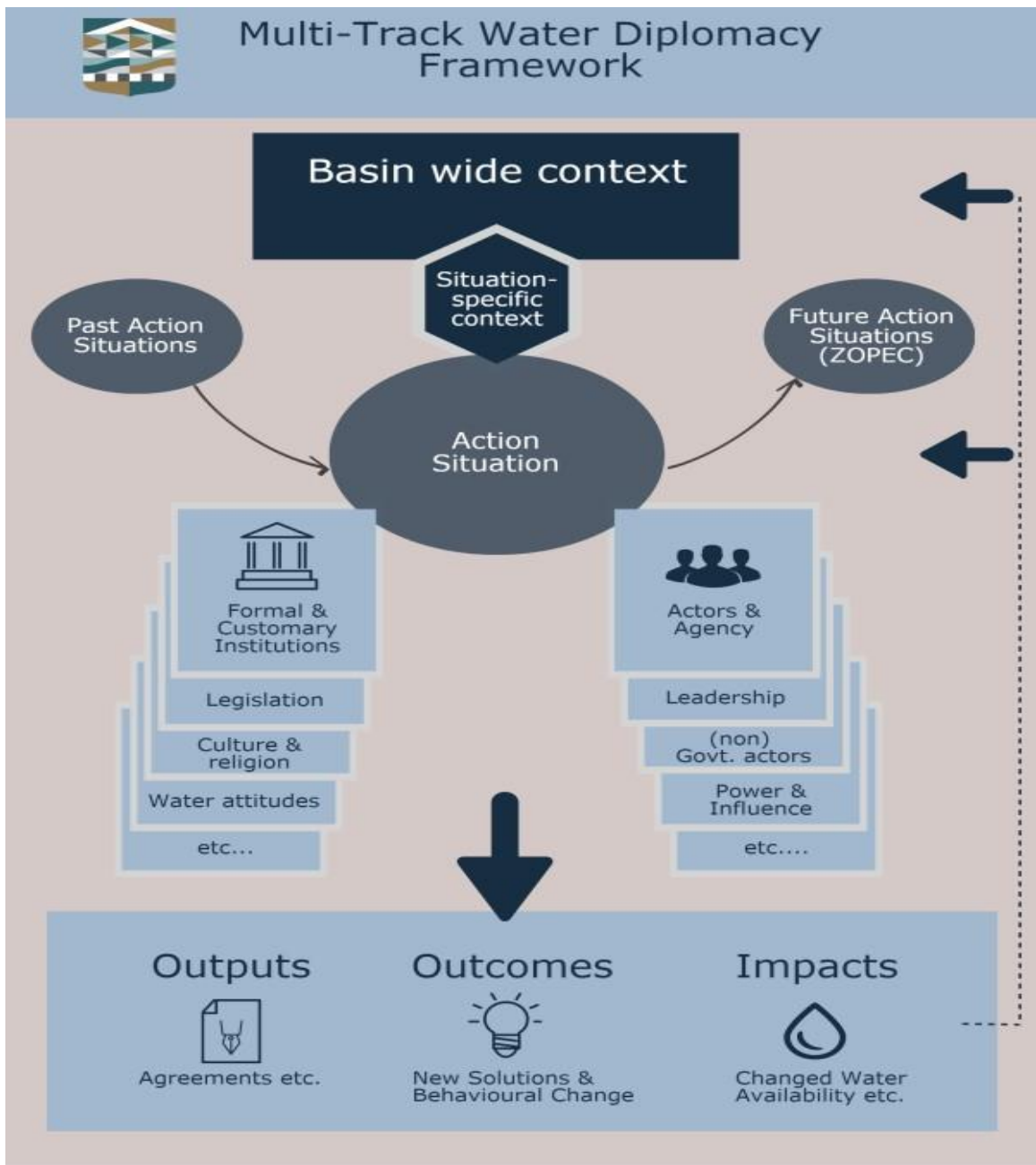
mentioned earlier. The following section delves into the need and the relevance to approach transboundary water cooperation from a multi-track, multi-stakeholder water diplomacy framework in the basin and also attempts a conceptual analysis of the constitutive factors of the same. After discussing the same in the upcoming section, the next chapter navigates the reader through the historical overview of India-Nepal water relations. It discusses the contribution such a framework can make in transforming water relations between the two countries and making water governance in the basin more inclusive and sustainable.

THE MULTI-TRACK WATER DIPLOMACY FRAMEWORK

There are a reasonable number of approaches to transboundary water conflicts and cooperation. But, despite so many disciplines offering multiple perspectives, the literature review suggests that there needs to be a substantial gap between theory and practice. Both academics and policymakers have been reluctant to adopt these approaches solely to resolve conflicts. As Taiya (2019) rightly points out, only a few of these models have been implemented for water resource management and planning.³³ Allan and Mirumachi (2013)³⁴ suggest this lack of application because of the inability to access water-related data and decision-making academics. However, the more significant cause, and the one that this study is centered around, is that most of these theoretical approaches lack the multidimensionality to resolve complex and critical conflicts like water. Most approaches or theories to water cooperation focus on one aspect of the issue and often need more analytical capacity to gauge all dimensions.

³³ Ahmed Taiya (2019) in “Transboundary Water Conflict Resolution Mechanisms: Substitutes or Complements” *Water* 11, no. 7 (2019), 29, <https://doi.org/10.3390/w11071337>

³⁴ Naho Mirumachi, “Securitising shared waters: An analysis of the hydropolitical context of the Tanakpur Barrage project between Nepal and India,” *The Geographical Journal* 179, no. 4, 309–319, <https://doi.org/10.1111/geoj.12029>



Since the existing water cooperation and governance approaches could not deal with the multiple aspects of such a complex issue, scholars highlighted the need to develop analytical frameworks or approaches that would incorporate multi-dimensional perspectives to water conflict resolution by taking into account the role of diverse stakeholders. In this regard, multi-track, multi-stakeholder water diplomacy can significantly help bridge the existing gap. While the concept of transboundary cooperation has traditionally been associated with national-level negotiations between state officials, this study expands the concept to include the role of non-state actors and institutions operating at multiple levels of water governance. As discussed above, the ultimate aim of such an attempt is to facilitate communication between states that is

further directed towards practical cooperation,³⁵ prevention of future water conflicts, and securing sustainable and inclusive water governance in the basin.

In this context, The Hague Institute of Global Justice, in collaboration with institutes like Stockholm International Water Institute (SIWI), International Centre for water cooperation (ICWC), and Uppsala University, under the project “Making water Cooperation Work” developed an analytical framework called “The Multi-track Water Diplomacy Framework: A Legal and Political Economy Analysis for Advancing Cooperation over Shared Waters” (Huntjens et al., 2016).³⁶ This comprehensive analytical framework brings forth varied political, political-economy, and neo-institutional economics perspectives by focusing on various levels of cooperation in a transboundary basin. Huntjens, one of the key authors of the framework, notes out that the framework can help develop fresh, and improving present ways and strategies for collaboration over shared seas.

Not just bringing multiple perspectives to the realm of transboundary water cooperation, the present framework tries to build further and expand the scope of the previous studies aiming to explore water cooperation through political economy approaches. The existing political economy frameworks for understanding water cooperation need to be narrower in nature, leading to a failure to understand the nuanced drivers of water cooperation. As a case in point, World Bank’s Problem-Driven Governance and PEA Good Practice Framework (2009) has its analytical focus centered around a problem-driven(diagnostic) approach which fails to understand ex-ante variables that drive water cooperation. Hence, the multi-track water diplomacy framework fills the existing vacuum in previous frameworks with its comprehensive approach taking into account the cross-sectoral dynamics, inter-temporal understandings, and non-binary, non-judgmental vision of cooperation conflict.

Action Situation and its Components

The framework's central conceptual and analytical component is the action situation, defined as the collective exercise of choice by varied participants to produce outcomes. As per Huntjens et al. (2016),³⁷ an action situation pertains to a social arena where stakeholders and players with diverse interests engage, trade products and services, resolve issues, influence each other, or

³⁵ David Grey, Claudia Sadoff, and Genevieve Connors. 2009. “Effective Cooperation on Transboundary Waters: A Practical Perspective.” In *Getting Transboundary Water Right: Theory and Practice for Effective Cooperation*. eds. Mark Zeitoun and Anders Jägerskog (Stockholm: SIWI, 2009), 18
See Appendix 1.

³⁶ Huntjens et al, “The Multi-track Water Diplomacy,” 25

³⁷ Huntjens et al, “The Multi-track Water Diplomacy,” 23

compete. Action situations are significant in the framework because they can sustain, alter or even reproduce institutions, some of which might precede those situations. They act as crucial junctures where diverse actors come together, renegotiate or reproduce institutions and produce joint outcomes and outputs. With action situations as the central component, the framework consists of four other essential components: 1. Basin-wide context and Situation specific context 2. Structure/institutions 3. Actors/agency 4. Outputs, outcomes, and impacts.

1. Basin-wide and Situation specific context

Every action situation contains a situation-specific context, dimensionally multi-scalar, from basin-wide contexts to other far more localised dimensions. Basin-wide and situation-specific contexts provide a contextual background through a selection of specific challenges and issues relevant to the basin. It elaborates on the key socio-economic and ecological characteristics, biophysical material features of the river, the kind and the scale of development, past and present water-related cooperation projects, and all other conditions which affect the nature of the resource. This leg of the framework ensures the specificity of actions, the relevance of outcomes, and the scope of analysis, forming an essential first step in the analysis (Ostrom 2005).³⁸

2. Structure/ Institutions

The framework defines institutions as organisations reinforcing society's socio-political and economic norms. They are firmly ingrained patterns and behavior that facilitate a society's organization (Calhoun 2002).³⁹ Formal institutions are the ones that are established via a formalized set of processes, say codified rules, legislations, constitutional laws, etc. On the other hand, customary institutions are the ones that are adopted without any formalised set of processes but have been traditionally practiced by the actors involved and influence water interactions. Community-centered initiatives, cooperatives, traditional water attitudes, and cultural and psychological factors influencing water interactions at the policy level are included in the same. Formal institutions increase the ability towards better cooperation (Magsig 2015)⁴⁰ and serve as an indicator of cooperation.

³⁸ Elinor Ostrom, *Understanding Institutional Diversity* (Oxfordshire: Princeton University Press, 2005), 13

³⁹ Craig Calhoun, *Dictionary of the Social Sciences* (New York: Oxford University Press, 2002), 233

⁴⁰ Bjørn-Oliver Magsig, *International Water Law and the Quest for Common Security* (London: Routledge, 2015), 56

On the other hand, customary institutions serve the essential purpose of filling the lacunae of formal institutions. An interesting point to notice about the framework is that it draws no distinction between informal and formal institutions and includes codes, rules, civil society organisations, and NGOs in the list of formal institutions. However, to reduce confusion, this study distinguishes between formal and informal institutions and puts them into two separate categories. This study aims to identify actors and institutions active across the basin in formal, informal, and customary sectors.

3. Actors/ Agency

Transboundary water cooperation is laden with numerous actors such as government, civil society organisations, private players, political organisations, researchers, journalists, etc. These actors are the key stakeholders in the multi-scalar, multi-level water interactions. More importantly, their power relationships are prominent factors shaping water interactions and policy at all levels. In this context, agency pertains to the capability of the actors to exercise their power in transboundary water negotiations. Therefore, actors and their agencies become essential factors for the framework. This can help better understand the actor-agency dimension by identifying all the key stakeholders active across the basin with an interest/incentive within the resource and the subsequent ability to influence decisions about the water resources.

4. Outputs, Outcomes, and Impact

Another critical factor that the multi-track water diplomacy framework considers is outputs, outcomes, and impacts. According to the framework, the output is defined as results produced within an action situation. Differentiating from the other two factors, outcomes and impacts, outputs pertain to the direct/ immediate results we get from an action situation, say an agreement, use, and division of water resources, etc. Outcomes and impact are considered to be the long-term effect of cooperation under the action situation. A crucial distinction between the two is that impact is defined as the actual ground change or the influence the institutions/ cooperation or the policy decisions taken under such action situations have brought in. The impact can be fundamentally understood by subjecting post-cooperation situations to pre-cooperation situations is the magnitude by which the post-cooperation situation is better off/worse off than the pre-cooperation situations (Keohane, Haas, and Levy 1993).⁴¹ The index

⁴¹ Robert Keohane, Peter M. Haas, and Marc A. Levy, eds., *Institutions for the Earth: Sources of Effective International Environmental Protection* (Cambridge, MA: MIT Press, 1993), 7

or the impact of cooperation. But since measuring such ground impacts quantitatively or qualitatively can be tedious, the framework opts for the concept of outcomes as an indicator to measure the impact of cooperation. In simplest terms, outcomes can be defined as the observable changes in the behavior of the actor's post-cooperation. Other indicators of the same could be any political effects and regime effectiveness.

After analysing all the framework components and their relationships with transboundary water cooperation, the framework tries to identify and develop potential “Zones of Potential Effective Cooperation (ZOPEC).” These potential areas of cooperation are not necessarily linked or within the scope of any existing agreement or treaty but hint at the possible areas or future action situations where the actors (states, in this case) can come together and cooperate. It aims at embracing broader narratives on cooperation and calls for states to collaborate in those spheres to make transboundary water cooperation more effective and sustainable in the basin.

Research Objectives

The previous sections looked into the diverse approaches to Transboundary water conflicts and cooperation. We probed why such approaches have yet to be implemented at policy levels. We have also explored the relevance of a multi-track water diplomacy platform and how it can significantly contribute to the progression of narratives around transboundary water interactions from conflicts to cooperation. Therefore, it becomes imperative to lay down the research objectives of this study.

The central research objective of this study is to explore the following:

- Can a Multi-track, multi-stakeholder form of water governance and diplomacy be effective for transboundary water cooperation in South Asia, especially between India and Nepal?

Related questions

- How can such a framework help accommodate diverse voices into shifting the discourses on water conflicts to water cooperation and eventually make transboundary water governance inclusive, effective, and sustainable?
- Considering the same analytical framework on transboundary water diplomacy, what are the key determinants (structures/ institutions and actors/agencies) that can fundamentally transform water conflicts in a multi-track water governance setup?

- What are the several “Zones of Potential Effective Cooperation” (ZOPEC) between India and Nepal that can be tapped into in a multi-level governance setup to transform water conflicts and, consequently, water politics between the two countries?

Research Methodology

This study will take as its point of entry the many studies available across disciplines – primarily History, Political Science, Peace and Conflict studies, and Environmental Policy. This research will be analytical and descriptive and use a mix of qualitative research tools for its analysis. The research will adopt a qualitative methodology to critically evaluate the historical and cultural contribution of various institutions, structures, actors, and agencies in shaping discourses on water conflicts and cooperation between India-Nepal.

The reference point for picking up the variables that can be potential stakeholders in talks around sustainable water governance will be taken from the analytical framework on Multitrack water diplomacy developed by the Hague Institute of Global Justice, SIWI, etc. This research shall critically analyse these stakeholders and institutions' historical and contemporary roles in shaping water politics between India and Nepal. The research tools used to evaluate the same are as follows.

- ❖ Textual analysis of varied archival resources, say, reports on historical treaties between the two countries and other related water policy documents to evaluate the role of historical legislations and laws and their impact on the water relations between the two countries.
- ❖ An in-depth analysis of the policy documents and other essential facts and information from the official websites of the Ministry of External Affairs and Ministry of Water of both India and Nepal to keep up with the recent developments in the water relations between the two countries, if any.
 - A detailed review of the different kinds of projects being taken up by several non-governmental organisations, international actors, and other CSOs actively working in the sphere of water governance in South Asia and specifically in India and Nepal by visiting their websites and tracking recent developments, if any.

- ❖ Critical analyses of archives of newspaper reports and electronic media recordings to understand the role of media organisations in shaping dominant narratives on water relations and conflicts between India and Nepal.
 - In-depth interviews with Media personnel working on transboundary water issues in South Asia to identify the dominant narratives and counter-narratives prevalent and ways to transform the same.
- ❖ Critical analysis of the works and projects of academicians and universities around transboundary water issues in South Asia and exploring their potential contribution in the shifting of the narratives from water conflicts to water cooperation in South Asia

Conclusion

Finally, building upon the detailed analysis of all the potential factors that can play a prominent role in transforming the water conflict on the Mahakali River between India-Nepal, the study shall attempt to operationalize the “multi-track water diplomacy framework” in the context of the ‘action situation’ that in this study is the Mahakali River conflict between India and Nepal. Further, the research shall try to identify the opportunities which can be tapped and accommodate the voices of these multiple stakeholders at varying levels into a collaborative and holistic Multi track water diplomacy setup.

Transboundary water cooperation in South Asia, especially in the Ganges basin, has many potential crucial junctures. As the study proposes to approach transboundary water cooperation in the Mahakali basin between India and Nepal from a multi-track water diplomacy framework, we’ll notice how every action situation mentioned in the upcoming chapters has tremendous scope for renegotiation and transformation. By the end of this study, I aim to expand the concept and scope of transboundary water cooperation between India and Nepal and take a step closer to a more comprehensive understanding of the same. The framework's various components, like specific basin-wide context, socio-ecological determinants, etc., help us identify potential “windows of opportunity” that can introduce a shift in literature on transboundary water cooperation from zero-sum games or benefit-sharing approaches to more inclusive, multi-dimensional perspectives. Another critical point is the particular focus on actors and institutions in the framework, which helps us understand the agency multiple actors exercise in the basin and how they interact with the formal/informal institutions on various scales. Most importantly, focusing on multiple tracks and temporal scales of cooperation in the framework adds

robustness. It has thereby proven itself as a framework that “works” in the basin (Huntjens et al., 2016).⁴²

Synopsis of the Chapters

The upcoming chapters in the study will discuss in detail and operationalize the concepts that have been discussed in this chapter in the context of India and Nepal's transboundary water interactions.

