

LIVING RIVERS, COSMOPOLITAN ACTIVISM, AND ENVIRONMENTAL  
JUSTICE IN THE BENGAL DELTA

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## ABSTRACT

### LIVING RIVERS, COSMOPOLITAN ACTIVISM, AND ENVIRONMENTAL JUSTICE IN THE BENGAL DELTA

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This thesis explores the social movements and civil society activism to protect the rivers that flow through Bangladesh—the cradle and terminal delta floodplain of the transboundary Ganges, Brahmaputra, and Meghna river systems—, as well as ways to build regional cooperation and watershed democracy in South Asia. The research drew on four overarching fields of study: environmental justice, southern environmentalism, ecological nationalism, and environmental governance. These four bodies of scholarship helped address the overarching question: how are civil society organizations analyzing and responding to the water diversions and degradation of Bangladesh’s transboundary rivers? Semi-structured interviews were conducted with civil society organizations and river activists who are mobilizing for river protection in Bangladesh. Constructivist grounded theory methodology was utilized to analyze interview data and relevant grey literature and visuals collected from the field. This research found that civil society is responding to the degradation of Bangladesh’s transboundary rivers through a near unanimous advocacy for a multilateral, basin-wide, integrated water resources management approach to river governance in South Asia. This includes an ecological approach to protect rivers from dams and diversionary infrastructure, restoring a river’s

natural course through the abolishment of existing structures, and regarding rivers as the progenitor of various ecosystems and cultures. Bangladesh's lowest riparian, deltaic setting, and relative political power in regional and global affairs is also prompting civil society groups in the country, across South Asia, globally, and in the diaspora to mobilize and build coalitions across and beyond established borders. This includes advancing water diplomacy and bioregional notions of river governance, with a goal of bringing South Asia's common watersheds within a common water-sharing framework and actualizing true "watershed democracy."

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## GLOBAL ENVIRONMENTAL JUSTICE IN DIASPORIC ACTIVISM:

### INTRODUCTION

On September 21, 2014, communities around the world came together and took to their streets for the People's Climate March. Over 300,000 people gathered in New York City to sound the alarm on the climate crisis two days before world leaders convened for the United Nations Climate Summit, making it the city's event the largest of its kind in recorded history (Chatterjee & Soundararajan, 2014). Beyond the United States, there were major actions in South Asian cities and capitals, including Dhaka, Colombo, Islamabad, Kathmandu, Malé, and New Delhi (Chatterjee & Soundararajan, 2014).

South Asians living in the U.S. joined the call to action. One hundred and fifty diasporic scholars and activists formed the joint South Asians for Climate Justice contingent (Chatterjee & Soundararajan, 2014). Composed of members of eleven South Asian community groups, including the Bangladesh Environment Network (BEN), EcoSikh, and Indo-Caribbean Alliance, "they came together to begin this process by learning from each other and then marching in a united Desi front" (Chatterjee & Soundararajan, 2014: third paragraph). The contingent was critical as South Asia is on the frontlines of the climate crisis, and actions in the U.S. "can either reduce the risk or further endanger [1.9] billion people," according to Barnali Ghosh, an organizer with the California-based group, Brown and Green: South Asian Americans for Climate Justice (Chatterjee & Soundararajan, 2014: second paragraph). Ghosh continued, with every

action taken in the U.S. to elect climate leaders, halt dirty energy projects, divest from fossil fuel industries, or reinvest in bold solutions, a double victory is achieved (Chatterjee & Soundararajan, 2014). These actions help communities in the U.S., but simultaneously also in our ancestral homelands in South Asia (Chatterjee & Soundararajan, 2014).

I was one of twenty community members participating in a parallel climate demonstration taking place in Oakland, California organized by the Alliance of South Asians Taking Action (ASATA), another California-based organization (Chatterjee & Soundararajan, 2014). Our group drew parallels between the climate crisis and the legacies of colonialism, “where much of the atmosphere’s ability to absorb carbon has been monopolized by a small group of industrialized nations, while residents of the most vulnerable communities around the world pay the price” (Chatterjee & Soundararajan, 2014: eighth paragraph).

These sentiments were echoed at the New York City event, which commenced with members of the diasporic Bangladeshi community sharing their hopes for the UN talks (Chatterjee & Soundararajan, 2014). According to Sayed Rahman of BEN, “while world leaders are dithering, climate refugees in Bangladesh are living with the consequences of catastrophic climate change created by major greenhouse gas polluters like the United States and Europe. We all call on world leaders, particularly President Obama and the U.S. Congress, to work toward ambitious international emissions reduction targets” (Chatterjee & Soundararajan, 2014: fifth paragraph).

BEN is a network of non-resident Bangladeshis and international allies to confront Bangladesh's environmental problems. The framing and perspectives of BEN's predominantly United States base is very telling of Bangladesh's national struggles. Several years prior, BEN members organized a protest in front of the UN headquarters against India's mega-project to link its transboundary rivers via a series of dams, canals, and barrages. Bangladesh is situated at the terminal delta floodplain of three large rivers it shares with upstream neighbors like India, whose national development projects can radically alter the ecologies and livelihoods of those outside its boundaries. Downstream river vulnerability coupled with rising seas are forcing Bangladeshi activists to organize internationally.

As a member of the Bangladeshi diaspora, I was excited to learn about BEN. BEN formed to connect non-resident Bangladeshis like myself to ecological challenges in the homeland. Their transnational alliance building seemed novel and desperately needed, especially in light of the dominance of nationalistic approaches to addressing the climate crisis and global environmental change. This made me wonder about the perspectives of other ecologically-minded civil society groups identifying with my ancestral country. What are their ways of framing the degradation of Bangladesh's transboundary rivers? Are the mobilizing efforts and strategies of those working within Bangladesh distinct? How does nationalism inform them? To what extent do they represent cosmopolitan modes of organizing like BEN? To what extent are they working in alliances with other groups in the country, across the South Asia region, and around the world?

In this thesis, I explore these preliminary questions through a study of the social movements and civil society advocacy devoted to river protection in Bangladesh as well as regional water cooperation in South Asia. The movements and organizations I examine include the local, grassroots groups Bangladesh Poribesh Andolon [Bangladesh Environment Movement], Riverine People, and Brotee, well as global networks like BEN. Through interviews with key leaders and activists of these organizations, supplemented by my reading of environmental justice, southern environmentalist, ecological nationalist, and environmental governance bodies of literature, I address specific questions informed by those bodies of literature. They include more elaborate, overarching questions like the following: how is civil society invoking the environmental justice frame to conceptualize the power and the scale of vulnerability in Bangladesh, particularly in the context of its climate vulnerable and downstream river geography? How is civil society resistance to large scale river intervention development projects on transboundary waters informed by livelihood concerns and other environmental struggles in the Global South? How does nature devotion, expressed as nation-pride in Bangladesh, influence the ways in which activists frame their issues and organize for the protection of rivers? How does the power of decision-making structures for addressing transboundary river governance influence civil society organizations advocating for the rights and protection of transboundary rivers? These questions emerge from the review of literature, the subject of the following chapter.

Chapter three summarizes how these questions were investigated. The processes included semi-structured interviews with civil society organizations and river activists

who are mobilizing for river protection in Bangladesh, while constructivist grounded theory methodology was utilized to analyze interview data and relevant grey literature and visuals collected from the field. Chapter four provides an overview of Bangladesh's setting and the dominant approaches to rivers in the region. The following chapter analyzes field research data based on my engagement with civil society organizations active in the river protection movements within Bangladesh. This research found that civil society is responding to the degradation of Bangladesh's transboundary rivers through the advocacy of a common water-sharing framework that respects ecological and watershed boundaries in South Asia and calls to restore a river's natural course through the abolishment of existing dams and diversionary structures. Bangladesh's lowest riparian, deltaic setting, and relative political power in regional and global affairs is also prompting civil society groups in the country, across South Asia, globally, and in the diaspora to mobilize and build coalitions across and beyond established borders.

## ENVIRONMENTALISMS AND SOUTH ASIAN RIVERS: A REVIEW OF LITERATURE

To help me engage with my overarching research questions, I draw on four key bodies of inter-related literature: environmental justice, southern environmentalism, ecological nationalism, and environmental governance. I use key concepts from this literature to develop specific research questions.

Environmental justice, at its most basic level, evokes the unequal distribution of environmental harms and goods. Southern environmentalism is a particular form of environmentalism driven by developmentalist concerns and contestations to the high-modern state in the Global South. Like environmental justice, its proponents seek livelihood for vulnerable populations. Ecological nationalism is a concept that links identity and community formation with ideas and claims regarding the environment. Manifestations of resistance and tensions to the state characterized by southern environmentalism and environmental justice could be read as forms of ecological nationalism. Environmental governance is the means by which society determines and acts on goals and priorities related to the management of the natural world (e.g. riverbodies). This includes the rules, both formal and informal, that govern human behavior in decision-making processes as well as the decisions themselves. Environmental justice, southern environmentalism, and ecological nationalism inform the trajectory of environmental governance. These four core concepts were settled on due to their ability to conceptualize questions regarding the social movements to protect

Bangladesh's transboundary rivers and ways to build regional cooperation and watershed democracy in South Asia.

### Environmental Justice

An environmental justice (EJ) lens can be used to conceptualize power and the scale of vulnerability in Bangladesh, particularly in the context of its downstream position and reliance on flows from larger and more powerful countries like India. Thus, EJ is also useful in highlighting the unequal distribution of harms and goods.

Since the term's conception, EJ has challenged the widespread notion of who is and can be an environmentalist. EJ as a concept is "often traced to the controversy surrounding the contamination of Love Canal in upstate New York in the late 1970s and acts of civil disobedience by groups of predominantly African Americans protesting the dumping of toxic wastes in a landfill in Warren County, North Carolina, in 1982" (Schroeder et. al., 2008: 547). Since then, activists fought for EJ by not only decommissioning toxic facilities, but also by demanding accessible green space and affordable, healthy foods, "safe neighborhoods, and for climate-related policies and practices that are socially just and ecologically sustainable" (Pellow, 2018: 4). Thus, from the movement's beginnings, EJ activists communicated a far-reaching vision of how an equitable and resilient future would manifest at local to global scales (Pellow, 2018: 4). As an example, participants of the historic 1991 Environmental Justice Summit conference "drafted what became known as the Principles of Environmental Justice, which not only embrace a synthesis of anti-racism and ecological sustainability, but also



support anti-militarist, anti-imperialist, gender-justice politics” (Pellow, 2018: 4). The principles also acknowledge the intrinsic and cultural value of nonhuman natures (Pellow, 2018: 4)

The EJ movement is composed mostly of communities of color and indigenous and working class people who are working on combating the racial, class, gender, and environmental inequities that are most visibly expressed in the unequal environmental harms facing these populations (Pellow, 2018: 5). For EJ activists, the struggle for sustainability can only be achieved by addressing “the ecological violence on vulnerable human populations; thus social justice (that is, justice for humans) is inseparable from environmental protection” (Pellow, 2018: 5).

While EJ is often associated with aforementioned communities in the United States, the concept can be applied globally. In his case-study of hazardous waste in Latin America, David Carruthers (2008: 564) writes, environmental injustices are not “relegated to local failures in wealthy nations, but symptomatic of systemic tendencies of globalization.” One of his interviewees, an EJ activist from Northern Mexico, says, “If we think of the world as neighborhoods, then it's obvious—the poor countries pay the environmental costs. Mexico is a poor neighborhood” (Carruthers, 2008: 564). Carruthers (2008: 565) quotes Joan Martinez-Alier, who writes, “environmental justice is but one element of a larger category of ‘environmentalism of the poor’ found in every corner of the globe.”

While EJ as an organized movement is most prominent in its “country of origin”—the United States—, “popular environmentalism or livelihood ecology or the

‘environmentalism of the poor’ are names given to” various movements in Bangladesh and other regions in the Global South “that struggle against environmental impacts that threaten poor people who are, in many countries, a majority of the population” (Martinez-Alier, 2002: 12). Carruthers (2001) suggests the U.S. environmental justice movement has much in common with these popular struggles for livelihood as both are grounded in movements to sustain everyday life. Just as Bangladeshi activists living downstream of Indian dams cite lack of freshwater to sustain their livelihoods, activists in Richmond, California downwind of the city’s Chevron Oil Refinery cite lack of clean air and the everyday toxic refinery pollution they live with. Giovanna Di Chiro (2009: 3) writes, “it is activists in the environmental justice movement (EJM) that have most convincingly foregrounded these everyday life (and death) stakes at the root of their environmental politics and have developed an ‘environmentalism of everyday life.’” From North America to South Asia, environmental justice movements are emerging organically and helping to expose inequities on a global scale (Carruthers, 2008; Carruthers, 2001).

Scholar David Pellow (2018) pushes the boundaries of environmental justice scholarship by asking what the EJ frame would encompass if we moved beyond race and class and eyed issues not traditionally associated with environmental justice. Pellow develops a robust, “Critical Environmental Justice Studies” (CEJ) framework that draws from numerous scholarly fields, which he then uses to skillfully unite issues such as Black Lives Matter, the U.S. prison industrial complex, and conflicts in Israel and Palestine (Pellow, 2018). This process helps conceptualize the ties between ecological and social violence.

CEJ has been developed to touch on a number of limitations and tensions in earlier generations of EJ studies (Pellow, 2016: 223). This includes, for instance: (1) questions regarding the extent to which scholars should emphasize “one or more social categories of difference” (e.g. race, class, gender, sexuality, species, etc.) as opposed an emphasis on multiple forms of inequality; (2) the degree in which EJ scholars should center “single-scale versus multi-scalar analyses of the causes, consequences, and possible resolutions of EJ struggles”; (3) the extent to which manifestations of power and inequality should be seen as entrenched in society; and (4) the widely “unexamined question of the expendability of human and non-human populations facing socioecological threats from states, industries, and other political economic forces” (Pellow, 2016: 223).

CEJ as articulated by Pellow consists of four pillars. The first pillar addresses the concept of intersectionality. This means acknowledging that social inequality and oppression over diverse forms of social difference (e.g. race, class, gender) intersect (Pellow, 2016: 225). It also recognizes that “members of the more-than-human world are subjects of oppression and agents of social change” (Pellow, 2016: 225).

The second pillar calls for “multi-scalar methodological and theoretical approaches in order to better comprehend the complex spatial and temporal causes, consequences, and possible resolutions of EJ struggles” (Pellow, 2016: 227). For instance, while climate science shows that anthropogenic climate change is accelerating at an immense pace, and with growing intensity, “this is also happening unevenly, with

people of color, the poor, indigenous peoples, peoples of the Global South, and women suffering the most” (Pellow, 2016: 227-228).

The third pillar calls for an anti-statist/anarchist perspective. As Pellow (2016: 229) writes, “social inequalities—from racism to speciesism—are not aberrations, but rather are deeply embedded in society and reinforced by state power and market systems.” Thus, the existing social order serves as a fundamental barrier to social and environmental justice (Pellow, 2016: 229). A logical conclusion of this observation is that movements for social change should think and act beyond the state and capital “as targets of reform and/or as reliable partners” (Pellow, 2016: 229).

The fourth pillar focuses on the ideas of racial and socioecological indispensability (Pellow, 2016: 230). John Márquez and other ethnic studies scholars argue that, in a society embedded in White supremacy, people of color are construed as and “rendered expendable” (Pellow, 2016: 230). CEJ compliments the work of these scholars by countering the ideologies of White supremacy and “human dominionism” and expressing the notion that “excluded, marginalized, and othered populations, beings, and things—both human and more-than-human—must be viewed not as expendable but rather as indispensable to our collective futures” (Pellow, 2016: 231).

The EJ (including CEJ) frames enable the refinement of my general research questions into the following more specific questions: how are civil society groups invoking the environmental justice frame to conceptualize power and the scale of vulnerability in Bangladesh, particularly in the context of its downstream position and reliance on flows from larger and more powerful countries like India? How are civil

society groups highlighting the unequal impacts of climate change and how does their position in the Global South bring a unique perspective to the issue? And lastly, how are Bangladeshis and their global allies indispensable in the fight to protect rivers and address global climate and environmental justice?

### Southern Environmentalism

Southern environmentalism (specific to many Global South societies) contrasts with traditional environmentalism in the Global North in that it centers rights to livelihoods as opposed to conservation and preservation of the natural world. The “environmentalism of the poor” has been used as an umbrella term to describe varieties of social action associated with southern environmentalism in contrast to mainstream environmentalism in the North (Guha, 2000: 104). In this respect, southern environmentalism is closely related to environmental justice (EJ). This is referenced by Martinez-Alier (2002) in the previous section, who notes while EJ as an organized movement originated in the United States—, “popular environmentalism or livelihood ecology or the ‘environmentalism of the poor’ are names given to” various movements in the Global South. Throughout much of the Third World, writes David Cleary, “reality is a seamless web of social and environmental constraints which it makes little sense to atomise into mutually exclusive categories” (cited in Guha, 2000: 105). Commercial forestry, drilling for oil, and big dams all damage the environment, but they also comprise a threat to rural livelihoods by “depriving indigenous communities of fuelwood and small game, by destroying the crops of farmers, or by submerging wholesale the

lands and homes of villagers who have the misfortune to be placed in their path” (Guha, 2000: 105). Guha (200: 105) writes, “the opposition to these interventions is thus as much a defense of livelihood as an ‘environmental’ movement in the narrow sense of the term” (Guha, 2000: 105). The experience of environmental degradation exacerbating economic deprivation explains the “moral urgency” of these protest movements (Guha, 2000: 105).

Foremost, southern environmentalism as a lens highlights activism against the developmentalist state. Leaders of developing countries often push “economic development” initiatives like large dams at the expense of social and environmental concerns from the masses. This was exemplified during the first major United Nations environmental conference held in Stockholm in 1972, where the governments of India and Brazil “were vocal in their defense of development” over the environment (Guha, 2000: 112). Then Indian prime minister Indira Gandhi delivered a powerful speech “to the effect that if pollution was the price of progress, her people wanted more of it” (Guha, 2000: 112). Similarly, Brazilian representatives hinted that the gathering was “a sinister conspiracy to prevent the developing world from developing further” (Guha, 2000: 112).

Southern environmentalists have long served the role of speaking truth to power, and to ask politicians and other rulers uncomfortable questions like, “development at what cost?” and “progress at whose expense?” (Guha, 2000: 124). In the realm of Indian water management, activists have opposed large dams and instead advocated for alternatives such as small dams and “the revival of traditional methods of irrigation, such as tanks and wells” (Guha, 2000: 122).

Southern movements appear to be strongly rooted in material conflicts, with calls for economic justice—that is, the rights of environmental resources of poorer communities—being a key part of them (Guha, 2000: 122). For this reason, southern movements work for both a culture shift and a shift in the production system (Guha, 2000: 122). Southern environmental groups also tend to be more oppositional in relations with their government—“opposing laws and policies deemed to be destructive or unjust”—than Northern groups, which usually work with “their governments in promoting environmentally benign laws and policies” (Guha, 2000: 122).

Southern environmentalists most often begin their struggles by addressing letters and petitions to authority figures in a “position to bring about remedial action” (Guha, 2000: 106). Their protests turn to more direct action forms of confrontation when pleas are left unanswered (Guha, 2000: 106). Compared to the Global North (e.g. United States, Canada, and Western Europe), where electronic media and direct mailers are frequently used to canvass support, the modes of communication in Southern countries are more dependent on “traditional’ networks” (e.g. one’s village, tribe, lineage, and caste) (Guha, 2000: 106). Once a sufficient number of supporters have been mobilized, “there unfolds a richly varied repertoire of collective action.” (Guha, 2000: 106). According to Guha (2000: 106), seven distinct forms of social protest can be identified in popular environmentalism in India:

The *dharna* or sit-down strike; the *pradarshan* or massed procession; the *hartal* or general strike (forcing shops to shut down); the *rasta roko* or transport blockade (by squatting on rail tracks or highways); the *bhook hartal* or hunger fast (conducted at strategic site, say the office of the dam engineer, and generally by a

recognized leader of the movement); the *gherao*, which is to surround an office or official for days on end; and the *jail bhara andolan* or movement to fill jails by the collective breach of a law considered unjust (Guha, 2000: 106).

While many of these methods were perfected by Indian independence leaders in their battles with British colonialism, they have parallels in other peasant cultures (Guha, 2000: 106). Separately and collectively, these forms of protest articulate a “powerful indigenous ideology of social justice” (Guha, 2000: 107). In India, Mahatma Gandhi has provided environmentalists their most effective means of protest as well as “a moral vocabulary to oppose the destruction of the village economy by industrialization” (Guha, 2000: 107).

