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Rational and Relational Paradigms: A Case Study of the Indus Basin

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ABSTRACT: Much has been written about the 1960 Indus Waters Treaty and the role played by the World Bank. This article, however, seeks to revisit the absence, limits and challenges of social learning in state-based interventions on water diplomacy. Terming the Indus Waters Treaty a case of thin mediation, the paper questions water diplomacy interactions at two levels. By juxtaposing the case of the Indus Waters Treaty with the Indus Basin Initiative (launched in 2013 and supported by the Upper Indus Basin Network), the paper (1) highlights intersections around negotiation models and social learning, and (2) draws attention to two policy paradigms – rational and relational – that become significant frames for deliberation and for defining water diplomacy. Using the example of the Indus Waters Treaty, I also emphasise that any reliance on distributive tactics – which block social learning only perpetuates trust deficits and, in the long term, invoke water nationalism and water securitisation. The paper contributes to the investigation of social learning mechanisms, which can help further our understanding of the relational paradigms associated with water policy and diplomacy.

KEYWORDS: Negotiation analysis, water diplomacy, social learning, Upper Indus Basin Network, Upper Indus Basin Initiative, Indus Waters Treaty

INTRODUCTION

Covering an area of roughly 1,165,500 square kilometres, the Indus Basin has been shaped by the presence of significant major and minor river systems that have reflected multiple narratives. Significantly, each of the rivers that flows through the Basin has its own distinct narrative and history (Albinia, 2012). It was, for instance, on the banks of the Ravi River that the pledge of Purna Swaraj (complete self-rule in undivided India) was undertaken; the River also bears a symbolic significance for the Sikh religion as Sikhism was founded in the Majha region of Punjab which lies between the Beas and Ravi Rivers. The Chenab River, for its part, has been an abode for Sufi poets and saints. Often remembered as the River of Lovers and associated with narratives that have tragic endings, the Chenab River has inspired poets such as Iqbal, Shiv Kumar Batalvi and Faiz Ahmed Faiz, all of whom were born and brought up in villages near the river. Narratives around the Jhelum River often include tales related to the chivalry of Porus and the generosity of Alexander the Great, as is shown in stories of the great battle of Hydapus (Bisht, 2022a). The Indus River has many stories of its own and has been christened with multiple names such as the Nilab, Sher Dariya, Purali, Samundar, and Senge Tsangpo (Albinia, 2012). These narratives of the Indus Basin rivers suggest the region's heterogeneous civilisational and cultural identity. They dwarf the tactical and rational narratives around the Basin; they also reveal the limitations of a unidimensional focus on rivers, which often results in them being presented as bargaining chips in diplomatic engagement. If one casts a look at the diplomatic history of the Indus Basin, negotiations reflect a pattern of bargaining where each actor wants to minimise their losses and maximise their profits. This approach often compromises the needs of the rivers, their ecology and their communities. Rivers are seldom seen as part of larger ecosystems or river systems that require diplomatic solutions and agreements that are creative, collaborative, and dynamically responsive to climatic and hydrological changes.

This article highlights the urgent need for dynamic solutions. It argues that such solutions can arise as a direct result of effective social learning mechanisms. Social learning for the purpose of this paper can be understood in two ways. First, as Hall (1993: 278) notes, social learning mechanisms are processes in which individuals integrate new information and effectively apply it to their actions, regardless of their past experiences. Hall (ibid) specifies that learning can be identified as having occurred when policies reflect these interactive social processes. The second way that social learning can be understood is as a dialogical process occurring among "emancipatory – epistemic communities" (Assiter, 2000). These communities are characterised by their geographical locations and their shared political and ecological values, and the dialogue facilitates a collaborative framework for knowledge exchange and transformative action (Yuval-Davis and Stoetzler, 2002; Assiter, 2000). These concepts are prominently discussed in the extensive literature on social learning and policy change, where researchers clearly demonstrate the crucial role that ideas play in influencing and shaping policy-making (Hall, 1993; Blyth, 2002; Carson et al., 2009; Carstensen, 2011; Hogan and Howlett, 2015). Significantly, the term 'policy paradigm' has emerged as a metaphor for 'socio-cognitive model' to explain change and transformation (Carson et al., 2009: 12).

In its examination of interventions in the Indus Basin, the article explores two policy paradigms, rational and relational. It is essential to understand the interplay between policy paradigms, as the state often favours strong policy paradigms to maintain its autonomy. These paradigms are typically well-protected, nurtured and supported, and it is widely believed that a robust policy paradigm can withstand societal interests and changes (Hall, 1993: 290). Given the symbiotic nature of the relationship between the state and policy paradigms, it is unlikely that the latter will change independently. It is thus crucial to focus on political entrepreneurs or the 'community of knowers' as pivotal agents of policy change, that is to say, on individuals who advocate for innovative ideas and expertise (cited in Hogan and Howlett, 2015; Yuval-Davis, 2011; Assiter, 2000). Underlining the importance of such a community of knowers, Yuval-Davis contends that the ability to distinguish between old and new ideas relies on specific social agents who can construct and highlight particular analytical and social features. While Yuval-Davis's argument is centred on the politics of belonging, it also underscores the significant role that political entrepreneurs play in promoting ecological values and facilitating policy change. This perspective is supported by the literature on negotiation analysis where scholars such as Putnam (1988), Haas (1992), Price (1998) and Kappen (2003) examine the society – state interface. They elucidate how social interactions influence negotiating positions and thereby reduce uncertainty and enhance international policy coordination.

This article builds on these ideas by explicitly looking at scholarship around negotiation analysis, and it offers a perspective on social learning mechanisms within this framework. As a case in point, the paper considers the 1960 Indus Waters Treaty (IWT) through the frame of negotiation analysis. To highlight the mechanisms of social learning in the Basin, it also focuses on an alternative case, the Indus Basin Initiative, using the contrast between them to highlight the role of social learning in shaping outcomes. This analysis is also suggestive of both the rational and the relational policy paradigms.