In this context, the second chapter, titled ‘India-Nepal water relations: An overview’ tries to perform a historical analysis of the 140-year-old documented water relations between the two countries. It tries to engage with the nature of the two countries transboundary water negotiations. While analyzing their water interactions, it locates the prominent action situations between them through the multi-track water diplomacy framework. After that, the study will try to analyse the outputs, outcomes, and impact that came out from those actions’ situations, both positive and negative. Lastly, it analyses the reasons behind the much-spoken-about ‘trust deficit’ between them. It highlights the implicit “structural constraints” in how these two countries negotiate on water issues, especially in the context of the Mahakali Basin.

The third chapter, titled India-Nepal water cooperation: Institutions and actors’, tries to identify the important actors and institutions that are operational in the Mahakali basin. The chapter identifies and locates formal and informal water governance and diplomacy institutions. It also analyses and assesses the role of institutions in shaping attitudes and perceptions in determining dominant narratives and discourses on transboundary water politics vis-à-vis the Mahakali River basin. Further, it probes how the contributions of these institutions and stakeholders make transboundary water governance more stable, sustainable, and inclusive in the Mahakali basin vis-à-vis India-Nepal relations.

The last Chapter, titled ‘Conclusion: Exploring Alternatives’, analyses the potential points of intervention as “Zones of Possible Effective cooperation” to suggest alternative ways in which India-Nepal can traverse a path to a more sustainable and inclusive transboundary water governance and cooperation. Ultimately, it tries to open other debates, such as critical Hydropolitics and constructivist and neo-institutionalist perspectives through which India-Nepal water relations can be further explored. These debates are outside the scope of this study.

⁴² Patrick Huntjens et al, *The Multi-track Water Diplomacy Framework: A Legal and Political Economy Analysis for Advancing Cooperation over Shared Water*, (Hague Institute of Global Justice, 2016), 12

Still, they shall be interesting entry points to look at transboundary water interactions from alternate perspectives and move towards sustainable water governance in the basin.

CHAPTER 2

INDIA-NEPAL WATER RELATIONS: AN OVERVIEW

Historical Relations Between India and Nepal

Water plays a fundamental role in shaping India's bilateral relations with Nepal. The water relations between the two countries have been maintained for centuries on a people-to-people level and an official level (Bagale 2020).⁴³ The banks of the river Ganga, which carry several emblematic interpretations as a sacred and holy river among the Hindus of India and Nepal, serve as a pilgrimage and cultural site. The official website of India's Ministry of External Affairs explicitly describes India's relationship with Nepal as a unique friendship and cooperative relationship marked by open borders and enduring people-to-people affinity and cultural contact. The lengthy history of unrestricted cross-border movement of people speaks volumes about the unique relationship between the two countries.

When it comes to the official relations between the two countries, they have a rich tradition of regular high-level exchange of visits for decades. The British government communicated the first official interaction in 1814 CE in the form of a letter to the Government of Nepal regarding the management of three local ponds (*sagars*) at the Kapilvastu Border (Dhungle2009).⁴⁴ Following that, on 4th March 1816, after the end of the Anglo-Nepalese war (1814-16), the historical Treaty of Sagauli (Sugauli) was signed between the East India Company and the King of Nepal, which demarcated the borders of India and Nepal for the first time (Kumari and Kushwaha, 2019).⁴⁵ The Sagauli Treaty plays a significant role in shaping Nepalese perception of India. Being the first official treaty ever signed between the two countries, it laid the foundations of a trust deficit that would continue to haunt their bilateral relationship, more so the water relations for centuries. From a Nepalese perspective, it was considered highly unjust, considering Nepal had to concede almost one-third of its territory along the East, South, and West (Shrestha, 2018)⁴⁶ to its mighty neighbour, British India. After the historic treaty, the

⁴³ Dharma R. Bagale, "Nepal-India water cooperation: consequences of mutuality or hegemony?" *Water Policy* 22, no. 6 (December 2020): 1098–1108

⁴⁴ Santa B. Pun, and Dwarika N. Dhungel, eds. *The Nepal-India Water Relationship: Challenges* (Netherlands: Springer, 2009), 1-9

⁴⁵ Kumari Priyank, and Ramanek Kushwaha, "Sugauli Treaty 1816." *International Journal of History* 1, no. 1 (2019): 42, <https://doi.org/10.22271/27069109.2019.v1.i1a.42>

⁴⁶ Buddhi Narayan Shreshtha, "Case Study: International Boundary Survey and Demarcation of Southeastern portion of Nepal with India," Fig net, October 18, 2022, https://fig.net/resources/proceedings/fig_proceedings/fig2018/papers/ts03a/TS03A_shrestha_9297.pdf

subsequent crucial bilateral agreement signed between the two countries was in 1920 in the form of an exchange of letters for the construction and management of the Sarada Barrage project. This came to be known as the first bilateral pact in the entire Indian subcontinent. (Bagale, 2020).⁴⁷

Bilateral Developments after Indian Independence

Post-Indian independence, the most important agreement between the two countries was the landmark Peace and Friendship treaty in 1950. The monumental treaty marked the institutionalization of the framework and paved the way for the unique bilateral relationship between India and Nepal (Sinha 2016).⁴⁸ The treaty, which is quite comprehensive, also mentioned how the special relationship between the two countries could be deepened further by cooperation over the numerous transboundary water resources shared between them. It acts as a reference point for the bilateral engagement and, more specifically, the water-sharing relationship between India and Nepal. Consequently, as a move towards advancing their unique relationship and mitigating the effects of historically inefficient management of their shared water resources, the countries got into a range of transboundary water sharing and management treaties over the next 50 years. The Kosi Agreement, signed in 1954 with the primary goal of controlling the flow of the Kosi River and assuring flood control in eastern Uttar Pradesh and Bihar, was the first of these agreements. However, the wounds and the sense of unfairness following the Sagauli Treaty of 1816 were still afresh among the people of Nepal. Hence, the Kosi Treaty faced criticism from the Nepalese politicians as a “sell-out of national property” for the sake of India’s advantage and was considered “suicidal” and “unreciprocal.”

Consequently, the criticisms were followed by demands on specific amendments in the treaty, culminating in its revision in 1966. But even then, the treaty, unable to bridge the building trust gap, couldn’t garner much positive support from the Nepalese side. A significant point in focus is that the objective of the Kosi Treaty was to mitigate the flood effects of the Kosi River and didn’t indicate much about the other aspects of shared water management or transboundary water cooperation. However, the inception of the Trishuli hydro-project on the Gandak river in 1958 was only the first step towards cooperation and management.⁴⁹ In this context, the Trishuli

⁴⁷ Dharma Raj Bagale, “Nepal–India Water Cooperation,” 1099

⁴⁸ Uttam Sinha, *Riverine Neighbourhood: Hydro-politics in South Asia* (New Delhi: Pentagon Press, 2016), 69

⁴⁹ Subhash Rai, Aron Wolf & Nayan Sharma, “Hydropolitics and Hydropolitical Dynamics between India and Nepal: An Event-based Study” *Water Policy* 19, no.5 (2017):804, <https://doi.org/10.2166/wp.2017.063>

hydroelectric project on the Gandak River was the first such instance of cooperation to utilise Nepal's hydropower potential, and was completed in 1958.

The second significant bilateral water agreement signed by India and Nepal was the Gandak Treaty in 1959.⁵⁰ The treaty's primary objective was flood control and irrigation in parts of Uttar Pradesh, Bihar, and some parts of Nepal. Although the collaborative generation of hydropower and establishment of powerhouses in Nepal also found mentioned in the agreement (Sinha 2016)⁵¹, this treaty received the same treatment from Nepal as it repeated the earlier patterns of water negotiations. It was severely criticised as unfair to the Nepalese side and compromised the availability of irrigation water in Nepal. The treaty was revised in 1964 due to Nepalese concerns over its asymmetrical benefits and their belief that India benefited from all of its favourable aspects while Nepal suffered from its negative.⁵² Contrary to the socio-cultural linkages, the hydro relations between the two countries have only sometimes been amicable. Therefore, instead of deepening and stabilizing bilateral interactions, the Gandak Treaty rather created a dysfunctional relationship (Sinha, 2016).⁵³ Overall, despite having its heart in the right place with the larger vision of “regional cooperation,” the two treaties essentially came out as one-sided attempts from India to address its needs or resolve its issues, with some gains to Nepal (Iyer 2015)⁵⁴ or benign attempts to transgress Nepal’s sovereignty at most.

The Mahakali Treaty, signed on February 12, 1996, between the Prime Ministers of Nepal and India, Sher Bahadur Deuba and P. V. Narasimha Rao, respectively, is the third and the latest of the water treaties signed. The treaty sought to change the past water negotiation patterns and start a new chapter in India-Nepal water relations. Addressing Nepal’s grievances and attempting to remove past mistakes consists of the three barrage projects: Sarada, Tanakpur, and Pancheshwar multipurpose project. It was designed with irrigation, flood control, and power generation goals for Mahakali's multipurpose development. According to the agreement, the project had to produce 6000 MW of hydropower by 2002. But scholars treat the Mahakali treaty as a classic case of “marry in haste and repent at leisure” (Gyawali & Dixit; 1999)⁵⁵ as it was nothing more than a dead mail.

⁵⁰ “Commerce Wing Brief.” n.d. Embassy of India, Kathmandu, Nepal, December 19, 2022. <https://www.indembkathmandu.gov.in/page/about-trade-and-commerce/>

⁵¹ Uttam Sinha, *Riverine Neighbourhood*, 70

⁵² Uttam Sinha, *Riverine Neighbourhood*, 70-74

⁵³ Uttam Sinha, *Riverine Neighbourhood*, 70-74

⁵⁴ Ramaswamy Iyer, “Neighborhood Tensions: India's Trans-Boundary Water Relations.” *Global Asia*, January 20, 2022. https://www.globalasia.org/v10no1/cover/neighborhood-tensions-indias-trans-boundary-water-relations_ramaswamy-r-iyer.

⁵⁵ Deepak Gyawali and Ajaya Dixit, “Mahakali Impasse and Indo-Nepal Water Conflict,” *Economic and Political Weekly* XXXIV, 9 (1999): 553-64

Moreover, it worsened India-Nepal bilateral relations rather than improving them, leading to a complete impasse on any concrete developments on the waterfront for almost two decades until now. The main reason was the looming trust deficit between the two countries over decades as a result of past treaties and peaked by the time of signing the treaty. After ratifying the treaty with Nepal, the treaty faced unprecedented opposition and resistance from ordinary Nepalese citizens and civil society organisations. The claims were built on the belief that the treaty was lop-sided and focused on large-scale multipurpose projects (Sinha, 2016)⁵⁶, which is inconsistent with the domestic development needs of Nepal and ecologically not sustainable.

However, after the long-standing impasse, the decision to establish the Pancheshwar Development Authority was made at the inaugural session of the Joint Ministerial Commission on Water Resources in New Delhi (February 2012) in order to end the protracted impasse over the dam's construction. In the following year, 2013, Nepal decided to recommence the 900MW Upper Karnali project. In 2014, while Prime Minister Narendra Modi was in Kathmandu, the GMR Group inked the Project Development Agreement with Nepal (Press Trust of India 2014).⁵⁷ India and Nepal inked an additional agreement to construct the 900MW Arun III dam at the South Asian Association for Regional Cooperation (SAARC) Summit in Kathmandu in November 2014. This made India the country with the most hydropower projects in Nepal (Sinha, 2016).⁵⁸ Though 6-8 years ago, these developments indicated a positive turn in the water relations between the two countries, a lot still needs to be done to transform the character of their interaction patterns and water negotiation cycles.

India-Nepal Water Relations: Status of Conflict and Cooperation

As the above overview of India-Nepal water relations suggests, the hydro-relations between the two countries have existed for over 140 years (Rai et al.).⁵⁹ This section explores how the two countries have approached matters on transboundary waters during this course and what levels of conflict or cooperation projects (if any) they got involved in. Moreover, the section also delves into the character of the water negotiations, conflicts, and cooperation they engaged in with the other party. Three critical observations can be drawn.

⁵⁶ Uttam Sinha, “*Riverine Neighbourhood*, 70

⁵⁷ Nepal and GMR Consortium of India likely to sign Power Development Agreement Soon,” *The Economic Times*, 26 August 2014, <https://economictimes.indiatimes.com/industry/energy/power/nepal-and-gmr-consortium-of-india-likely-to-sign-power-development-agreement-soon/articleshow/40929960.cms?from=mdr>

Uttam Sinha, *Riverine Neighbourhood*, 75

⁵⁹ Subhash Rai, Aron Wolf and Nayan Sharma, “*Hydropolitics and Hydropolitical Dynamics*,” 791

1. The mutually reinforcing character of political relations and water relations

During the last 140 years of inter-state water interactions, the nature of water interactions between the two countries has been influenced or reflected by the more significant political relationship they share. As scholar Amit Ranjan (2016)⁶⁰ rightly points out, when the two nations' ties were healthy, they would make agreements to use hydroelectric power for their respective purposes. However, whenever things got bad or when opposition leaders gained influence and control in the legislature, these agreements came under scrutiny. This has led to projects setbacks or even the need to reconsider some previously agreed-upon water solutions. The water relations between India and Nepal, tremendously influenced by the political relationship, aligns well with the existing literature on conflict and cooperation, which states that the interaction of transboundary waters is a natural political process. It is frequently influenced by the region's more significant political situation and is subject to the “whims” of power (Zeitoun et al., 2008).⁶¹

However, the peculiarity of India-Nepal water relations is that not just the water relations have been impacted by the broader political interactions and exchanges between the two countries (which is usually the case in other basins). Instead, given the central importance transboundary water issues exercise in terms of the bilateral problems these countries engage in, water interactions have also played a crucial role in shaping and determining the broader political relationship between them. Considering how the narrative of transboundary waters is highly politicised in Nepal and local politicians leave no opportunity to pull the water issue under nationalist rhetoric, any interaction with India related to water is under deep public scrutiny and has the potential to influence the larger political context. In this regard, observations made by scholars like Ramaswami R. Iyer make complete sense when he categorizes the state of India-Nepal water relations as reflecting the overall unstable, twisted, complicated, and conflicted relations between the two nations instead of just water-related or security-related matters.⁶² This study goes a step ahead to propose that water relations not just reflect but also determine the character and state of the overall relationship that the two countries share.

⁶⁰ Amit Ranjan, “Contours of India-Nepal Relationship and Trans-boundary River Water Disputes,” *Journal of International Affairs* 1, No.1 (2016): 5

<https://www.nepjol.info/index.php/joia/article/download/22637/19251/70805>

⁶¹ Mark Zeitoun and Naho Mirumachi, “Transboundary Water interaction I: Reconsidering Conflict and Cooperation,” *International Environmental Agreements: Politics, Law and Economics* 8, no. 4 (December 2008): 299, <http://dx.doi.org/10.1007/s10784-008-9083-5>

⁶² Ramaswamy Iyer, “Neighborhood Tensions,”

2. The simultaneous existence of conflict and cooperation in the basin

Another aspect to point out about transboundary water interactions between India and Nepal is that the water relations between them cannot be categorized as strictly cooperative or conflictual at a given time. On similar lines, existing literature on conflictual and cooperative relationships in transboundary water interactions suggests that conflict and cooperation coexist at different levels at different times between two countries. In this respect, scholars use several frameworks to gauge the existence of conflict and collaboration in transboundary water interactions between nations. One of the most prominent frameworks in this regard is the two-dimensional matrix called Transboundary Water Interaction Nexus (TWINS). Developed by Naho Marumachi of the London water research group, the framework analyses the simultaneous existence of cooperation and conflict on a scale of “Confrontation of the issue” to “Risk-taking” cooperation and “Non-Politicised” to “Violised” form of conflict, respectively. Believing that the status of transboundary water interactions between two countries over a while can be very different based on the larger political context of the region, the matrix helps analyse its status along the dual scale in different political contexts.

Mirumachi (2007)⁶³ operationalized the TWINS framework on the Ganges basin to analyse the status of conflict and cooperation between India and Nepal over the last 100 years. She broadly categorized it into three intervals and tried to trace the levels of conflict and cooperation along the matrix. From 1920 to 1995, the level of water conflicts between them can be considered “politicized,” whereas the cooperation between them can be categorised as “ad-hoc collaboration” on the matrix. Then, in 1996, with the conclusion of the historic Mahakali treaty and the Pancheshwar Dam Multipurpose project, the two countries took their cooperation levels up to the “technical collaboration” level.