The discourse and frame of southern environmentalism enables me to develop specific research questions regarding Bangladeshi civil society communities and movements. Is river activism in Bangladesh mostly rooted in material conflicts? How is the fight against statist large scale development projects along transboundary rivers informed by other environmental struggles in the Global South? How specifically are river-advocating civil society groups operating in Bangladesh? Do these borrow from other Southern movements, including the struggles of the past (i.e anti-colonial resistance during the British Raj)? Do their tactics involve more direct action demands and alliance-building in the region?

### Ecological Nationalism

The concept of ecological nationalism links identity and community formation with ideas and claims regarding the environment. Ecological nationalism often manifests



where “cosmopolitan and nativist versions of nature devotion converge and express themselves as a form of nation-pride in order to become part of processes legitimizing and consolidating a nation” (Sivaramakrishnan & Cederlof, 2006: 6). As shared memories of nature, or as appropriated cultural and political geographies, environmental claims and identities have been envisioned in terms of “dense ecological networks of relationships” and have often been an anchor for national ambitions (Sivaramakrishnan & Cederlof, 2006: 2). These claims and identities have been used to claim political space, and “to place supposedly ancient national identities historically in the present” (Sivaramakrishnan & Cederlof, 2006: 2). In associating one's roots in “time immemorial,” various communities have attempted to legitimize “a variety of identity claims located in the unbounded time of eternity and nature” (Sivaramakrishnan & Cederlof, 2006: 2). Here, images serve a significant role (Sivaramakrishnan & Cederlof, 2006: 2). As Sivaramakrishnan & Cederlof (2006: 2) write, the “iconography of megafauna, and the spectacular avian species of known endemism that nations adopt, quite apart from sacred geographies of pilgrimage sites, can all now map the imaginary boundaries of nations.”

Many sectors of society, including civil society organizations and environmental activists, implicitly or explicitly, carry notions of ecological nationality. Two contrasting views of ecological nationality include the “metropolitan-secular view of nature and its economic and material uses for the nation” and an “ethnic or regionalist response to the expansion of the high-modern nation-state in its imperial or post-Independence forms” (Sivaramakrishnan & Cederlof, 2006: 7). Metropolitan-secular ecological nationalism

operates with a focus on the constitutional foundations of the modern nation-state and its uses or invocations of nature for the good of the “public” (Sivaramakrishnan & Cederlof, 2006: 8). Its strongest proponents are often politicians, government bureaucrats, and businesspeople (Sivaramakrishnan & Cederlof, 2006: 7-8). Here, differences across local cultures, histories, and regional geographies, are displaced with processes where romantic, iconographic imagery of nature may be used to supervise an aggressive management of natural resources (Sivaramakrishnan & Cederlof, 2006: 8). The “secular,” as it thrives in this manifestation of nature appropriation, does not impede religious sentiments as they may be expressed in nation-state terms (Sivaramakrishnan & Cederlof, 2006: 8). By contrast, ethnic or regional manifestations of ecological nationalism are often a response to the “predatory state or to global encroachments on the life and livelihoods of communities being marginalized by such expansion” (Sivaramakrishnan & Cederlof, 2006: 8). The distinguishing characteristics of such ecological nationalism include impressions of authenticity, physical bonds with place, and memories of the past as forms of attachment with a particular environment (Sivaramakrishnan & Cederlof, 2006: 8).

From the outlook of India’s ruling elite, metropolitan-secular nationalism found one of its most vivid spokesmen in Jawaharlal Nehru (Sivaramakrishnan & Cederlof, 2006: 30). Nehru, who never lived in Kashmir, nonetheless bore “strong affinity and kinship attachment” to the Himalayan region (Sivaramakrishnan & Cederlof, 2006: 30). In describing his “quest for and encounter with India’s past,” he wrote:

I wandered over the Himalayas, which are closely connected with old myth and legend [...] my love of the mountains and my kinship with Kashmir drew me to them [...] the mighty rivers of India that flow from this great mountain barrier into the plains of India attracted me and reminded me of the innumerable phases of our history [...] the story of the Ganges, from her source to the sea, from old times to new, is the story of India's civilization and culture [...] in my city of Allahabad or in Hardwar I would go to great bathing festivals (Nehru, 1999: 51; Sivaramakrishnan & Cederlof, 2006: 30).

Nehru's words gave voice "to the imagined landscape of the Indian nation of secular nationalism" (Sivaramakrishnan & Cederlof, 2006: 30). As in Rabindranath Tagore's work, "an environmental imagery with strong cultural ingredients" is expressed in writings that create a nature-based "national and regional consciousness when generating anti-colonial sentiments" (Sivaramakrishnan & Cederlof, 2006: 30). Tagore's songs *Jana Gana Mana* and *Amar Sonar Bangla* were adopted as the national anthems of India and Bangladesh respectively. However, the picturesque and "romantic naturalism of the nation" was also juxtaposed with sights of degraded landscapes as a mirroring of India's exploitation under British rule" (Sivaramakrishnan & Cederlof, 2006: 30). Simultaneously, Nehru oversaw an immense "transformation of this landscape in the name of stabilizing the modern Indian nation" during his years as prime minister (Sivaramakrishnan & Cederlof, 2006: 30-31). In this contradictory manner—presenting romantic imagery of the landscape while transforming it immensely—"the colonial and postcolonial states converge in their relationship to nature" (Sivaramakrishnan & Cederlof, 2006: 31). In their assessments of the Nehru era, environmental historians have led charges against its prevailing ideology of "metropolitan-secular nationalism and its ecologically disastrous manifestations in large dams, forest policy, industrial pollution,

and nuclear proliferation” (Sivaramakrishnan & Cederlof, 2006: 31). What dams symbolized to India and Indian leaders at the time is perhaps best captured by Nehru's famous statement that dams were the “temples of modern India” (Klingensmith, 2003: 134-6). Such “modern Temples” continue to be pushed by India’s present government at the expense of its vulnerable populations and neighboring lower-riparian states.

The environmental inequities and civil society-state tensions and conflicts mentioned in the prior sections can be read as different forms of ecological nationalism, where both metropolitan and nativist versions of nature devotion converge and express themselves as a form of nation-pride. This frame has a variety of implications for Bangladeshi civil society communities and movements. How does nature devotion, expressed as nation-pride in Bangladesh, influence activists and their organizing for the protection of rivers? In particular, does nature devotion affect their ways of framing their issues (e.g. livelihood for vulnerable populations) and concerns (e.g. idea of environment as kin/family, holistic vision, human-environment relationship as relates to ecological nationalism)? Does the use imagery of (e.g. of the Bengali countryside and megafauna), song (e.g. the national anthem, music of the 1971 liberation war), and literature (e.g. Tagore poetry and propose) play a crucial role in cementing nature devotion as nation-pride?

### Environmental Governance

Environmental governance refers to the means by which society determines and acts on goals and priorities related to the management of environmental resources. This

includes the rules, both formal and informal, that govern human behavior in decision-making processes as well as the decisions themselves. In this section I address the following dimensions of environmental governance: areas of jurisdiction, state-market-civil society relations, bioregionalism and watershed democracy, and emerging rights of nature frameworks.

Areas of jurisdiction: statist territorialization vs post-statist/transboundary understanding

International laws and treaties are a primary mechanism for transboundary river management governance across nation-state boundaries. For example, the 1996 Ganges Treaty between India and Bangladesh is a pact to share surface water flow “at the Farakka Barrage near their mutual border” (Hanasz, 2014: second paragraph). However, treaties often fail to facilitate meaningful cooperation between signatory nation-states. The Ganges Treaty for instance, disregards the value and uses of the river between the two nations (Hanasz, 2014). The treaty also does not take into consideration co-riparian Nepal, meaning it does not take a basin-wide approach to river management, or “factor in the effects of upstream use of the Ganges on water availability at the Farakka Barrage” (Hanasz, 2014: second paragraph). This shows that a legally binding agreement differs from actual, meaningful cooperation between stakeholders (Hanasz, 2014). The Ganges Treaty “favors the hydro-hegemonic state (India) and solidifies the status quo” (Hanasz, 2014: third paragraph).

The Westphalian state is the dominant model and reference point for transnational river governance approaches (Ahmed, 2017: 3). In international law, westphalian

sovereignty is the principle that each state has exclusive sovereignty over its territory (Nation-States and Sovereignty, n.d.). This underlies the modern system of sovereign states and is enshrined in the Charter of the United Nations (Chapter I: Purposes And Principles, 1945). For example, in the realm of transboundary river water sharing, emerging international law requires each stakeholder, especially states, “to utilize rivers in an equitable and reasonable manner” (Ahmed, 2017: 3). As Imtiaz Ahmed (2017: 3) observes, “Indeed, so statist did the formulation of rivers become that an international river in South Asia [—the Ganges—] came to be declared as a ‘national river.’”

#### Spheres of the modern (Westphalian) and post-colonial state

While the state and governmental sectors are often synonymous, the former can be broadened to include other sectors of society. According to Ahmed (2017: 4), the spheres of the “modern state” can be divided into three: political society, the market, and civil society. Political society “includes the actors and agencies possessing coercive power” (Ahmed, 2017: 4). These include “governments, the military, police, rules, and regulations” (Ahmed, 2017: 4). The second sphere, the market, includes the whole pursuit of business (Ahmed, 2017). In some circumstances, this sphere can possess enough power to become a decisive factor in “reproducing the state” (Ahmed, 2017: 5). The third sphere, which is civil society, includes “academics, students, intellectuals, civil rights groups, political parties, media, cultural bodies, and other actors and agencies engaged in reproducing social capital in the society” (Ahmed, 2017: 5). While these three spheres are related, they remain “relatively autonomous” from one another (Ahmed, 2017: 5).

The post-colonial state in South Asia differs from this three sphere model. In lieu of the Westphalian “separation of powers” and “relative autonomy” of the different domains of the state, “the political society” of post-colonial South Asia nations is “over-developed,” with “paramount power to influence and steer the other spheres of the state” (Ahmed, 2017: 5). Ajaya Dixit (2017: 84) provides a striking instance of over-development with regards to the Ganges River:

With the colonization of the Sub-Continent, the rivers of the Ganga River Basin ... acquired a political dimension, and their water began to be used to meet political objectives.... In South Asian history, ... the political objective became dominant once the British East India Company and later the British state began to develop irrigation systems. The aim was to generate revenue: if irrigation canals could provide sufficient water to increase agricultural production, more tax could be collected.

This shows that in contrast to the U.S. Constitution and the relative autonomy of the U.S. Supreme Court, which holds the power to “decide on the equitable apportionment of river water, the constitutions of post-colonial South Asian countries provide no such power to their respective Supreme Courts” (Ahmed, 2017: 5). Thus, only “experts” appointed by the government can be tasked with settling intra-state or regional water conflicts in India, as well as Pakistan and Bangladesh (Ahmed, 2017: 6). Suggestions that South Asian nations could follow in the footsteps of the U.S. Supreme Court to address their water-sharing problems are a “non-starter, if not a contradiction, given the qualitative difference in the nature of the state between the U.S. and the countries of South Asia” (Ahmed, 2017: 6). In spite of these differences, the post-colonial state in various areas “remains structurally organized to reproduce itself in the image of

the ‘modern West,’ detrimental though it may be to its land and people” (Ahmed, 2017: 5).

### Civil society influence on governance

As ownership of water is entrusted to the state (as opposed to individuals or a group of individuals), “developmentality and statism” continue to take shape in “technology-driven decision-making by the state” (Sharma, 2017: 68). In spite of a growing consensus that rivers should be viewed and managed more holistically, water conflicts between states remain fixated on the volume of downstream river flow, and seldom on how water is managed within the river basin (Sharma, 2017: 68).

Civil society is constantly working to change this. During the 2000s, activists under the banner of the South Asian Solidarity on Rivers and People challenged the “reductionist engineering for river water control head-on, questioning the ecological veracity of several projects,” including the proposed Indian River Linking Project and Tipaimukh Dam in Northeast India (Sharma, 2017: 68). In contrast to related initiatives, it committed activists and academics from member countries to discuss and deliver the issues into the public sphere, which could not be brought onto the official agenda of the government (Sharma, 2017: 68-69).

Earlier in the 1990s, debates surrounding Bangladesh’s Flood Action Plan and Tehri High Dam and Sardar Sarovar Project in India were at their height (Dixit, 2017: 90). This era also saw neoliberal ideology advocated as an answer to governance, driven



by the notion that government should have a minimal role in governance and “that markets would do all the needful” (Dixit, 2017: 90).

This decade was an age of visionary engagement among civil society actors in South Asia (Dixit, 2017: 90) and beyond. Some of the boldest South Asian thinkers (Guha, 2013), seeking to bridge the natural and social sciences, “came together to challenge the prevailing paradigms of development” (Dixit, 2017: 90). They challenged the idea that those who put themselves on pedestals “best practiced development” and interrogated the aggressive, “top-down decisions regarding water, development, and societal concerns” onto marginalized populations. Anthony Bottral (1992: Future Directions section) wrote of the South Asian waterscape during this period: “It is high time to end the old fiction—started during the days of empire, uncritically accepted by political leaders after independence and vigorously encouraged by those who benefit most from it—water development is technical best left to technical specialists to deal with— preferably behind closed doors.”

The tough questions raised by civic actors during the 1990s made donors and recipient governments just as uncomfortable: would the prevailing development trajectory exacerbate existing disparities between the “haves and have-nots”? (Dixit, 2017: 90) The civic actors placed emphasis on the constraints that were continuing to keep much of the South Asian populace poor and asked why they lacked “decent education, dignified employment, safe housing or good health” (Dixit, 2017: 90).

A key point in the debate on dams, water and development was the creation of the World Commission on Dams (WCD) in 1998 (Dixit, 2017: 90). The commission brought

opponents and proponents of dams together to examine the performance of dams around the world and to come up with a new plan for building them (Dixit, 2017: 90). Two years later, its report, “Dams and Development,” introduced a new framework and standards for developing dams (WCD, 2000). However, few governments or private-sector actors heeded the report’s recommendations (Dixit, 2017: 90-91). Suggestions that its principles be internalized came mostly from civil society actors, whose advocacy promoted change across South Asia and around the world (Dixit, 2017: 91). With the start of the new century, however, the space for the civic voices that were outspoken during the water debate steadily diminished “as the mantra of economic growth began to take precedence over questions of environmental sustainability and equity” (Dixit, 2017: 91). Signs of reviving this level of civil society activity are visible in the rise of “post-statist” positions and river rights discourse.

#### Post-statist positions: bioregionalism and watershed democracy

Despite sharing rivers and interdependencies, the governments of South Asia have so far only adopted bilateral water accords (Sharma, 2017: 70). This state of affairs is coupled by the observation that existing water technologies embraced by governments (e.g. big dams, diversions, and hydro projects) have failed to meet their declared objectives and sparked “discord in situations where harmony existed between communities across borders” (Sharma, 2017: 74). There is also an urgent need for comprehensive regional understanding on sharing water sources in view of the rising

demand on one hand and uncertainty of the global climate in sustaining flows in glacial-fed rivers on the other.

Many of the approaches civil society actors advocate are post-statist and can be fielded under the banner of bioregionalism and watershed democracy. A bioregion is a shorthand designation for “bio-cultural region,” and at its root simply means “life-place” (Wahl, 2002: 68). Bioregionalism thus expresses the notion that culture originates from place, and that human cultures develop in relation to the ecosystems they inhabit (Principles of Bioregionalism, 2020). A bioregion is defined by a unified sense and set of characteristics of its natural environment rather than by political or human-imposed divisions (Principles of Bioregionalism, 2020). In this sense, watershed democracy is an application of bioregionalism with regards to basing decisions on watershed basin-scale. Environmentalist Vandana Shiva proposes rejuvenating water culture and creating “water democracy” in response to India’s water crisis (Ahmed, 2017: 6). In a similar vein, Dixit (2017) places focus on the systems of knowledge, stating that an evolution in the “existing epistemology of water” can leave an impact on our comprehension of rivers and help shift the deficient, if not distorted, perception of water (Ahmed, 2017: 9-10):

A different educational context and a different decision-making approach are missing in the trans-boundary water policy terrain in the GRB [Ganges River Basin] and South Asia as a whole. Creating these two things could be a starting point for conceiving of a new compact for stewarding South Asian water (Dixit, 2017: 97).

Sudhirendar Sharma (2017) also calls for approaches that fit under bioregionalism and watershed democracy. Sharma invokes findings of the *Blues Beyond Boundaries*:

*Transboundary Water Commons India Report* (2015), which compliments the increasing literature from civil society groups which aim to leverage policies for effective transboundary river governance (Sharma, 2017: 73). It uses scrupulous surveys conducted over a two-year period to collect testimonies of riverine communities on the “crises of both quantity and quality of flows in the rivers” due to numerous river intervention structures impacting local lives and livelihoods (Sharma, 2017: 73). The report details the effects of “river damming, flow diversion, and bank erosion on environmental resources, water availability, and food security,” while its testimonies of local people clearly indicate that river water-sharing accords “based on volumetric allocation have little appreciation of the needs of local communities living along the river” (Sharma, 2017: 73). Without a healthy relationship and collaboration between transboundary river communities, delivering a mutually beneficial deal for water-sharing will remain elusory (Sharma, 2017: 73-74). Defying the odds, the study prevailed “in capturing voices from across the shared river basins for the first time” (Sharma, 2017: 74). It featured the necessity of ensuring minimum flows to defend the rights of the river, circulate the details of transboundary water agreements “with local communities, protect women and children against human-induced disasters, and uphold and add value to the traditional livelihoods of river-dependent communities” (Sharma, 2017: 74).

These views depart from statist positions with a post-statist or post-territorial understanding of sharing of environmental resources and draw new contours that cut across existing political boundaries (Sharma, 2017). Drawing such contours, as Sharma (2017: 76) states, is as analogous to “shaping intellectual frameworks” as creating maps

which illustrate “new conceptual orders.” These contours can establish “distinct cultural spaces” that are bound by common social practices and a shared linguistic or religious heritage (Sharma, 2017: 76). Some of the most striking images of rivers were drawn by Rabindranath Tagore, who had posited that cultures continued to persist along their flows (Sharma, 2017: 76). Tagore and Sharma (2017)’s arguments suggest drawing on the region’s “civilizational strength,” which indeed “lies more with its ‘cultures’ than in politics” (Ahmed, 2017: 9). Of this Sharma (2017) elaborates:

Multiple cultural maps of South Asia, superimposed on the river basins, can bind communities with common cultural threads. While a basin map capturing the common Hindi chord along the transboundary rivers could infuse new hydro-solidarity amongst riparian communities in Nepal and India, a sub-basin map contoured around the Bangla speaking populace could easily build a better appreciation for upstream-downstream concerns between riverine communities of India and Bangladesh (Sharma, 2017: 76)

### River rights

While post-statist discourse will assist policymakers in revisiting and revising approaches to transboundary river management, it is also hoped that this analysis will add to the demand to grant river rights (Ahmed, 2017: i). The writers of the *South Asian Water Manifesto* included a clause highlighting the sanctity of rivers in the form of river rights:

Rivers also have their rights, including the right to be relatively pollution free, to be a safe habitat for riverine forms of life and, within limits, to flow freely. Dams and sewer outlets into rivers interfere with these rights. Large dams and barrages permit the state to restrict and encroach upon the customary rights and practices of local or indigenous peoples and riverine forms of lives. While interference with rivers has contributed to modernisation, bringing electricity and irrigation facilities to a wider section of people, such diversion of water from its natural

course has often led to disasters, their magnitude determined by the scale of interference. For example, while large-scale surface irrigation has worsened the problems of water-logging and soil salinity, unregulated withdrawal of water by dams located upstream has dried up downstream beds of several rivers. In places, this has meant an attack on the economic and other life-support systems of the people, in turn leading to the creation of environmental refugees (Ahmed, Dixit & Nandy, 1997).

Part of the larger rights of nature frameworks, river rights are often rooted in indigenous and traditional ways of relating to the world. River activists advocate such rights as a way to protect flows, potentially across multiple nation-state jurisdictions. These frameworks garnered momentum in global environmental academic and activist circles following passage of the revolutionary Te Urewera and Te Awa Tupua acts in New Zealand, which conferred legal personhood to a former national park and a river. These legislative acts better protect ecosystems and recognize the reciprocal relationship between nature and humans (Magallanes, 2015).

Environmental governance is key to addressing the degradation of Bangladesh's transboundary rivers. The discussion above prompts the following questions: what are the decision-making structures in Bangladesh for addressing transboundary river governance? How does the power of such structures affect civil society organizations advocating for transboundary river protection? How successful have civil actors been in promoting transboundary river governance? Are post-statist positions on rivers (i.e. solutions aligning with watershed democracy and bioregionalist principles) the way forward? Do these ideas relate to the movement to grant legal rights to rivers?