Paying attention to these two policy paradigms is significant as they indicate distinct approaches to issues related to the transboundary basin. Where in the first case, one witnesses the partitioning of the Basin through the Indus Water Treaty (rational policy paradigm); in the second, multiple interactive components of the Basin were highlighted (relational policy paradigm). The Upper Indus Basin Initiative is important because it was led by civil society actors and because it offers meaningful insights into the more participatory approaches that were discussed. This case also illuminates why social learning is central to understanding and designing negotiation models. One can also say that while the rational policy paradigm is a dominant framework that was institutionalised through the Indus Waters Treaty, the relational policy paradigm is an emergent framework that takes cognisance of social and ecological aspects of the Basin. One also observes that the dominance of the former has not only impacted the quality of water cooperation and water diplomacy but has also, to a great extent, shrunk the space at the intersections of water policy and water diplomacy where societal actors could have worked, thus

minimising any space for social learning. The rationale for juxtaposing these two alternate paradigms is not to contrast them as competing paradigms but rather to highlight why they need to engage with each other. Thus, by juxtaposing them, this paper, (1) brings forward the intersections around negotiation analysis and policy paradigms, and (2) allows for highlighting the ways through which the presence or absence of social learning can impact policy paradigms (in this case, rational and relational) and have implications for them.

Methodologically, the article is based on case study analysis. Over the last 20 years, the author has been engaged as a participant, observer and resource-person at multiple South Asian water dialogues. This engagement – and the many conversations that took place over those years – make this an example of practitioner ethnography. My specific engagement in relation to the Indus Basin includes participation in 2009 and 2010 as a Water Security Task Force member at the Manohar Parrikar Institute for Defence Studies and Analyses (a think tank under the Ministry of Defence, New Delhi); it also includes my role as a co-project lead on the Ravi River Basin, in a project titled as, 'Raising Awareness and Capacity of Civil Society on Transboundary Water Governance in Pakistan and India', which was anchored at South Asian University in New Delhi and WWF- Pakistan in Lahore from 2016 to 2018. In 2012, I participated in the South Asia Water Initiative (SAWI) dialogue in Kathmandu, and in 2022 I participated in a training programme led by the International Centre for Integrated Mountain Development (ICIMOD) in Kathmandu, which had initiated an interactive session on the Indus Basin Initiative. The analysis of the Indus Basin Initiative is based on the peer-reviewed published material that is available on the subject.

THE INDUS BASIN

The Indus Basin stretches from the Himalayas in the north to the Arabian Sea in the south. Its climate is arid to semi-arid and the Basin receives more precipitation in its upper than its lower regions. Significantly, the Indus Basin also links two large reservoirs of water, one held in the mountains in the form of snow/glaciers and the other found in the groundwater of the Indus Plains of Pakistan's Sindh and Punjab Provinces. The Indus River has left and right bank tributaries. The Kabul River from Afghanistan joins the Indus on its right bank and the left bank is joined by the Jhelum and Chenab Rivers. The latter two, along with the Indus itself, are known as its Western rivers, while the Ravi, Beas and Sutlej Rivers are known as the Eastern rivers. Both the colonial and postcolonial periods have seen politically and ecologically fraught moments in the Indus Basin, particularly with regard to irrigation-based water logging and salinisation, and colonial legacies have played an essential role in shaping the technical intervention and transformation of the Basin in the form of barrages and dams (Biswas, 1992: 202-03; Bhutta and Smedema, 2007). While Biswas (1992) has applauded the role of the World Bank as a mediator, he also points out that, post-1960s, the World Bank's leadership has been missing in the Indus Basin.

Much has already been written on the Indus Waters Treaty negotiations and its aftermath. This article thus examines developments in the Indus Basin from the lens of negotiation analysis. The first section draws upon literature that discusses different negotiation models and the significance that social learning mechanisms hold for them. The second section discusses details of the Indus Waters Treaty and the Upper Indus Basin Initiative from a negotiation perspective and develops specific mechanisms of social learning based on case analysis. The concluding section offers specific insights on rational and relational policy paradigms.

NEGOTIATION: A THEORETICAL PERSPECTIVE

Negotiation is a process through which concerned parties reach an agreement. This process embodies aspects of bargaining and can be supported by mediation. Mediation between two parties often involves the involvement of a third party who facilitates communication; the latter can offer a bridge between the two negotiating actors and can help them understand each other's perspectives (Carnevale and Pruitt,

1992). The difference between negotiation and bargaining is that while the former is a benign arrangement between actors where the end goal is to arrive at a mutual agreement that is preferably acceptable to both parties, the latter is a form of 'struggle' and is often prominent in cases where distrust between actors is high. To emphasise the practical difference between the two, Howard Raiffa (2007) describes the nature of negotiations between actors engaged in struggle as "cooperative antagonism", which means that while actors are antagonists and are often at loggerhead with each other, they prefer *some* agreement over *no* agreement. Thomas Schelling (1981) refers to this process as a struggle of "tacit bargaining" where a specific actor adopts a max-min approach, that is to say, they try to maximise their benefits and minimise their losses. Some scholars, in an effort to emphasise the difference between negotiations and bargaining, have identified them each with terms such as integrative bargaining and distributive bargaining (Raiffa,2007; Walten and McKersie,1965) or problem-solving and bargaining (Hopmann, 1995). Mediation is often seen in cases that are marked by distributive bargaining. This difference between negotiation and bargaining, and their relationship with mediation, offers a perspective not only on the limitations of negotiation models but also on the importance of social learning mechanisms, which could become an essential part of designing negotiation models. A shift to negotiations (integrative bargaining) from bargaining (distributive bargaining) is often captured in the literature around conflict transformation that focuses on the "transformation" of relations (Bar-Siman-Tov, 1994: 2; Lederach, 2017). Much has been written on the Indus Waters Treaty from the mediation perspective (Gulhati, 1973; Alam, 1998); the IWT, however, has not been able to transform relations between riparian neighbours India and Pakistan. To critically engage with this issue, this article reflects on the importance of social learning mechanisms to the designing or examination of negotiation patterns. This section analyses models of negotiation analysis. To avoid confusion and overlaps, terms such as distributive and integrative bargaining have been employed to emphasise the difference between the models.

Distributive bargaining

Thomas Schelling was one of the first to articulate the distributive method. In 1957, he wrote a seminal essay entitled, "An Essay on Bargaining", wherein he defined the distributive method as a "tactical approach to the analysis of bargaining" (Schelling, 1981: 281). The distributive method is based on a few assumptions: first, both parties prefer some agreement to no agreement; second, actors make informed, rational choices and their end objective is to maximise their profits and minimise their losses; third, the pattern of communication between actors is distributive in nature, that is, a gain for one is a loss for the other; fourth, the agreement generally takes place within a contract zone, which means that an outer limit of negotiations – a 'zone of agreement', or ZoA – structures the behaviour and expectations of actors; and fifth, in distributive negotiations the actor who concedes first loses, thus both actors try not to concede or 'give in', and often use persuasive/manipulative strategies to incentivise the other to concede. While the nature of communication in such negotiations can be both verbal and non-verbal, it also emphasises the minimum presence of mechanisms for social learning. The focus is on the specific tactics of commitment, communication and credibility, which play instrumental roles in winning bargaining games.