However, the level of conflict between the two countries was still very much at the “politicized” status due to the intense domestic resistance from the civil society organisations over the construction of the massive multipurpose dam and the local opposition politicians who found the treaty to be lopsided and unfair to the Nepalese side. Due to the inability to reconcile the above differences and the ever-looming trust deficit, the treaty went into a stalemate. Therefore, even after 1996, the level of cooperation between the countries fell back to the initial “ad-hoc

⁶³ Naho Mirumachi, "Fluxing relations in water history: Conceptualizing the range of relations in transboundary river basin." In *CD-R Proceedings of the 5th International Water History Association Conference—Past and Futures of Water*, pp. 13-17. 2007

collaboration” due to the non-implementation of the treaty and continues to remain the same. Subsequently, the stories of conflict have gone down to “non-politicized” levels since the treaty ran into an impasse. Any negotiations or talks around the implementation of the same have been negligible.

3. Largely cooperative nature of the India-Nepal water relationship

Several studies have tried to analyse the status of water conflicts and cooperation between India and Nepal. Contrary to the popular perception in the news media, which highlights the narratives on water conflicts as something irreconcilable and makes prophecies of potential “water wars” in the future, studies have concluded that the two countries have cooperated over several transboundary rivers and the events of cooperation have heavily outnumbered events of water conflicts between them (Rai et al., 2017).⁶⁴ In statistical research conducted by the Oregon State University to study how century-old water relations between India and Nepal have shaped and reshaped over time, it is observed that out of 351 bilateral events between the two countries, only 4 percent of events were conflictive, and 92 percent events were cooperative. The remaining 4 percent of events were neutral. However, the same study suggested that when the hydro-relations between the two countries are viewed strictly from a conflict-cooperation lens, there is moderately positive cooperation between the two countries without much concrete action. This lack of concrete action can be attributed to the lack of trust from the Nepalese side, citizens, and politicians who perceive India as the “hydro-hegemon” in the region. Thus, interacting and negotiating with a mighty hegemonic neighbor renders Nepal limited bargaining space and impedes its access to the fair share of benefits in the treaties.

The observations that can be made from the above analysis is that the water interactions between India and Nepal over the last century cannot be classified strictly along the lines of conflict or cooperation. The elements of conflict and cooperation have always existed simultaneously and were influenced by the broader political contexts.

India-Nepal Hydropolitics and the Role of China

Over the last few decades, China has emerged as a critical stakeholder in water security in South Asia. Being the origin of most glaciers that feed the Ganga basin and the home to over sixteen significant rivers, China supplies water to over 3 billion people across the entire Asian continent

⁶⁴ Subhash Rai et al, “Hydropolitics and Hydropolitical” 799

(Vishwanath, 2018).⁶⁵ Being the upstream riparian state of many of the most important international rivers, such as Mekong, Brahmaputra, Sutlej, and Indus, China, therefore, is a principal player in the hydropolitics of the region. Besides, accompanied by its preponderance in economic, military, and demographic power, it is rightly termed as one of the hydro-hegemons of the region along with India (Ho, 2017).⁶⁶ These asymmetrical power relations (geographical, bargaining, material, and ideational) that China, as the regional hydro-hegemon, exercises against smaller countries help it maintain its control over the transboundary interactions by exploiting its existing forms of hard and soft power. Like India, China's historical reluctance towards joining or initiating any form of meaningful basin broad multilateral forms of water cooperation and dealing with transboundary water interactions depending upon the basins and the countries involved helps to maneuver its power vis-a-vis smaller countries involved in water negotiations.

As the two regional hydro-hegemons, India and China have been competing to develop and invest in the significant reserves of untapped water resources in Nepal, which have been underdeveloped due to the nation's protracted political unrest. In an attempt to deepen its hydro relations with Nepal, China has been investing heavily in hydropower projects in the country since the last decade. While Nepal struck deals with Indian companies to build 1,800 MW of hydropower on the Upper Karnali Dam and the Arun III projects in 2014, Nepal's KP Oli's government revived the 1200MW Budhi Gandaki Hydropower Project worth US\$2.5 billion with the China Gezhouba Group Corporation (CGGC) in 2018 (The Tribune, 2018).⁶⁷ Nepal's growing closeness with China can be explained by the fact that ever since the one-month-long unilateral economic blockade India imposed on Nepal in 2015, the prevailing trust deficit between the two countries has deepened manifolds.

Though the crisis has been resolved at least *pro-tem*, Nepal, since then, has made it a point to balance its relations with India and other countries, primarily China. Nepal's keenness towards inviting Chinese investments in developing its hydropower sector can be seen in a similar light. However, Nepal's attempt to balance relations by engaging deeply with China is not welcomed by India. Any form of deeper involvement that the Chinese have in building water infrastructure

⁶⁵ Ambika Vishwanath, "Paddling Upstream: Transboundary Water Politics in South Asia." Carnegie India, December 23, 2022, <https://carnegieindia.org/2018/10/10/paddling-upstream-transboundary-water-politics-in-south-asia-pub-77298>

⁶⁶ Selina Ho, 2017. "Why do hydro-hegemons cooperate? China's and India's transboundary river policies." Global Water Forum, March 23, 2022, <https://globalwaterforum.org/2017/02/27/why-do-hydro-hegemons-cooperate-chinas-and-indias-transboundary-river-policies/>

⁶⁷ "Nepal to award 1,200-MW hydro project to China firm", *The Tribune*, September 25, 2018, <https://www.tribuneindia.com/news/archive/world/nepal-to-award-1-200-mw-hydro-project-to-china-firm-658431>

in Nepalese territory would be perceived by India as a security threat, and Chinese attempts to encircle its part, this time terrestrially at best, by potentially sharing a bilateral partner and at worst, by alienating India, altogether (Weigold, 2016).⁶⁸

Any analysis of India and Nepal water relations is incomplete without mentioning China's role, as Beijing has been a traditional key competitor against India for exploiting the untapped water reserves of Nepal in the last few years. To quote Weigold again, Nepal's main marketable commodity will tend to be its hydroelectric resources and India-China negotiations for accessibility to those resources.⁶⁹ Therefore, given the recent developments, it becomes imperative for India to fix the looming trust deficit with Nepal and take her concerns seriously. To maximise its influence vis-a-vis China. In that case, it has to be more cognizant of Nepal's interests and consider them equally important, something it has not been able to do in the past.

India-Nepal Water Cooperation: Action Situations

This research aims to survey water cooperation between India and Nepal by identifying “action situations” where the two countries can potentially collaborate in practical ways to advance water cooperation. As discussed in the first chapter, the term “action situation,” as used by E. Ostrom, refers to a circumstance in which a group of individuals is presented with a variety of possible actions that together produce outputs and consequences,⁷⁰ which will act as a juncture for several institutions and actors involved in water cooperation between the two countries to converse, trade products and services, resolve issues, compete with one another, or engage in conflict. In the context of India-Nepal water relations and their history of water cooperation over a century and a half, the study identifies three action situations where the two countries have exercise actions to produce outcomes and outputs jointly. These three action situations are the three major international water-sharing treaties or agreements that have been signed between the two countries over the last several decades, such as the Kosi Treaty (1951), the Gandak Treaty (1955), and the Mahakali treaty and Pancheshwar Dam Project (1996). Although this study intends to briefly cover a review of the past action situations like Kosi treaty and Gandak treaty, the case for this study is the Mahakali treaty which is the primary action situation. When viewed through the lens of Multi-track water diplomacy framework, Mahakali

⁶⁸ Auriol Weigold, “Nepal: Negotiating Hydro-power with China and India,” Docplayer, March 23, 2022. <https://docplayer.net/50537581-Nepal-negotiating-hydro-power-with-india-and-china.html>

⁶⁹ Auriol Weigold, “Nepal: Negotiating Hydro-power with China and India,” Docplayer, March 23, 2022. <https://docplayer.net/50537581-Nepal-negotiating-hydro-power-with-india-and-china.html>.

⁷⁰ Elinor Ostrom, “Institutional Rational Choice: An Assessment of the Institutional Analysis and Development Framework,” in *Theories of the Policy Process*, ed. Paul Sabatier (Colorado: Westview Press, 21-65), https://edisciplinas.usp.br/pluginfile.php/5894505/mod_resource/content/1/Sabatier_Weibel.pdf

treaty action situation can create prospective venues to encourage constructive collaboration and serve all parties managing the common waters.

The rationale for choosing the Mahakali treaty as the primary action situation may be numerous. One of the reasons is that it is the most recent treaty the two countries have signed. The first two treaties signed were seen by Nepal as India's attempts to "transgress Nepal's sovereignty" since, at the time these treaties were signed, Nepalese society's education and awareness about water issues were limited, and the agreements were regarded as preventing Nepal from accessing "its own" rivers.⁷¹ In that context, the Mahakali treaty was not only the most recent of all treaties signed between the two countries (1996), when the literacy levels in Nepal were relatively higher and public opinion more robust; the treaty was also considered the beginning of the new chapter in India-Nepal water relations considering it tried to address Nepal's past grievances and attempted to remove past mistakes (Iyer, 2015).⁷²

The Kosi Treaty (1954)

Post-India's independence, like the 1950 Indo-Nepal Peace and Friendship treaty, which ushered the institutionalisation of the "special relationship" between the two countries, a host of water-sharing treaties were signed as a part of the larger framework of water relations between them (Sinha, 2016).⁷³ The Kosi treaty was the first of these water-sharing agreements signed in 1954, which provided for constructing a barrage three miles upstream of Hanuman Nagar in Nepal to regulate the catastrophic floods and destruction in Bihar. The treaty only mentions flood control as its primary purpose and talks nothing about irrigation coverage and other benefits like Hydropower generation in parts of Bihar, possibly to avoid outrage among Nepalese against the treaty (Bagale, 2020).⁷⁴ The Kosi multifunctional project included a system of canals, running channels on both river banks, a barrage across it, and a hydroelectric facility. The project, however, was severely slammed on all fronts in Nepal as Nepal as selling off of the country's national wealth to India. The Kosi treaty essentially came out as India trying to fulfill its needs or resolve its issues while also benefiting Nepal in some small ways (Iyer,

⁷¹ Gareth Price et al, "Attitudes to Water in South Asia", Chatham House, February 14, 2022, https://www.chathamhouse.org/sites/default/files/field/field_document/20140627WaterSouthAsia.pdf

⁷² Ramaswamy Iyer, "Neighborhood Tensions"

⁷³ Uttam Sinha, *Riverine Neighbourhood*, 70

⁷⁴ Dharma Bagale, "Nepal-India water cooperation", 1100

2018),⁷⁵ as nearly 95 percent of the water from the location where the dam is built goes to India, and only 5 percent goes to Nepal (Tabassum, 2004).⁷⁶

One of the major concerns around the Kosi agreement was the project's location; though built on Nepalese territory, but gave Nepal significantly few tangible advantages. Not to forget, Nepal had signed these accords when it lacked many resources, including administrative infrastructure, technical know-how, exposure to other cultures, diplomatic experience, and most importantly, awareness of the country's resources and their value (SB Pun, 2010).⁷⁷ Following stark criticism of the provisions of the treaty and in an attempt to address some of the grievances of Nepal, the agreement was revised in 1966 and addressed questions on conditions about national sovereignty/project area lease, freedom for inter-basin upstream diversion, utilisation of water and electricity, navigation rights, and fishing rights, etc. (Bagale, 2020).⁷⁸ Despite the amendment, a great sense of injustice still prevailed among Nepalese people. (Iyer, 2015)⁷⁹

The Gandaki Treaty (1959)

Following the Kosi treaty, the subsequent agreement to be signed between India and Nepal was the Gandaki Treaty in 1959 (also known as the Gandak Treaty), which provided for the establishment of a barrage on the Gandak River at Bhaisalotan (Balmiki Nagar) for flood control primarily, but also secondary benefits like irrigation in both countries and hydropower. However, the agreement, as opposed to Kosi Agreement, includes comprehensive details of the irrigation systems that will be delivered to Nepal as part of the project, as well as plans to build a 15,000 KW power plant on Nepalese soil alongside the country's main western canal to supply hydropower to both countries (Bagale, 2020).⁸⁰ Another concern about the treaty from the Nepalese point of view was that though it quantified the irrigation benefits to Nepal, it stayed quiet regarding the project's advantages for irrigation in India, giving the impression that India would receive all the surplus water.

Drawing criticism from Nepalese politicians and citizens alike, both countries decided to give some additional benefits to Nepal. The treaty was amended in 1964 to acknowledge concerns

⁷⁵ Ramaswamy Iyer, "Floods, Himalayan Rivers, Nepal: Some Heresies," *Economic and Political Weekly* 43, no. 46 (2008): 38, <http://dx.doi.org/10.2307/40278178>

⁷⁶ Shaista Tabassum and Nusrat Idris, "India-Nepal Treaty on Mahakali River." *Pakistan Horizon* 57, no. 2 (2004): 51-61, Jstor

⁷⁷ SB Pun, "Pancheshwar Multipurpose Project: Nepal's Portion of Power", *Hydro Nepal*, no. 6, (2010): 2-5, <http://www.nepjol.info/index.php/HN/article/viewFile/4186/3560>

⁷⁸ Dharma Bagale, "Nepal-India water cooperation", 1101

⁷⁹ Ramaswamy Iyer, "Neighborhood Tensions"

⁸⁰ Dharma Bagale, "Nepal-India water cooperation", 1101

about protecting the riparian rights of Nepal, cutting back on supplies during times of scarcity, etc. Even with the treaty's benefits were still far less than anticipated. While the Nepalese perception of these treaties was extremely unfair to them, to the Indians, it was otherwise. Since both Kosi and Gandak projects had a majority share of Indian investments—human resources, finances, and technology from India, it was only reasonable for them to gain more significant advantages. (Sinha, 2016).⁸¹ Overall, the Kosi and the Gandak treaties, the projects they gave birth to, and their responses in Nepal have had unfavourable effects on Nepali politics and public impressions of water relations between India and Nepal. (Gyawali, 1999).⁸²

Action Situation: The Mahakali Treaty and Pancheshwar Multipurpose Project (1996)

The Kosi and the Gandaki treaty had led to slight bitterness in India-Nepal water relations. Since then, Nepalese politicians have been cautious about cooperation over transboundary rivers with India. This scepticism over cooperation from the Nepalese side had impacted the progress and discussions on other projects like Saptkoshi, Karnali, and Pancheshwar, which have been going on between the two countries for over two decades (Tabassum, 2004).⁸³ To make matters even grimmer, a constitutional amendment in Nepal made it mandatory for any treaty or agreement about natural assets that have a long-term or significantly pervasive impact on the nation to be approved by a two-thirds majority in the parliament, contrary to the treaties of ordinary nature that would require to be passed by just a simple majority (Tabassum, 2004).⁸⁴ After that, garnering support for any significant bilateral transboundary river project between India and Nepal would require a consensus among Nepal's leading politicians and parliamentarians, making it more complicated.

This was reflected in the severe public outrage generated after India started the unilateral construction of the Tanakpur Barrage in 1983. As explained by Indian scholar Ramaswami Iyer,⁸⁵ the issue was relatively very trivial of India using a tiny portion of land, approximately 2.9 hectares, to build the east afflux for the safeguarding of Nepal's borders from potential backwater consequences coming out of the Tanakpur barrage (that in itself was entirely in Indian territory and didn't include the consumptive usage of water). The controversial agreement on Tanakpur Barrage as a Memorandum of Understanding signed in

⁸¹ Uttam Sinha, *Riverine Neighbourhood*, 70

⁸² Deepak Gyawali and Ajaya Dixit, "Mahakali Impasse", 555

⁸³ Shaista Tabassum and Nusrat Idris, "India-Nepal Treaty", 53

⁸⁴ Shaista Tabassum and Nusrat Idris, "India-Nepal Treaty", 56

⁸⁵ Shaista Tabassum and Nusrat Idris, "India-Nepal Treaty", 59

1991 accorded the provision of those 2.9 hectares of land to India from Nepal. However, this, along with several other land-sharing accords related to Tanakpur Barrage, wasn't submitted to the Nepalese parliament for approval (Bagale and Adhikari, 2020)⁸⁶ and ended up drawing the fury of Nepalese politicians and the local public alike, who wanted it to be ratified by a two-thirds majority of the Parliament under Article 126 of the constitution. Hence, The Tanakpur Barrage agreement over a decade had turned into a political issue, sparking acrimonious political debates against its conclusion. It finally culminated with the Nepalese Supreme Court's decision calling it a “treaty” and not just an MoU, thereby mandating its ratification in the parliament by a three-fourth majority. However, due to a great deal of misunderstanding within and among the political parties of Nepal, the treaty could not be ratified (Bagale, 2020).⁸⁷

It was on this background, rife with a trust deficit and highly mobilised Nepalese public opinion on water issues between the two countries that the agreement governing the Pancheshwar project, Sarda barrage, and Tanakpur barrage as a component of the holistic development of the Mahakali River, popularly known as the Mahakali treaty was signed by Pranab Mukherjee and Prakash Singh Lohani, Foreign Ministers of India and Nepal respectively on 29 January 1996. The agreement was designed to jointly develop the Mahakali River for various purposes, including irrigation, flood management, and electricity production, and specified that the Pancheshwar Multi-Purpose Project could generate 6,000 MW of hydroelectricity by 2002.

The Mahakali treaty was considerably different from the other agreement. This treaty was negotiated, and a “so-called consensus agreement” took place outside the legislature and legislative committees, notably the All-Party Committee on Tanakpur, consisting of all the major and minor political parties of Nepal (Gywali, 1999).⁸⁸ This ensured that the treaty's provisions had gathered sufficient internal consensus in Nepal among politicians, bureaucracy, etc., which the earlier treaties lacked. The Mahakali treaty had subsumed various controversial agreements regarding the Mahakali River, including the Tanakpur barrage and linked it to the Pancheshwar Dam Multipurpose project.