## Summary

The above sections served as a review of literature through four overarching relevant topics: environmental justice (EJ), southern environmentalism, ecological nationalism, and environmental governance. These topics inform key specific questions, variables, and factors about river advocating civil actors in Bangladesh. For instance, civil society organizations resisting large-scale riverbasin development are evoking EJ to highlight the unequal distribution of environmental harms and goods. In a similar vein, the frame of southern environmentalism reveals how such resistance often parallels other struggles in the Global South and is rooted in conditions particular to the region, such as material impoverishment and post-colonial governments keen on “development at no cost.” Such environmental inequities and civil society-state conflicts are often driven by ecological nationalist ideologies, where both metropolitan and nativist versions of nature devotion converge and express themselves as a form of nation-pride. Some of the solutions being proposed by civil society, such as legal rights for rivers and applying principles of watershed democracy and bioregionalism across nation-state boundaries, add or diverge from existing strategies of environmental governance. The following chapter on epistemology and methodology provides an overview of the research approaches used to answer the aforementioned questions.

## ENGAGEMENTS WITH CIVIL SOCIETY: METHODOLOGY AND METHODS

Rivers are integral to the livelihoods and identities of Bangladeshi communities. They define the natures of what we know as the motherland. As an activist and environmental practitioner who was raised in a *probashi* ("diasporic Bengali") setting in California, finding the answers to my questions has been an enriching personal journey for me.

### Journey to Bangladesh

I traveled to Bangladesh from September-October 2019 to conduct field research with local civil society organizations active in the movement to protect the country's rivers. My field research entailed a mixed-methods approach that included semi-structured interviews, participant observation, and document and image analysis. Local organizations' staff and members I interviewed and observed include the Bangladesh Poribesh Andolon (BAPA), Brotee, and Riverine People, including its student-wing, River Conservation Club (RCC) at the Independent University Bangladesh (IUB). I also traveled to Bangladesh a year prior (July-August 2018) and interviewed a representative of the Bangladesh Environmental Lawyers Association (BELA) during an earlier phase of my project. My conversation with BELA in 2018 helped reshape the project, at the time, emphasizing the Farakka Barrage dispute over the Ganges River, and set it off towards the current trajectory encompassing Bangladesh's transboundary rivers in their entirety. Due to meeting conflicts, I was unable to meet and interview BELA



representatives in 2019. During most interviews and events I participated in, I gathered grey literature, articles, and images published by or featuring civil society organizations and their representatives.

After returning to California, I conducted remote interviews mostly with people or groups based outside of Bangladesh through November-December 2019. International organizations I interviewed include the US-based BEN and the India-based South Asia Network on Dams, Rivers and People (SANDRP). Notably, a BAPA and SANDRP representative I interviewed also serves on the South Asia advisory board for the International Rivers, a major US-based civil society organization that works with dam-affected people, grassroots organizations, environmentalists, human rights advocates and others who are committed to stopping destructive river projects and promoting other options around the world. I had initially planned to connect with a staff member at International Rivers but was unable to reach anyone for an interview. After completing 11 interviews (12 including my interview from 2018) and sorting relevant grey literature and images I collected on the field, I employed constructivist grounded theory (CGT) methodology to analyze the research data.

### Reflections from the Field

The weeks of September-October 2019 were personal. That was when I conducted my field research in Dhaka, Bangladesh, the nation's capital city as well as the home of my paternal ancestors. I resided in my ancestral home in the historic old city built near the Buriganga River for the bulk of the trip. Dhaka city was in a very festive

mood when I arrived in late September. The city was preparing for Durga Puja, an iconic annual festival occurring early October in Bangladesh and adjacent states in Eastern India. It was my first time witnessing it as I typically come to this part of the world during the months of the summer monsoon. The rain hadn't tapered off by then, but the weather was noticeably cooler and less humid than the Bengali weather I was accustomed to. Most of these weeks entailed spending time with extended family, which meant my field research schedule was extremely flexible. This was helpful as I began the process of reaching out to interviewees shortly before embarking for the trip and there needed to be time for them to respond and fix the interview into their schedules. I typically caught up with my Dhaka relatives in the afternoons and evenings and was initially slated to travel to the port city of Chittagong, where my mother's side of the family is concentrated, for a few days. This didn't come to pass.

Many lasting memories and friendships were made with the people and spaces I engaged with during the field research. I interviewed more people from more organizations than expected and had I stayed longer I could have interviewed even more. Overall, interviewees were happy to engage with me. Several of them have specifically communicated that there is relatively little interest in river and environmental work focusing on Bangladeshi civil society, especially internationally and within the global Bangladeshi diaspora. Many of my interviewees invited me to become an active member of their organization while others were pleased that their word was amplified through this scholarly research.

My extended family members shared many of these sentiments. Many were happy to hear about this project and were instrumental in connecting me with interviewees. In response to my initial focus on email outreach, they said it would probably be much more effective to call and text interviewees by phone. Emails tend to get muted out. This was my experience in summer 2018 when scheduling an interview with BELA's Rizwana Hasan. One of my relatives, a close friend and colleague of Rizwana Hasan in the Bangladeshi Supreme Court, took the first step of texting and called her on my behalf. We were unfortunately unable to meet due to scheduling conflicts in 2019, but we did briefly speak.

As populous as Bangladesh is, it is also an extremely compact and geographically small country. Dhaka is in many ways a microcosm of the nation, and many of the country's civil society institutions are based there. Thus, those of my family members who grew up in the city hold a lot of personal relationships and insight. As an example, a relative who grew up with my father in the same home (my ancestral home in Dhaka, the same one I resided during this time) reminded me BEN founder Dr. Nazrul Islam was a class and childhood friend and asked if I was able to interview him. Likewise, some interviewees who weren't directly acquainted with my family did know of us by our uncommon surname and history in the city (dating to the early 20th century). While I wasn't able to get in touch with Dr. Nazrul Islam during the interviewee process, virtually all my interviewees were acquainted with his name.

## Semi-structured Interviews

I used semi-structured interviews i.e. an interview process that followed a set of themes, but was open, allowing new ideas to be brought up during the interview as a result of what the interviewee says. These were useful because they allowed me to follow up on pertinent topics that came up during the interview process. The interviews were mainly conducted with representatives of organizations working on environmental (if not specifically, river) issues in Bangladesh.

Most interviews were recorded as audio clips and transcribed with the aid of voice recognition software during the analysis process. The latter exercise involved listening through the audio clips slowly to pick up words and phrases that were often not correctly transcribed via the software. My first few interviews were transcribed without the aid software, and hence, even more time-consuming than the rest.

My interview questions were structured around the four overarching fields of inquiry presented in the literature review: environmental justice, southern environmentalism, ecological nationalism and environmental governance. Drawing from the four areas of inquiry, I crafted questions that ultimately connected to my overarching research question: How are you/your organization analyzing and responding to the water diversions and degradation of Bangladesh's transboundary rivers? Specific questions were segregated into the respective themes they fit into. Only questions that applied to an individual or group were asked, while others were slightly altered depending on the individual and their organization. Given that the interview format was semi-structured, I took into consideration how the interviewee responded in follow-up answers and

conversations. I anticipated that interviewees would address other questions on the list. My list of interviewees and interview questions are included in the appendix section for reference.

Many interviewees are members of two or even three related organizations. During my interviews, I often asked a participant to clarify which organization they were representing in their responses and perspectives. Oftentimes, their work was joint and other times, it wasn't. For example, Brotee is a rights-based social change organization while the NRCC is part of the national government. Brotee, in particular its representative Sharmeen Murshid, campaigned for the establishment of the NRCC and is now working to implement a Bangladesh Supreme Court verdict upholding the rights of rivers with the help of civil society organizations like Brotee. Another organization I engaged with, but wasn't able to interview, is Green Voice. They were not on my radar before, but I learned about them during my visit to BAPA's national office as they function like their youth branch and have a strong presence in universities (much like RCCs). Some of the BAPA representatives I interviewed also work with Green Voice at some capacity.

A noteworthy development over the course of the interview process is how they became less structured with each successive one. My first interview with Sheikh Rokon of Riverine People was in early October; it lasted for about two hours and went extremely well. I asked nearly all my listed questions, which he was more than happy to talk about given his core focus on transboundary rivers. He was very glad thesis research was taking place and happily connected me with three other comrades for additional insight on

Riverine People. With their help, I was able to attend one of their RCC (River Conservation Club) meetings for participant observation. In subsequent interviews, it made more sense to start with a wide open conversation about an organization or their work on transboundary rivers and proceed to improvise and as well as ask some of my listed questions in my own words as they came up in the conversation. This was because it made more sense to situate following questions in the context of the conversation or that many questions would often be addressed together in the conversation. Interviewees typically had a lot of say in the initial conversation and in subsequent ones sparked by interview questions.

Some interview questions that really resonated with one interviewee may not have resonated as much with another. Being semi-structured interviews, I made an effort to follow the lead of the interviewee and allow their words and experiences to shape the trajectory of this research. The semi-structured interview format also meant taking into consideration how an interviewee responded in follow-up answers or the discussion that ensued. This also helped me anticipate if they would address other questions on my list of questions, a list I stopped referring to after the first few interviews having immersed myself in its contents so well. Naturally, the diversity of interviewees often led to the same questions being presented differently. When contacting interviewees to set up a meeting via email, a copy of questions was also sent so they knew them in advance and had a chance to think about how to respond.

## Participant Observation

I pursued participant observation to gain familiarity with the given group of individuals and their behaviors and practices through an intensive involvement with them in their work environment. Over a period of several weeks, I also participated in two major events.

The first event entailed attending the following seminar at Stamford University Bangladesh (SUB) on October 12, 2019: “Halda River as a Living Entity: Context Analysis and Its Inquisition.” The seminar was organized in collaboration with BAPA and Waterkeepers Bangladesh to celebrate World Rivers Day and the recent Bangladesh Supreme Court verdict declaring all rivers as living entities with legal rights. Held at the auditorium of SUB’s Department of Architecture, the event was predominantly attended by Stamford University students, professors, as well as members of Bangladeshi civil society. I was invited to this event by BAPA and Waterkeepers Bangladesh representative, Sharif Jamil, whom I had recently interviewed at his office. Sharif was a major speaker at the seminar, and during this event I met some of my future interviewees: Ahmad Kamruzzaman Majumder, a professor of Environmental Science at SUB and scientific advisor to BAPA; Sharmeen Murshid, a representative of the civil society group, Brotee, and of the National River Conservation Commission (NRCC); and Mohd. Abdul Matin, then BAPA’s General Secretary. All five spoke during this event. Professor Kamruzzaman Majumder, the seminar’s convener, inaugurated the program while Sharif Jamil mentioned and gestured to me during his speech as well as in the lunch served afterwards. This helped make my presence known to others. Mohd. Abdul Matin, whom I

reached out to via email and text at the recommendation of Sharif Jamil (who provided his name and contact information following our interview) prior to the event, was able to discern who I was as a result.



Figure 1: Halda River as a Living Entity seminar participants (River Ismail Gazi)

The second event I attended was a River Conservation Club (RCC) Meeting at Independent University Bangladesh (IUB) on October 15, 2019. RCCs are the student-wing of the youth collective, Riverine People, a major organization I'm engaged with for this research. This meeting was specifically convened so that I could meet with RCC members. Mohammad Azaz, Riverine People's nationwide RCC coordinator, whom I had interviewed several days prior, connected me with the President of RCC IUB, Tanzila Ahmed. Tanzila Ahmed, then a student at IUB's School of Environmental



Science and Management (SESM), initially recommended that I join their meeting on October 14. Due to scheduling conflicts, including my existing plan to visit another IUB-based organization on the 15th (ICCCAD - International Centre for Climate Change and Development, albeit unrelated to my research), Tanzila Ahmed was able to accommodate me on that date instead. I was pleased to learn that RCC IUB was well acquainted with ICCCAD when I arrived at their meeting on the 15th. The RCC IUB meeting was joined by their Coordinator, Chowdhury Kamrul Hasan—who is also an SESM professor—, SESM Dean Dr. Md. Abdul Khaleque, Tanzila Ahmed, as well as an SESM student who listened in on the conversation for the duration of the time. Our convening took place at Dean Dr. Md. Abdul Khaleque's office, showing that RCC IUB was very closely tied to the campus' SESM department. According to Tanzila Ahmed, typical RCC meetings on campus are attended by more student members and often held in classrooms. Our meeting was small given that it was scheduled on a short notice, held a day after a previous meeting, and conflicted with the class sessions of some student members. This made me regret my inability to attend RCC's previous meeting; however, Tanzila Ahmed and the other student member consoled me by saying I made a good decision given that it allowed us to hold the meeting with Dean Md. Abdul Khaleque at his office. Md. Abdul Khaleque, as I learned in the meeting, by virtue of being SESM Dean, held a perspective on the RCC and campus activities that others could not. Being a small meeting setup to accommodate me, the RCC meeting morphed into a semi-structured group interview between myself, President Tanzila Ahmed, Coordinator Chowdhury Kamrul Hasan, and Dean Md. Abdul Khaleque. My initial questions were general inquiries, such as what

sorts of activities RCC IUB took part in, and how it was different from other RCCs and Riverine People. Later, I asked questions that I normally asked interviewees one-one-one and found many were applicable to them, given they aren't focused on transboundary rivers. After returning to California, I followed up with Tanzila Ahmed remotely for a full, semi-structured interview about RCC IUB and her specific work.

Speakers at the Halda River As a Living Entity seminar spoke almost entirely in the Bangla language. Being well-versed in elementary Bangla, understanding speakers wasn't an issue. I asked around for the meaning of technical phrases and vocabulary I didn't quite grasp, and took notes of the speaker content and other things I noticed in English during the seminar. I also captured photos of the event venue, which was decorated with many scientific infographics pertaining to Halda River and Bangladesh river ecology.

The RCC meeting stood in stark contrast by being a close-kit convening at SESM Dean Md. Abdul Khaleque's office. The IUB campus was a mainly English-medium institution and our conversation was also predominantly in English. For this reason, I accompanied my field research with an audio recording of most of the RCC meeting. The recording, like most of my semi-structured interviews, were transcribed following my return to California.

## Document and Image Analysis

I analyzed grey literature published by organizations I observed and whose representatives I interviewed. I also analyzed literature from other relevant organizations and legal documents pertaining to river issues (i.e. transboundary water sharing, legal personhood, etc.). At the Halda River seminar, for example, I picked up several documents published by or featuring some of the groups or individuals involved in the event. I picked up an additional mix of documents (mainly books) at BAPA and Waterkeeper Bangladesh's offices. The document analysis process entailed me reading through the publications and making note of relevant content to my research questions.

Document analysis, by extension, also includes image analysis. These include vivid illustrations and photos of South Asia's rivers flowing into Bangladesh that activists use to highlight the nation's role as a water cradle for South Asia and to advocate for an integrated water resources (multilateral, ecological) approach to river governance among all stakeholders, including Bangladesh. These images included banners, t-shirts, and organizational logos. The image analysis processes entailed me taking note of imagery and written phrases (such as on t-shirts and logos) relevant to my research questions.

## Grounded Theory, Coding, and Memos

Notes and transcriptions from my field research (semi-structured interviews and participant observation at events) and collected documents were analyzed with constructivist grounded theory (CGT), a qualitative research methodology. The CGT process entailed employing an inductive approach to generate theory from my field

research notes, transcriptions, and collected documents (Ginsburg & Melvin, 2018; Charmaz, 2002). The approach was “grounded” in my participants’ own words and experiences while the “constructivist” element of CGT refers to the fact that the evolving theory was constructed through an iterative process involving a zig zagging between inductive analysis of my research data and published literature on the topic (Ginsburg & Melvin, 2018; Charmaz, 2002).

This CGT process resulted in the production of codes and memos. Coding involved tracing common terms and themes throughout the interviews. Afterwards, memos describing the codes with insight from my field research notes, transcriptions, and collected documents were drafted, bringing the data into conversation with the key ideas developed in the literature view. The terms and themes were grouped under the four overarching fields of inquiry presented in the literature review: environmental justice, southern environmentalism, ecological nationalism and environmental governance. Grounded theory memos comprise the bulk of chapter five, *Dimensions Of Civil Society River Activism: An Analysis*. The next chapter describes the setting and history of Bangladesh’s movements to protect rivers and advance regional cooperation in South Asia.

## ECOLOGICAL NATIONALISM, AND THE DOMINANT APPROACHES TO RIVERS

Outside South Asia and especially in the Western world, Bangladesh is mostly viewed under a “developmental” lens. Western cultural and academic lexicons reinforce this outlook, with the deltaic nation being virtually synonymous with helplessness, natural disasters, and Global South poverty. Although some books, theses, and articles showcase Bangladesh’s extraordinary resilience in the face of such challenges, few offer insights to the rich cultural and ecological heritage grounding its civil society and social movement triumphs. This is especially troubling given Bangladesh’s powerful history of community organizing and activist resistance spanning the British Raj and Pakistan eras to present day. To better understand this context, a review of the setting and history of the region is needed. This includes Bangladesh’s rivers, the dominant approaches to water management, and the ecological and social problems emanating from this approach.

### A Riverine Country, Sitting on the World’s Largest Delta

Bangladesh is currently the 8th most populous country in the world and is among the most densely populated. With hundreds of criss-crossing rivers and inland waterways, the dominant geographic feature of the country is the Bengal Delta, the largest such formation in the world, which empties out into the Bay of Bengal with the combined waters of the Ganges, Brahmaputra, and Meghna river systems.

In the Bengal Delta, existing nation-state boundaries cut across shared waterways and common cultures. Bangladesh forms the larger and eastern portion of the historical Bengal region in the Indian subcontinent, which comprised a major part of various South Asian empires, including the colony of British India, also known as the British Raj. The Partition of India in 1947 resulted in the formation of two nation-states with three territorial entities: an independent Republic of India and a newly independent Pakistan consisting of two non-contiguous regions to its west and east. Partition placed upper riparian areas of the Ganges-Brahmaputra-Meghna river basins under the jurisdiction of India. This separated them from their downstream segments and mouth in the Bengal Delta, the area which became part of East Pakistan.

Following Partition, over two decades of unrest in East Pakistan against West Pakistan culminated in a war of independence that led to a sovereign Bangladesh in 1971. There were a variety of reasons for independence, including experiences of Bengali ethnic and linguistic oppression by West Pakistan and their vast geographic separation. The name Bangladesh, meaning the “Country of Bengal” in the local Bengali (Bangla) language, was as much an expression of its cultural resistance during Pakistani rule as it was an assertion of its autonomous geography. This was well-reflected in the flag hoisted by Bangladesh during the Liberation War, which featured a gold colored map of the country inside a red disc in the flag’s center (similar to that on Japan's flag). The red disc represents both the sun rising over Bengal and the blood of those who died for the independence of Bangladesh, while the rest of the flag features a green field representing the lushness of the Bengal Delta.



Figure 2: National flag of Bangladesh during the Liberation War of 1971 (Wikimedia). (The current national flag omits the country's outline due to the complications of mass rendering it.)

The Liberation War of 1971 coupled with the movements that preceded it, was driven by notions of ecological nationhood, and made way for the formation of a deltaic nation-state in South Asia. The notions of ecological nationalism, centered on Bangladesh's autonomous geography and deltaic landscape, were reflected in the rise of the Liberation War's slogan: *Tomar amar thikana – Podda–Meghna–Jomuna* (“Our address is the Padma-Meghna-Jamuna rivers”). Padma is the name of the main, downstream branch of the Ganges River as it enters Bangladesh while Jamuna is the name of the main, downstream branch of the Brahmaputra River. Together with the Meghna, the three major river systems define the metaphorical “address” that is Bengal Delta. More than a metaphor, the peasant guerrillas on the frontlines of the Bangladesh Liberation War moved to transform their land's riverine ecology into “a space of emancipation” (Majid, 2020: fifth paragraph). Majid (2020) writes:

Having lived and worked their entire lives around Bangladesh's dense network of estuaries and rivers, these peasants knew them well. They also knew the complicated maze of thick forests and swamps that surrounded these waterways, as well as any dead ends. The peasant guerrillas used this intimate ecological

knowledge to ambush the Pakistani army in strategic locations, which eventually paved the way for the liberation struggle's success (Majid, 2020: fourth paragraph).