Commitment means that in a given negotiation one should be able to bind or commit oneself to a position. In this situation, positions are often rigid, and softening can only happen when either of the actors is convinced by the rationale that benefits are on the way.

Communication is essential to convince others about benefits and can emerge in multiple forms. Given that the element of uncertainty is high, a mediator becomes an effective communicative agent. Communication can influence negotiations by making them intersecting, continuous or restricted. Negotiations, for instance, can be framed as *intersecting* where an actor draws parallels to their previous practices, arguing that since there have been negotiations with other parties on a similar issue, it would be difficult to make an exception in the current negotiations. Alternatively, negotiations can be framed

as *continuous* when the respective actors are in negotiations on more than one issue, and thus making concessions in one set of negotiations has implications for the other(s). In many ways, this situation makes positions fixed and inflexible. *Restricted* negotiations – the third form – means that one set of negotiations can be tied to another, a case in point being how economic negotiations sometimes get tied to security bargains. When such tie-ins happen, it becomes easy to commit oneself to positions. Distributive negotiations often employ non-verbal tactics that are usually communicated in the form of threats and promises. This class of tactic is primarily used at stages of negotiation involving persistent stalemates. The employment of threats is thus a common practice in distributive tactics. The threats or promises, however, should be credible enough to deter or incentivise the other party. The distributive method does not believe in making concessions. In scenarios where one often does make concessions, it is argued that the rationale for offering concessions should be accompanied by a carrot-and-stick policy. The distributive method is thus a typical win – lose situation with no space for social learning.

Integrative bargaining

In contrast to distributive bargaining, integrative bargaining usually involves being open to social learning. In further contrast to a distributive approach, the integrative approach emphasises the dialogic method. Howard Raiffa (2007) is one of the pioneers of this framework for integrative bargaining. In this method, according to him, both countries benefit and the cooperative potential from an agreement is equally distributed. For Raiffa, the payoffs are thus a consequence of joint decisions and are therefore known as 'joint payoffs'. Communications strategies use joint decision-making and countries amplify benefits by focusing on a common goal rather than separate positions. The communication is therefore direct and reciprocal, and creativity comes from adding new issues and from actors understanding each other's value preferences. Actors thus do not rely on a finite number of strategies and, in fact, creativity stems from interactions between strategies.

Since the goal of the integrative method is to explore joint solutions, actors generally keep channels of communication open, which facilitates social learning strategies. Two specific strategies that are indicative of social learning mechanisms are Partial Open Truthful Exchange of Information (POTE) and Full Open Truthful Exchange of information (FOTE). The transition from a partial to a full exchange of information is contingent on the context and relations between actors. The goal of integrative bargaining is not specific reciprocity or tit-for-tat strategies; rather, it is diffused reciprocity, which means that rather than focusing on items with a fixed equivalent value, benefits are generated over a period of time through trust, continuous interaction, and close coordination. Linkage possibilities to break impasses in negotiations are thus encouraged, along with adding new issues or eliminating old ones. For all these, however, negotiators need creativity, and it has been found that integrative bargaining s found more commonly among allies than adversaries. Integrative bargaining models, however, can also be accompanied by complex decision-making when a negotiation break off. In such cases, the integrative model suggests following the principle of determining the minimum return in negotiations; it also suggests that the inclusion of a mediator often brings an element of uncertainty into negotiations.

The negotiation analytic model: A hybrid

Drawing from distributive and integrative bargaining models, the negotiation analytic method (NAM) – a hybrid model – offers an alternative approach to explaining and examining negotiation patterns. The intellectual leanings of this model have been informed by cognitive studies and there are some interesting insights that cognitive negotiation analysis brings in by applying social learning mechanisms to the zone of agreement, which generally determines the outer limit of negotiations. Carnevale and Pruitt (1992) state that, in any negotiations, issues need to be reconceptualised to reach an agreement so that a formula can be generated as a thumb-nail sketch for the agreement. This, they argue, can be followed by the constituting of specialised subcommittees that can be involved in negotiating the finer details, and by exploring viable options that are mutually acceptable to both sides. When it comes to the

role of social learning, Carnevale and Pruitt argue that it is essential to pre-empt the 'outcome' of specific negotiations. They note, for instance, that if there is a possibility of no agreement, one should explore existing Alternatives to a Negotiated Agreement (ATNAs). The availability of ATNAs is considered to be mutually beneficial as it suggests that parties can achieve higher benefits jointly than they would with a compromise agreement. It thus becomes essential to find windows of opportunity that can facilitate such social learning platforms. This can also be defined as the integrative potential of an agreement or the Zone of Possible Agreement (ZoPA). Howard Raiffa (2007) would call these tactics active listening and would say that they were providing information about one's priorities to enhance understanding; the concept of cognitive negotiations, however, explains this phenomenon through the dual concern model (DCM) principle. This principle suggests that high self-concern always leads to high other-concern and thus is oriented towards problem-solving strategies. One of the primary questions that is thus raised addresses the necessity of finding the method that can take us closer to the dual concern model. The negotiation analytic method becomes a significant model for elaborating on such strategies.

James Sebenius (1992) has been associated with the NAM and argues that it is based on the assumption that since no information is fixed and permanent, uncertainty and learning are two enduring features in any negotiation framework. This creates opportunities for social learning mechanisms, especially in areas with significant uncertainty. The interactive process can benefit from new information, diverse perspectives, expert advice, and emerging issues. As noted by Hall (1993: 275), "Politics finds its source not only in power but also in uncertainty". Governments do not rely solely on power; they also navigate complexities. In this context, political entrepreneurs play a crucial role in addressing these uncertainties and shaping policy paradigms. ZoPA is one such mechanism for social learning and can strategically inform an emergent policy paradigm, which is beneficial to all parties. In other words, NAM becomes an essential model for exploring the integrative potential that can help overcome collective action problems. One of its important components is that it does not treat conflict and cooperation as a binary, focusing instead on value preferences and how they can be changed through social learning. Unlike both the integrative and distributive models, NAM not only focuses on issues of distributive or integrative potential but emphasises the understanding of value preferences and how uncertainties related to particular issues can be informed (even transformed) through socialisation and learning. The primary question for NAM, then, is to assess the centrality of societal actors, which in this case is the role of epistemic communities (Sebenius, 1992: 325).