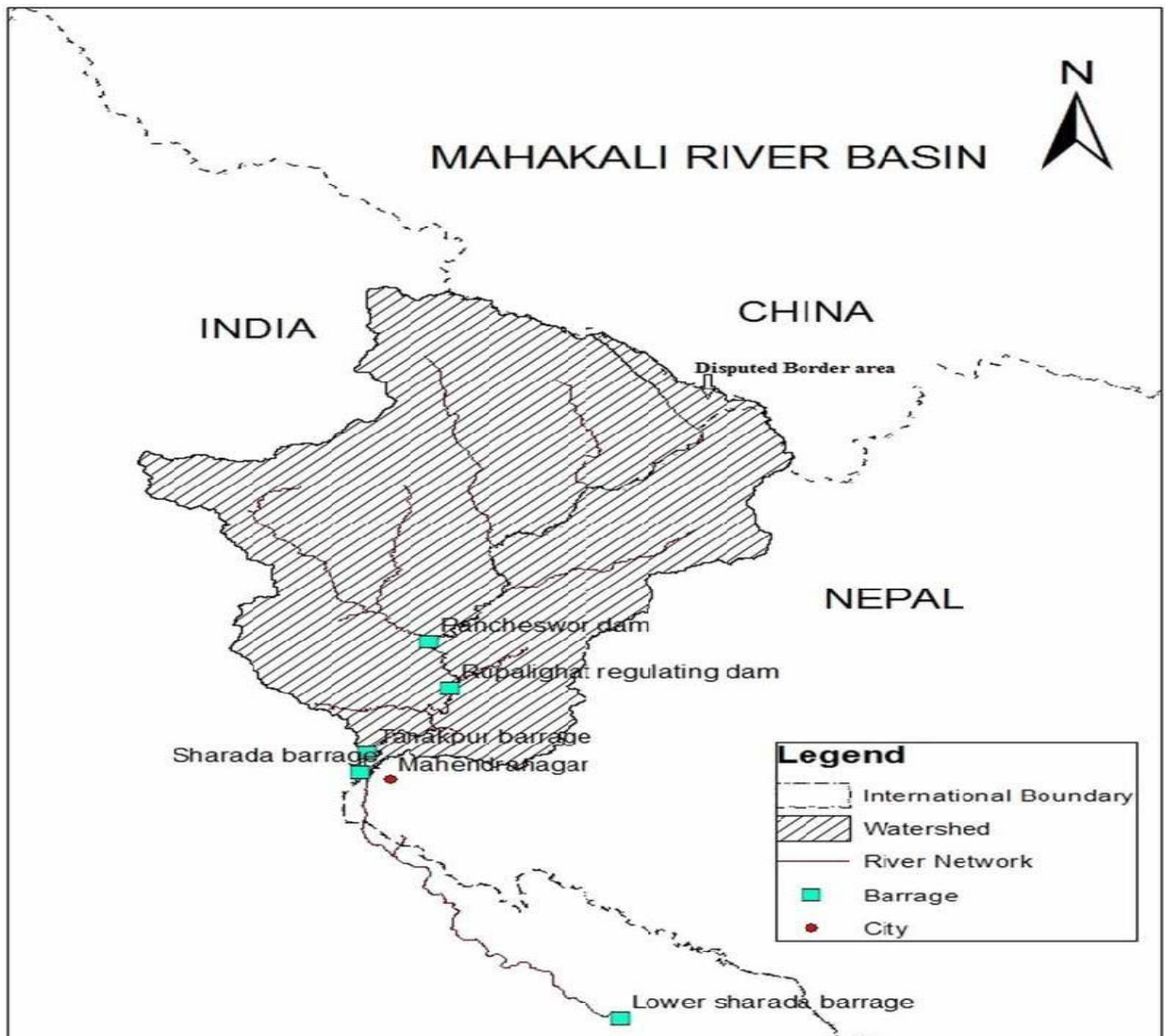
The 75-year Mahakali treaty stipulated that it would be revisited and reviewed every ten years and that any disagreements would be resolved through arbitration. However, there has been little to no advancement achieved in the implementation process since the treaty's signing. This is evident in the fact that even after twenty years of ratification of the treaty, the Detailed Project

⁸⁶ Dharma Bagale and Keshab Adhikari, “Mahakali Treaty: delay in implementation and resulting impacts from Nepal's perspective” *Water Policy* 22, no. 4 (August 2020): 660

⁸⁷ Dharma Bagale, “Nepal–India water cooperation”, 1102

⁸⁸ Deepak Gyawali, “Mahakali impasse”, 559

Report (DPR), which was scheduled to be created within the next six months of the treaty's signing, has still not been completed. (Kunwar, 2014)⁸⁹ because of the underlying trust deficit and several other unresolved issues. Below is a brief analysis of the multiple factors responsible for the Mahakali treaty impasse.



Source: Bagale (2019)

Reasons For Delay in Implementation of Mahakali Treaty

First, there appears to be a stark difference in the two countries' priorities. (Rai et al., 2017).⁹⁰ While Nepal prioritises initiating the Karnali river project over all other projects, as situated in the northwest region of Nepal, it appears to be an ideal prospect for supporting Nepal's domestic

⁸⁹ Moti Bahadur Kunwar, "Rationale of Pancheshwar Multipurpose Project for Reduction of Energy Crisis and Mitigating the Impacts of Mahakali Flood and Subsequent Economic Development of Nepal and India." *Hydro Nepal: Journal of Water, Energy and Environment* 14, (2014): 19, <https://doi.org/10.3126/hn.v14i0.11247>

⁹⁰ Subhash Rai et al. "Hydropolitics and hydropolitical", 27

electricity needs and selling it to India. On the other hand, India has been keener on starting with the Pancheshwar Multipurpose Project for decades, as it is a more extensive project with multiple benefits to India, like irrigation, flood control in Indian regions and power generation. Second, although a consensus agreement, some controversial provisions in the Mahakali treaty, have made the Nepalese side see the treaty as unfair and problematic.

One is about the differences between the two parties on the agreed sill levels. The Nepal canal's sill level was established at 245 metres, which was 3.5 metres higher than the level for the equivalent regulators in India. Second, some scholars doubt India's intent to implement the treaty altogether as one of the primary reasons behind the delay in implementation. They say that India never intended to execute the Mahakali treaty, and it was just signed to legalise the unilateral construction of the Sarada barrage (Upreti, 2006).⁹¹ In addition, delays from the Indian side in supplying water to Nepal as per the treaty's provisions (Bagale, 2020)⁹² reinforced their suspicion. Finally, the joint bilateral water institutions established between the two countries responsible for implementing the treaty's requirements have been inefficient. They have not met regularly, even when an important matter arises (Bagale, 2020).⁹³ A host of different committees related to transboundary water resources exists between the two neighbours (Dhungel, 2009), but most have been sluggish. This can be attributed to the fact that water has been heavily politicised in Nepal. Any resolution of the problematic provisions of the treaty would require joint political actions (Bagale, 2020).⁹⁴

Outputs, Outcomes and Impacts

After exploring the two cases—Kosi and Gandak treaties briefly—and the Mahakali treaty as the primary case and action situation, this section shall analyse the outcomes, outputs and impact that emerged out of these action situations. Some of the tentative are observations enumerated below.

1. Attempted to address past grievances

As discussed earlier in the chapter, the Mahakali treaty, the most recent of all the treaties signed, tried to acknowledge and address the past grievances between the two countries. The decisions

⁹¹ Upreti Trilochan, *International Watercourses Law and Its Application in South Asia* (Kathmandu: PairaviPrakashan, 2006), chapter 4, <https://www.yumpu.com/en/document/read/43484663/upreti-trilochan-international-watercourses-law-and-its-application>

⁹² Dharma Bagale, "Nepal–India water cooperation", 1102

⁹³ Dharma Bagale, "Nepal–India water cooperation", 1102

⁹⁴ Dharma Bagale, "Nepal–India water cooperation", 1099

that emerged from the past treaties enjoyed limited legitimacy and consensus among the people of Nepal, considering the need for more awareness and education levels on these bilateral issues in Nepal at the time these were signed. It was believed in Nepal that the past treaties were highly unfair to them as Nepal had to bear the negative externalities of the treaty while India got the fruits of positive externalities. In this regard, being a reasonably recent agreement (signed in 1996), at a time when the local civil society of Nepal was fairly active, and public opinion sufficiently mobilized; it tried to soothe their apprehensions by accommodating Nepalese concerns on the nature of the project and fair sharing of the benefits and externalities of the same.

2. Significant (Building) internal consensus

Another significant way the Mahakali treaty was different from the past action situations was that it tried to achieve sufficient internal consensus among Nepal's domestic politicians and policy experts. As discussed in the above sections, all treaty clauses were discussed thoroughly outside the parliament in the form of a purported “consensus agreement” before being ratified in the parliament formally. Moreover, the treaty also tried to address and accommodate Nepalese concerns on the past treaties by subsuming the controversial agreements on the Tanakpur Barrage and the Mahakali River and inviting consensus of the Nepalese government on the same.

3. Trust deficit deepened, and operational impasse.

Despite sufficient internal consensus in Nepal on the Mahakali treaty, several disagreements arose from Nepal. Problematic aspects regarding the agreed sill levels between both the parties, delay from India's side in releasing waters to Nepal as per the provisions, and differences over several other technical aspects led to a break in the cooperation. But most importantly, the trust crisis deepened because of Nepal's suspicion over India's intent to execute the treaty. It considered the treaty signing as India's attempt to legalise the unilateral construction of Sarada Barrage. These doubts on the very intentions of the parties involved in the cooperation, which has been a repeating pattern in all the past cooperation agreements, came to the fore again and led to an operational impasse on the project. Thus, the Mahakali treaty, which aimed at redressing the past wrongs and misunderstandings between both countries, further aggravated the trust crisis and resulted in negligible positive development on the transboundary water cooperation front between India and Nepal for the next two decades.

Underlying Reasons for Trust Deficit

Time and over, the study has stated that the trust deficit is the single most fundamental impediment to transboundary water cooperation between India and Nepal. Mutual suspicion over intentions on collaboration, the perception the two countries have of each other, cooperation agreements being termed as unjust or unfair or calling one party's attempts to cooperate as a transgression of another party's sovereignty amply state water relations of the two countries have been clouded with distrust and misunderstandings. The primary question here is what has led to this severe trust crisis over transboundary water issues between two countries with a rich history of incredible amiability and cultural proximity spanning centuries. After analysing the past and present action situations involving the three treaties, the study has realized that the seeds of this mistrust have been laid beneath the "structural aspects" of how the two countries negotiate and bargain over transboundary water issues. In this regard, given below is a list of potential reasons that have played a significant role in escalating the trust crisis, acknowledging which will pave a positive path towards sustainable transboundary water cooperation between them

1. Lack of legitimacy of decisions in Nepal

According to definitions by Grey et al. (2006), "Mutual Satisfaction" and Huntjens and De man (2014), "Trust building" are cornerstones to making cooperation sustainable and effective between countries. However, this trust and mutual satisfaction can be achieved only when all the stakeholders' views are given due consideration. According to a World Bank Report, this participatory approach is the basis of multistakeholder governance. In a multi-stakeholder governance model, fairness, model, trust building necessitates an approach that is inclusive, transparent, and effective.and, consequently, renders the decisions' legitimacy (World Bank).

In the case of India-Nepal water-related agreements, it is observed that the decisions are taken top-down, keeping in mind the national and security needs of the nations. The multiple perspectives of diverse stakeholders are marginalised from the ambit of negotiations. Moreover, Nepal's overall representation and negotiating power are limited (as will be discussed later). In such a scenario, the decisions taken during the inter-state water negotiations enjoy little trust and legitimacy, especially among the people of Nepal, considering they have not been a part of the deliberation process. Therefore, this becomes a massive impediment to sustaining water cooperation treaties between the two countries. The result is stalling of treaties and the deepening of trust deficit and misperceptions on both sides.

2. Limited Bargaining space for Nepal

The serious trust gap between India and Nepal often prompts India to accuse Nepal of its challenging positioning on moving forward with the treaties and, in the end, using its "trump card" of binding the negotiations perpetually or stalling them. However, an exciting point that Bharadwaj comes up with is that Nepal's unwillingness to cooperate often emerges from the limited space for maneuvering it gets during negotiations vis-a-vis India. He calls the talks between the two countries a "uni-directional bargaining" process, where India, by its hydro-hegemony (a concept discussed in the Introduction chapter) in the region, exercises disproportionate control over the agenda-setting process of treaties than Nepal. On the other hand, as the non-hegemon, Nepal depends upon India to execute the projects due to a need for more resources. Nepal's ability to negotiate during the process could be improved in such a situation. Hence, it is left with either of the two options. First is to consent to the unilateral demands of its Indian counterpart. The second is to use its only bargaining chip and employ stalling tactics like delaying land acquisitions, delaying entry permissions to Indian engineers, nit-picking on the project's technical details, etc. Therefore, the overarching framework of the India-Nepal water negotiations is built around a lack of bargaining space for Nepal, which leaves the impression of Nepal always "wanting for more."

3. Excessive influence of domestic politics in water negotiations

As discussed in the introduction chapter through the theory of Hydropolitics, water relations between two countries are usually affected by the countries' power asymmetries and larger political context. However, in the case of India and Nepal, this influence of domestic politics is all the more pronounced. Experts claim water is central to India and Nepal's political and diplomatic relationship (Ranjan, 2016).⁹⁵ The nature of the political connection between them has had varied contours over the last 150 years and has subsequently transformed the nature of their water interactions. For instance, when the left-leaning political parties like the Communist Party of Nepal-Unified Marxist-Leninist came to power, water interactions and developments changed compared to the more Centre-inclining Nepali Congress coming into power.

Therefore, when an inter-state water cooperation process consisting of only political actors takes place, the state of Nepal's polity and domestic instability reflect in those water negotiations. Due to this, the sustained political commitment needed to implement the

⁹⁵ Amit Ranjan, "Contours of India-Nepal Relationship and Trans-boundary River Water Disputes," *Journal of International Affairs* 1, No.1 (2016): 6
<https://www.nepjol.info/index.php/joia/article/download/22637/19251/70805>

cooperation process becomes a considerable challenge and an impediment. In such a case, Barua (2019)⁹⁶ argues for a need to involve non-state actors, scientific communities, technical experts, and citizen representatives (especially women) in the negotiation process as an extension of state diplomacy, which will help sustain cooperation even when the political relations between the two countries are not at their best (as in the case of Indus water treaty between India and Pakistan). Not just this, including civil society and non-state actors will also help mobilise political and public support in favour of the decisions taken and render the much-desired legitimacy to the course of negotiations.

Conclusion

Therefore, to break the Indo-Nepal impasse on the Mahakali treaty, it becomes imperative to build a multi-track, multi-stakeholder water diplomacy platform that serves as a standard table for all the parties involved to have dialogue and negotiations and invites effective cooperation over water issues. In that sense, as discussed in the earlier chapters, the concept of effective cooperation differs from cooperation in terms of what it considers the end goal of cooperation. From all the definitions above, the idea of reaching a mutually acceptable and sustainable solution to the issue by building trust among all stakeholders lies at the core of the concept of effective cooperation.

As discussed in the introduction chapter, a multi-track, multi-level water diplomacy, and governance setup can provide the best place for nurturing trust among the stakeholders and reaching a mutually acceptable solution that is inclusive of all parties' demands. A multi-level water governance setup gives the space for public actors to interact with each other across different levels like vertical, horizontal and cross sectoral. (Huntjens, 2014).⁹⁷

When it comes to transboundary water interaction between India and Nepal, we can safely conclude that the lack of trust from the Nepalese side towards India's intention as the regional water hegemon, accompanied by the lack of communication among all the stakeholders involved (politicians, water experts, journalists, etc.), inefficient and sluggish working of the joint bilateral water governance institutions are some of the major factors responsible for the Indo-Nepal impasse on Mahakali treaty. Of course, not to forget the role of China in aggravating the mistrust between the two countries and raising apprehensions for India by emerging as a lucrative alternative for Nepal in developing its untapped water reserves.

⁹⁶ Barua et al., "Re-Interpreting Cooperation," 7

⁹⁷ Patrick Huntjens et al, *The Multi-track Water Diplomacy Framework*, 18

In this regard, a multi-track, multi-level water governance forum can act as an appropriate platform to repair the looming trust deficit and negotiate over all the controversial aspects of the Mahakali treaty and the related projects. Such platforms will allow the stakeholders to look through all the aspects of water issues like social, political, security, environmental, economic, cultural, etc. When stakeholders from various spectrums sit at a common table, it will not just render more legitimacy to the decisions taken, it will also provide Nepal with enough bargaining power and negotiating space through tools like issue linking. Nepal can offer concessions in other sectors to India to get similar concessions in water negotiations. Not just this, including non-state actors and civil society will also ensure that cooperation is sustained through periods of political upheaval and uncertainties. Such a platform, if it involves communities from grassroots and media organisations, will not only help in transforming traditional attitudes towards transboundary water issues, but it will also help in shifting the overall narrative of water conflicts as something irreconcilable to that of slow but successful efforts towards water diplomacy and cooperation.