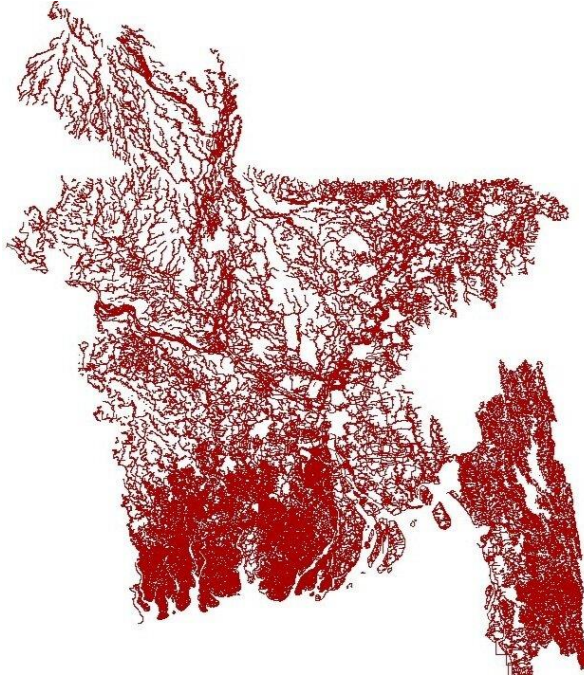


Figure 3: Polygon map of Bangladesh's river delta ecosystem (Jamhoor)

The etymology of the term “Bangla Desh” can be traced to the Bengal Renaissance of the 19th and early 20th century when it was a popular term for the Bengal Delta region as a united country and was used in Bengali patriotic songs and poems like *Namo Namô Namô Bangladesh Momo* (1932) by Kazi Nazrul Islam, who later became the national poet of Bangladesh. Similarly, in his patriotic song *Aaji Bangladesher Hridoy* (1905), the poet Rabindranath Tagore used the word Bangladesh to refer to his motherland. Tagore's other song, *Amar Sonar Bangla* (“My Golden Bengal”), was written in protest to the earlier partition of Bengal in 1905 and was officially adopted as the People's Republic of Bangladesh's national anthem in 1972. In traditional Bengali culture, as well as in the Bengali media, the nation and greater delta have assumed a



number of popular phrases or sobriquets over the centuries that link nationalism with the delta. These include names reflecting the land’s famous riverscapes like *Hazar Nodir Desh* (“land of a thousand rivers”), *Padma Par* (“Banks of Padma”), or *Nodi Matrik Desh* (“land mothered by rivers,” or simply “riverine country”).



Figure 4: Bengal Delta-inspired art depicting the flag and national colors of Bangladesh (Pinterest)

Historical and cultural similarities and affinities tie deltaic Bangladesh with adjacent countries. A shared Bengali language and culture defined by immense river systems is an important element of nationalism in Bangladesh and local identity in the neighboring Indian state of West Bengal (*Poschim Bangla*), which forms the remainder of the Bengal Delta. Given India’s vital, supporting role for Bangladesh during the Liberation War, the relationship between the two countries was initially very close.

Despite commonalities in culture and ecology, the rivers Bangladesh shares with India have since become their greatest source of interstate conflict.



Figure 5: Combined Ganges-Brahmaputra-Meghna river system (Wikimedia)

### Upstream Capriciousness, the Commercial Approach to Rivers

In a subcontinent dissected by postcolonial states like Bangladesh and India, the existing statist approach and political economy of river management undermines longstanding river-people relationships, including the spirit and practice of cooperation between co-riparian communities. This approach, in the form of large dams and diversionary structures, is being pushed by powerful state and political actors and is devastating social and environmental impacts up and downstream (Guha, 2000; Islam, 2006). Nazrul Islam (2006: 1695) likens such “developmental” schemes as the culmination of a “commercial approach” that sees rivers as objects to be “conquered” and

“consumed.” Within this approach, a drop of river water flowing to sea is therefore wasted (Islam & Islam, 2016; Islam, 2006).

The commercial approach on rivers has fatal implications for a deltaic country like Bangladesh, which literally faces an uphill battle against upper riparian neighbors like India and China, who collectively control 93 percent of the watershed that creates its rivers (Hedrick, n.d.). Therefore, Bangladeshis have little control over how much water they receive from their rivers (Hedrick, n.d.). A review of some Bangladesh-India rivers and water intervention projects along them is necessary to grasp the application and impacts of the commercial approach.

Lower-riparian Bangladesh and upper-riparian India share 54 transboundary rivers (Adel, 2012; Ahmed, 2012). Despite being very important to people's livelihoods in Bangladesh—from agriculture and fisheries, vegetation and greenery, urban and rural water supplies, and navigation and communication—India has set up constructions for water diversion in more than 50 percent of these rivers (Adel, 2012; Islam & Islam, 2016). This, coupled with saltwater intrusion through climate change-induced sea level rise is rendering downstream areas of Bangladesh uncultivable, displacing millions of people from their lands, threatening the food security of many more, and contributing to the degradation of biodiversity hotspots like the Sundarbans mangrove forests (Misra et al. 2007; Piper, 2017). The largest of these diversionary infrastructures is the Farakka Barrage on the Ganges River eight miles upstream from the Bangladesh border (Adel, 2012; Islam & Islam, 2016).

The third largest river in the world, the Ganges, winds through multiple Indian states from its headwaters in the western Himalayas, has tributaries coming down from Nepal, and is a major river in downstream Bangladesh (O'Donnell & J. Talbot-Jones, 2018; Parks, 2016). In 1975, India constructed the Farakka Barrage in the state of West Bengal to divert the flow from the main channel of the Ganges to the Hooghly River tributary during the region's dry season (Crow, 1981). A barrage is a type of dam constructed on wide rivers like the Ganges to control passing water using several gates that can be opened or closed according to need (Parks, 2016). Its stated purpose is to flush out silt on the Hooghly and help keep the port of Kolkata 155 miles south navigable for marine traffic to and from the Bay of Bengal (Crow, 1981). However, this diversion of water has degraded fisheries and deprived people in southwestern Bangladesh of the freshwater necessary to sustain their livelihoods (Gain et. al. 2014).

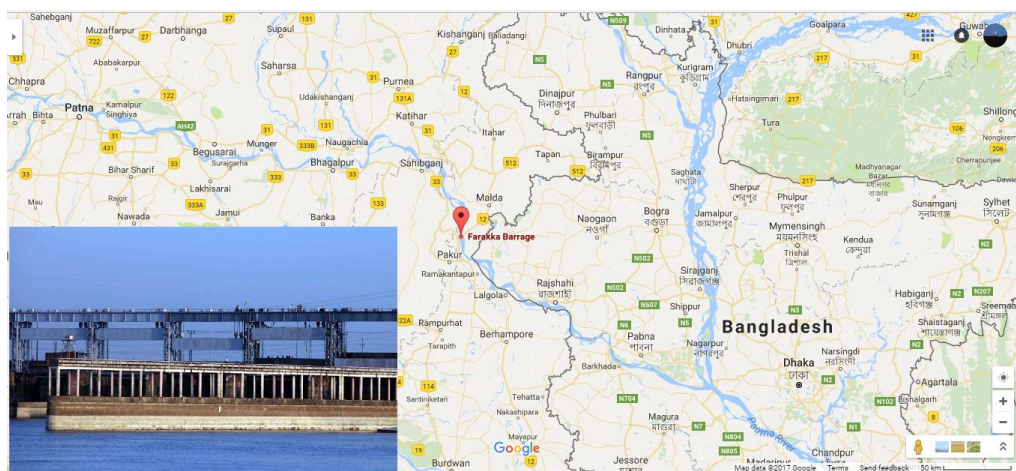


Figure 6: Location of the Farakka Barrage (SANDRP)

This phenomena is rooted in historical circumstances. While the main channel of the Ganges waterway flows into Bangladesh as the Padma River, the Hooghly tributary

forms an essential lifeline for the people and ecosystems of West Bengal. It was through the Hooghly that the East India Company sailed into the Bengal Delta and established their trade settlement, Kolkata (renamed from Calcutta in 2001 to reflect its Bangla pronunciation) in the year 1686. As the longtime capital and commercial center of British India and Bengal, the riverbank around Kolkata underwent heavy industrialization. Much of the food and raw materials like jute and bamboo came from the fertile Ganges Delta of East Bengal (present-day Bangladesh) to the port and factories dotting this river and thereafter shipped out to a rapidly industrializing Great Britain.

Two years after the independence and Partition of India and Pakistan in 1949, the Indian state began planning construction of the Farakka Barrage. Notably, the location of the barrage in West Bengal's Murshidabad district was intended to be part of East Pakistan but was awarded to India to keep the entire length of the Hooghly River from the point it branches off from the Ganges within India to maintain the navigability of Kolkata port, then the primary port in South Asia (Mamun, 1984). The Farakka Barrage was constructed despite pleas not to build it from the then Pakistani state and despite cordial relations with Bangladesh after its independence in 1971 (India's aid to Bangladesh during its Liberation War was met with enthusiastic support from West Bengal). Despite bilateral water sharing agreements and rounds of talks, Bangladesh complains that it does not receive enough water during the dry season while too much water is released during its torrential monsoons (Rahman et. al, 2019; Hanasz, 2014).

Of the Farakka Barrage dispute, Parks (2016: first paragraph) writes: "There's a classic pattern of environmental injustice in which the more powerful overuse or divert

natural resources to the detriment of less influential neighbors. The Ganges River could be the poster child for this phenomena.” While Bangladesh barely hangs on with its freshwater water allocation, India benefits from its control of the Ganges (Parks, 2016).



Figure 7: Farakka Barrage and its feeder channel (Foundation, Concrete, and Earthquake Engineering)

### Water Scarcity Narratives and Supply-Side Solutions

The rationale for river intervention projects like the Farakka Barrage can be understood through prevailing water scarcity narratives, which obscures important aspects of “real” scarcity (Hanasz, 2014: first paragraph). Hanasz (2014: third and fourth paragraphs) writes problems of water scarcity in South Asia should not be thought of as a natural crisis, but as a result of poor water management practices:

Scarcity is constructed as a vagary of nature rather than human-induced, and chronic rather than cyclical. There is thus an ‘environmentalisation’ of certain conflicts and politicisation of the environment in this region. The term ‘scarcity’ is misleading: it belies the fact that access to and control over water is usually linked to prevailing social and power relations.

Former Indian Water Minister, Ramaswamy Iyer has argued persuasively that water conflicts arise not out of scarcity but gross mismanagement in response to a seemingly unlimited demand for water (Hanasz, 2014). Iyer also sees current water crises as primarily crises of perceiving and framing the problem around availability (Hanasz, 2014). Hanasz (2014: sixth paragraph) writes this influences solutions proposed by “engineers and bureaucrats such as those at the World Bank.” These include increasing water “production” through additional water infrastructure that creates a supply-side response to the growing demand (Hanasz, 2014: sixth paragraph).

A striking example of a diversionary project that has been justified by the water scarcity mindset is the Indian River Linking Project (IRLP). The controversial IRLP—described as the “world’s largest irrigation infrastructure project” (Ramachandran, 2016: second paragraph)—to connect 30 rivers across Indian territory (including the transboundary Brahmaputra) by a network of reservoirs and canals threatens to reduce even more downstream water flow to Bangladesh if fully implemented (Islam, 2006; Misra et al. 2007). The IRLP deems Bangladesh as a water “surplus” region in South Asia, while areas of southern and western India are considered water “deficit” regions (Islam, 2006: 1694).



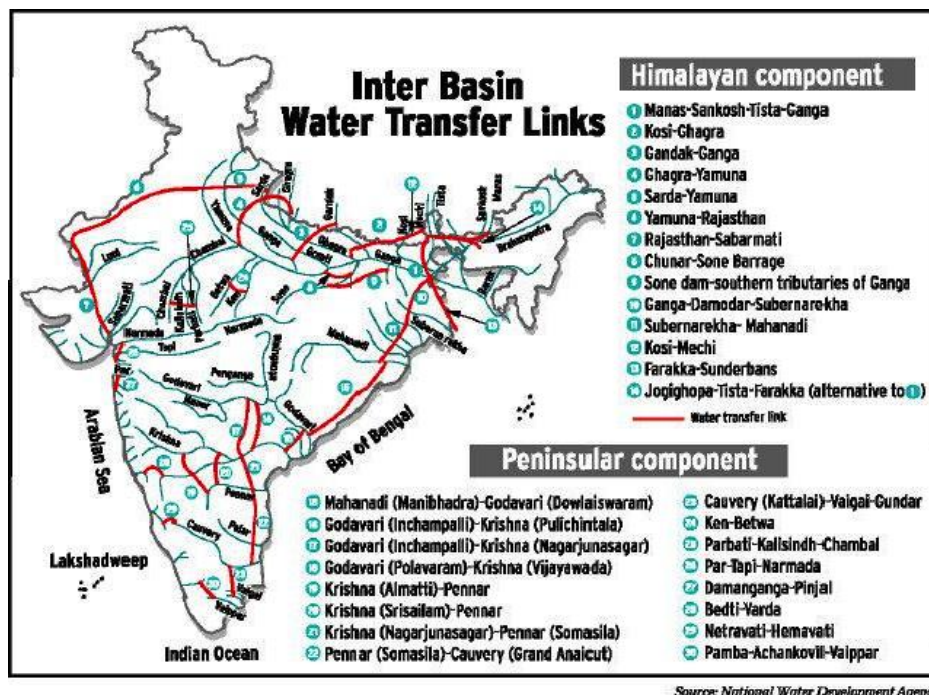


Figure 8: Components of the Indian River Linking Project

Naturally, Bangladesh and its civil society have raised major objections over the IRLP. The Indian government has ordered the project to solve its twin problems of flood-drought, as well as to increase food grain production through irrigation of additional lands (Khalequzzaman et. al. 2004; Misra et al. 2007). The Indian government is proposing to transfer 173 billion cubic meters of water a year from “water-surplus” watersheds of the Ganges-Brahmaputra-Meghna, which Bangladesh forms the mouth of, to “water-deficit” watersheds in the western and southern parts of India through the construction of 14,900 km long canals and 35 reservoirs (Khalequzzaman et. al. 2004: 1).

What makes the IRLP context so different is that the watershed it plans to withdraw water from transcends national boundaries in South Asia. These regional and international implications, however, are unrecognized in the Supreme Court of India’s



verdict directing the Government of India to implement the IRLP on “the rivers of the country” (Ahmed, 2012: 51). Given Bangladesh shares some 54 rivers with India, any unilateral action by India on any of its international rivers will degrade its relations with its neighbors while also adversely affecting its ecology, economy and society (Ahmed, 2012).

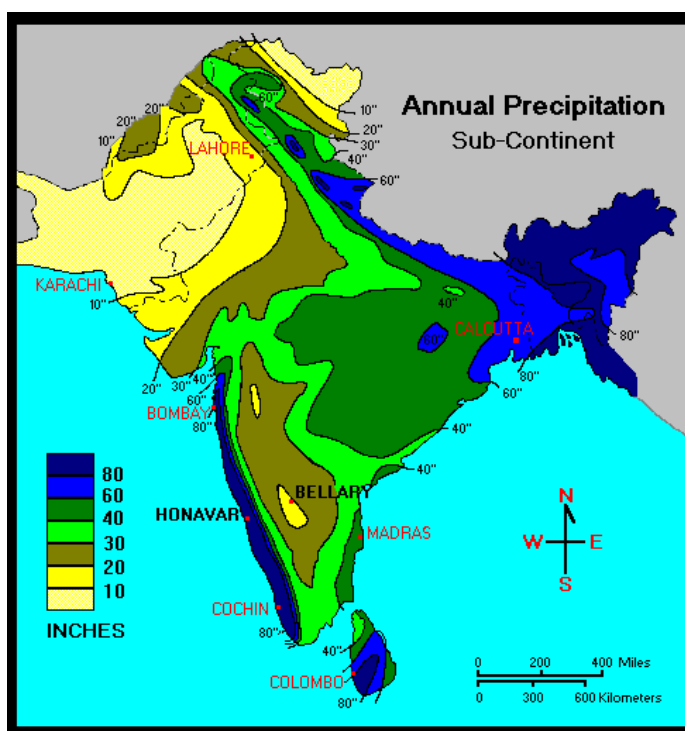


Figure 9: Map of annual precipitation levels across South Asia (SUNY Oneonta). The IRLP deems Bangladesh a water “surplus” region, while areas of southern and western India are considered water “deficit” regions.

India’s unilateral decision to build another diversionary water project, this time along Barak River on the transboundary Meghna River system has prompted further debate and discussion on the merits of the water-surplus and water-deficit mindset. Officially known as the Tipaimukh Multipurpose Hydroelectric Dam Project, the site of the Tipaimukh Dam sits near the intersection of the rivers Barak and Tuivai in the south-

western corner of Manipur state of India (Islam and Islam, 2016). Its reservoir is slated “to have a water storage capacity of 15,900 million cubic meters with a maximum depth of 1725.5 meters” (Islam and Islam, 2016). Commissioned in mid 2000s, the dam’s location is contiguous with two other northeast Indian states—Assam and Mizoram—while Barak River flows downstream to join the Surma and Kushiara river systems, the lifeline of the Sylhet region of northeastern Bangladesh (Islam & Islam, 2016). Experts have voiced apprehensions that the dam “would cause colossal damage to Bangladesh’s economy, society, and environment” by contributing to drying up of the Surma and Kushiara rivers and the virgin *haor* (wetland) ecosystem of the region (Islam and Islam, 2016: 2). These apprehensions have dominated debates on the Tipaimukh Dam, which have included various modes of protest and resistance in the region and beyond (Islam & Islam, 2016).



Figure 10: Site of the Tipaimukh Dam (The Daily Star)

All in all, large-scale diversionary water projects like the Tipaimukh Dam and IRLP, as well as existing infrastructure like Farakka Barrage, indicate “competing interests” are at the root of the South Asia’s water “scarcity” crisis (Hanasz, 2014: tenth paragraph). Hanasz (2014: twelfth paragraph) writes, “inequitable distribution of water and weak governance of transboundary rivers is a more certain path to conflict than is scarcity in itself.” Conflicts over diverted river water are not only crushing the spirit of co-riparian cooperation but have had profound impacts on the livelihoods and ecologies of the Bengal Delta.

#### Dying Livelihoods and Ecologies

The massive hydrological interventions represented by the Farakka Barrage sheds light on the destructive potential of proposed diversionary projects like the IRLP and the Tipaimukh Dam. Hydrological studies show that the Farakka Barrage has drastically affected flows in the lower Ganges Basin since its opening in 1975 (Gain et. al. 2014). The dam has brought about a significant increase in freshwater discharge in West Bengal’s Hooghly River distributary (Sinha, 1996), while the reduced discharge of the delta region of southwestern Bangladesh, mainly through the Gorai River distributary, has induced accelerated sedimentation and increased salinity (Mirza, 1998).



Figure 11: Dried up riverbed in Bangladesh during its lean season (The Daily Star)

Reduced discharge of sediment-laden freshwater and increased salinity downstream of the Farakka Barrage is most pronounced in the Sundarbans, a deltaic mangrove forest that “formed about 7000 years ago by the deposition of sediments from the foothills of the Himalayas through the Ganges river system” (Aziz & Paul, 2015: 242). This has seriously affected the biodiversity of the mangrove forest, which occupies the lower Ganges basin of Bangladesh and southern West Bengal, including the future of endangered species like the Royal Bengal Tiger (Aziz & Paul, 2015; Loucks et. al. 2010). Winter dry season river discharge in the Bangladeshi Sundarbans, the section of the forest downstream of the Farakka Barrage, has declined from 2,000 to 4,000 m<sup>3</sup>/s before 1975 to below 1,000–2,000 m<sup>3</sup>/s after the dam began operating in 1975 (Hossain et. al. 2016: 435). Plant species such as the *heritiera fomes* (locally called Sundari, from which the Sundarbans derives its name) are continuing to decline, while polyhaline conditions (brackish water with 18-30 percent salinity) now prevail in more than half of the

Bangladesh Sundarbans (Aziz & Paul, 2015: 246). Salinity in its northern part has increased from 7.50 percent in 1968 to 12.50 percent in 1976 for March, and to 18.50 percent in the month of May after two years of operation of the Farakka Barrage (Aziz & Paul, 2015: 248).

Rising sea levels, combined with an increase in salinity due to the cumulative impact of all upstream diversions, has also profoundly affected the soil and the quality of the nation's groundwater (Hedrick, n.d.). The completion of the IRLP's Brahmaputra link, according to Indian river activist Medha Patkar, would lead to half of Bangladesh's groundwater becoming saline due the fact the river's mouth would recede and allow seawater to push inland (Piper, 2017: eleventh paragraph). The process will likely displace tens of millions of people (Piper, 2017: eleventh paragraph). Ramaswamy Iyer called the IRLP "technological hubris, promethean madness" and fought against it until his death in 2015 (Piper, 2017: eleventh paragraph).