A range of specific social learning mechanisms arise from this analysis. These mechanisms include the establishment of open channels of communication, the exercise of creativity through interconnectedness, the recognition of side benefits, the identification of minimum returns, and the formation of specialised committees dedicated to information sharing. It is also essential to identify uncertainties, visualise alternatives to negotiated agreements based on joint payoffs, create spaces for informal interactions, and clarify value preferences. This interactive approach not only promotes social learning but is also recognised as a critical component of established negotiation models that integrate negotiation analysis with social learning principles. The following sections build on some of these aspects by taking two illustrative cases, both of which enhance our understanding of the Indus Basin. Through this brief analysis, I establish a conversation between social learning mechanisms and negotiation analysis. This discussion is crucial as it helps us understand the limitations of current negotiation models that do not give space to mechanisms reliant on social learning.

INDUS WATERS TREATY: BACKGROUND

The 1960 Indus Waters Treaty was one of the significant initiatives undertaken by India and Pakistan after the difficult partition of 1947. After partition, in the absence of any water agreement, both countries agreed to an Interim Standstill Agreement that was signed on 18 April 1948. A few weeks later, on 3-4 May 1948, both countries signed the Delhi Agreement; by signing it, India agreed that it would not

withdraw water without informing Pakistan and the latter was expected, going forward to develop an alternative water infrastructure. Both countries, however, had precise positions regarding water sharing in the Indus Basin. Pakistan called for equitable apportionment of all common waters and turned to international arbitration as its preferred strategy. India, for its part, wanted a bilateral resolution without international interference (Wolf and Newton, 2008). The relevance of these positions reflects the pre-negotiation relationship between India and Pakistan, which was full of uncertainty, anxiety and distrust.

India, for one, wanted to start exercising its right over the Eastern rivers on the side of Indian Punjab (Ravi, Beas, Sutlej). There was a rising consciousness that it had to develop its water infrastructure, as many of the irrigated canal colonies built during the British Raj were in Pakistan Punjab (Ali, 2003; Aloys, 1967). Meanwhile, Pakistan was also concerned about its dependence on Eastern rivers, and its lower riparian location made it vulnerable to uncertainties regarding the canal heads located in Indian Punjab. Given that water infrastructure had to be built by both states, India and Pakistan shifted positions from being 'strident antagonists' to 'cooperative antagonists'. This means that while both countries knew they had gnawing political differences, they also realised that cooperation over water resources was the only way forward. One of the primary factors that would help mediate these differences was the financial leverage that would be brought by the World Bank. It thus emerged as the third actor, setting the terms for the negotiated agreements that both countries were expected to sign. While the World Bank mediated the Indus Waters Treaty, I argue that it can be understood as a case of thin mediation, with its limitations starkly evident in the absence of social learning mechanisms.

Negotiation analysis: A case of Indus Basin Treaty

Against this backdrop, it will be useful to give a negotiation perspective to the Indus Waters Treaty (IWT). From the outset, it was oriented towards 'struggle' (the distributive method of bargaining), where the individual interests of the actors concerned were foremost. As for the World Bank, it had its own economic motivations for entering the negotiations. Alam (1998) notes that one of the primary reasons for the Bank's interest in the IWT was the slackening of its role in the European countries that had followed from the introduction of the US Marshall Plan. The IWT was thus an essential medium for making the Bank relevant in the international market (ibid: 92). Sinha (2021) offers a curious dig into the international relations of the Indus Basin, highlighting the less studied role that was played by the great powers under the shadow and politics of the Cold War. His analysis is significant as he underlines the balancing role that the US played vis-à-vis the United Kingdom, the latter being more inclined towards accepting the claims made by Pakistan over Kashmir on communal grounds. David Lilienthal, erstwhile head of the Tennessee Valley Authority, was instrumental to the entry of Eugene Black, then President of the World Bank, which paved the way for US interests in India (ibid: 225).

It is against this political and financial backdrop that the World Bank's offer regarding its good offices becomes significant. What is also noticeable is the change in the zone of agreement as the negotiations progressed. The initial zone of agreement, for instance, was shaped by specific assumptions. The first of these was that the Indus Basin had enough water for both countries; the second assumption was that discussion around the Indus Basin would include all rivers and that the Basin would be treated as a single unit; and the third assumption was that negotiations would put aside past grievances and retain a technical focus rather a political one (Alam, 1998: 344). While this seemed to be the ideal template, the zone of agreement changed after India and Pakistan presented their respective positions. Both countries held that: (1) division of total water supplies should be determined on the basis of catchment and use; (2) water requirements should be determined on the basis of cultivable irrigable areas in each country; (3) calculation of data and surveys should be as requested by either side; and (4) preparation of cost estimates and a construction schedule for new engineering works should be included in a comprehensive plan (Wolf and Newton, 2008: 4). Table 1 shows the positions of the respective actors.

Table 1. Water allocations derived from Indus Waters Treaty negotiations

Plan	India*	Pakistan**
Initial Indian	29.0 MAF/year	90 MAF/year
	15.5 MAF/year	102.5 MAF/year
Revised Indian	All water of the Eastern rivers and 7% of the Western rivers	No water from the Eastern rivers and 93% of the Western rivers
Revised Pakistani	30% of water from the Eastern rivers and none of the Western rivers	70% of water from the Eastern rivers and all of the Western rivers
World Bank proposal	Entire flow of the Eastern rivers	Entire flow of the Western rivers

Source: Aaron Wolf and Joshua Newton (2008: 5).

Notes: MAF/year = million acre-feet per year; initial estimates of available supplies differed only slightly, with the Indian Plan totalling 119 MAF and the Pakistani Plan arriving at 118 MAF; the Eastern rivers consist of the Ravi, Beas and Sutlej, and the Western rivers consist of the Jhelum, Chenab and Indus; * India would continue to supply Pakistan with its historic withdrawals from these rivers for an agreed-upon transition period that would be based on the time it would take Pakistan to complete link canals to replace supplies from India; ** the only exception would be an insignificant amount of flow from the Jhelum that at the time was being used in Kashmir.