CHAPTER 3

INDIA-NEPAL WATER COOPERATION: INSTITUTIONS AND ACTORS

The second chapter overviewed the bilateral relations vis-à-vis water sharing between India and Nepal. It analyses the factors responsible for issues and concerns about transboundary water cooperation projects, primarily the Mahakali treaty, which has been at an impasse for over two decades. Besides, it also explores the viability of multi-track, multi-stakeholder water diplomacy platforms as an alternative framework to approach the transboundary water interactions between the two countries. We discussed how such an alternative framework should help bridge the trust deficit between the two countries by rendering ample bargaining and negotiation space to Nepal because of the presence of multiple stakeholders. With much bargaining space, Nepal might stop resorting to its “trump card” of stalling projects and pave the way for sustainable and effective transboundary water cooperation.

Moreover, this alternative framework renders the stakeholders an opportunity to look at the issue of transboundary water resources and rivers from diverse perspectives highlighting social, political, security, environmental, economic, and cultural dimensions. Such a platform, with its involvement with communities from the grassroots, media organisations, and academic and research organisations, will help transform the traditional water attitudes among the people on both sides of the India-Nepal river basin. This change in the local perception of transboundary river issues will further facilitate the shift in the narrative of water conflicts as irreconcilable to slow but successful efforts toward water diplomacy and cooperation.

This chapter will identify and locate formal and informal water governance and diplomacy institutions. It shall also analyse and assess the role of institutions in shaping attitudes and perceptions in determining dominant narratives and discourses on transboundary water politics vis-à-vis the Mahakali River basin. The chapter probes how the contributions of these institutions and stakeholders make transboundary water governance more stable, sustainable, and inclusive in the Mahakali basin vis-à-vis India-Nepal relations.

Water Governance Institutions in the Mahakali Basin

The role of institutions, formal and informal, needs to be emphasised more when it comes to transboundary water governance. Institutions for water governance are crucial in fostering a welcoming and collaborative atmosphere for all parties in a shared river basin. As Ostrom opines that institutions do not actually “produce behaviour”; instead, they structure the situation in which policy actors make decisions by constraining them in different ways.⁹⁸ They frequently serve as the vantage point for assessing the possibility of collaboration and governance in any area, particularly in the governance of transboundary water. Moreover, institutions contribute to developing relational cooperation channels through "trans governmental networks" and simply codifying the legal guidelines and code of conduct for talks and dialogue on governance. As a result of these trans-governmental networks, different, functionally independent sections of the state, including judiciary, government regulators, administrators, and even lawmakers, have access to collaborative and operational forums. (Slaughter, 1997).⁹⁹ More crucially, because they allow for collaboration with non-state players outside of formal, legal institutions, such networks are more adaptable in global governance (which is crucial for dealing with transboundary waters).

The academic community has long recognized the significance of institutions in governance. However, before analyzing the role and potential of such institutions in the sustainable cooperation and governance of the Mahakali basin, briefly discuss the definition of institutions used in this study. Though different scholars have defined the word “institutions,” for this paper, the purpose of institutions that will be used is the one prescribed by Calhoun and the Multitrack water diplomacy framework, which is this study's reference point. According to him,¹⁰⁰ as already pointed in first chapter, institutions are deep seated patterns of societal conventions or behaviours that are important to the structure of society. Institutions can cover a wide range of social constructs, from the nuclear family to the fundamentals of political existence. Sometimes they develop a structured or institutionalised bureaucratic pattern, where they more closely resemble institutions in the sense that the term is used today.

⁹⁸ Elinor Ostrom, “Institutional Rational Choice: An Assessment of the Institutional Analysis and Development Framework,” in *Theories of the Policy Process*, ed. Paul Sabatier (Colorado: Westview Press, 21-65), https://edisciplinas.usp.br/pluginfile.php/5894505/mod_resource/content/1/Sabatier_Weibel.pdf

⁹⁹ Annie Slaughter, “The Real New World Order”, *Foreign Affairs* 76, no. 5 (1997): 185, <https://doi.org/10.2307/20048208>

¹⁰⁰ Craig Calhoun, *Dictionary of the Social Sciences* (Oxford: Oxford University Press, 2002), 233

The above definition agrees with Knight's definition, which is widely accepted among scholars of international relations. He states that institutions are norms (or sets of norms) that structure societal engagement by moulding and restricting the behaviour of actors. Institutions may be “formal, informal, or customary.”¹⁰¹

Huntjens¹⁰² elaborates further on the types of institutions and distinguishes between formal and informal institutions. While traditional institutions include constitutional rules, codified laws, organisational practices, and policies, informal or customary institutions comprise norms and culture. They are integrated into groups or organisations without a streamlined process. Through codified laws in the form of legislations, conventions, and joint institutions, formal institutions put forth a general obligation for the parties to cooperate over resources. By setting normative guidelines and binding agreements, formal institutions form a conceptual framework for states to operate among various domains of war, diplomacy and cooperation.

Similarly, establishing formal global governance structures like River Basin Organizations (RBOs) is another vital sign of collaboration. On the other hand, customary institutions like community-based water resource cooperatives, based on specific rules, norms, and cultural settings and derived from specific historical, cultural, and psychological contexts of the parties involved, also play a significant role in impacting the effectiveness of cooperation. (Huntjens, 2014).¹⁰³

Formal Institutional Mechanisms and Actors

A range of formal and informal institutions are operational in the Mahakali basin for collaborative transboundary water cooperation. This includes legal bilateral and local institutions across the basin. Similarly, informal institutional mechanisms from women cooperatives and local expert forums to Non-Governmental Organisations and Civil Society Organisations from both countries are working towards collaborative water governance in the basin. An analysis of the transboundary water interactions reveals that institutional state-led mechanisms, like bilateral treaties, agreements, joint offices, etc., have been the mainstay of water cooperation. However, at the same time, various informal and customary organisational

¹⁰¹ Jack Knight, *Institutions and Social Conflict*. (New York: Cambridge University Press, 2009), 48-55

¹⁰² Patrick Huntjens et al, *The Multi-track Water Diplomacy Framework: A Legal and Political Economy Analysis for Advancing Cooperation over Shared Water*, (Hague Institute of Global Justice, 2016), 28

¹⁰³ Patrick Huntjens et al, *The Multi-track Water Diplomacy Framework*, 31

mechanisms and formal institutions across local levels have received undue marginal focus despite their active contribution for many decades. Therefore, a holistic understanding of the dynamics of water relations requires a complete study of such informal and formal institutions (local level).

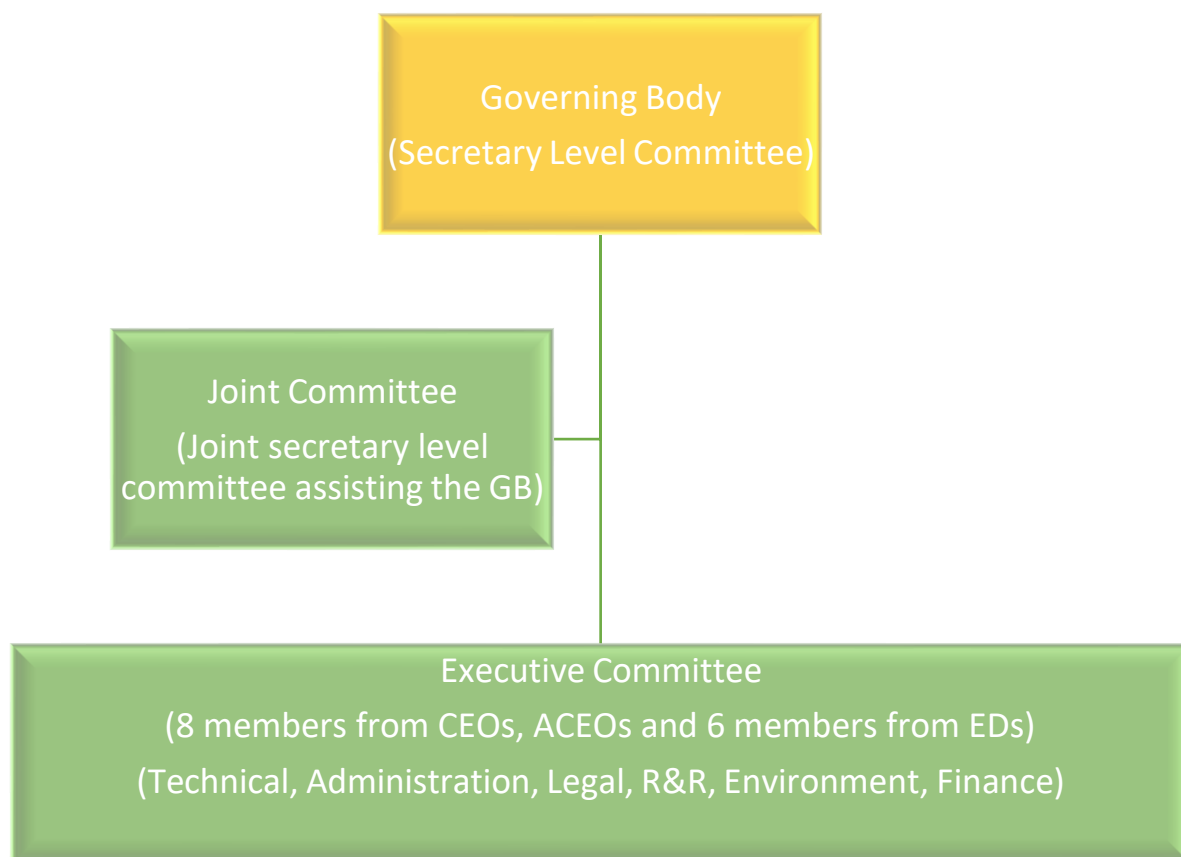
Formal State Mechanisms

India's Ministry of *Jal Shakti*, under the Department of Water Resources, River Development and Ganga Rejuvenation, and the Ministry of Water Resources and Energy and Irrigation in Nepal are the two nodal institutions at the national level. They are responsible for implementing the Mahakali treaty and the Pancheshwar Dam Project, the Sarada Barrage, and the Tanakpur Barrage, all of which are part of the Mahakali River's integrated development. The Pancheshwar Multipurpose project is the primary node for implementing the treaty. The government of India and Nepal agreed to establish the Pancheshwar Development Authority (PDA) as an independent, autonomous body for the project's planning and implementation.¹⁰⁴

The PDA consists of a Governing body (GB) and an Executive Committee (EC) as its administrative organs, which are supposed to meet regularly to execute and implement tasks assigned to the body. The governing body delegates its functions of implementation to the Executive body. The Executive Committee will be made up of the Authority's chosen Chief Executive Officer (CEO), Additional Chief Executive Officer (ACEO), Executive Director (Legal), Executive Director (Technical), Executive Director (Administration), Executive Director (Environment), Executive Director (Resettlement and Rehabilitation), and Executive Director (Finance) which is equally representative of members from both parties. To discuss and expedite administrative and financial matters, the governing body works in coordination with the joint committee that includes members from India and Nepal. Apart from these two nodal ministries directly involved with the management and governance in the basin, several autonomous institutes under different Ministries assist the formal institutions with research, data, and insights.

¹⁰⁴ "PANCHESHWAR MULTIPURPOSE PROJECT," Jalshakti, November 24, <http://jalshakti-dowr.gov.in/schemes-projects-programmes/projects/pancheshwar-multipurpose-project>.

PANCHESHWAR DEVELOPMENT AUTHORITY STRUCTURE



Research Institutes and Think Tanks

One such institute is the National Institute of Hydrology, Roorkee, which acts as the nodal agency for providing the Ministry of Water Resources, India, with all the hydrological data to support sustainable river basin planning. It is also responsible for conducting workshops, training capacity building, and developing tools to help sustainable water management practices in the basin. Another important institute is the GB Pant Institute of Himalayan Studies (GBPNIHESD), which works as an autonomous institute under India's Ministry of Environment and Forests (MoEF). It is responsible for conducting inter and multi-disciplinary research in the basin involving community engagement and safeguarding the Indian Himalayan region's long-term environmental and economic security. (BRIDGE GBM workshop, IUCN; 2020). The institute has been running several community-centric initiatives and programs like the Citizen Science Program (CSP), Kailash Sacred Landscape Conservation and Development Initiative (KSLCDI), etc., and has facilitated the formation of several Biodiversity Management

Committees, all to inculcate sustainable water governance practices in the region, protecting community rights and ensuring equitable access to the biological resources in the basin.

Similarly, on the Nepalese front, apart from the Ministry of Water Resources and Energy and Irrigation, research institutes like the Nepal Academy of Science and Technology (NAST) and the Central Pollution Control Board (CPCB) are working on developing sustainable river management strategies, reducing pollution load in the basin and promoting strategies for riverfront development through public participation and awareness programs. One commendable example is Trista Prasai Joshi's Lab, which works under NAST to battle river water pollution, remove toxic wastes, and test river water samples for sustainable development of local river water resources.

Institutional Policies

India's official vision towards its flagship schemes, such as the Ganga mission, is also one of the fundamental forces affecting water cooperation with Nepal. The Clean Ganga mission employs a basin-wide approach to solve problems such as pollution, water security, and sustainable agriculture in India. Such an emphasis on basin development, along with the necessities of environmental flows, is pushing India to adopt a cooperative water-sharing framework with its neighbouring country - Nepal. Apart from the Ganga mission, grand schemes such as the domestic water diversion project (National River Linking Project) intend to transport water from the Ganges and Brahmaputra basins to India's dry regions in the west and south. Nepal's cooperation is a critical component in developing a sound water-sharing framework.

Schemes such as the Clean Ganga mission can streamline small to medium-term cooperation with Nepal. India's national policies on the water can facilitate a more comprehensive engagement approach between the two South Asian countries. The national water policy of both India and Nepal provides adequate areas of convergence in the water-sharing framework. Indian national water policy perceives the river basin as the hydrological entity for the utilisation of water resources and highlights the need for river basin organisation. Along similar lines, the water policies of Nepal, such as the Water Resource Strategy of 2002¹⁰⁵ and the National Water Plans (NWP) (WECS 2006) of 2005,¹⁰⁶ envision river basins as primary planning units. While

¹⁰⁵ Water and Energy Commission Secretariat, *Executive Summary Water Resources Strategy*, December 16, 2021, 6, <http://www.pmp.gov.np/pdf-files/water-resources-strategy.pdf>.

¹⁰⁶ Water and Energy Commission Secretariat, *National Water Plan*, December 17, 2021, 7, <https://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/laws/1495.pdf>

policy directives of both countries provide common grounds for practical cooperation, sections of the policy guidelines hinder water cooperation between the two countries. According to India's 2012 National Water Policy, some hydrological data may be made public.¹⁰⁷ All such water-related information about international borders is currently classified on national security grounds. Even the Mahakali Treaty focuses mainly on the river itself, although the treaty talks about holistically managing the Mahakali Basin. Additionally, the treaty lacks attention in terms of study and data exchange. Such blanket application of security concerns viz water information sharing ensures the deepening of mistrust between the two countries.

Political-Economic Imperatives

The growing demands for a more robust economy can also add significant pressure on existing limited water sources in India, complicating water-sharing dynamics between riparian states. Economic needs such as irrigation potential development for India are also essential influencers in designing water-sharing agreement (Dinar 2007).¹⁰⁸ India's water demand extends beyond irrigation and drinking water needs towards stable hydropower generation to fuel its economic growth. In such a situation of persistent water demands by India and Nepal alike for propelling their respective economic growth, it is imperative to arrive at a mutually agreed vision, such as equitable sharing of water benefits. For instance, in the case of hydropower generation, there could be scope for a mutually agreed idea if India could provide adequate credit to finance hydropower infrastructure in return for fair pricing and stable power supply transmission. While economic gains from harnessing water resources can be a uniting factor for both countries in developing a water-sharing framework, it could also act as a divisive factor if the means and ends of 'economic development' are not based on shared values and vision. Ramaswamy Iyer similarly states that unless the word 'development' is redefined, there would be temporary peace through treaties and accords but not a permanent end to the conflicts.¹⁰⁹

Domestic politics plays a prominent role in the hydro-politics between the basin riparian in the Ganges-Brahmaputra Basin. It has been sufficiently established that one of the significant reasons for Nepal's failure to negotiate water issues with India effectively is multiple domestic

¹⁰⁷ Ministry of Water Resources, *National Water Policy*, December 17, 2012, http://jalshakti-dowr.gov.in/sites/default/files/NWP2012Eng6495132651_1.pdf

¹⁰⁸ Ariel Dinar et al., 2007, *Bridges Over Water: Understanding Transboundary Water Conflict, Negotiation and Cooperation*, World Scientific Series on Energy and Resource Economics - vol. 3, World Scientific Publishing Co, Singapore, p. 254

¹⁰⁹ Ramaswamy Iyer, "Trans-boundary Water Conflicts:A Review," in *Water Conflicts in India: A Million Revolts in the*, 2008, ed. KJ Joy, Suhas Paranjape, Biksham Gujja, Vinod Goud and Shruti Vispute (Routledge: New Delhi, 2008), 375

distractions, such as political upheaval, insurgency, etc., in the country (Dinar 2002).¹¹⁰ On the contrary, Bhutan has reached positive negotiation outcomes with India due to relatively lesser internal, non-water-related political considerations (Hanasz, 2015).¹¹¹ Similarly, even India is not immune from political crises. The relationship between the centre and states is seen as a zero-sum game. Therefore, this attitude complicates any water-sharing framework that involves states of the same basin (Keohane & Nye, 2001).¹¹²

Against the backdrop of weak domestic political institutions, Nepal further finds it increasingly complex to sign an equal water treaty due to India's status as the hydro hegemon¹¹³ of the region (Hanasz, 2014).¹¹⁴ India's hydrohegemon position stems from its ability to influence basin-sharing countries through economic, military, and political might. The hydro hegemony status of India has often been a point of tension for Nepal (Ray, 2008),¹¹⁵ further impacting water-sharing outcomes. As a weaker riparian state, Nepal's major goal would be to strengthen its negotiating power against India to receive a decent number of benefits during water interactions (Chandra 2020, 89).¹¹⁶

As Zeitoun and Warner (2006)¹¹⁷ say, notwithstanding the power asymmetries, hydro-hegemony is not essentially a "destabilising factor." In this context, A hydro-hegemon is a prominent regional entity that encourages collaboration among riparians could be a hydro-hegemon in this context. India and Bhutan's water-sharing approach is a testimony to the positive impact of the presence of a hydro-hegemon. Bhutan's approach towards the hydro-hegemon can be seen as an instance of 'bandwagoning,' i.e., agreement with the local hegemon

¹¹⁰ Shilomi Dinar, "Water, Security, Conflict, and Cooperation," *SAIS Review* 22, no. 2 (2002): 245, <https://www.jstor.org/stable/26996421>

¹¹¹ Paula Hanasz, "Muddy Waters: International Actors and Transboundary Water Cooperation in the Ganges-Brahmaputra Problemshed," *Water Alternatives* 10, no. 2 (2017): 463, <https://www.water-alternatives.org/index.php/alldoc/articles/vol10/v10issue2/365-a10-2-15/file>

¹¹² Robert O. Keohane and Joseph S. Nye, *Power and Interdependence* (New York: Longman, 2001), 20.