## Sea Level Risks - Bangladesh

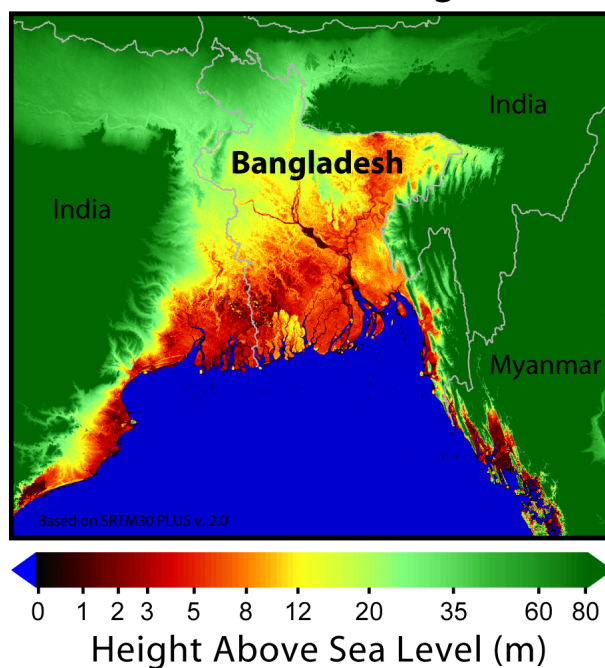


Figure 12: Because of the comparative low height above sea level for much of Bangladesh, climate change-induced sea level rise is accelerating the loss of its freshwater supply

The devastating potential of additional dams and diversions is magnified when considering groundwater, which is used by almost 90 percent of Bangladesh's population, is also contaminated with naturally-occurring arsenic (Hedrick, n.d.: fourth paragraph). According to Sultana (2004: 299) and more recent reports from the World Health Organization (Flanagan et. al, 2012), arsenic poisoning is affecting at least 35 million in Bangladesh and potentially exposing a total of 80 million to it from drinking contaminated water (see also Ahmed and Ahmed, 2002). Arsenic, which can cause cancer and severely damage many integral systems in the human body, is cited as the cause of death for one out of every five people in Bangladesh (Argos et. al, 2010; Berger, 2010). Sultana (2004) points out that the IRLP will exacerbate Bangladesh's arsenic

problem in addition to leading to a drastic reduction in freshwater availability. This is evidenced by the existing impacts of the Farakka Barrage, where a reduction in overall surface water availability (that is, safer, arsenic-free drinking water) has forced a greater reliance on contaminated groundwater usage (Sultana, 2004).

Surface water diversions and contaminated groundwater have especially grave consequences for a predominantly agrarian society like Bangladesh. Agriculture accounts for about 60% of the country's gross domestic product, and scientists and the Bangladesh government state a 10–20% reduction in the water flow to the country could dry out large areas of arable land (Misra et al. 2007: 1370). Concerns about agriculture, fisheries, as well as local flora and fauna, are especially pronounced in the northeastern regions of Bangladesh, where environmentalists fear completion of the Tipaimukh Dam would dry out the Meghna system, including the winter flows of the Surma and the Kushiara rivers (Islam & Islam, 2016). This would “generate a massive displacement of people and livestock in Bangladesh” as well as pose serious consequences to the people who live along the Barak-Surma-Kushiara rivers in the adjacent Indian states of Manipur and Nagaland (Islam and Islam, 2016: 4). Control and diversion of the region's transboundary river flows, as well as land-use practices in the Bengal Delta, “affect not only the quality and quantity of its waters,” but also the quality of the livelihoods and ecosystems they support (Khalequzzaman et. al. 2004: 1).

### Dams and Diversions, Cordons on the Bengal Delta

The existing as well as projected impacts of Farakka Barrage, and IRLP and Tipaimukh Dam respectively, highlight an especially pernicious form of the commercial approach to rivers, where the diversion of river water flows is marketed as ecologically sustainable and beneficial for public health. Take how proponents of the IRLP promote it as a solution to floods in the rain-washed monsoon delta of Bangladesh and eastern India. Nazrul Islam (2006: 1695-96) characterizes this as a “cordon approach”—a particular form of the commercial approach in areas where rivers pass through flood plains. He continues:

Under this approach, flood plains are cordoned off from river channels by solid, unbroken embankments. This is done in complete defiance of the fact that the channel and the flood plain of a river constitute one organic whole, so that it is counter-productive to try to separate the two. This is particularly true in a delta, where free flow of water between river channels and flood plains is crucial for the substance and development of a delta.

As floods are central to local systems of livelihood in Bangladesh and eastern India (particularly Bihar, West Bengal and Assam), their experience “confirms the generally counterproductive nature of cordon projects” (Islam, 2006: 1696). “By reducing the area over which the monsoon flow can spread out,” cordons like the Farakka Barrage, which trap river and sediment flow upstream, “have increased the intensity of floods in areas outside the cordons,” (Islam, 2006, 1696). Moreover, frequent breaches in the cordons are catastrophic when river water suddenly sweeps into unprepared localities (Islam, 2006: 1695). Islam (2006: 1696) concludes:



The increased intensity of floods in Bangladesh and eastern India is, to a great extent, a result of the projects inspired by the cordon approach. It is therefore an irony that these same floods are now being used to argue for IRLP.

The effects of the cordon approach are also noted by political ecologist Amitangshu Acharya (2009), who states outdated ideas of shackling rivers with dams and embankments have resulted in annual floods across South Asia. It's thus a grave mistake to blame the region's torrential floods on the climate crisis without also calling out the continued caging of floodplains. The cordon approach or "language of colonial engineering"—training, disciplining, "civilizing" rivers with dams and embankments—as Acharya (2009: second paragraph) puts it, continues to dominate policy in a subcontinent where civilizations were birthed by free-flowing rivers.

### Summary

From the Nile in Egypt to the Yellow river in China, civilizations the world over owe their origins to free-flowing rivers. South Asia is no exception, with the life-nourishing presence of rivers mentioned in numerous texts and part of local livelihoods and popular mythologies since time immemorial. In a postcolonial subcontinent dissected by shifting political boundaries, river systems like the Indus (*Sindhu*) in the northwest and the Ganges coursing eastwards transcend state borders and bring communities together as a common cultural and ecological heritage. This is intimately experienced in Bangladesh, the terminal delta floodplain of the transboundary Ganges, Brahmaputra, and Meghna rivers.

Longstanding river-people relationships in South Asia spanning deltaic Bangladesh and upstream neighbors are being undermined by a commercial approach to rivers that sees rivers as objects to be conquered and consumed. Driven by conflict-ridden water scarcity narratives and supply-side solutions, existing upstream dams and diversionary infrastructure in India have cordoned off sediment-laden freshwater flow to Bangladesh and devastated its local livelihoods and ecologies. Conflicts over additional projects to divert river water are further crippling the spirit of co-riparian cooperation in South Asia.

The commercial, cordon and supply-side approaches described in this chapter have been met with growing resistance and calls for rethinking the paradigm of water management. This is the topic of the following chapter, where I will analyze field research data based on my engagement with civil society organizations active in the river protection movements surrounding Bangladesh. This includes grassroots opposition to the diversionary water projects, coupled with individual perspectives from activists mobilizing in the context of nationalism, climate justice, livelihood ecology, and ways to build co-riparian cooperation and watershed democracy in contemporary South Asia.

## DIMENSIONS OF CIVIL SOCIETY RIVER ACTIVISM: AN ANALYSIS

This chapter contains an integration of my field research efforts with further engagement with relevant published literature. Quotes and references from individuals, unless otherwise stated, are based on my interviews with them. The previous chapter discussed the cordon approach, a particular form of the commercial approach in areas where rivers pass through flood plains. It explained how diversionary water projects, exemplified by the cases of the Farakka Barrage, IRLP, and Tipaimukh Dam, have damaged Bangladesh's riverine ecologies, livelihoods, as well as the spirit of co-riparian cooperation in South Asia. This chapter continues the story by elaborating on the resistance spearheaded by civil society organizations, their modes of organizing, and their proposed solutions to the region's water crisis.

### Commercial Development from Above, Populist Resistance from Below

In Bangladesh, the commercial-cordon approach to water management is an issue of livelihood—that is, of life and death—for local communities. This has resulted in populist resistance from those communities marginalized by such efforts. The phenomenon is observed as a trend in southern environmentalism, wherein large development projects pushed from above (e.g. the developmentalist state) are met with resistance from below (e.g. peasants, frontline communities, civil society groups). This is exemplified in Guha's (2000) study on protests to the Sardar Sarovar Dam in Western

India, and can also be applied to the Tipaimukh Dam, IRLP, and as the decades old Farakka Barrage on the opposite side of the South Asian subcontinent.

On May 16, 1976, hundreds of thousands of people gathered in the border city of Rajshahi, Bangladesh to participate in the then fledgling nation's first popular movement for equitable distribution of the waters of the transboundary Ganges River. From there, demonstrators led by populist leader Maulana Bhashani marched towards the Farakka Barrage to demand its demolition. May 16 continues to be observed as the Historic Farakka Long March Day in Bangladesh.

Four decades later, the demands of the Farakka Long March were addressed to India from within its borders. In 2016, Nitish Kumar, chief minister (CM) of Bihar, demanded to decommission the Farakka Barrage to the Indian central government due to its role in exacerbating the flood conditions in upstream Indian states like Bihar (Islam, 2017). Reports indicate “that about 328 million tons of sediment—about 40 percent of the current sediment volume of the Ganges river—is getting trapped behind the Farakka Barrage and deposited in the upstream riverbed” (Islam, 2017: third paragraph). This has caused the riverbed to rise in elevation and aggravate floods (Islam, 2017: third paragraph). Many living along the riverbed are also complaining about river erosion and changing water patterns as a result of the dam. Over “3,000 hectares of land has been lost to river erosion in the Murshidabad and Maldaha districts of West Bengal alone,” while “the extent of erosion in Bihar is reported to be greater” (Islam, 2017: third paragraph).

Downstream, Bangladeshi civil society has welcomed the demand by Kumar and other Indian river experts to decommission Farakka (Islam, 2017). Nazrul Islam (2010),

founder of BEN and Vice President of BAPA, has long written Bangladesh has to win over both the Indian public and the Indian government. He emphasizes that undiminished river flow, as opposed to trade, is the most important thing that Bangladesh can ask from India in return for their goodwill gestures and steps. On World Rivers Day 2014, the India-based SANDRP remarked how the response to the issue has been dismal (Dandekar, 2014). SANDRP added to rejuvenate the Ganges, a credible independent review of the existing Barrages, like the Farakka, must be instituted (Dandekar, 2014). Over 50 years ago, West Bengal's chief engineer flagged fatal flaws to the then Farakka Barrage project (Chari, 2016). Though forced to resign, his claims would be echoed by CM Kumar (Chari, 2016).

BEN and BAPA also facilitated the 2004 International Conference on Regional Cooperation on Transboundary Rivers in Dhaka following the Indian government's announcement of the IRLP two years prior. The conference brought together 72 scientists, water scholars, and civil society organizations (CSOs) throughout the region, including India and Nepal (Islam, 2006). Md. Khalequzzaman of BEN, who co-edited the scholarly articles presented at the conference into the volume, *Regional Cooperation on Transboundary Rivers: Impact of the Indian River-linking Project*, states the event was the largest ever convening on transboundary rivers issues in South Asia. Mohd. Abdul Matin of BAPA, then its Joint Secretary as well as Secretary of the IRLP conference, traveled through India by foot to personally invite seven of the conference participants, including the renowned river activist, Medha Patkar. He states the water "surplus and deficit theory" driving the IRLP had been constructed by Indian bureaucrats, and

represents a brazen example of the commercial approach to rivers, as well as a form of “environmental injustice” to “lower riparian Bangladesh”:

It is the river's right to go flow, to go down to the sea. It is not our responsibility to catch and hold the river flow. So the Indian government's theory of water surplus and water deficit is totally false. It is totally an unjust attitude towards Bangladesh people and ecology.

Years of debate followed, effectively delaying the IRLP’s progress into 2014 when the Bharatiya Janata Party (BJP) came to power in the Indian government and “fast-tracked” it. The IRLP continued to be mired in controversy and many of its components, including the Brahmaputra link, have yet to be implemented. Matin states the Government of India is no longer carrying the IRLP forward under its name because their movement “made it unpopular” among the Indian populace. Resistance to the IRLP is especially strong in the nine Indian states that will be affected along with Bangladesh if it proceeds. As of 2020, the Government of India is quietly trying to build small local links between rivers. While there are plans to link the Brahmaputra, Teesta, and Ganges rivers together upstream of Bangladesh, Matin is confident those nine Indian states will join them to resist the Indian government just like in 2004 with the IRLP conference.

For civil society, the resistance to the Tipaimukh Dam offers a window of hope to populist uprisings in the region. In a press conference, BAPA president Muzaffer Ahmad remarked the dam would be “a disaster for Bangladesh’s river system, livelihood and environment” (Islam and Islam, 2016: 5). “We have done rigorous study on the Tipaimukh Dam,” he continues, “and found that it is going to be more disastrous than the Farakka Barrage that has already destroyed the Padma river and ecology in the country’s

south-western region” (Islam and Islam, 2016: 5). Ahmad added, what is “power-luxury” for India is a “life-and-death question” for Bangladesh (Islam and Islam, 2016: 5). Construction work on the Tipaimukh Dam was eventually “stalled in March 2007 in the wake of massive protests from within and outside India” (Islam & Islam, 2006: 14).

These events show that river activism in Bangladesh has roots in material conflicts over water availability and the river-dependent livelihoods. This has bred resistance from communities marginalized by such efforts that threaten water availability and has been amplified by the actions of CSOs. The fight against statist large scale development projects along Bangladesh’s transboundary rivers is also tied to other environmental struggles across the Global South. For example, Medha Patkar, a leader of the resistance to the Sardar Sarovar Dam in India, is featured in Guha’s (2000) study on southern environmentalism and attended BEN and BAPA’s International Conference on Regional Cooperation on Transboundary Rivers to help a cross-boundary movement against the IRLP and other large-scale river intervention developmental projects.



Figure 13: Civil society protesting construction of the Tipaimukh Dam (The Daily Star)

### An Ecological (Open) Approach to Rivers

The commercial approach mindset is being met with resistance from below by popular movements across international boundaries (Islam, 2006). Scientists and environmentalists throughout the South Asia region oppose this approach. It is a major mobilizing point for civil society groups and others who are directly impacted by such projects (Islam, 2006; Piper, 2017). Uniting these movements is support for an ecological approach that sees rivers as “progenitors” of various “ecosystems and cultures” (Islam, 2006: 1696).

The ecological approach, as articulated by Nazrul Islam (2006), includes encouraging harvesting river resources in a way that does not affect fundamentally alter the natural course and flow of rivers and the ecosystems and cultures they sustain. Khalequzzaman of BEN describes the ecological approach as letting “nature take its course,” understanding its processes, and trying “to facilitate those as opposed to defining



those.” Brotee Chief Executive Officer, Sharmeen Murshid, who is also part of the BAPA executive committee, says the approach effectively means “surrendering” the hardcore aspects of the commercial approach, but could open the door to a new way of doing business that’s ecologically sound and safer for public health. She notes nature-based enterprises that produce and sell organic foods could replace pesticide and chemical-intensive agriculture. People would purchase the former even if it cost them a little more money for their ecological and health benefits.

This is having an effect in some places, leading to dam removal and in some cases avoidance or halting of construction as demonstrated in the case of the Tipaimukh Dam. Following the 2004 International Conference on Regional Cooperation on Transboundary Rivers, BEN and BAPA adopted a Resolution on Rivers arguing for “abandonment of the commercial approach and adoption of the ecological approach” and a South Asia-wide people’s movement in support of it (Islam, 2006: 1699). In the context of the Bengal Delta, the ecological approach manifests as an open approach, which specifically opposes cordon structures like the Farakka Barrage on floodplains.

Adoption of the ecological and open approaches means rivers are free-flowing entities that “must not be impeded” by any sort of structure (e.g. dams) along their course, says BAPA’s Mohd. Abdul Matin. He adds while it’s okay for co-riparian countries to discuss the uses of water flow, sharing water on the basis of simple percentages and volumetric allocation (as is infamously the case downstream of the Farakka Barrage and other transboundary waters) is unfair. Rather, river water should be managed “on the basis of ecological utility” and “calculated on ecological

understanding.” The mindset of upper riparian states believing they have the “right” to block and control common rivers is wrong, he says. In rejecting the statist territorialization of land and water, the ecological approach to rivers represents an emerging post-statist position.

Post-statism is evident in BEN and BAPA’s stance on the Farakka Barrage. Representing both groups, Nazrul Islam (2017: tenth paragraph) argues the growing demand inside India for its demolition signifies “a paradigm shift in the Indo-Bangladesh negotiations regarding common rivers. He adds, “Bangladesh needs to take note of this paradigm shift by adopting the ecological approach to rivers” and should ask the Indian government to do so as well as by removing the “Farakka and other river diversionary barrages” (Islam, 2017: tenth paragraph). More recently, BAPA and BEN have raised criticisms of the Bangladesh government’s 2100 Delta Plan, which fails to address the damming and diversions of transboundary rivers. Not only that, but the Delta Plan, which is inspired by Netherlands’ polder system, advocates for new barrages within Bangladesh. Altaf Hossain of Riverine People says if those kinds of barrages are installed, the problems associated with them will grow. He adds the delta plan is full of contradictions in that it simultaneously calls for more diversions while also advocating river protection. Nazrul Islam (2018) echoes this point, stating aspects of the delta plan support both the cordon and open approaches to rivers. BEN and BAPA held a joint conference on the Delta Plan in early 2019.

Sharmeen Murshid notes that the cordon and commercial approach-inspired actions in South Asia must be seen in a global context:

The voice of reason has become very soft compared to the voice of greed, the voice of capitalist greed and aggression. So I think you know, what's happening in Bangladesh has deep roots in an ever increasing global culture, all-encompassing global culture, that has taken over the world in terms of its value system.

Murshid likens this value system to a “doctrine” of money that has transformed governments around the world into “the most successful manifestation of capitalist companies.” The merger of the commercial approach with the state is turning democracy into an “obsolete concept” and leading people to devalue human rights and the rights of other living entities, such as rivers. For example, when children are trafficked out of the country and sold as slaves or when a woman is sold into prostitution, they are seen as cash for buyers as opposed to dignified human beings, Murshid says. Likewise, rivers are regarded not as living entities that are progenitors of ecosystems and cultures, but as objects to be exploited commercially in the form of water diversion and hydropower projects.

Ultimately, the ecological approach stems as a reaction to the excesses of the commercial approach and a developmentalist state that has commodified virtually all aspects of nature and society. This is consistent with the manifestations of southern environmentalism described by Guha (2000). Murshid notes worldwide, the “destruction of [the] environment is the highest where capitalist aggression is the highest, and it's the lowest where a softer welfare approach is nurtured.” Scandinavian countries, for example, “have very high standards of environmental compliance” and of social indicators like “gender equality, and they have a capitalist system which has been hugely softened by a welfare approach,” she continues. And “what the West likes to call a

primitive society, that's where nature is best preserved. That's where the water is best preserved.”

In more recent developments, rivers around the world have gained legal personhood status or have been declared as living entities. These developments represent a manifestation of the ecological and open approaches to rivers, as well as major innovation in environmental governance that proponents hope will help to protect rivers against damming and other degradation (O'Donnell & Talbot-Jones, 2018; Rokon, 2018; Ahmed et al. 2017). This movement has particular ramifications for the river protection movement in South Asia.

### Rights of Nature, Rivers as Living Entities

On March 20, 2017, the High Court of the state of Uttarakhand in India declared the Ganges and Yamuna rivers as legal persons and living entities “with all corresponding rights, duties and liabilities of a living person” (O'Donnell & J. Talbot-Jones, 2018: Case study 3 section). The creation of the legal rights for these rivers was based on the court's assessment of the status of the rivers as “sacred and revered... central to the existence of half the Indian population” (O'Donnell & J. Talbot-Jones, 2018: Case study 3 section). They also argued that the exposure of these “sacred” rivers to environmental degradation was causing the rivers to lose “their very existence [and that this] requires extraordinary measures to be taken to preserve and conserve Rivers Ganga [Ganges] and Yamuna” (O'Donnell & J. Talbot-Jones, 2018: Case study 3).