As Table 1 reveals, the positions taken by both India and Pakistan offer a classic case of a distributive bargaining model, as both parties adopted a max-min/min-max approach. One can say that, given the protracted stalemate of the situation, the Bank established the distributive formula of separation. It helped draw up a plan for distributing the Basin's river water between the two countries, since they had abandoned the strategy of integrated development in favour of separating the Basin and dividing its water (Wolf and Newton, 2008: 5). To generate consensus between India and Pakistan, a carrot-and-stick policy was employed through the process of bargaining.

The outcome of the negotiations was the Indus Waters Treaty, agreed to by Pakistan and India on 19 September 1960. The IWT stated that Western rivers should be given to Pakistan and Eastern rivers to India. An analysis of these patterns reveals that the Indian side accepted the World Bank's proposal to partition the rivers because many of its developmental projects were on hold due to the slow progress of the negotiations; Pakistan, on the other hand, agreed to the suggestion because it lacked an effective alternative. While Pakistan often threatened to walk away from the negotiations, its threats were not considered to be credible. It was the World Bank's carrot-and-stick policy that made both India and Pakistan soften their positions. As per the final outcome, an offer was given to Pakistan that 3 dams, 8 link canals, 3 barrages and 2500 tube wells would be built in Pakistan. It also was granted a ten-year transition period from 1 April 1960 to 31 March 1970, during which it would continue to receive water according to a detailed and mutually agreed upon schedule. A dispute resolution mechanism was introduced to minimise the distrust between the parties; this was a layered structure comprised of Indus commissioners, neutral experts, and a court of arbitration.

The IWT consists of 12 articles. Article I sets out the definitions; Articles II and III are about the respective provisions associated with Eastern and Western rivers; Article IV focuses on provisions that pertain to both Eastern and Western rivers; Article V centres on financial provisions; Article VI concerns the exchange of data; Article VII focuses on future cooperation; Article VIII focuses on the creation of a Commission, known as the Permanent Indus Commission; Article IX concerns dispute resolution; and Articles X-XII, respectively, are related to emergency, general and final provisions.

To summarise the defining characteristics of the negotiating process: (1) interactions were based on positional bargaining strategies; (2) financial incentive structures, mediated through the intervention of the World Bank, were effective in breaking the impasse, making the IWT a classic case of conflict

management; and (3) for both countries, the agreement was suboptimal as the zone of agreement was restricted by the claiming positions put forth by both parties. To conclude, one can say that while the World Bank's mediation was successful, it was a classic case of thin mediation. Thin mediation, which is marked by the use of distributive bargaining tactics and the absence of social learning mechanisms. The IWT, however, helped the World Bank establish its own reputation in areas requiring infrastructure building. The post facto analysis of the IWT put forward in the following section unravels the consequences of this thin mediation.

Post facto analysis

A post facto analysis of the Indus Waters Treaty becomes important, as it unravels useful insights on the sustainability and effectiveness of the negotiated agreement. While ongoing political tensions have not diluted the relevance of the IWT, border skirmishes and proxy attacks in past decades have made its key provisions ineffective. One can also argue that, while conflict escalation has not jeopardised the functional aspects of the IWT, the quality of the ecosystem around the Basin and the rivers has gradually deteriorated over a period of time. The failure to develop social learning mechanisms has also been a major consequence of political tensions between the countries. The significant focus on the dams being built on the Western rivers is another important reason for the lack of attention being paid to water governance issues.

Mehsud et al. (2022: xx) note that, "Pakistan apprehends that the Indian strategy of construction of dams on western rivers would have serious ramifications for Pakistan. It is claimed that such projects would adversely affect the agriculture (…), [hydroelectric] potential, and food production of Pakistan". One of the primary reasons for this distrust is the use of dams as defensive – offensive structures throughout the hydro history of India – Pakistan relations.[1] Significantly, with the 2024 completion of the Shahpurkandi Dam on India's Ravi River, Pakistan's riparian fears have come to the fore Brar, 2024). India's dam-building spree and the resulting spat with Pakistan were reflected in New Delhi's recent call for a revision of the Treaty (Bisht, 2023; Lok Sabha Secretariat, 2021; Deuskar, 2023).

As a result of these developments, a rational policy paradigm fixated on water allocations has become dominant, with ecological and governance issues conspicuously missing. This absence is reflected in the discourses around water storage projects and is particularly evident in the controversies around the Baglihar and Kishenganga Dams (Tabassum, 2020). The Kishenganga dispute between Pakistan and India was significant as the Permanent Court of Arbitration ordered that India be required to release environmental flows downstream of its project, into Pakistan. This order establishes two crucial elements in the legal regime surrounding environmental flows in the context of transboundary rivers. First, regardless of the provisions of existing agreements, customary international law would apply. Second, even if treaties had been in place before the provisions of customary laws, the customary law provisions would still be applicable (Dharmadhikary, 2017). Experts have argued that the dominant perception in Pakistan has been to open the water dispute to third-party intervention/mediation (Tabassum, 2020). On the Indian side, meanwhile, there is a growing perception that a call for third-party mediation is a deliberate tactic employed by Pakistan to delay the projects. A brief assessment of the respective positions and patterns and the impacts they have had on the nature of the Indus dispute (2018-2021) reflects the legalistic nature of the Indus Waters Treaty, where water diplomacy is restricted to justifying, explaining and strengthening one's position within the legal framework that the IWT allows. While so far the IWT has survived political tensions, discourse on renegotiating the Treaty nevertheless exists. Even if the Indus Waters Treaty is taken forward, however, past patterns suggest that unless the Treaty takes cognisance of social learning mechanisms and incorporates ecological and social concerns it would be

[1] A case in point is the Bambanwala Ravi Bedian Link (BRBL) canal, built in 1958 to protect Lahore. By linking the Ravi River in the north to the Sutlej in the south (in the Sialkot-Lahore sector), it was employed as an offensive structure in the 1965 war.

difficult to break it from the tactical, technical and legal structure that supports and sustains its framework.

Against this backdrop, the following section illustrates an alternate approach which is inclined towards a relational policy paradigm. The case below leans more towards social learning mechanisms and highlights the important role that social learning and interaction can play in shaping policy paradigms.