¹¹³ Harris Leila Jacqueline Goldin and Christopher Sneddon, *Contemporary Water Governance in the Global South: Scarcity Marketization and Participation* (Abingdon Oxon: Routledge, 2013), 251

¹¹⁴ Paula Hanasz, 2014. "Power Flows: Hydro-hegemony and Water Conflicts in South Asia," *Security Challenges* 10, no. 3 (2014): 100, <http://www.jstor.org/stable/26465447>

¹¹⁵ Binyak Ray, "Global Conventions and Regulations on International Rivers: Implications for South Asia", in *Water First: Issues and Challenges for Nations and Communities in South Asia*, eds. Lahiri-Dutt Kuntala, and Robert J. Wasson, (New Delhi: Sage, 2008), 84.

¹¹⁶ Sharad Chandra Rai and Dinesh Prasad Joshi Ratala, "What Has Nepal Learned from Unequal Water Treaties with India?," *Journal of Human Security Studies* 9, no. 3 (2020):89, https://www.jstage.jst.go.jp/article/jahss/9/3/9_75/_pdf/-char/ja.

¹¹⁷ Mark Zeitoun, and Jeroen Warner, "'Hydro-hegemony – a framework for analysis of transboundary water conflicts,'" *Journal of Water Policy* 8, no. 5 (2006): 440

to gain advantages in the economy and the military (Dash, 2008).¹¹⁸ However, India has not successfully guided neighboring states, especially Nepal and Bangladesh in matters of economic and political affairs without appearing domineering (Bhasin 2008).¹¹⁹ Such a portrayal of India as a domineering "big brother" fuels political unrest, mistrust, and animosity in Nepal, thereby impeding genuine cooperation by Nepal on water-sharing agreements.

Absence of Robust International Institutional Mechanisms

Cooperation between India and Nepal is further affected by the absence of firm adherence to international water governance principles and conventions. India and Nepal, for instance, still need to ratify the United Nations Convention on International Waters (UNCIW). However, in the case of water interactions between Bangladesh and India, the principle of "do no harm" and 'reasonable use' is evoked even though both countries are not signatories to UNCIW. Therefore, the de jure application of principles of international standards can be employed in India's and Nepal's water cooperation framework even though the said Convention does not legally bind both countries. Sharing equitable water benefits and not 'water' has successful precedents, such as the Nile Basin Initiative. Therefore, it can be employed as a policy solution without mutually agreed international water-sharing principles (Salehin et al. 2011).¹²⁰ India has a unique geographic situation because it is both an upstream country in relation to Bangladesh and a downstream country in relation to China and Nepal. Therefore, any unilateral adoption of practices without due consideration to internationally recognised fair principles, like prior-use rights vis Bangladesh may attract a stance from upper riparian countries like China that would negate positive advancements in the water-sharing framework in the Ganga-Brahmaputra basin with Nepal.

The lack of robust institutional mechanisms further complicates this lack of agreed international principles. Projects like Upper Karnali, Pancheshwar Multipurpose Project, and Arun III have been negatively impacted due to the poor execution of Indian bureaucracy or policy-makers. (Hill, 2015)¹²¹ also uses India's bureaucracy as an illustration of a domestic issue unrelated to

¹¹⁸ Kishore Dash, *Regionalism in South Asia: Negotiating Cooperation, Institutional Structures* (New York: Routledge, 2008), 117

¹¹⁹ Madhavi Bhasin, "India's Role in South Asia: Perceived Hegemony or Reluctant Leadership?" *Indian Foreign Affairs Journal* 3, no. 4 (October-December 2008), 20, <https://www.jstor.org/stable/45340757>

¹²⁰ Mashfiqus Salehin, Shah Alam Khan M, Anjal Prakash, and Chanda Goodrich, "Opportunities for Trans-boundary Water Sharing in The Ganges, The Brahmaputra, and The Meghna Basins." In *India Infrastructure Report 2011: Water: Policy and Performance for Sustainable Development*, (Delhi: OUP, 2011), 39

¹²¹ Douglas Hill, "Where hawks dwell on water and bankers build power poles: transboundary water, environmental security and the frontiers of neo-liberalism." *Strategic Analysis* 39, no.6(2015): 737, <http://dx.doi.org/10.1080/09700161.2015.1090679>

water but can hinder beneficial transboundary water relations. Indian bureaucratic culture, as remarked by Hill, is classified as authoritarian, forceful, favours centralised management, and lacks grassroots backing or input. As a remark on the current administrative culture, Asthana and Shukla agree that South Asia's water resource development and planning are unsustainable. Demand management procedures need to change, and more incentives for conserving water should exist.¹²²

Whenever the talks around India-Nepal water relations have come to the fore, particularly in the context of the governance in the Mahakali basin, the above-stated bilateral, state-centric institutional mechanisms have dominated the discourse. What has primarily been on the margins are initiatives about community involvement and micro-level water governance practices for the basin's sustainable management (BRIDGE Workshop, IUCN; 2018).¹²³ These citizen-centric, informal institutions have traditionally played a significant role in shaping the transboundary river discourse in the region and forming attitudes and opinions on water-sharing practices. For example, in the Himalayan region around the India-Nepal border, the local “van-panchayats” have historically maintained and safeguarded the region's forests and water supplies. These *van-panchayats* (Community Forests councils) in the Himalayan areas are local democratic bodies with elected members as their Pradhan, members from both sides of the India-Nepal border, and use traditional knowledge and local cultural practices to develop sustainable solutions for the conservation of resources. A case in point is how these local community forests councils managed to transform *yarshgumba*, a formerly not-so-useful product, into a highly valued resource in the Himalayas.¹²⁴ However, these traditional water management structures have been observed to have weakened over the last few years as the space for their involvement in the water governance mechanisms has shrunk. Central government schemes like Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and National Himalayan Mission can act as appropriate entry points for increased community involvement in water governance in the region. Linking other aspects of

¹²² Vandana Asthana, and A.C. Shukla, *Water security in India; Hope, Despair, and the Challenges of Human Development* (New York, USA: Bloomsbury Academic, 2014), 271

¹²³ "Strengthening the institutional framework for cooperative governance in the Mahakali/Sharda Basin in India and Nepal," IUCN, January 2021, https://www.iucn.org/sites/default/files/2022-07/mahakali_workshop_report_jun2018_0.pdf.

¹²⁴ Corinna Wallrapp, Markus Keck and Heiko Faust, “Governing the yarshagumba ‘gold rush’: a comparative study of governance systems in the Kailash Landscape in India and Nepal”, *International Journal of the Commons*, 13, no. 1 (2019): 461, <http://doi.org/10.18352/ijc.884>

water governance, like sustainable agriculture and irrigation, with the scheme can be a positive step toward collaboration among local communities.

Informal Institutional Mechanisms and Actors

There are several informal institutions and actors active across the region that can lead to the building of sustainable water governance in the basin. In the section given below, while informal actors like civil society actors, the role of media personnel, and academic institutions are discussed, the study has also probed into several customary institutions in place which play an influential role in determining the effectiveness of cooperation. These customary institutions and practices may include traditional water attitudes, cultural and local practices, and several historical and psychological factors. For example, historically, transboundary water issues in South Asia and between India and Nepal have suffered from excessive politicisation (historical aspect) and overarching political distrust (psychological aspect), which have been significant factors behind the inefficient water cooperation between these countries. Hence, these traditional institutions can not only determine the effectiveness of the cooperation, but they can also act as valuable entry points to break the impasse over water governance, especially in the Mahakali basin.

Traditional Water Attitudes: Distrust and Misperception

The political distrust between the two countries is primarily placed in the Nepalese belief that most of the water-sharing treaties were signed at a time when the literacy levels in Nepal were deficient, and Nepal had to give in to the demands of its Indian neighbour, the one that it frames as the regional hegemon. The common perception among Nepalese citizens is that the terms and provisions of the treaty have prevented the country from extracting benefits from ‘its own’ rivers.

Moreover, the same terms and provisions of the treaty are considered “unfair” in terms of the benefits they accrue to both countries. It is believed in Nepal that India enjoys the positive externalities of the treaty provisions, such as benefits in irrigation and flood control. At the same time, Nepal bears the brunt of negative externalities such as inundation, inability to control floods, etc. There is also a lack of confidence from the Nepalese side, which believes that India has largely failed to meet the commitments regarding the infrastructure development it made, particularly in the case of the Mahakali agreement. This essentially negative narrative towards India has built layers of resentment among the Nepalese citizens and has consequently resulted

in pessimistic water attitudes in Nepal. As a result, Nepal appears to support renegotiating the terms and provisions of the existing treaties with India.

On the other side, India has doubted Nepal's intentions over cooperation on transboundary rivers. The Indian side believes that Nepal prevents India from implementing large projects, which would compromise the nation's development needs. The lack of confidence between the countries and the negative perception of the other side's intentions for cooperation has been a significant impediment to any collaborative water governance project in the basin.

The lack of trust between neighbors is seen between India, Nepal, and the region. The poor regional identity and camaraderie in South Asia entail the region needing a security community. The definition of a security community pertains to a group of states that have attained such a degree of cooperation that they do not consider antagonising each other and stop preparing to settle disputes violently. (Jones, 2008).¹²⁵ Therefore, given the unequal power relations and identities, India must be cautious even in its minor actions towards Nepal and ensure a renewed emphasis on confidence-building measures across people, governments, and civil society.

Role of Media in Water Narratives

The existing transboundary water interactions between the two countries have focused mainly on water availability and sharing provisions. Elements of human development and the environment have been ignored in the negotiations (Price, 2014).¹²⁶ This can largely be owed to the narrative that frames transboundary rivers as "National resources" that need to be harnessed or equally 'distributed' between the parties to the conflict rather than the value they hold for the people in the basin. The imperatives of "national interest" and security have crushed a comprehensive, critical analysis of the issue, thereby depriving the negotiations of diverse, plural voices of sociological, developmental, and ecological perspectives.

The traditional media, including print, radio, and television, has a significant role in creating these dominant narratives around transboundary water issues. They are substantial controllers of narrative production and consumption (Fulton et al., 2005).¹²⁷ Since the media reports on water issues in the region have mostly been overtly nationalistic and narrowed down their focus

¹²⁵ Peter Jones, "South Asia: Is a Regional Security Community Possible?" *South Asian Survey* 15, no. 2(2008): 184, <http://dcac.du.ac.in/documents/E-Resource/2020/Metrial/424CihnnitaBaruah2.pdf>

¹²⁶ Gareth Price et al, "Attitudes to Water in South Asia", Chatham House, February 14, 2022, https://www.chathamhouse.org/sites/default/files/field/field_document/20140627WaterSouthAsia.pdf

¹²⁷ Helen Elizabeth Fulton et al., *Narrative and Media*, (New York: Cambridge University Press. 2005), 1

to nearsighted issues like political conflicts and intergovernmental disputes (Nicole & Nair, 2021),¹²⁸ these perspectives on water issues became the dominant discourse and consequently shaped the water attitudes and perceptions in the region. The imperatives of “national interest” and security have crushed a comprehensive, critical analysis of the issue, depriving the media reports of diverse, plural voices from the grassroots. Narratives woven around water issues have been highly politicised by the media. They have been bereft of plural representatives from multiple stakeholders closely associated with and impacted by these issues, like trans-basin riparian communities of farmers, indigenous people, water users, etc., and the experiential challenges they face daily. Himanshu Shekhar, a senior journalist, interviewed for the study on media narratives on water issues, cites a critical challenge. He says there has been a dearth of ground reportage in matters of international water disputes, for example, in the case of the Indus water dispute between India and Pakistan. He points out how the Pulwama attack in 2019 brought the Indus water treaty to the fore after controversial statements from political leaders of India, like “blood and water cannot flow at the same time.” These controversial comments around water conflicts exacerbate the politicised and nationalized discourse around water, thereby marginalizing other socio-economic and human development perspectives. Even the views that the media has tried to cover apart from the nationalistic discourse, like the legal and technical aspects, failed to highlight the complexity of those aspects.

Overall, the coverage of water issues by the media has been from a “hard news” lens.¹²⁹ This means the problems around transboundary waters have been primarily covered around the imperatives of national security and inter-state politics, thereby shaping the primary perception of the issue along similar lines. The lenses of ‘Soft’ news, covering stories from the ground, connecting with the individual experiences of people subsisting on these transboundary rivers, its socio-cultural importance to them, especially to the women, have been on the margins in the media discourse.

The inability of the media personnel and the journalists to comprehensively cover the issue can be attributed to various factors. First, concerns about national security and persistent political conflicts between countries prevent them from reporting water issues from the other side of the border, especially in the case of Pakistan, and this has other countries. Second, covering stories from other countries, they face several challenges accessing official documents on sensitive

¹²⁸ Alan Nicol and Nitasha Nair, “Beyond politics, knowledge bridge in Indus Basin,” In *Water Conflicts and Cooperation: A Media Handbook*, edited by Rasha Dewedar, (London: CAB International, 2021), 5

¹²⁹ Helen Elizabeth Fulton et al., *Narrative and Media*, 3

water issues, most classified. Thus, the media folks have to limit themselves to reports from think tanks and international organisations. More collaboration is also needed among scientists, water experts, and journalists, resulting in superficial or narrow media reporting around water issues. As a result, the facts and figures used in most of these media reports are cut and pasted from the internet, and the same data is being used repeatedly over the years without updating much. Due to a lack of ground-based data and narratives, journalists give preference to the opinions of Politicians, bureaucrats, and, to some extent, technocratic experts in the field as authoritative voices (Fantini, 2021).¹³⁰

Multi-stakeholders' forums active at local levels

One platform that renders a collaborative opportunity for dialogue with stakeholders from different perspectives is the Indo-Nepal Joint Action Forum (INJAF). INJAF is a public forum established to identify and address issues experienced by communities close to the Mahakali River. Along with the areas mentioned above, it also teaches residents how to use the Mahakali River's water sustainably, conserve it, and raise public awareness of the potential losses the river may cause under the circumstances like flooding, etc. Twenty advisors and 45 NGOs from Nepal and India comprise the forum's membership. The INJAF organizes regular “samvaads” involving several community engagements between India and Nepal. One such samvaad was organized by Mr. Tej Singh Bhandari (coordinator for India) and Mr. Komal Niranjana Bhat (coordinator for Nepal) about areas around water primarily related to inefficient allocation of water resources for irrigation purposes. These samvaads comprise more than 250 stakeholders from diverse communities, inclusive of nine members from state legislative bodies, CSOs, PRIs, district administrators, local communities, and media representatives from both India and Nepal (BRIDGE Workshop, IUCN, 2018)¹³¹ who regularly keep participating in the deliberation and negotiation process bringing to fore the multiple dimensions to the issue of water dealing with concerns like water security, irrigation purposes, etc. In Nepal, the common perception among the citizens is that they have historically not received their allocated share of water that they were authorised, particularly under the latest Mahakali Treaty. Therefore, community-based dialogue initiatives provide a platform that facilitates the study and reporting of various water consumption concerns, community water monitoring, and encouragement of micro-level development and project execution with community participation (BRIDGE

¹³⁰ Emanuele Fantini, “The minister, the prophet and god's eye scientists' voices in Nile media reporting,” in *Water Conflicts and Cooperation: A Media Handbook*, edited by Rasha Dewedar (CABI International, 2021), 14

¹³¹ “Strengthening the institutional framework for cooperative governance in the Mahakali/Sharda Basin in India and Nepal,” IUCN, January 2021, https://www.iucn.org/sites/default/files/2022-07/mahakali_workshop_report_jun2018_0.pdf.