Notably, the High Court decision in Uttarakhand came only days after the New Zealand parliament passed legislation that declared the Whanganui River catchment to be a legal person (O'Donnell and J. Talbot-Jones, 2018). This development has been met with praise, but also criticism with opponents alleging the ruling to be impossible to enforce (Ahmad, 2017). Unlike the Te Awa Tupua, the protected area of the Whanganui, the Ganges is “one of the most engineered rivers in the world”—with large dams, irrigation projects, and millions of tube wells” throughout its watershed (Ahmad, 2017: New ruling throws up difficult questions section). It's also a transboundary waterway that winds through multiple Indian states, has tributaries coming down from Nepal, and forms the vast delta of Bangladesh. Would enforcing the whole of the Ganges watershed from the Bay of Bengal to the Himalayas as a living entity require a binding international agreement or pact from all three nation-states is a question which followed.



Figure 14: Gangotri Glacier, Uttarakhand, India, one of the primary sources of the Ganges River (Pinterest)

This manifestation of river personhood highlighted the limits of statist approaches to river rights. Nachiket Kelkar mentions the Farakka Barrage and Bangladesh following the Uttarakhand verdict:

Despite the diverse geographies and ecologies along its course, the essence of the Ganga is undeniably a singular idea; it is a wholesome individual being. No matter what it says, the current government does not seem to think of the Ganga this way. The river's 'personhood' is being systematically fragmented and its soul split, with clever rhetoric, careful partitioning of political turfs, and unabashed ecological destruction (Kelkar, 2017: sixth paragraph).

On July 7, the Supreme Court of India heard an appeal against the ruling that resulted in the suspension of the original case (O'Donnell and J. Talbot-Jones, 2018). The appeal was brought forward by the state government of Uttarakhand, "who argued that their responsibilities as guardians of the rivers were unclear because the rivers extend well beyond the borders of Uttarakhand (O'Donnell and J. Talbot-Jones, 2018: Case study 3). "As a result, the current legal status of the rivers is in limbo, pending the outcome of this appeal" (O'Donnell and J. Talbot-Jones, 2018: Case study 3). Whatever its final outcome, the appeal makes the case for post-statist approaches to rivers and watersheds whose boundaries transcend the state. Failing to recognize a river's "personhood" from source-to-sea, as Kelkar (2017) notes, leads to its systemic fragmentation.

Another key difference in legal personhood decisions revolves around who the custodians of the rivers are. For instance, while New Zealand's rights of nature framework "entrusts custodianship" of the Te Awa Tupua (Whanganui River) to Maori Iwi and the crown government, "India's put its faith mostly in government officials and

legal experts” (Kothari et al. 2017: eighth paragraph). Given this arrangement, how would its officials be responsible “parents”—as labeled by the court—if their supervisors allow or continue making “decisions that are detrimental to the rivers, such as massive hydro-project construction” (Kothari et al. 2017: eighth paragraph)? Would these officials be able to sue their own government (Kothari et. al., 2017: eighth paragraph)? Regardless of the skepticism behind the court decisions, these judgments have created novel legal rights for nature and, as such, present powerful examples of the increasing relevance of rights-centered environmental protection (O’Donnell, 2018).

Proclaiming these vulnerable waterways as legal entities invokes a movement of change towards environmental and cultural rights protection (Benöhr and Lynch, 2018). The decisions are being built upon legislation as a foundation for future innovations in environmental governance around the world, including those targeting pollution. Of India, Benöhr and Lynch mention:

[These] declarations are an important first step, but given the high levels of contamination in Indian waterways, it remains unclear how far these legal actions will go in remediating the problems. The Ganges is a profoundly contaminated river, with high levels of heavy metals [and] other toxins caused by human activities. When and if India’s government or its courts bestow legal status on the Ganges and other waterways, officials must not only curtail ongoing pollution but also launch restoration programs to return these sick rivers to health (Benöhr and Lynch, 2018: seventeenth paragraph).

The latest example of the trend of institutionalizing legal personhood rights centers on the Bengal Delta. On January 30, 2019, the Supreme Court of Bangladesh recognized the Turag River as a living entity with legal rights and held that the same would apply to all rivers in Bangladesh. The legality of its waterways were once again

affirmed by the court early July 2019 with the release of its full verdict, making the riverine nation stand out as having the most comprehensive river rights framework in the world.

### Living Rivers in Bangladesh

Legal personhood for rivers has manifested in different ways in different parts of the world. The motives driving the decisions underline the different forms of environmental governance. For instance, the historic verdict in Bangladesh is notable for being inspired by the urban, industrial pollution along the Turag River in and around Dhaka city. This landmark ruling, which has set the precedent for all rivers in Bangladesh to have a “legal person” status, is part of larger, decade-long legal and activist struggle against river pollution, encroachment, and degradation.

#### Building on the 2009 Supreme Court verdict

While the 2019 Supreme Court decision was a major innovation in environmental governance, activists like BAPA’s Mohd. Abdul Matin state it must be complemented by the full implementation of a previous Supreme Court order from 2009. This order, from a decade earlier, allowed the boundaries of the four rivers around Dhaka (Buriganga, Shitalakhya, Turag and Balu) to be demarcated with pillars so that they are free from encroachment. While protection of these waterways have been prioritized (due in part to urban beautification projects in the city), Mohammad Azaz of Riverine People says the government could focus on other rivers if pressure from activists ensues.



The 2009 court order, like the 2019 verdict, was significant in Bangladesh, which is notorious for illegal grabbing of river land or encroachment. Cases of river encroachment include people claiming areas along a river's bank as their land by bribing government officials and submitting fake documents. To address this problem, the court order stated rivers must be free-flowing and defined the following three parts of a river: 1) the riverbed, which contains water all year long and defines its minimum flow during the dry season, 2) the foreshore, where water is filled up during the wet season, and 3) the riverbank, where water never reaches during year with the exception of floods. The verdict also declared the four Dhaka rivers as ecologically critical areas (ECA), and acknowledged they were getting encroached by land grabbers, says Azaz of Riverine People. Thus, deputy commissioners (DCs), who are responsible for the river and public land in Bangladesh, were ordered to place demarcation pillars into the foreshores of the rivers. Finally, once the demarcation pillars were installed, future growth around a riverbank would be encroachment free, and the government would take sufficient measures to prevent pollution on the rivers because they're an ECA. However, large sections of the riverbank along the four waterways were left undemarcated during the implementation of the 2009 verdict and prompted land grabbers to think those parts of the riverbank weren't officially part of the river. The "faulty land demarcation pillars" thus helped to legalize encroachment, says Azaz. Another aspect driving river encroachment is the sheltering of land grabbers by "influential political and social quarters in the country," and existing river degradation across the country (Khalequzzaman, 2019: fifth paragraph). Khalequzzaman (2019: fifth paragraph) writes, rivers are dying due to low-

flow during the dry season, “as well as diminishing upstream flow in transboundary rivers, which create favourable conditions for illegal grabbers to encroach on them.” As a result of these factors (including faulty land demarcation pillars), the 2009 court verdict to demarcate the river boundaries around Dhaka was unable to be implemented properly (Khalequzzaman, 2019).

CSOs like Riverine People and BAPA have voiced concerns in the years following the 2009 verdict. Azaz says the Bangladesh Inland Water Transport Authority (BIWTA) was especially at fault because they were responsible for overseeing port areas like those along the four rivers. River encroachment, such as illegal building settlements, occurred in front of BIWTA officials on the foreshore of the rivers. The BIWTA eventually took action against river encroachment by removing more than 10,000 illegally built houses from the banks of the rivers following pressure from activists, says Azaz. While the Bangladesh government is trying to make the country’s rivers encroachment-free, removal of the illegal structures has only been about 30% successful as of Azaz’ observations in October 2019.

Another issue that still needs to be resolved are the faulty demarcation pillars. The Bangladesh Supreme Court in 2009 said to follow the Cadastral Survey (CS) records and maps, such as those published during the British colonial area. They were the only authentic source for river boundaries because no river encroachment occurred back then. Although rivers around the country have shifted their course around 15 to 25 kilometers in the past 200 to 400 years, Azaz notes those around Dhaka are an exception. Bangladesh developed from the sediment of the Ganges, Brahmaputra, and Meghna

rivers over thousands of years and Dhaka is notable for being situated atop durable clay soil that prevented rivers from shifting their courses. Dhaka's reddish clay foundations are reflected in area names such as the city's Lalmatia neighborhood, which means "red soil" (*Lal mati*) in Bangla. CS maps were thus to be imposed on current maps of Dhaka to find a guideline for river courses and their demarcation pillars

#### Civil society movement for 2019 Supreme Court judgement

Following the Supreme Court's historic judgement declaring Bangladesh's rivers as living entities, the country's National River Conservation Commission (NRCC) was assigned as the legal guardian to act as their parents in protecting their rights (Khalequzzaman, 2019). The NRCC was first established through an act in 2013 and started functioning in 2015. The movement resulting in the landmark 2019 Supreme Court verdict began soon after. Sharmeen Murshid, who heads Brotee and serves on BAPA's Executive Committee, says a major part of the activism from BAPA for many years was a movement for the NRCC. The establishment of the NRCC was a landmark in Bangladesh's struggle to preserve the integrity of its rivers and subsequently made river protection an important part of Brotee's work. Murshid's advocacy for water eventually led the NRCC to approach her to join them, which she now also represents.

In 2016, a legal challenge in the form of a writ petition was filed to save the 66-kilometer Turag River from encroachment. The river was suffocating with urban pollution and had been occupied by land grabbers and business houses sheltered by "powerful, vested interest groups, and government MPs and government officials,"

according to Murshid. The Turag, two-thirds of which is semi-urbanized and contains a little village along it, was “almost dead in one sense, considering river ecology and biodiversity,” says Azaz. “It is purely dead because a lot of toxic water is coming out from the factories as well as dominant sewage lines.”

The legal challenge was initiated by Manzil Murshid, a lawyer with the Center for Human Rights Movement (CHRM), and “was a collective effort” with other activists and CSOs who pursued it as a main agent of their activism according to Azaz. Riverine People in particular was involved in writing various columns and articles in newspapers about the legal challenge through their General Secretary, Sheikh Rokon (who works as a journalist) as well as other allies in newsmaking. Azaz says Riverine People’s publications allowed them to make their positions known to the masses and draw them out for street demonstrations. Their common slogan was to go to the court and battle for the rights of the rivers. Manzil Murshid, who was inspired by river and environmental movements, was invited by the NRCC during the process and conversed with him on the path forward, including providing him with information on rivers, according to Sharmeen Murshid. Given the NRCC was actually seeking a directive for all the nation’s rivers, the Supreme Court, upon reviewing all their submitted documents, declared the Turag, as well as every single river and waterbody in the jurisdiction of Bangladesh, a living entity to be protected by the law of the nation.

### Aspects of the 2019 verdict and implications on transboundary river governance

Given the context of river pollution, encroachment, and degradation by the state and business actors, the 2019 Supreme Court verdict outlined a mechanism to implement the rights of rivers. This included detailed directions to several government agencies to take steps to 1) enlist land grabbers and to publish the names of perpetrators, 2) not to provide them bank loans or to allow them to run for public offices, 3) “to treat river grabbing as a crime,” 4) “to remove illegal structures from rivers,” and 5) “to amend laws to punish criminals responsible for the deterioration of the natural flow of rivers” (Khalequzzaman, 2019: third paragraph).

The Supreme Court also stated that no project on the river undertaken by any related government ministry shall go into operation without the approval of the NRCC. Sharmeen Murshid says the court order effectively “brought all the problems together and placed it under one umbrella, which was very important for proper governance and management of” rivers. While some of Bangladesh’s ministries were piqued and unhappy that they would have to seek approval from the NRCC, the court verdict was an important streamlining process in the larger fight to preserve rivers. The NRCC now had a “clear directive” and guideline to use via the 2019 verdict, “and it empowered the NRCC enormously,” Murshid says. The court order also instructed that the NRCC must be a neutral, independent and strong body with its own budget. “So there's a clear instruction from the court that the commission must be empowered sufficiently,” says Murshid. “Its capacity must be built sufficiently so that it can undertake this task. So this gave the NRCC a huge lift.”

While the 2019 Supreme Court verdict doesn't affect the affairs of upper riparian countries like India and China, it has important ramifications for Bangladesh's local rivers, tributaries or distributaries. "Within Bangladesh, we need to take better care of our rivers and water resources," says Md. Khalequzzaman of BEN. The rivers and watercourses flowing through Bangladesh total to between 1,500 and 2000 as opposed to the 400-500 recognized by government agencies like the BIWTA and Bangladesh Water Development Board (BWDB), according to Azaz, who works as an independent river researcher. As earlier acknowledged by Khalequzzaman, and echoed by Azaz, the Supreme Court verdict has profound implications on these rivers, given that they are becoming drier and thinner due to a lack of upstream flow and prompting land grabbers and urbanization along the riverbank. This encroachment is increasing pollution and causing river ecology and biodiversity to degrade. Azaz states the 2019 Supreme Court verdict is significant precisely because it will empower river activists and the NRCC to fight for the rights of rivers in this context. "So domestically it was needed and it is crucial," he says. A domestic boost for river protection was especially needed as political support for the verdict is tepid. Riverine People's Altaf Hossain says while political parties in Bangladesh appreciate the verdict, they aren't united to take bold action to implement it, and it is up to civil society to use clauses in the verdict (such as those punishing river polluters and grabbers running for election) to advocate river protection.

Inspiring co-riparian countries and broadening rights of nature discourse

While the 2019 Supreme Court verdict is not an instrument for transboundary river governance, Azaz says “this sort of verdict is needed” for those directly affected by river dams, barrages, and as well changes in the climate. The verdict empowers the NRCC and local movements in Bangladesh that are fighting for the rights of rivers and serves as “an inspirational tool” for international movements like the verdicts in New Zealand, Colombia, Peru, and India have. The verdict may also make it easier for Bangladesh to communicate with its upper riparian neighbors given the obstruction and degradation of rivers upstream means killing what Bangladesh recognizes as their living entities, according to Ahmad Kamruzzaman Majumder of BAPA. As alluded in the *South Asian Water Manifesto* over two decades ago, legalizing the sanctity of rivers with rights has the potential of facilitating post-statist discourse on transboundary river management (Ahmed, Dixit & Nandy, 1997).

The Bangladesh verdict is also expanding discourse on the rights of nature. Azaz notes environmental activists around the world who are working to protect forests, wetlands, and lakes are referring to it and feeding discussions on what rights of living entities entails. Should they have the exact same rights as humans, or would they be more specific depending on their particular characteristics or vulnerabilities? SANDRP coordinator Himanshu Thakkar cautions treating rivers as humans will not necessarily improve the condition of rivers if it fails to conserve their basic dimensions and characteristics unique to rivers. Treating “rivers as rivers” should be the priority, if not sufficient on their own, he says. Others draw parallels between legal rights for rivers,

human rights, or rights those of any other living entity. Following the initial release of the 2019 Bangladesh Supreme Court decision, Khalequzzaman (2019: first paragraph) of BEN wrote, “This is the most comprehensive verdict by any court in the world that gives such specific directions to protect the rights of rivers or any other natural entity.” He foremost argued that right for humans to be free means the right for rivers to flow freely:

It is important for everyone to first understand and recognise the elements of human rights so that they can demand similar rights for rivers that has gained the legal rights. For example, humans want to be free and do not wish to be chained down or strangled. Similarly, all rivers should have the rights to flow freely without being strangled by dams, or barrages, or diversionary structures on them (Khalequzzaman, 2019: sixth paragraph).

Sharmeen Murshid of Brottee says water is fundamentally a human rights issue, and rivers and other living entities have the right to exist, flow, and offer sustenance to animals and humans. "We live by the rivers and we live on the rivers and we get off the rivers," she says of the people of Bangladesh. Murshid, who began her journey as a water activist “from a perspective of basic human rights and basic human need,” says water became a major intersectional issue for Brottee in response to an aggressive expansion of groundwater extraction in Bangladesh, much of which is contaminated with naturally occurring arsenic. Villages where Brottee works were brought into water security through the advocacy of signed tubewells where aquifers are contaminated with arsenic as well as pond and other surface water as a source of safe drinking water. She states:

My right to safe drinking water is my right, not only as a human being, but [...] the rights of every living entity includes his, her right to safe, sweet water. Which means the river's right to, you know, uphold its sweet water. For the bird's right to have access to that sweet water.



Khalequzzaman of BEN says civil society needs to remain persistent around pressuring the Bangladesh government to implement the 2019 Supreme Court verdict and other laws and policies currently on paper. Otherwise, they will just be confined in paper and “put away on a shelf somewhere.” He notes the government sometimes welcomes this, as a robust environmental movement on the ground might just be what they need to justify taking action. The avenues and institutional mechanisms for protecting the rights of transboundary rivers, however, are much slimmer. As Sharma (2017: 90) notes, the governments of South Asia have so far only adopted bilateral water accords.

#### Contradictions and the Dominance of Bilateralism in Transboundary River Governance

The chief decision-making structure in Bangladesh for addressing transboundary river governance is a bilateral working group known as the Indo-Bangladesh Joint Rivers Commission (JRC). The JRC is responsible for 54 identified or “enlisted” transboundary rivers with India. Article 4 of the Statute of the Indo-Bangladesh Joint Rivers Commission (n.d.) details its following functions:

- (a) to maintain liaison between the participating countries in order to ensure the most effective joint efforts in maximising the benefits from common river systems to both the countries, (b) to formulate flood control works and to recommend implementation of joint projects, (c) to formulate detailed proposals on advance flood warnings, flood forecasting and cyclone warnings, (d) to study flood control and irrigation projects so that the water resources of the region can be utilized on an equitable basis for the mutual benefit of the peoples of the two countries, and (e) to formulate proposals for carrying out coordinated research on problem of flood control affecting both the countries. (ii) The Commission shall also perform such other functions as the two Governments may, by mutual agreement, direct it to do.

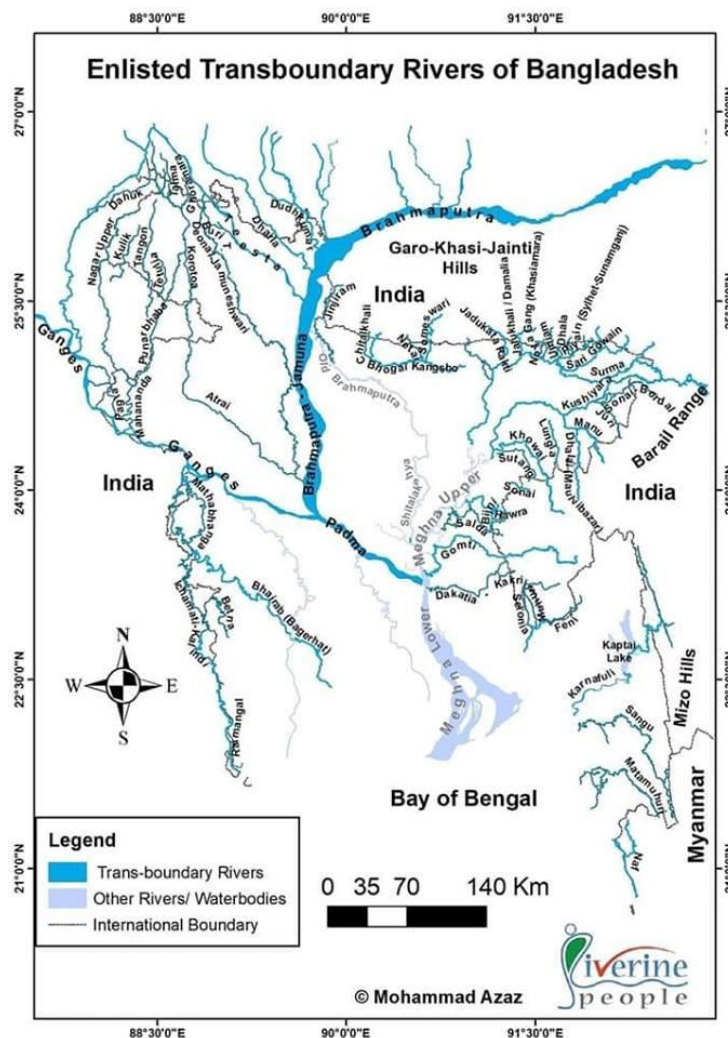


Figure 15: Bangladesh has 57 “enlisted” transboundary rivers; 54 with India and 3 with Myanmar

The nature of the JRC as a bilateral working group makes it overwhelmingly favor the interests of upper riparian India, which favors bilateral relations with co-riparian countries over bringing all stakeholders to the same table and eclipses Bangladesh in relative size and influence in the region. According to Sharif Jamil of BAPA, this has left most dialogue for transboundary river protection to Track 2 and 3 forms diplomacy. Track 1 diplomacy is official, governmental diplomacy that occurs

inside official government channels (e.g. the Governments of India and Bangladesh), while Track 2 diplomacy exists to assist state actors to manage and resolve conflicts by exploring possible solutions derived from the public view and without the requirements of formal negotiation or bargaining for advantage (e.g. CSOs conversing with the Government of Bangladesh) (Staats et al., 2019) (B2B, 2016). Track 3 diplomacy is the practice of non-state actors such as civil society groups, contacting each other (B2B, 2016). Sharmeen Murshid of Brottee states the dominance of bilateral diplomacy and the lack of a regional vision and consensus on how to manage South Asia's common rivers is largely because India "has never agreed to a regional collaborative agreement."