A case of the Upper Indus Basin Initiative

The Indus Basin Initiative, also known as Upper Indus Basin Network (UIBN), is a voluntary collaboration formed in 2010 that largely comprises researchers at the national and international levels who are interested in working on the Upper Indus Basin. The history of the Upper Indus Basin Initiative goes back to the Abu Dhabi Dialogue which was founded in 2006, which aimed to build a cooperative and knowledge-based partnership of states for sustainable management of the Himalayan River system (ICIMOD, n.d.). The focus was on conducting dialogues, facilitating communication and outreach, and coordinating research and training activities. The Dialogue was funded by the World Bank through the South Asia Water Initiative (SAWI), which was a multi-donor trust fund supported by the United Kingdom, Australia and Norway. The fund closed in 2021. The International Centre for Integrated Mountain Development (ICIMOD) administered the Small Grants Projects (SGP), and the Indus Basin Initiative was a consequence of the SGP. As reflected in the vision document, one of the primary goals of this initiative was to formulate a knowledge-based network that would offer a platform for knowledge sharing and learning. Geographically, the Upper Indus Basin is a rugged mountainous terrain stretching from Western Tibet, Ladakh and Kashmir to the foothills of the Himalayas. Not much has been written on the Upper Indus Basin, primarily because of the difficult terrain (Mukhopadhayay and Dutta, 2010) but also because of the politically sensitive international border and disputed territories, which involves India, China, Pakistan and Afghanistan. Given this backdrop, lack of data and the ecologically fragile location of this region have generated a lot of uncertainty regarding hydrological models and water-induced challenges.

This paucity of reliable data regarding ground observation may have been key to drawing the attention of policymakers (Shrestha et al., 2021). Another significant objective of the UBIN was the 'co-creation of knowledge' and the ability to offer science-backed policy suggestions, which could facilitate a greater understanding among stakeholders in India, Pakistan, China and Afghanistan – a difficult task because of the political tensions between India and Pakistan, India and China, and Afghanistan and Pakistan. Given these challenges, country chapters were formed in each country, all anchored under the regional umbrella of ICIMOD, an inter-governmental organisation that works in the Hindu Kush Himalayan region at the intersection of science, society and ecology. ICIMOD focuses on Hindu Kush Himalayan countries, which includes Afghanistan, China, Pakistan, India, Bangladesh, Bhutan, Nepal and Myanmar. Focused on protecting mountain environments and cultures, it defines itself as the "pulse of the planet".

Table 2 offers a timeline of the evolution of the UIBN. It highlights the role that scientists and development partners have played in the process and in promoting scientific collaboration among the Basin countries.

While the overarching goal of the UIBN was to contribute to understanding the impacts of climate change on the Indus, key broad focal areas for this collaboration included improved understanding of present and future water availability, generating information on water demands and water hazards, and developing gender-sensitive solutions for all stakeholders. These broad objectives were divided among members of various working groups. While ICIMOD terms the success of this civil society initiative as an example of "science diplomacy" (Shrestha et al., 2021), I argue that this initiative was successful because it prioritised principles associated with social learning and interaction and because scientific knowledge sharing became the medium through which such social learning became plausible.

Table 2. The evolution of the Upper Indus Basin Network.

Year	Development in the Upper Indus Basin Network (UIBN)
2010	Expert consultation; long-term programme on shared scenario knowledge
2012	Upper Indus Basin monitoring group is formed by national and international partners
April 2014	A group of governmental, non-governmental and international experts visits Gilgit-Baltistan; based on field observations, the experts form six technical working groups, and change the name of the Monitoring Working Group to the Upper Indus Basin Network
2017	The UIBN begins collaborating with other Indus forums and organising international events such as the Indus Basin Knowledge Forum
April 2018	UIBN members decide to expand the UIBN to all the riparian countries through their country chapters, including Afghanistan, China and Pakistan
January 2019	Endorsement of new governance frameworks with regional and country structures
2021	World Bank funding stops; Kabul, Afghanistan is captured by the Taliban
2021 to 2024	No significant development, as the South Asia Water Initiative (SAWI) comes to a halt; some projects on gender and adaptation in Gilgit-Baltistan continue; projects are initiated by the International Centre for Integrated Mountain Development (ICIMOD)

Source: Adapted from Shrestha et al. (2021).

In terms of the network's modalities, six working groups were identified. The *first working group* focused on a framework of data collection, quality and standardisation. Key areas that became guideposts for building this database were: identifying existing knowledge gaps, prioritising research topics, and identifying potential research activities. These guideposts emerged in the course of initial field visits to the area and interactions with local people and officials. The *second working group* focused on climate change, air pollution variability, and black carbon. A key strategy for this group included focusing on long-term regional climate variability, datasets of air pollution sources, and black carbon concentrations in the cryosphere. The *third working group* focused on cryosphere monitoring and modelling, mainly monitoring snow dynamics and changes being observed in permafrost, and modelling linkages between precipitation, orography and sediment load characterisation. The *fourth working group* focused on hydrological regimes – surface and groundwater hydrology and water availability and demand. The key focal areas in this regard were identifying data gaps in, for example, precipitation, temperature, spatial variability of snow, and glacial melt. The *fifth working group* focused on understanding and managing hazards and risks. The key areas in this action-based programme included developing appropriate strategies for minimising damage from events such as glacial lake outburst flooding (GLOF), floods, avalanches and landslides. The *sixth working group* focused on managing gendered socio-economic impacts through adaptation measures. The key areas here included gender vulnerability with respect to longstanding issues of climate-induced nutritional (in)security, human migration, and the interdependence of communities and ecology that are focused on variable weather patterns, hazards and their impacts on human well-being. The main focus of this entire initiative was thus to look at the multiple interacting components that govern the ecosystem dynamics of the Upper Indus Basin and the impact that they can have on downstream areas.

It took almost eight years for this network to become operational, and it was only in 2018 that the Indus Basin Initiative managed to bring together four Indus Basin Knowledge Platforms, partnering with

public and private sector organisations in Afghanistan, Pakistan and China. The year 2018 was significant as it was in that year that India joined the network and country chapters were opened in Afghanistan, China, India and Pakistan. The network was able to build common platforms at the country level, enabling national institutions to conduct interdisciplinary discussions that brought multiple stakeholders together. The network also developed a common regional vision based on knowledge sharing, networks and alliances. It offered a shared platform for strengthening upstream – downstream linkages, making space for context- and gender-specific solutions and thus creating a 'scientific' framework for synergising strategies at the national and regional levels. According to Shrestha et al. (2021: 4-5), joint research was undertaken by the Indian and Pakistani Country Chapters; together they engaged in a transboundary study of the impacts of climate change on the livelihoods of UIB communities in Ladakh, India and Pakistan's Baltistan. In the process of implementing the research, members of the Indian and Pakistani Country Chapters also reached an epistemic consensus in the form of a joint methodology.