Workshop, IUCN; 2018).¹³² Along similar lines, another prominent forum in South Asia is the Indus Basin Knowledge Platform (IBKP), which tries to bring the voices of scientists, journalists, experts, and other stakeholders to a standard table to increase interaction and overall awareness of water issues in the Indus basin.

Role of Academic Community and Experts

Apart from the civil society spheres, there is also a need for the academic community to contribute more actively to building an inclusive platform for sustainable water governance. A systematic collaboration between the CSOs and the academicians can facilitate the utilisation of data and knowledge for attaining water security at the grassroots level. Academic and research institutions are essential to the field of water diplomacy since they generate and disseminate knowledge on how water diplomacy methods and procedures lead to water collaboration, strengthening the next wave of water diplomats' competence, finding avenues for peace building and collaboration over international waters, and building and enhancing appropriate technologies (Patrick et al., 2014).¹³³

The academic sector can contribute to developing a better understanding of water governance and diplomacy through three core roles: “research, teaching, and services to institutions in society” (Barua, 2019).¹³⁴ A usual issue that has hindered effective water governance practice in the Mahakali Basin is the need for more research data from academic institutions to reach the CSOs. As mentioned in the previous section, research institutes like GB Pant and NIH work on similar lines to bridge the science-policy gap.

Another initiative established in 2002 as a partnership between 19 universities from five continents to dispel myths about water wars and advance knowledge about cooperation and conflict in water interactions (Barua, 2019)¹³⁵ is the Universities’ Partnership for Transboundary waters. By bringing together and fostering collaborations over a wide range of knowledge and fields of study among partner institutions, with a focus on “teaching, research, and service to society,” the Universities' Partnership for Water Cooperation and Diplomacy aims to bring together partner institutions from 19 universities with a wealth of expertise and

¹³² IUCN, “Strengthening the institutional.”

¹³³ MJ Patrick et al., “Building Bridges between the Sciences and the Arts of Water Co-operation through Collective Action – Reflections,” *Aquatic Procedia*, no. 2 (2014): 52
<https://doi.org/10.1016/j.aqpro.2014.07.008>

¹³⁴ Anamika Barua et al., “Re-Interpreting Cooperation in Transboundary Waters: Bringing Experiences from the Brahmaputra Basin” *Water* 11, no.12: 2589 (2019): 3-22, <https://doi.org/10.3390/w11122589>

¹³⁵ Anamika Barua et al., “Re-Interpreting Cooperation”, 3-22

make a contribution to water security and stability. These kinds of academic collaborations can establish venues for knowledge creation and dissemination that are credible from a technology and scientific standpoint and pertinent for policymakers and other important stakeholders. (Barua, 2019). With partnerships like these coming up to the fore to make the sphere of water governance and diplomacy more inclusive and sustainable, there needs to be a renewed emphasis on CSOs and the academic sector to jointly develop projects facilitating studies and capacity-building workshops on water governance for key stakeholders from government and communities.

Conclusion

Several institutional mechanisms are operational across the Mahakali basin. These institutions and actors, both formal and informal, make a fundamental contribution to adopting a cooperative water governance framework in the region. However, the basin needs a basin-level commission. As mentioned earlier, the local, traditional community-based initiatives have been disintegrating due to a lack of support from the official levels. Therefore, there is an urgent need to strengthen the legal and institutional mechanisms between India and Nepal, which recognise these traditional structures actively contributing to sustainable water governance in the basin for decades. A basin-level commission would also ensure that while dealing with the river Mahakali in water negotiations, its tributaries are also considered.

Moreover, as discussed in the previous sections, innovative collaborations between CSOs and traditional/ customary institutions active across the basin can also contribute to reviving these local structures. Initiatives like Transboundary rivers of South Asia (TROSAs) by Oxfam are taking a step commendable in this direction. Academic partnerships such as Universities' partnerships for water cooperation and Diplomacy can help bridge the science-policy gap and provide CSOs with research-backed data to help establish an all-inclusive multi-level, multi-track setup for sustainable water governance. This increased collaboration between the local community representatives, CSOs, academic institutions, and media organisations will help render a multi-stakeholder platform for people of both countries to build confidence and bridge the trust deficit prevalent for years. With ample scope of innovative collaborations between the official governments of India and Nepal and CSOs, the state-level officials should try to fund and pool resources for collaborative research projects dealing with themes like community water allocation and detailed studies and assessments of climate change impacts and other such issues. Regular workshops, joint data collection and sharing committees, and other joint research projects with members from both countries will not just build solidarity across the

issue of the ever-flowing, all-encompassing resource that is water but, in the larger sense, help transform the discourse around water that views it as a source of conflict between nations than an incentive for cooperation.

CHAPTER 4

CONCLUSION: EXPLORING ALTERNATIVES

The last chapter of the study delved into the role that institutions and actors, both formal and informal, have to play in facilitating transboundary water governance in a region. It highlighted the role of customary laws, perceptions, and traditional water attitudes in producing the dominant discourses and narratives on hydro-politics between two nations, in this case, India and Nepal. Further, it looked deeply into the institutional formal, informal, and customary institutional mechanisms that have been historically operational in the Mahakali basin and how actively they have contributed to the water negotiations at the diplomatic level between India and Nepal. It was observed that several traditional institutions had been involved in basin governance at a local level. However, they have degraded throughout the last few years due to the need for more state support.

The study also concludes that though there have been several initiatives by civil society organisations and local representatives working towards the goals of sustainable and inclusive governance, their contribution and the potential they have in improving the water relations between India and Nepal have not been accounted for in much academic or policy discourses. Most traditional IR studies have looked at the transboundary water interactions between countries in binary terms of either conflict or cooperation (Hansaz et al., 2013).¹³⁶ Recent development in transboundary water diplomacy literature, like theories of “hydro hegemony,” have tried to look beyond such binary lenses of conflict and cooperation as two opposite ends of the spectrum and analyze the relations between power and hegemony in transboundary water interactions (Zeitoun, 2006).¹³⁷ Such approaches have argued that cooperation and conflicts can simultaneously exist in a transboundary basin.

However, a significant flaw in such arguments that consider the role of power, hegemony, and domination is that they look at international cooperation or conflict primarily from state-centric lenses. They define transboundary interactions in terms of the engagement of state actors on Track 1 diplomacy forums leading to bilateral/multilateral institutionalized treaties, formal agreements, etc. (Barua et al. 2019).¹³⁸ A significant disadvantage of making transboundary

¹³⁶ Paula Hanasz, 2014. “Power Flows: Hydro-hegemony and Water Conflicts in South Asia,” *Security Challenges* 10, no. 3 (2014): 96, <http://www.jstor.org/stable/26465447>

¹³⁷ Mark Zeitoun, and Jeroen Warner, “Hydro-hegemony – a framework for analysis of transboundary water conflicts,” *Journal of Water Policy* 8, no. 5 (2006): 436

¹³⁸ Anamika Barua et al., “Re-Interpreting Cooperation in Transboundary Waters: Bringing Experiences from the Brahmaputra Basin” *Water* 11, no.12: 2589 (2019): 2, <https://doi.org/10.3390/w11122589>

water interactions exclusively limited to state actors is that the legitimacy of decisions taken as a result of such negotiations may be limited in the eyes of the stakeholders who have been excluded from the process (Huntjens 2017).¹³⁹ The impasse on the Mahakali treaty between India and Nepal amplifies this trust deficit and exclusion of non-state actors. Moreover, sustaining transboundary cooperation only through the actions and decisions made by state actors would involve sustained political commitment. This can be a challenging and long-drawn process since the change in political leadership can potentially impede any cooperation between two countries (Barua, 2018).¹⁴⁰

Political parties such as the left-inclined Communist Party of Nepal-Unified Marxist-Leninist or the Centre inclining Nepali Congress have played a tremendous role in determining the tone of bilateral relationships vis-a-vis India affecting transboundary water projects. There is a need to broaden the emphasis of transboundary cooperation on the importance of non-state stakeholders at multi-track, multi-stakeholder meetings in this respect. Therefore, there is a need to look at transboundary water governance from a multi-track water diplomacy framework that, with the assistance of national governments and their mandates, offers the stage for decision-making and discourse to non-state actors (Earle & Neal, 2016).¹⁴¹ By engaging diverse stakeholders involved in the governance of the basin at multiple levels, such platforms enable a collaborative environment for building trust and capacity and encourage ‘formal’ cooperation between states. Likewise, faith between states can also be deepened by broadening the scope and embracing broader narratives on water cooperation that include coordinated water management plans, water-related data exchange, shared water infrastructure investment, and flood control and irrigation

Cooperation, therefore, has to be broader in scope to include diverse interests. In this context, the concept of ‘effective cooperation’ used by the multi-track water diplomacy framework can be explored. Studies by Sadoff and Connors (2009)¹⁴² and Huntjens and De Man (2014)¹⁴³ acknowledge this approach to effective cooperation. Effective cooperation is a concept

¹³⁹ Patrick Huntjens, and Rens de Man, “Water Diplomacy: Making Water Cooperation Work,” Planetary Security Initiative, The Hague Institute for Global Justice, April 6, 2021, https://www.planetarysecurityinitiative.org/sites/default/files/2017-04/PB_Water_Diplomacy_WG_4.pdf

¹⁴⁰ Barua et al., “Re-Interpreting Cooperation,” 5

¹⁴¹ Anton Earle and Neal Marian, “Inclusive Transboundary Water Governance.” In *Freshwater Governance for the 21st Century*, eds Karar Eiman (Pretoria: Springer, 2017), 170

¹⁴² David Grey, Claudia Sadoff, and Genevieve Connors. 2009. “Effective Cooperation on Transboundary Waters: A Practical Perspective.” In *Getting Transboundary Water Right: Theory and Practice for Effective Cooperation*, eds. Mark Zeitoun and Anders Jägerskog (Stockholm: SIWI, 2009), 20

¹⁴³ Huntjens and de Man, “Water Diplomacy”

discussed time and again in this study, with mutual satisfaction and trust building as the two critical cornerstones to such exchanges. Most importantly, such conversation should include diverse stakeholders from diverse perspectives like business groups, local representatives, marginalized groups, and especially women. Based on discussions in the previous chapters, this chapter tries to broaden the scope of cooperation between India and Nepal and maps down a list of spheres where both countries can collaborate to transform the nature of their water interactions and lead to a more sustainable and inclusive transboundary water governance in the region.

Zones Of Possible Effective Cooperation

One of the most significant impediments to India and Nepal's effective cooperation on transboundary water resources is their perception of each other (Gareth Price et al., 2014).¹⁴⁴ The general mistrust and perceptions have vitiated the relationship between the two countries, which have shaped the traditional water attitudes in the region and, consequently, the water-based negotiations at the diplomatic level. In the words of Ramaswamy Iyer,¹⁴⁵ there is a tendency to "blunder" on the Indian side and "misunderstand" on the Nepalese side, and every attempt to cooperate from both ends up deteriorating the water relations even more. Nevertheless, the recent Prime Ministerial visits indicate a growing consensus between the two countries on the belief that developing and harnessing Nepalese hydropower resources can be of immense mutual benefit to both countries. (*The Hindu*, 2022¹⁴⁶; *Reuters*, 2018¹⁴⁷).

Using the zones of effective cooperation framework, some of the tentative potential areas could be identified between India and Nepal. As outlined below, some of the possible suggestions for enabling negotiations vis-à-vis Mahakali basin towards inclusive cooperation and governance for mutual benefits could be:

- ❖ **Inclusion of Private, Multinational organisations in transboundary water interactions:** Most water negotiations between countries occur at Track 1 level, i.e., between government and government. Similarly, problems that arise are also primarily

¹⁴⁴ Gareth Price et al, "Attitudes to Water in South Asia", Chatham House, February 5, 2022, https://www.chathamhouse.org/sites/default/files/field/field_document/20140627WaterSouthAsia.pdf

¹⁴⁵ Ramaswamy Iyer's interview with K.N. Adhikari.

¹⁴⁶ Suhasini Haidar and Kallol Bhattacharjee, "PM Modi to visit Nepal for Buddha anniversary celebrations in mid-May," *The Hindu* (New Delhi), 2022, <https://www.thehindu.com/news/national/pm-modi-to-visit-nepal-for-buddha-anniversary-celebrations-in-mid-may/article65376111.ece>

¹⁴⁷ Gopal Sharma, "India and Nepal PMs launch construction of 900 MW power plant," *Reuters* (Kathmandu), 2018, <https://www.reuters.com/article/us-nepal-india-idUSKBN1IC0P4>

between the two governments at the diplomatic level. Thus, including private stakeholders/companies in the negotiations can be a viable solution to avert the two governments' politicisation of water negotiations. Since profits drive private multinational organisations, they are less likely to be swayed by the rhetoric around water nationalism. The Indian government must encourage private companies to invest in developing Nepalese hydropower resources. In this regard, some development took place after 2014, when companies like India's GMR-ITD Consortium and the Sutlej Jal Vidyut Nigam were awarded the contracts for Upper Karnali and Arun III projects by the Indian government (Adhikari, 2014).¹⁴⁸

On the other hand, Nepal also needs to facilitate the operations of these Indian MNCs in its territory for the mutual good and betterment of both countries. In the recent visit of Nepalese Prime Minister Sher Bahadur Deuba, he appreciated approvals granted to the Nepal Electricity Authority for the export of substantial hydropower to India and invited further investment into the hydropower sector by Indian companies. While this is an appreciable positive development, there are several domestic challenges that Nepal needs to overcome to facilitate such investment from the Indian side. The private sector in Nepal, mostly the local cartels functional in the garb of trade associations, has been fervently opposing any foreign investment in the Nepalese territory (Sood, 2022).¹⁴⁹ Therefore, Nepal must take the Bilateral Investment Promotion and Protection Agreement (BIPPA) signed with India more seriously and fight the opposition from these local cartels to facilitate bilateral cooperation and foreign investment from the Indian side.

❖ **Multi-level collaboration between CSOs, NGOs, and Government officials:**

There is a need for urgent cooperation between the governments of both countries with civil society organisations (CSOs) and non-governmental organisations (NGOs). The existing literature on transboundary water governance suggests the need to include non-state actors in water negotiations since the benefits expected from the institutions for inter-state water cooperation have yet to materialize except in some instances (Earle et al. 2010).¹⁵⁰ This is because, in most cases, states are taken as homogenous units. The

¹⁴⁸ KN Adhikari, "Nepal-India Water Relations: Time for Change in Approach," *Pakistan Horizon* 67, no. ¾ (2014): 123, <https://www.jstor.org/stable/44988713>

¹⁴⁹ Rakesh Sood, "Repairing the complex India-Nepal relationship." *The Hindu* (New Delhi) April 7, 2022, <https://www.thehindu.com/opinion/lead/repairing-the-complex-india-nepal-relationship/article65297116.ece>.

¹⁵⁰ Ana Elisa Cascão and Mark Zeitoun, "Power, Hegemony and Critical Hydropolitics." In *Transboundary Water Management: Principles and Practice*, eds. Anton Earle, Anders Jägerskog, Joakim Öjendal (New York: Earthscan, 2010), 33

broader assumption is that the cooperation taking place at the national level shall cascade down to the lower levels. The primary flaw in this approach is the omission of the role of sub-national and local actors in transboundary water governance at national and international levels. A robust civil society mechanism will promote more than just public awareness of the issue. However, it will also pressure and advise the government to correct its course on water negotiations if required. In the words of Earle, the complex nature of cooperative management entities among nations, along with the diversity of stakeholders in each of these nations (and the necessity for fair and equal resource distribution), introduces a chance to make a difference to regional initiatives, given that prompt and efficient institutions are placed to prevent the likelihood of disagreements evolving into conflict.¹⁵¹

Therefore, institutional mechanisms that promote multi-level active collaboration between civil society members and governments need to be strengthened for inclusive and sustainable water governance in the Mahakali basin strengthening of traditional village-level institutions such as van panchayats can be one of the many intervention areas. This will not just bring up the perspectives of people across both sides of the border on the negotiation table but will also help revive traditional knowledge structures.

- ❖ **Building trust through joint and transparent data collection and sharing:** A wide range of issues around the water conflict between the two countries have been associated with inappropriate data sharing from the Indian side. Since most of the hydrological data is kept classified by the Indian government on national security, this has been a fundamental aspect behind the mistrust and misunderstanding between the two countries. Strategists argue for institutional changes that promote intense and widespread acquisition of hydrological data and cross-border interchange of environmental research, public availability of project related data, and analysis of previously successful initiatives (Guha, 2022).¹⁵² Similar collaboration on the micromanagement of local and non-local institutions involved in the basin governance can be the other. Likewise, organizing joint projects and workshops between the research institutes and academic circles from both sides of the border with the CSOs at

¹⁵¹ Anton Earle and Neal Marian, “Inclusive Transboundary Water Governance.” In *Freshwater Governance for the 21st Century*, eds Karar Eiman (Pretoria: Springer, 2017), 156

¹⁵² Sohini Guha, 2022. “Harnessing the Potential of India-Nepal Partnerships in Hydropower,” Observer Researcher Forum, February 26, 2022, <https://www.orfonline.org/research/harnessing-the-potential-of-india-nepal-partnerships-in-hydropower/>

regular intervals that facilitate data sharing and capacity building can be of immense benefit. State officials can help to enhance water governance in the basin by ensuring data knowledge and application. The Bridge workshop, conducted by the IUCN in 2018 was a commendable step in this direction.