While India is the most significant of Bangladesh's co-riparian neighbors, China, while further upstream than Nepal, competes as the second most influential. Both countries, being relatively stronger in political clout and being upper riparian nations, favor bilateral relations (dealing with one country at a time) as opposed to multilateral relations when it comes to their water diplomacy, according to Md. Khalequzzaman of BEN. The dominance of bilateral relations in the region has resulted in the contradictions regarding the way countries like Bangladesh have dealt with transboundary rivers. This includes a lack of consistency in raising issues with dams and diversionary projects along waterways. SANDRP coordinator Himanshu Thakkar notes while 54 rivers are officially recognized to be shared between Bangladesh and India, the former's concern mainly remains focused on the Ganges and Teesta. Perversely, Bangladesh is now also in the process of deciding to build a barrage on the Ganges within its territory according to its 2100 Delta Plan, he says.

A major water sharing doctrine the JRC oversees is the Ganges River Treaty between India and Bangladesh. Signed in 1996, this is an agreement to share surface water flow at the Farakka Barrage near the two countries' mutual border (Hanasz, 2014). However, the treaty disregards the value and uses of the river between the two nations (including the impact of climate variability and use of dams further upstream in India) and fails to take into consideration co-riparian Nepal (Hanasz, 2014). As a result, the treaty takes neither a basin-wide approach to river management nor factors in "the effects of upstream use of the river on water availability at the Farakka Barrage" (Hanasz, 2014: second paragraph). "Statistical analysis of the post-Treaty data (1997–2016) also indicates that 65% of the time Bangladesh did not receive its guaranteed share during critical dry periods with high water demand" (Rahman et. al, 2019: 259). Bangladesh's water resources take a serious hit India whenever it doesn't comply with the treaty (Thomas, 2017), and is worsened by the fact the latter country plans to increase use of their common waters.

The Government of India's contribution to the damming and degradation of the Ganges is further contradicted by their 2008 decision to declare it "a national river" (Ahmed, 2017: 3). The move was advocated by Swami Swaroopanand Saraswati, a Hindu religious leader and former freedom fighter, and accepted by the then Indian Prime Minister, Manmohan Singh, who referred to the "special place the Ganga had in the hearts and minds of all Indians," and went on to say, "this emotional link needed to be recognized" (Ahmed, 2017: 3-4). A source of uneasiness behind the decision—aside from acquiescing to the demand of a religious leader on issues pertaining to rivers and

hydrology—were questions about the “emotional link” of people residing outside India (Ahmed, 2017: 4). Imtiaz Ahmed (2017: 4) posed the following question: would upper riparian Nepal and lower riparian Bangladesh “not be deprived of such an ‘emotional link’ as citizens of other states, although the Ganges flows through them as well?”

Swami’s demand, which fits a strand of indigenist ecological nationalism, “had both intra-state and trans-boundary implications,” and influenced the Indian government to set up the National Ganga River Basin Authority later in 2008. This authority is chaired by the Indian Prime Minister and has as its representatives “only the Chief Ministers of Indian States through which the river flows” (Ahmed, 2017: 4). Thus, the Ganges—a river with many nations—“became fully territorialized and statist” through the decision (Ahmed, 2017: 4).

Bangladesh shares the Brahmaputra basin with India, Bhutan, as well as China, where the river is known as Yarlung Tsangpo. China, which occupies more than 50% of Brahmaputra’s watershed, serves as its uppermost riparian country. China’s plans to place dams on the river in the Tibet region is of grave concern to the lower riparian states of Bangladesh and India. India, which has been more vocal in its opposition to the plans, wants Bangladesh to raise their voice with them against China on Brahmaputra River issues. Khalequzzaman notes the irony here, as India’s behavior towards Bangladesh on rivers is similar to China regarding the Brahmaputra. China, in their various publications, is very aware of Bangladesh’s tensions with India and is also advocating Bangladesh raise their voice against India on other transboundary rivers. “So Bangladesh is being

sought both by China and India when it comes to the Brahmaputra issues,” says Khalequzzaman.

Bangladesh’s relatively low concern for projects planned on the Brahmaputra River is attributable to several factors, including its position in the power struggle between China and India, its own focus on rivers like the Ganges and Teesta, as well as the fact that there aren’t as many projects planned on the Brahmaputra compared to other transboundary rivers. However, where the projects are coming up, like the 2000-megawatt Subansiri Hydropower Project on the border of the Indian states of Assam and Arunachal Pradesh, Bangladesh’s voice is nearly absent, according to Thakkar of SANDRP. Regarding Bhutan, Thakkar states Bangladesh has actually expressed a desire to partner with the hydropower projects the country has planned along its portion of the Brahmaputra basin in terms of buying electricity and investing money into them. The Indian states of Meghalaya and Tripura are also planning to build projects along the rivers they share with Bangladesh. Thakkar says Bangladesh could request a shared or joint environment impact assessment so that both the countries understand the impacts and make joint decisions moving forward but has so far failed to do so.

The sheer number of river diversion projects planned upstream of Bangladesh, coupled with its desire to maintain good relationships with neighboring countries, has created a situation where its government must prioritize certain transboundary rivers. Bangladeshi environmentalists and CSOs, while also supporting their government when it decides to advocate for rivers like the Ganges and Teesta, ultimately have eyes on all their common rivers. While the hundreds of watercourses flowing through Bangladesh

continue to die, representatives of Riverine People, BAPA, and BEN note that public awareness of river degradation is much higher now compared to when their groups were formed. While innovative approaches and policies like those dictated by the Bangladesh Supreme Court have been passed at a national level, implementation of them remains insufficient or nonexistent. As a result, civil society has constantly been mounting pressure related to an aforementioned concern: multilateral dialogue as opposed to bilateral agreements. Multilateralism is consistent with Ahmed (2017), Sharma (2017), and Dixit's (2017) call to move away from the dominant statist approaches to river management. Key to this multilateralism, applied to Bangladesh, is an ecological or open approach to rivers that builds on South Asia's common cultural and ecological heritage.

#### “Common Rivers,” Co-ripanhood, and Multilateralism in South Asia

The idea of common cultural threads promoting interwoven accords manifest in a post-statist, bioregional form of environmental governance. A multilateral, ecological approach to rivers builds on notions of watershed democracy and Dixit's (2017: 95) call to nurture plural perspectives and institutionalize multi-stakeholder platforms to promote dialogue on transboundary river issues, in which all parties in a river-basin have a seat at the table. The shift to the ecological approach, “which recommends preservation of the natural volume and direction of river flow,” sees rivers as facilitating bonds of “friendship and good neighborliness” as opposed to sources of discord (Islam & Islam, 2016: 14). Globally, this manifests in a shift from unilateral and bilateral approaches

toward a multilateral, basin-wide approaches that include all the countries of a river basin in decision-making processes with respect to the use of rivers (Islam & Islam, 2016: 14).

#### A common formula for common rivers

A post-statist, bioregional perspective on South Asian culture and environmental governance is why CSOs like Riverine People emphasize the term “common rivers” instead of “transboundary” and “international rivers” as the latter two reinforces arbitrary political boundaries. Riverine People General Secretary, Sheikh Rokon, says rivers of South Asia birthed civilizations and existed before modern geopolitical boundaries as opposed to the other way around. Mohammad Azaz says this terminology is consistent with Riverine People’s slogan and principle of rivers always coming “first.” Riverine People Secretary, Nusrat Khan, says political boundaries were constructed for humanity, but they cannot be made for other environmental entities like flora, fauna, and water. The practice of enforcing political boundaries is one of the reasons rivers, as well as the earth as whole, are suffering.

Rokon says there should be a “common formula” for river management. A case-by-case approach on single rivers could take hundreds of years, assuming each case takes a year in Bangladesh. Other CSOs subconsciously acknowledge this in their media, activities, and policy solutions to governments. In the forward to the 2017 book, *South Asian Rivers: A Framework for Cooperation*, Bangladesh Environmental Lawyers Association (BELA) Executive Director Syeda Rizwana Hasan (2017: i) writes, transboundary rivers are “a common heritage of the people of South Asia.” Another



book, the *Tale of Brahmaputra Basin in Bangladesh* sends a similar message. A publication of BAPA, Waterkeepers Bangladesh, and other CSOs and activists, the book highlights transboundary river governance is causing discord in the Brahmaputra River basin but has the potential to sow the seeds of mutual trust and cooperation (Jamil et al. 2018). CSOs criticize the existing statist approach and political economy of river management (Hasan, 2017). BELA's 2017 publication contains contributions from leading South Asian academics, diplomats, and environmentalists to assist area decision-makers in revisiting and revising such strategies. In its forward, Rizwana Hasan (2017: i) continues: "South Asian rivers [need] to be treated as an ecological reality to be governed on common principles of cooperation and legal grounds supported by the collective voices of the people." It is also hoped that this analysis, she continues:

... shall add force to the demand of the environmentalists to grant certain rights to our shared rivers that are common heritage of the people of South Asia. If the Parliament of New Zealand can issue a legal proclamation declaring the 145km Whanganui River as a living entity, it is perhaps not too much to expect that the common rivers of the region, in their entirety, shall be given the status of living entities and that common institutions shall work to protect the rights of these rivers to flow uninterrupted and be saved from pollution (Hasan, 2017: i).

#### Post-statist, bioregional approaches to rivers

BELA's perspective—identifying rivers as a "common heritage" to the people of South Asia and proposing a basin-wide, ecological approach to river management—is shared by various CSOs, including BEN, BAPA, Riverine People, and Brotee. This also means harnessing rivers without compromising their inherent integrity and the ecosystems and societies dependent on them. According to Sharmeen Murshid, even the

NRCC acknowledges and identifies the basin-wide approach because transboundary rivers are the source majority of the water in Bangladesh. She says the NRCC, JRC, and other agencies of the Bangladesh government picked up the basin-wide approach terminology as a result of their interactions with environmentalists.

Mohd. Abdul Matin of BAPA extends the basin-wide approach beyond issues directly relating to river management. For example, BAPA opposes deforestation in the border Indian states of Assam and Meghalaya, as such actions will make hills fragile and trigger landslides that will block the course of rivers flowing into Bangladesh. A project's "basin-wide impact" should always be considered, whether in China, India, or even Bangladesh, says Matin. BAPA offers this approach as a solution at their international conferences and seminars on rivers and also recommends it for Bangladesh's internal rivers. Matin likens dividing rivers according to political boundaries as akin to turning them into lakes. "Rivers are a common property and source of water for all, and [their] whole basin is benefited by their free-flowing character," he states.

Md. Khalequzzaman of BEN identifies the basin-wide approach as consistent with an "integrated water resources management" perspective, a model for surface water management in the United States and many other countries. "You have to approach a water system from [a] watershed perspective, from a basin perspective, meaning from the beginning of the river to the end of the river," he states. While such a perspective supports managing river systems as single units without political boundaries, weak diplomacy in South Asia has resulted in the region's common rivers being managed in isolation. This has resulted in a precarious situation where upper riparian countries can

disregard the interests of those living downstream, in stark contradiction to the United States Geological Survey's (USGS) hydrological slogan, "We all live downstream." Bangladesh, being the most downstream country in the Ganges-Brahmaputra-Meghna river basin, doesn't have much control over the region's water resources. Bangladeshi CSOs are thus drawn to the integrated water resources management perspective, meaning the basin-scale approach, which involves all co-riparian stakeholders including India, China, Nepal, Bhutan, and Bangladesh.

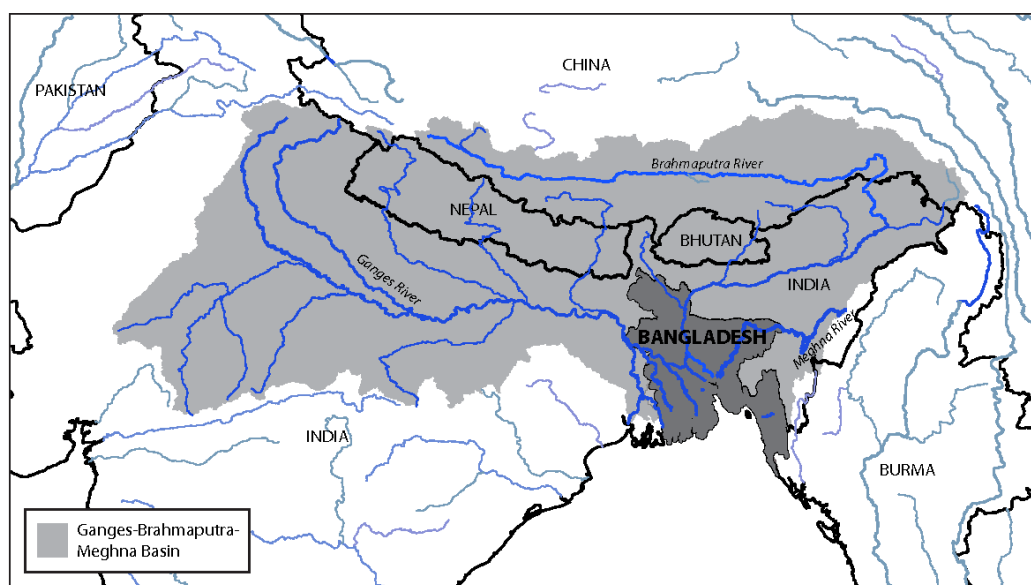


Figure 16: Bangladesh juxtaposed with the greater Ganges-Brahmaputra-Meghna river basin (Semantic Scholar)

While it may look and sound like they are advocating in their country's interest and supporting national narratives, Khalequzzaman, a practicing water scientist and geologist, says those who believe in hydrologic concepts and principles are compelled to advocate for a "holistic approach." In a publication presented at BEN-BAPA's IRLP conference 16 years ago, Khalequzzaman et. al. (2004: 1) concluded only "an integrated

watershed-based water resources” approach to Ganges-Brahmaputra-Meghna system will guarantee “a fair and equitable allocation of water resources among all stakeholders can ensure ecological as well as socioeconomic stability” (Khalequzzaman et. al., 2004: 5) of the watershed and wider subcontinent. Since the IRLP’s conception in the 2000s, scientists and CSOs across India and the South Asian region have posited more just and environmentally sustainable alternatives to the IRLP (Balachandran, 2015). For SANDRP’s Himanshu Thakkar, this includes “watershed development, rainwater harvesting, groundwater recharge, and optimizing existing infrastructure and cropping methods” (Balachandran, 2015: tenth paragraph). Thakkar states these methods that have not been officially studied by the Indian government (Balachandran, 2015).

Thakkar, whose organization is based in and primarily operates within India, cautions discourse over the basin-wide context is a “macro-context” and may risk facilitating agencies like the World Bank and Government of India to support macro-level projects like big dams, big hydropower projects, and the IRLP. Thakkar, who argues water is essentially a local resource to serve local needs and demands, says the first and smallest hydrological unit is a watershed, while the basin is the ultimate hydrological unit. “If you want to talk about the basin-wide approach, you should be actually talking about the bottom-up, watershed level approach, and then go upwards to the basin level,” he states. “So we refrain from talking about the basin-wide approach because we see this risk.” As an organization, SANDRP generally looks at project-specific and activity-specific issues and promotes a bottom up, watershed level perspective. While the watershed and basin perspectives are thought of as almost

synonymously among Bangladeshi activists and scientists (and for good reason as it is the lowest riparian state in the GBM), Thakkar maintains this distinction is important.

Acknowledging the call for a basin-wide perspective from Bangladeshi civil society, Thakkar recommends that Bangladesh needs to first become more consistent in following it as an approach. This includes raising issues of China's planned hydropower projects in Brahmaputra basin, which India does consistently according to Thakkar. Similarly, Bangladesh, which sometimes wants to be partners with Nepal and Bhutan building dams on Ganges and Brahmaputra basins, should do shared or joint environmental impact assessments in its own territory. Of the Ganges River, Sharma (2014: fifth paragraph) concurs that "a basin-scale approach would help manage the water resources better," but that such an approach would "require close coordination with all the countries sharing the [Ganges], such as Nepal and Bangladesh, so that the interests of both upstream and downstream users are taken into consideration." Sharma (2014) also lists the perspective of CSOs and the public at large as needing to be taken into consideration for improving water governance in the Ganges Basin. A basin-wide perspective of the combined GBM system by Bangladeshi civil society clearly articulates notions of bioregionalism, with the GBM being their greater bioregion and fitting Wahl's (2017) mention of "life-place."

### Water diplomacy and bioregionalism

Water diplomacy is a major focus for Bangladeshi civil society and environmental groups. When Indian Prime Minister Manmohan Singh visited Bangladesh in 2011,

BAPA put forward a memorandum of 14 demands to both the prime ministers of Bangladesh and India. Seven of the demands directly pertained to the management of transboundary rivers while the remaining half of the demands listed ways to improve the ecologies and livelihoods of both countries. The memorandum stated if the 14 environment related demands were addressed, the relations between the governments of both countries would become peaceful because such ecological issues are a basic source of discontent of their people.

Given the Bangladesh government's hesitancy to agitate co-riparian neighbors, its civil society often finds itself opposed to a variety of their stances. BEN and BAPA's opposition were on full display as recently as their 2019 conference in Dhaka. The joint event focused on the Bangladesh Delta Plan (BDP) 2100, a major development the government has taken to manage water and land resources in the country over the next century. The conference highlighted the disagreements activists and scientists had with the projects, concepts, and viewpoints outlined in BDP 2100, including the notion that it was an internal issue for the country. Khalequzzaman states the BDP won't be successful unless issues surrounding transboundary rivers are resolved, especially considering it outlines the desire to build a barrage over the transboundary Ganges River within Bangladesh. The Government of Bangladesh's position is that they are working to resolve transboundary river issues but cannot sit idly by in the meantime. BEN and BAPA laud the government's efforts in creating a plan but believe they should prioritize water diplomacy when dealing with India, the UN, and other countries.

Bangladeshi CSOs see the 1997 United Nations Convention on Non-Navigational Uses of International Watercourses (UNWC) as the primary instrument for protecting transboundary rivers. Riverine People, whose first publication focused on transboundary river issues, has long advocated Bangladesh ratify the UNWC. They are among the many co-promoters of the UNWC movement within the country and have translated the convention into Bangla and have circulated it among stakeholders. BEN founder, Nazrul Islam, says Bangladesh ratifying the UNWC will validate its demand for its legitimate share of transboundary rivers in both bilateral and international forums. While Bangladesh's UN delegate supported the UNWC in 1997, Bangladesh, as well as nearby countries like China, India, Pakistan, and Nepal have yet to ratify it. Sharmeen Murshid of Brotee says this is the number one regional challenge for Bangladesh. When UN laws are made, they are circulated to member countries to be ratified by them and converted into law. The UNWC eventually entered into force in 2014 after having been ratified by 36 countries in other parts of the globe. However, a majority of the world's countries, including key regions like South Asia, remain outside its scope. The UNWC is nonetheless still regarded as an important instrument establishing international law governing water. Mohd. Abdul Matin of BAPA says there is no other law to resolve transboundary river-related conflicts in South Asia and ensure environmental justice to the people of lower riparian Bangladesh. He cites Bangladesh's success in resolving its maritime boundary disputes with Myanmar and India via the International Court of Justice on the basis of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) over the past decade.

Having all governments of South Asian countries ratify the UNWC were among various recommendations to governments, water experts, and civil society of the region at BEN and BAPA's 2013 conference, "Water Resources of South Asia: Conflict to Cooperation" (WRSA-CC). Held in cooperation with universities and other environmental organizations in Bangladesh, the goal of WRSA-CC was to discuss all aspects of water resources management, with a focus on the dominant, conflict-ridden unilateral approaches to transboundary river governance in the basins of the Ganges, Brahmaputra, and Meghna rivers (Ahmed et al. 2013). Chief among WRSA-CC's recommendations was that South Asian countries "adopt the multilateral, basin-wide approach to preservation and sustainable use of rivers" and abandon the current "Commercial Approach" in favor of the "Ecological Approach" to rivers (Ahmed et al. 2013: 271).