While the UIBN is an ongoing network, observations based on personal interactions revealed that by adopting a scientific approach, and advocating for evidence-based policy suggestions, the network did achieve some deliverables on the ground. They were based on close monitoring, joint field visits and discussions, and sustained learning and socialisation between actors over a period of time (Personal communication with experts at ICIMOD, 2022). Significantly, while India was not a party to this initiative in its initial years, it opened an Indian Chapter in 2018. A primary reason for its decision to do so was the active engagement of the network with Indian climate scientists, the neutral character of the knowledge network, and the opportunities it presented for learning and joint research which were otherwise difficult due to the disputed borders. One of the most significant deliverables, in fact, was a joint research collaboration undertaken by the Indian and Pakistani Country Chapters on the impacts of climate change on the livelihoods of Upper Indus Basin communities in Ladakh and Baltistan (Tuladhar et al., 2022). Since then, some significant work on the Upper Indus Basin has been emerging in the public domain, which is an important development (Orr, 2022). In 2020, India and Afghanistan also decided on a training programme related to hydrological modelling. Not much information is available in the public domain on the activities of the Upper Indus Basin Network post 2022, possibly because of the World Bank's 2021 closure of the SAWI programme.

TOWARDS A NEGOTIATION ANALYTIC METHOD (NAM) AND THE MECHANISMS OF SOCIAL LEARNING

To give meaning to this initiative and examine the value it brings to social learning and NAM, it is important to reflect on key aspects that have been identified as markers for social learning mechanisms.

Identifying themes related to uncertainties: This was a key marker for the initiative. Identified themes included: the need for data on present and future water availability; the need to generate information on water demands and water hazards; the need to develop gender-sensitive solutions for all stakeholders. These themes, which have a socio-scientific basis, are areas where there is also less data available in terms of value preferences; they thus are strongly conducive to cooperation.

Exercising creativity through linkages: The themes identified were important for creating linkages on water-related dynamics. The definition of water was broadened beyond the hydrological regime to include, among other things, sediment dynamics, cryospheric processes, avalanches, landslide monitoring, nutritional security, migration patterns and gendered vulnerabilities.

Opening channels of communication: ICIMOD, as a regional anchor, emerged as a non-threatening space for all stakeholders and brought them together as co-creators of knowledge. The Indus Basin was significant in terms of opening channels of communication through its adoption of a system-based, interdisciplinary approach. This system-based approach aimed to establish interactions between all key components of the Upper Indus Basin, and to integrate their possible implications for the middle and lower stretches of the river.

Establishing specialised committees for information sharing: The six working groups focused on the frameworks of data collection, water quality and standardisation. This created a niche interdisciplinary knowledge base regarding climatic, social, hydrological and meteorological data in the Upper Indus Basin. This base was also very important for the co-creation of knowledge.

*Side benefits and identifying minimum returns***:** The side benefits and minimum returns included the Indus Basin Knowledge Platform, individual country chapters in each country, and partnerships with public and private institutions. The Indus Basin Initiative also promised to bring information related to high altitude areas into its policy discourse.

*Visualising alternatives to negotiated agreements based on joint payoffs and value preferences***:** This is one of the perceived weaknesses of the Initiative as 'political' factors were considered to be redundant to the entire process. The focus was on 'science-backed diplomacy', but a regional framework that could have emerged in a multi-layered/networked manner failed to take off.

Creating spaces for informal knowledge interactions: The Initiative developed a regional common vision based on knowledge sharing, networks and alliances. It offered a shared platform for strengthening upstream – downstream linkages and it made space for context- and gender-specific solutions, thus creating a 'scientific' framework for synergising strategies at the national and regional levels.

Social learning mechanisms in the form of knowledge networks need to be reckoned with for three specific reasons. First, such networks are increasingly important in high altitude areas, not only because of the lack of information and data on such areas but also due to their geopolitical sensitivities and border complexities, which make state-based cooperation a challenging task. Second, they nudge one to think of networked water diplomacy models that can be based on relational policy paradigms. Third, knowledge networks also highlight the limitations of relational paradigms and explore ways in which one can employ their insights to inform the existing official state-based cooperation that occurs between these countries.

AN ENGAGEMENT WITH RATIONAL AND RELATIONAL POLICY PARADIGMS

The Upper Indus Basin Initiative, as an example of a relational policy paradigm, was focused more towards understanding the impact of climate change on hydrological regimes, understanding the socio-economic needs of stakeholders, and offering gender-sensitive solutions for the Upper Indus Basin. Given the focus on understanding interactive components in the Upper Indus Basin, the relational approach took cognisance of the intersection between human and non-human agents. Science was thus employed to understand the complex nature of relations and connections that exist between the human and natural worlds. This was in notable contrast to a more rational approach at the bilateral level, where one notes that hydro-diplomacy and water regimes are focused on specific technical and management issues. In the Indus Waters Treaty, technical and scientific principles were applied but the focus was on separating nature and science. A post facto analysis of the IWT reflects that social problems and ecological questions were overshadowed and that it did not respond to dynamic developments in the Basin. Issues around the impact of climate change, for instance, have been missing from bilateral discussions in the Indus Commission, even though climate change has become important in national policy frameworks; similarly, discussions on sediments, floods, nutritional security and cryospheric processes have also been pushed to the fringes. In contrast, the exclusive focus on geopolitical discourses has increased the costs of cooperation.

Against this backdrop, the Indus Basin Initiative reflects a network-based model that is suggestive of taking cognisance of social and ecological issues and establishing linkages between institutions and people that are differentially located. This networked form of structure can significantly inform a scalar approach to water diplomacy along with a broader meaning of 'water'. Water, in this context, gets its meaning from the entire riverine system (biodiversity, wetlands, aquifers, sediments, glaciers), and from

how scalar issues along the Basin are interconnected components of the river system. In fact, if one juxtaposes the scalar and technical discourses related to the Indus Basin, the Indus Basin Initiative comes across as a promising framework for reflecting on a networked approach to water diplomacy that is relational and is in contrast to a dominant statist paradigm that is rational in nature.