- ❖ **Reforming the PDA institutional structure to include non-state actors:** PDA's governing body holds no space for voices from CSOs, NGOs, and other international organisations. Therefore, institutional reforms within PDA can ensure the active engagement of local community representatives, civil society members, journalists, and other key stakeholders in managing transboundary water resources. The Indus Knowledge Partnership Platform (IKPP) across the Indus basin and the Brahmaputra Dialogue across the Brahmaputra basin are some incredible initiatives in South Asia that actively engage key stakeholders in the governance of transboundary water resources and are developing inclusive, multi-track, multi-stakeholder platforms for the same. Such multi-track media will not just help in creating an inclusive space for meaningful conversation among diverse key stakeholders (Barua & Vij, 2018)¹⁵³ but will also help both countries make more informed decisions regarding the utilisation of the full potential of the transboundary rivers and facilitate peace, security, and sustainable development in the region.
- ❖ **Reforming the structure of formal negotiation patterns by broadening the incentives on cooperation:** There is a fundamental need to improve the structural impediments to India-Nepal effective water negotiations. Past patterns of negotiations reveal that both countries will try to gain in-principal agreement over certain agreements or treaties that might be beneficial to them due to internal requirements and then try to initiate the negotiations on the same. Once the negotiations have started, the country that proposes the agreement attempts to bring the same to its agenda. For example, while India pushed the Kosi and the Gandak agreements in the 1940s to mitigate flood control strategies in areas of Northern Bihar, Nepal has repeatedly been pushing for the agreement on river Karnali in the 1960s as a means to tap into their water resources for their economic development. Along similar lines, it is also perceived that the Indian side is keener on pushing for large-scale multipurpose projects like the Pancheshwar dam multipurpose project to fulfilling their irrigation and development needs. In contrast, for

¹⁵³ Anamika Barua and Sumit Vij, "Treaties can be a non-starter: a multi-track and multilateral dialogue approach for Brahmaputra Basin," *Water Policy* 20, no. 5 (2018): 2, <http://dx.doi.org/10.2166/wp.2018.140>

the Nepalese side, investing in small-scale projects seems more feasible. The negotiations that begin as part of such agenda-setting take years and sometimes decades to finalize. Each party uses evasive or stalling tactics to delay the process or gain as significant concessions as possible (Bharadwaj, 2021).¹⁵⁴

In this regard, a structural change in the agenda-setting process can facilitate the delayed water negotiations between the two countries. For example, if India is willing to concede some of its influence in the agenda-setting process vis-a-vis Nepal and both sides collaborate over proposing genuinely mutual India-centric or Nepal-centric treaties, this change of approach can truly aid their collaborative water governance projects. As scholars argue, the “baskets of benefits” (Wolf et al.; 2014, 88)¹⁵⁵ can be enhanced and grown, and cooperation can be sustained if sectors beyond but related to water, such as irrigation, abundant hydropower, transport (and even trade) are added to the negotiations chart. However, this cannot be possible without strong high-powered institutions and joint commissions with representatives from both countries. In the present context, none of the existing bilateral water committees or joint institutions have such a high-powered agency. Formal bilateral institutions and track 1.5 and track 2 channels can be made active on these fronts to build momentum and initiate public discourse around such issues.

- ❖ **Imbibing issue-linkage in water negotiations:** The current literature on transboundary water negotiations shows that economic efficiency alone cannot bring hostile parties to the cooperation table (Dinar & Wolf, 1994).¹⁵⁶ Another structural change that might facilitate the water negotiations between the two countries can be by imbibing issue linkage as a part of their negotiation cycles, especially from the Indian side. Since there is a strong power asymmetry between the two countries, scholars state that in such cases, clubbing relevant issues with opposite asymmetries can facilitate conflict resolution and can give both parties enough space for bargaining in negotiation

¹⁵⁴ Sandeep Bharadwaj, “Institutional Determinants of Indo-Nepal Hydro Cooperation,” Centre for Policy Research, August 13, 2021, https://cprindia.org/wp-content/uploads/2021/12/Institutional-Determinants-of-Indo-Nepal-Hydro-Cooperation_Abridged-Report_Sandeep-Bhardwaj.pdf

¹⁵⁵ Aaron Wolf, Todd Jarvis and Rejani Kunjappan, “Effective Negotiation for Transboundary Waters: A Skills Building Course,” Mekong River Commission for Sustainable Development, March 23, 2021, <https://transboundarywaters.science.oregonstate.edu/sites/transboundarywaters.science.oregonstate.edu/files/Facilitations/Mekong%20-%202014-%20Effective%20Negotiation%20TransWaters%20-%20Skills%20Building%20Course.pdf>

¹⁵⁶ Ariel Dinar and Aaron Wolf, “International Markets for Waste and the Potential for Regional Cooperation: Economic and Political Perspectives in the Western Middle East,” *Economic Development and Cultural Change* 43, no.1 (1994): 46, <https://www.jstor.org/stable/1154332>

cycles. Instead of looking at transboundary rivers as resources that need to be “shared” equally between the two parties, Sadoff and Grey (2005)¹⁵⁷ suggest that the benefits from these rivers can be grouped into four categories: “benefits to the river, from the river, because of the river and, importantly, beyond the river.” Looking at the transboundary water resources from such lenses can help link these projects with other broader areas, like power, agriculture, transportation networks, etc., in water negotiations and can be used to optimize the benefits of each party.

However, past experiences show that India has been historically reluctant to link its water-based negotiations with other aspects and spheres of the more extensive India-Nepal bilateral ties. A prominent example of this was in 1971 when India outrightly refused the Nepalese offer to make certain concessions on the Kosi agreement in return for India making certain concessions on the Trade and transit treaty in the form of treaty revisions during an impasse in India- Nepal negotiations on the same. Not just in terms of linking water relations with other aspects of the bilateral relationship, but even within the ambit of water negotiations, India adopts the approach of keeping negotiations based on one project separate from the other (Bharadwaj, 2021).¹⁵⁸ Some relaxation from the Indian side can help facilitate transboundary water cooperation. For instance, if India is willing to provide some avenues for issue linkages in just the water-negotiations sphere, it will render more bargaining power to Nepal and make it a more responsive partner in the negotiation cycles. As Bharadwaj (2021)¹⁵⁹ argues, the story of transboundary water agreements between India and Nepal revolves around years of negotiation cycles. This is primarily because Nepal uses its stalling technique as the only tactic it has in its restricted scope to maneuver. In its attempt to gain concessions on the water treaties, it keeps using its stalling techniques, something the Indian side considers Nepal’s trump card when it comes to transboundary water negotiations. However, if Nepal gets to have more significant bargaining space in the form of other similar transboundary river projects where it can give and gain concessions, resorting to its stalling and delaying tactics repeatedly.

¹⁵⁷ Claudia W. Sadoff and David Grey, “Cooperation on International Rivers A Continuum for Securing and Sharing Benefits,” *Water International* 30, no. 4 (2005): 3, <http://dx.doi.org/10.1080/02508060508691886>

¹⁵⁸ Sandeep Bharadwaj, “Institutional Determinants”

¹⁵⁹ Sandeep Bharadwaj, “Institutional Determinants”

- ❖ **Developing an integrated, inclusive governance framework for small transboundary rivers:** The international treaties and agreements on large transboundary rivers between the two countries could effectively offer sustainable solutions to transboundary river governance. On similar veins, there is an urgent need for a legal and institutional framework for water sharing from several transboundary small rivers like Pandai, etc. This framework may not necessarily include official representatives from both countries since that institutional setup has not historically been very effective with the larger transboundary river projects. Nevertheless, such a framework should include representatives from local communities and village residents traditionally associated with peaceful water sharing on these rivers. The framework ought to have the ability to open up channels for public discussions and exchanges with a mandate facilitated by local administrations from both countries. These traditional institutions have been broken in recent years under the claims that such decisions related to water-sharing affairs should be dealt with on a diplomatic level between the central governments of India and Nepal. However, including the district administration of both countries under the ambit of transboundary river governance can be tricky as the administration of both countries still considers water as a law-and-order issue (Siddiqui, 2017).¹⁶⁰ Nearly all such transboundary rivers suffer from climate change's impact and crushing water-friendly treaties instead of demands from both sides of the border. As the cumulative impact of such environmental changes on ecology, peace, development, agriculture, and economy can no longer be ignored, this state-citizen gap in the basin must be abridged for sustainable and inclusive transboundary water governance between the two countries.

- ❖ **Embracing broader cooperation narratives:** To build sustainable cooperation on transboundary rivers, it is imperative for both countries not just to make on older narratives of water cooperation, like treaties and agreements on river water sharing, irrigation, flood management, and hydropower generation. Instead, the two countries must embrace newer narratives and root the water cooperation framework into the larger ambit of bilateral cooperation between them. For example, as Sohini Guha (2022)¹⁶¹ points out rightly, one narrative that needs to be put forth and strengthened is that of Bangladesh-Bhutan-India-Nepal, popularly known as the BBIN, and its sub-regional

¹⁶⁰ Shawahiq Siddiqui, "India-Nepal Border Plagued by Water Troubles" *The Wire*, 2017, <https://thewire.in/diplomacy/india-nepal-border-plagued-water-troubles>

¹⁶¹ Sohini Guha, "Harnessing the Potential of India-Nepal Partnerships in Hydropower."

framework on energy. Cross-border energy trade has been integral to India's "Neighborhood First" policy under Prime Minister Narendra Modi. Since the SAARC energy center has lately lost its relevance and pace, the BBIN energy framework comes forth as a viable alternative providing a multilateral engagement platform for the seamless export of electricity in the region, creating a regional energy grid, and providing lucrative economic opportunities for all the countries involved. In this regard, India has already taken a substantive step forward by commencing the cross-border energy trade on India Energy Exchange (*The Mint*, 2021).¹⁶² In its efforts to create a South Asian integrated regional power market, India aims to offer ample opportunities to procure and sell power among South Asian countries like Nepal, Bhutan, Bangladesh, and Sri Lanka. Such more significant multilateral initiatives can positively impact India-Nepal hydro relations, considering the electricity trade has been a central point of contention in their water negotiations. The cost of producing power is much lower in India than in Nepal. Therefore, India has insisted on imposing the Bhutan model on Nepal and procuring energy at a highly subsidized rate. During the latest Nepal's PM visit to India, both countries agreed to expand their power cooperation under the BBIN framework by jointly developing sustainable power generation projects in Nepal, and cross-border electricity transmission infrastructure is a commendable step in this direction. Secondly, with both countries taking a substantive step towards expanding their cooperation on the mono-sectoral use of water to a multi-sectoral one, they can also look forward to paving a strategy towards the integrated management of all the transboundary rivers that run between them.

Transboundary water cooperation between India and Nepal has primarily been studied in terms of interstate water treaties and bilateral agreements or projects. In terms of academic theories as well, the most popular theoretical frameworks to study India-Nepal water relations are hydropolitics and hydro hegemony. These frameworks focus on how power asymmetries — military, geographical, and ideational capabilities — between nations can impede or facilitate transboundary water cooperation. The former studies have largely emphasised how India is the hydro-hegemon in the South Asian subcontinent, has exercised its power, and influenced the water interactions in all major bilateral treaties. These highly asymmetrical power relations and the limited space Nepal can maneuver through during water negotiations have led to the

¹⁶² "Cross border electricity trade through power exchange begins" *The Mint*, 2021, <https://www.livemint.com/industry/energy/cross-border-electricity-trade-through-power-exchange-begins-11618827281432.html>

inefficient implementation of most of the treaties signed between India and Nepal. The Mahakali treaty impasse for the last thirty years is one such.

Moreover, domestic politics and the more extensive bilateral relationship have influenced India-Nepal water relations. The role of other regional powers, such as China, is a significant factor in influencing India-Nepal interactions. Consequently, the ebbs and flows in the political relationship between the two countries have been smoothened or impeded transboundary water cooperation.

This study argues that state-to-state bilateral engagements on transboundary rivers still need to pave the way forward for India-Nepal water cooperation. It seeks to expand the scope and definition of transboundary water cooperation to include the role and potential of non-state actors. Theories on critical hydropolitics and constructivist and neo-institutional approaches to transboundary water interactions have argued in favour of such inclusion. They have been discussed briefly in the first chapter of this study. However, the scope of this study is limited to the framework of multi-track, multi-stakeholder water diplomacy, which, according to the study, is an appropriate lens to approach India-Nepal water relations. The inclusion of non-state actors and ground-level representatives in inter-state water interactions is central to repairing the looming trust deficit between the two countries for credibility and legitimacy to the decisions taken on water negotiation platforms.

Moreover, such a multi-track, multi-stakeholder platform with representatives from diverse fields: international market players, civil society organisations, journalists, and academicians, has the potential to render a level-playing field for both countries to promote issue linkage in negotiations. In such a setup, where power asymmetry has been reduced, representatives from Nepal will have substantial space, degrees of freedom, and bargaining power vis-a-vis India on water issues. With the inclusion of non-state actors in water interactions, the influence of domestic politics can be diminished, thereby paving the way for more stable, inclusive, and sustainable water governance in the basin. Therefore, it can be a very effective tool to facilitate water diplomacy and cooperation between India and Nepal. Moreover, it can also be a reference point for opening transboundary water diplomacy and governance debates to the critical and constructivist theories and the analysis of transboundary water IR interactions from an essential hydropolitics and neo-institutional perspective, the multi-track water diplomacy framework. The above-stated zones of possible effective cooperation serve as an ideal entry point to making water cooperation between India and Nepal more effective and inclusive. Since water relations play a central role in the more extensive bilateral relationship between the two countries,

facilitating water cooperation can be an essential tool to repair the bilateral relationship and underlying trust deficit between them.

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APPENDIX

1. Area where Effective cooperation occurs Point E

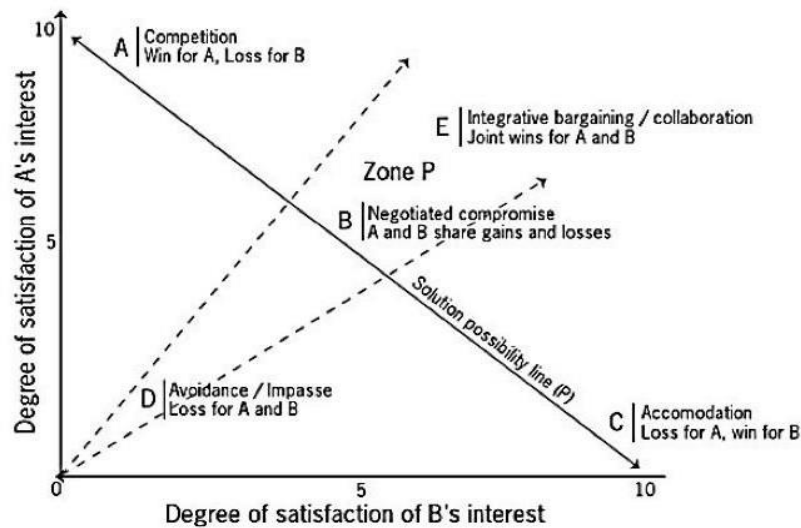
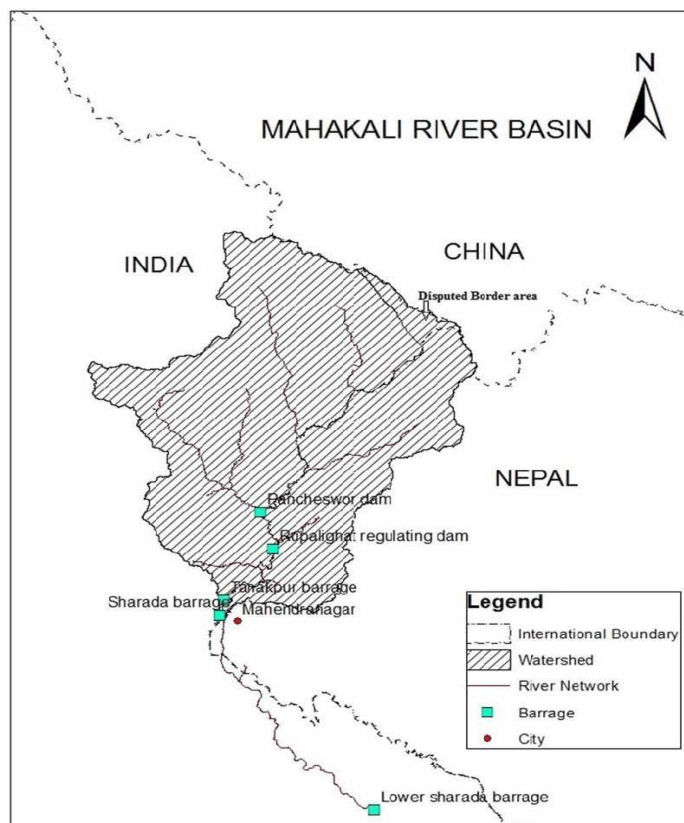


Figure 3 Style of conflict management. Source: Grey et al. (2010, 158)

2. Map of Mahakali Basin (Bagale, 2019)



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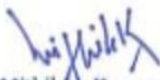
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