Sehring et al. (2022: 200-201) define water diplomacy as, "deliberative political processes and practices of preventing, mitigating and resolving disputes over transboundary water resources and developing joint water governance arrangements by applying foreign policy means which are embedded in bi-and/or multilateral relations beyond the water sector and taking place at different tracks and scales". While this definition is reflective of the larger sensibilities at play in discussions related to water diplomacy, it can perpetuate rational policy paradigms. This is because it looks at water as a function of diplomacy in terms of resolving disputes over transboundary rivers and it also engages with efforts made by riparian/basin countries towards developing joint water governance that is more multi-scalar and multi-layered in nature, including river basin organisations. Taking its cue from how social learning has been defined, it becomes important to revisit the definition of water diplomacy. Water diplomacy can thus be defined as a process that aims to understand uncertainties between the human and natural worlds through science-backed communication. This communication is about adjusting techniques of negotiation in response to past practices and new information. For creating such an interactive space, however, networked structures of water diplomacy should be designed that are based on social learning mechanisms. These networked structures can be led by political entrepreneurs or communities of knowers who act as links between state and societal actors.

Using the example of the Indus Basin Initiative, it can be argued that water and even climate governance based on scientific platforms of knowledge sharing can indeed be the mitigating mechanism for water diplomacy and that undertaking joint research endeavours with riparian communities and between riparian countries can help build a more informed technical and social base for illuminating needs-based water agreements at the bilateral level. This approach can have larger ramifications for broadening the nature of engagement between India and Pakistan, which at present do not have such communication channels. A key limitation of such an initiative is that it was neither taken at the political level nor supported by regional organisations. This should not discourage one from engaging with alternative paradigms that can offer useful lessons on water diplomacy. If one goes by a network-based approach to water diplomacy, potential solutions can be found in the negotiated framework of the IWT itself, however foreign policy bureaucracies and political leaders must be key relators in this process. A close analysis reveals that the IWT itself offers feasible solutions to ecological issues such as siltation, water logging, shifting of water tables, water contamination, groundwater extraction, problems of flood management, environmental flows (e-flows), and uncertainties relating to climate change and precipitation patterns in the catchments.[2] One can also argue that a rational paradigm has a singular focus on volumetric allocation of water and a relational paradigm expands the definition of water from surface water (water quantity) to water quality, preservation of wetlands and biodiversity, soil erosion, conservative use of groundwater and nature-based solutions (Bisht, 2022b). Given these concerns, a three-pronged approach is suggested to revitalise and rejuvenate the IWT as it exists in its contemporary form. It is argued that a fresh discussion on the Indus Waters Treaty could be generated through reflecting on the meaning of flows/water, revisiting the spatial identity of the river basin, and rethinking

[2] The IWT, for instance, does mention clauses that highlight prospects for cooperation. Articles IV, V, VII and VIII offer entry points for discussing the IWT from a governance perspective. It is argued that if one casts a look at the treaty, the bargaining range for cooperative potential does exist. Article IV on provisions regarding Eastern and Western rivers, for instance, emphasises using communication channels in areas of concern and avoiding measures that cause direct and indirect harm to the other. Article VII of the IWT underlines the possibility of the optimum development of rivers through consultation when issues related to drainage works or data-sharing arise. Article VIII focuses on multiple approaches that can include alternative dispute-resolution mechanisms.

the nature of interventions (through networked structures). These, to a great extent, will help to introduce social learning to negotiation models around water diplomacy.

The article underlines that debates on water diplomacy should recognise the difference between rational and relational policy paradigms. As Hall (1993) notes, one also needs to be aware of, and more engaged with, the reasons for a shift on policy paradigms and with how different paradigms relate to each other, change, and are transformed. The literature on policy paradigms tells us that paradigms change in an incremental, gradual and layered manner (Carstensen, 2011). While this is an open question for further theoretical exploration and investigation, it is important to broaden the discourse on water in the direction of a more holistic approach, one that is contingent on being open to social learning. One positive sign is the recent turn to adaptive governance and to policies related to integrated river basin management at the domestic level; it suggests an increased receptivity among South Asian states with regard to an integrated approach to management and development of the Basin. Since 1992, the international water policy discourse has also been significantly foregrounding the idea of integrated river basin management (Varady and Meehan, 2006; Varady et al., 2022). As Bevir (cited in Carstensen, 2011: 600) argues, the meaning of an idea derives neither from logic nor experience, but rather from the other ideas to which it is related. Given that negotiation literature shows us that any reliance on distributive tactics will only perpetuate a trust deficit and invoke water nationalism – thus securitising transboundary rivers in the long term – it is important that when we think about water policy and diplomacy, we keep in mind negotiation models and the role of social learning. If we do not, water diplomacy will inevitably lead to non-sustainable agreements. A shift from rational policy paradigms to relational policy paradigms is thus needed if water diplomacy is to be made effective.

Yaqing Qin (2020) defines diplomacy as a relational practice. He notes that, while the Ministry of Foreign Affairs is the implementer and communicator of a sovereign state's foreign policy, diplomacy is also a practice of making, managing and building relations. If one deconstructs the 'black box', the Ministry of Foreign Affairs is one of the principal relators. There are other relators in foreign policy when it comes to transboundary rivers, including scientists, bureaucrats, members of civil society organisations and of local communities, who together constitute the 'community of knowers'. The Ministry of Foreign Affairs, however, is the 'anchoring practice', which means that it is the practice that makes all the other practices possible (ibid: 167).

A relational policy paradigm of water diplomacy includes a more participatory approach that does not restrict water diplomacy to hydrological (groundwater and surface water) regimes. It responds, in fact, to a more dynamic river system, taking cognisance of the interactive components of the river basin and prioritising relations over entities (Jackson and Nexon, 1999). For operationalising this approach, however, reflections on dialogues and discourses around transboundary rivers need to be more sensitive to aspects that are associated with social learning. The impact of ideas and of the socialisation of non-state actors across levels and scales can be leveraged to shape policy development through networked structures. They can constitute an effective way forward for thinking and building frameworks associated with relational policy paradigms and water diplomacy. The Upper Indus Basin Initiative lost its momentum after 2021; it is, however, an instructive case which reveals that such programmes, though donor-driven, are nonetheless pathways for networked water diplomacy in the region.

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