The WRSA-CC recommendations outlined a variety of ways for South Asian countries to transform these concepts into practice. This includes governments being transparent "with regard to river intervention projects so that the public has the information necessary to be able to express their views on them" (Ahmed et al. 2013: 272). Governments themselves would also evaluate the benefits and (economic, environmental, and human) costs of existing and prospective river intervention structures with particular attention to their impacts on indigenous and other local people whose livelihoods have been or will be directly affected by the projects (Ahmed et al. 2013: 271). Structures with high cost-to-benefits ratios, including all those situated on transboundary rivers, would have to be decommissioned "to restore the natural flow and



direction of these rivers, remove conflict, and create conditions for cooperation in other spheres,” such as South Asian countries uniting to oppose China’s plan to divert upper Brahmaputra River flow and inviting the country to join institutions related to the Brahmaputra basin (Ahmed et al. 2013: 271-72). Institutions related to the Brahmaputra as well as Ganges and Meghna basins (in the form of commissions, treaties, authorities, etc.) would be set up by South Asian countries and be in conformity to basin-wide, multilateral, and ecological approach to rivers (Ahmed et al. 2013: 272). Governments of South Asian countries would also “facilitate people-to-people contact so that people of one country can know and have a better appreciation of the viewpoints of people of other countries” (Ahmed et al. 2013: 272). This includes promoting ties between the region’s river experts and activists so that they can unite in support of the basin-wide, multilateral, and ecological approach to rivers in their respective countries and thus convert rivers and other waterbodies from “sources of conflict into bonds of friendship” (Ahmed et al. 2013: 273).

Of the WRSA-CC’s various recommendations, one has been receiving close attention recently: India should “restore the full natural flows of rivers shared with Bangladesh so that it becomes politically feasible for the latter to grant transit facilities to India’s landlocked northeastern states necessary for faster economic development” (Ahmed et al. 2013: 271-72). Nazrul Islam (2018: 61) identifies this “transit in exchange for rivers” formula as a way for Bangladesh to leverage its geographic advantage to neutralize India’s geographical advantage in the quest towards a genuinely basin-wide, multilateral, and ecological approach to rivers. On July 2020, the first-ever trial container

cargo ship sailed from Kolkata to Agartala in the northeastern state of Tripura through the rivers of Bangladesh, reducing the distance between the two cities from 1600 to 600 kilometers (Bhattacharyya, 2020) (First-ever container cargo from Kolkata via Bangladesh port reaches Agartala: MEA, 2020). While India's External Affairs Ministry termed it a “historic milestone” in Indo-Bangladesh connectivity and economic partnership, BEN and BAPA regard it as a lost opportunity for Bangladesh to grant transit on the condition of a water-sharing deal restoring transboundary river flows (First-ever container cargo from Kolkata via Bangladesh port reaches Agartala: MEA, 2020: first paragraph) (United News of Bangladesh. Dhaka, 2020). The CSOs continue to advocate the “transit in exchange for rivers” formula, the UNWC, and forms of water diplomacy, with the long-term goal of bringing South Asia’s watersheds under a common water-sharing framework that aligns with basin-wide, multilateral, and ecological approaches to rivers. This would actualize true watershed democracy in the region, a goal crucial in light of the livelihoods and ecologies burdened by the unequal impacts of river and floodplain interventions.

### On the Frontlines of Environmental Justice

Environmentalists and CSOs are emphasizing Bangladesh's livelihoods and ecologies as hanging on the line due to the scale of upstream river and floodplain interventions and their downstream climate vulnerability given the acceleration of the climate crisis. This includes their role in driving river erosion, obstructing sediment

transport, and ultimately destroying the Bengal Delta. They moreover cite that big dams and diversions have not met their stated development objectives.

#### Downstream river and climate vulnerability

River activists are implicitly and explicitly invoking the environmental justice frame when articulating their concerns of Bangladeshi deprivation in a regional and global perspective. Bangladesh is “a victim country,” says Altaf Hossain of Riverine People, whose work concerns the intersection of river conservation and climate change. He says Bangladesh is one of the lowest contributors to the climate crisis but is among the most impacted. This ties into Pellow's (2016) second pillar of Critical Environmental Justice (CEJ), which calls for “multi-scalar methodological and theoretical approaches in order to better comprehend the complex spatial and temporal causes, consequences, and possible resolutions of EJ struggles” (Pellow, 2016: 227). For instance, while climate science shows that anthropogenic climate change is accelerating at an immense pace, and with growing intensity, “this is also happening unevenly, with people of color, the poor, indigenous peoples, peoples of the Global South, and women suffering the most” (Pellow, 2016: 227-228).

Highlighting the scale of downstream river vulnerability was front and center in October 2018, after the Intergovernmental Panel on Climate Change (IPCC) warned the world there was only a dozen years for global warming to be kept to a maximum of 1.5C. Following the grave news, Riverine People staged a boat demonstration on the Buriganga River in Dhaka, addressing that Bangladesh's rivers and riverine communities are on the

frontlines of the climate crisis (Samakal Correspondent, 2018). In a press statement, Riverine People Secretary General, Sheikh Rokon, said rivers “cradling between the Himalaya Mountains and the Bay of Bengal”—as well as their dependent communities—“are the first victim of climate change” (Samakal Correspondent, 2018: fifth paragraph).



Figure 17: Riverine People's climate change “boat-rally” (Farukh Ahmed)

While there is no consensus on the actual number of rivers in Bangladesh, waterways are ubiquitous throughout the country. Azaz says the omnipresence of rivers makes talking about them inevitable in discussions pertaining to broader and seemingly unrelated environmental issues in Bangladesh. Anyone who travels 15-20 kilometers in any direction in the country encounters rivers and wetlands and can see the impacts of climate change and other human-induced activities on them, he adds. Those who inhabit riverbanks are often the first to experience their impacts, as well. Azaz says this makes talking about such issues easy and less abstract than in other countries. As a result, Bangladeshis see climate change and broader environmental issues as impacting rivers

and wetlands because they are directly connected with their livelihoods and lifestyles. The omnipresence of rivers in Bangladesh also means the way it is being impacted by climate change is different from other climate vulnerable countries like the Maldives. The number of climate migrants throughout Bangladesh is less than it is often portrayed by those working in climate mitigation as a result. While displacement due to climate-induced sea level rise is a huge problem in areas directly along the Bay of Bengal coast, issues tied to poor river management, including their obstruction through dams, is driving river erosion and creating environmental refugees further inland. About 1/16 of Bangladesh's population (one crore or 10,000,000) lives on islands within rivers, according to Azaz.

CSOs are also sounding how the cordoning of the Bengal Delta's river and sediment flows are hindering Bangladesh's ability to adapt to climate change and exacerbating sea level rise through saltwater intrusion and the displacement of local communities. Altaf Hossain says the Bangladesh government doesn't have much capacity to mitigate climate change due to the country's socioeconomic condition but can pursue adaptation measures. However, the ability to pursue climate adaptation is complicated by upstream river dams and diversions. Mohd. Abdul Matin of BAPA notes "rivers will be destabilized" in Bangladesh due to ice melting in the Himalayas. Floods will be further exacerbated by the upstream river intervention structures that block river flows into the country during the dry season and left open during the hot, monsoon months. Altaf Hossain says "preparedness is the most important concept" in climate adaptation, and in a riverine country like Bangladesh, having stable river flow is crucial. "Here transboundary

rivers are the most influential factor,” he notes. If rivers are not flowing freely, then in spite of Bangladesh's internal efforts to adapt, the country will not be able to prepare well for adapting to climate change. Hossain says if fresh river water is allowed to flow freely, then saltwater intrusion will be reduced and help address ecological degradation and aid climate adaptation in critical areas like the Bangladeshi Sundarbans. Protecting the mangrove forest, a natural bulwark for the nation against storm surges from the Bay of Bengal, is another specific example why restoring transboundary river flow must be a priority for climate adaptation. “It’s our reality, so we must [adapt],” Hossain says. But adaptation will not be possible due to barrages and dams in upstream countries.

Md. Khalequzzaman of BEN says in South Asia, transboundary river issues are environmental justice issues because of the dams and barrages diverting water from those rivers. Bangladesh not only gets less amount of water during the dry season, but it also gets about half of the sediments that rivers used to carry in the 1960s. Bangladesh is a deltaic country and sedimentation is “at the heart of [its] delta building process,” he says. Low river flow impacts agriculture, industry, navigation, and irrigation, but on a much broader scale, hampers the delta building process. Unilateral diversion of water and sediment in upstream countries, in the face of global climate change (e.g. sea level rise and various kinds of cyclones), is amplifying erosion, subsidence, and land loss in Bangladesh. Echoing Azad of Riverine People, Khalequzzaman states environmental refugees in Bangladesh are refugees only partially because of global climate change.

### Capitalist aggression and cross-boundary injustice

Although a Bangladeshi perspective critiquing India and other upper riparian nations sounds nationalistic, the views of participants across CSOs are better described as state and commercial interests versus the interests of science and common people of the region. Renowned Indian river activist, Medha Patkar, who attended BEN-BAPA's international conference on "Regional Cooperation on Transboundary Rivers: Impact of the Indian River-Linking Project" in 2004, described the project as a manifestation of "colonial tendency" in within the South Asia region, "where people have always been and are being exploited" she told at the time (India-Bangladesh: 21st Century Battle For Water Sharing, 2014: 1. Introduction section). Medha Patkar said India is facing the same kind of challenges as Bangladesh, "which have come up because of the states' wrong approach to natural resources management and at the cost of the common people" (India-Bangladesh: 21st Century Battle For Water Sharing, 2014: 1. Introduction section). She warned that the water conflicts "should be seen as a 'states versus people conflict' caused by the governments' wrong and anti-people position and 'state versus science, experience and conscience of the civil society at large'" (India-Bangladesh: 21st Century Battle For Water Sharing, 2014: 1. Introduction section).

BAPA articulates a similar sense of environmental justice regarding transboundary rivers because it very clearly relates to the "people's interest," according to Mohd. Abdul Matin. "Bangladesh is a riverine country" and good management of its river flows and water quality is essential to ensure justice for people and rivers. The "people's view of environment is, to my sense, I should say, more pragmatic than the

educated people,” adds Matin. Farmers, cultivators, fishermen need to harness rivers for their crops, cultivation, and fisheries and are using them “from a standpoint of their livelihood, not for luxury,” he continues, echoing Guha’s (2000) notions that environmentalism and resistance to large-scale development projects in Global South societies are often rooted in material issues. Matin adds while poor people and laborers in village areas are not in favor of mismanaging and overextracting natural resources, rivers are being “misused and polluted” for business purposes through the aid of the government.

Perhaps the greatest injustice articulated by civil society is that the vast majority of Bangladesh’s transboundary rivers are outside the scope of existing water sharing treaties. The few that do exist tend to reinforce feelings of environmental injustice by upper riparian countries. Matin notes the Ganges River, which has a treaty dictating half the water flow at the Farakka Barrage must be shared between Bangladesh and India, already has hundreds of river intervention structures in Indian states further upstream like Uttar Pradesh, and many more structures are planned to be built along the river. Ahmad Kamruzzaman Majumder of BAPA identifies such water sharing treaties, including the recently signed Memorandum of Understanding (MoU) on the transboundary Feni River in southeastern Bangladesh, as favoring India. “So this is a one-way connection,” he states. The MoU allows India to draw 1.82 cusecs (cubic feet per second) from water from the river for a “drinking water supply scheme for the border town of Sabroom in Tripura,” which is expected to transform into a transit hub in India’s Northeast in the coming years (Marathe, 2019: first paragraph; Islam, 2019).



The October 2019 MoU came amid Bangladesh's frustration over India's refusal to sign a treaty on the Teesta River, a large Himalayan river flowing through the Indian states of Sikkim and West Bengal before entering Bangladesh (Staff Correspondent, 2019). The Teesta deal, which was slated to be finalized during then Indian Prime Minister Manmohan Singh's visit to Dhaka in 2011, has been stuck in limbo since due to opposition from West Bengal Chief Minister Mamata Banerjee (Staff Correspondent, 2019; Joshi, 2020).

Sharmeen Murshid says more than 27 dams are planned along the river in the Sikkim mountains, areas of which are being drilled to facilitate gushes of water for hydropower. Some of the dams have already been installed and are diverting Teesta River water into power plants. Though billed for their energy potential, the structures have turned the land barren and devoid of water for local communities. Sikkim's deprivation of safe drinking water is emblematic of how bad river policies are driving environmental injustice in both India and Bangladesh, says Murshid. "This is capitalism in its most perverted form, where you take away nature and everything turns into paper," she continues, referring to "paper" and "cash" as synonyms. Water, trees, and human beings regarded as "paper" in the checkbooks, seen for their short-term monetary value. "These governments are only counting the paper," she adds. "And by doing that, they are destroying the very society that they live in because today they will have hydropower energy," and tomorrow their source of life and livelihood will be gone.

During the region's wet season, the doors of the numerous barrages on the Teesta River are opened. Water rushes down from the Sikkim mountains through West Bengal

into Bangladesh, plunging the area into terrible floods and eroding the riverbank. Murshid, who explored the Teesta River from Bangladesh up to near Sikkim, says much of the river, land, and local economy adjacent to it has suffered particularly due to West Bengal's Gajoldoba Barrage. With three to four more dams upstream of it until Sikkim, the Teesta is already very obstructed by the time it arrives at Gajoldoba, where remaining water is diverted through an artificial channel leading into the Mahananda River and ultimately the Ganges. This has left the lands surrounding and downstream of Gajoldoba Barrage barren and uncultivable, and resulted in the displacement of hundreds and thousands of people in West Bengal and Bangladesh, says Murshid. She adds the barrage was proposed to make some hundreds and thousands of hectares of land fertile in West Bengal, but only managed to achieve 9,000 hectares.

CSOs have observed similar experiences of environmental injustice along other obstructed rivers for years and maintain that dams to promote "development" have devastating impacts on people and ecology by benefiting urban-industrial development and undermining local knowledge and methods of irrigation. Sharmeen Murshid says "there's something essentially wrong in the approach" the South Asian region and much of the world has taken in sacrificing rivers and the thousands who live along them in the name of serving a larger population. "Dams are not a solution. Dams are to be dammed," she concluded. "Decommission them, go for natural processes. Allow the rivers to flow, then you will find less people are hurt. Less people are displaced, and less people are made homeless."

Bangladesh: a cradle for South Asian rivers

Without a broader vision for water management in South Asia, transboundary rivers and Bangladesh, as the lowest riparian nation, will forever be subject to environmental injustice and political manipulation. This vision “must come within the scope of the delta basin,” says Murshid. “If there is not a wise, enlightened leadership in the region, Bangladesh will be the first to suffer.” Framing deltaic Bangladesh as being on the frontlines of environmental justice is based on its regional significance for the management of water as opposed to appeals to fairness, she says:

Bangladesh is [the] link to the ocean. This is a point that we often don't realize. The importance of Bangladesh is India's rivers, when it overflows, must flow through Bangladesh to reach the ocean. China, when it's in disaster and opens all its waters, where will the water go? It will have to flow towards the ocean. And when you destroy Bangladesh by drying it up, you are actually destroying the cradle that holds your water which otherwise would wash you away.

Identifying deltaic Bangladesh as a “cradle” for South Asian rivers contrasts with the negligence of managing common rivers from source-to-sea. Cordoning off and destroying the riparian “road” to leading to the ocean (Bangladesh) with dams and diversions in upper riparian countries is the result of a “sheer, shortsighted, narrow-minded, highly petty-politicized vision” that disregards river ecology, states Murshid. “We don't live in a world so disconnected, and rivers are the least disconnected,” she continues. Sharmeen Murshid says she informs others of the “need to ensure that Bangladesh remains the cradle for rivers” so a regional disaster can be averted. “The crisis in Bangladesh is not going to be a crisis of Bangladesh. It's going to be a crisis for the whole of South Asia. It's going to be a regional crisis for the delta region,” she says.

This is happening already, as exemplified by the cross-boundary desertification as well as flooding and erosion when Teesta dams open their gates all at once.

The word "cradle" reframes the statist territorialization and politicization of South Asia and its rivers under an ecological banner. It clarifies Bangladesh's position on the frontlines of its shared geography. Metaphorically, the cradle is "the child that sleeps in the mother's lap" and "Bangladesh is the lap for this whole region," says Sharmeen Murshid. The deltaic nation "cradles" the waters of the Ganges, Brahmaputra, and Meghna rivers. If the cradle is destroyed, the rivers will not live. Therefore, rivers must be allowed to flow to the ocean. Murshid says when rivers are stopped by the force of dams and diversions, they will "create havoc, because to the ocean they must go. And to the ocean, you must allow them to go." This directly ties into Pellow's (2016: 231) fourth pillar of Critical Environmental Justice (CEJ), which argues excluded and marginalized populations and geographies (e.g. the Bengal Delta) "must be viewed not as expendable but rather as indispensable to our collective futures." Murshid's visually striking descriptions of Bangladesh's deltaic setting showcase the importance of collaborating with co-riparian neighbors and was echoed by CSOs who draw from the country and region's riverine cultures and heritage as an inspiration for their river activism.

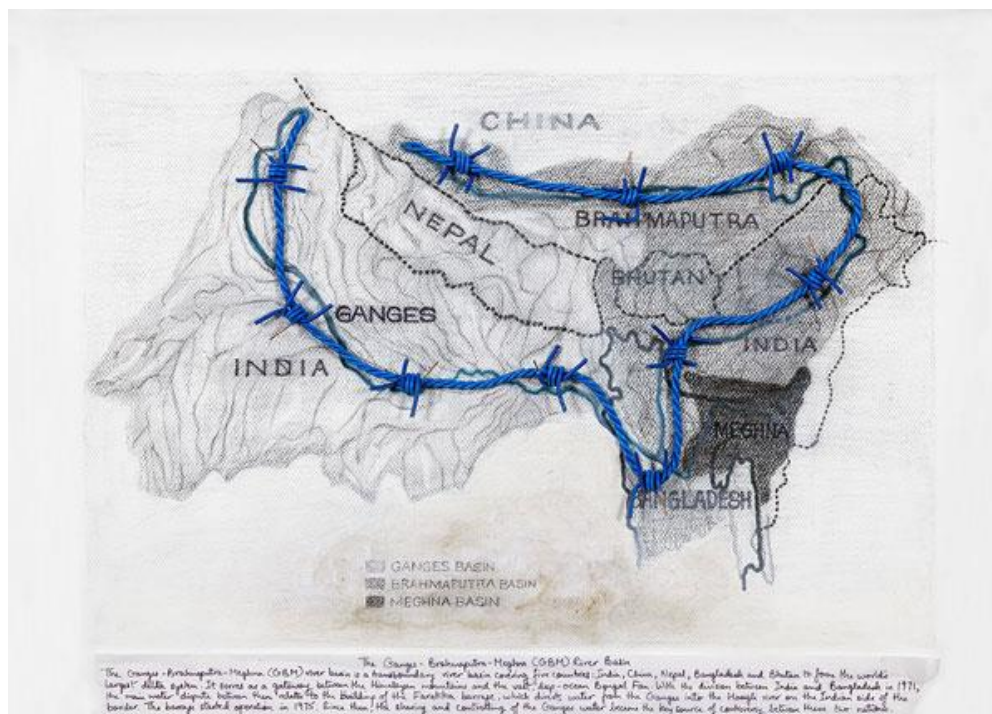


Figure 18: Art depicting Bangladesh as a cradle of the Ganges, Brahmaputra, and Meghna river basins (Reena Saini Kallat)

### Riverine Culture, Heritage, and Nationhood

Stories of rivers are stories of Bangladesh. A recurring theme in this research has been identity and community formation around rivers, and their expressions in Bangla song, art, literature, and political speech. These expressions highlight how important rivers are to livelihoods and ecologies of the Bengal Delta and are invoked in virtually all sectors of Bangladeshi society, from fisherfolk and farmers working in rice paddies to urban environmentalists protesting river degradation. Bangladeshi CSOs often refer to rivers as their “lifelines,” “lifestyles,” and increasingly so as “living entities” following the nation’s Supreme Court’s landmark verdict in 2019. These highlight socio-cultural and socio-economic dimensions of rivers. Riverine People’s Sheikh Rokon says there

isn't five kilometers of land without rivers in Bangladesh. Rivers predominate wherever or whatever one is talking about and have great geopolitical significance. This directly ties into Sivaramakrishnan and Cederlof's (2006) concept of ecological nationalisms, as many CSOs and environmentalists in Bangladesh link their branding and overall missions to the country's riverine culture and heritage.

Riverine People as an organization has been celebrating the stories of rivers on national holidays like December 16. This day is commemorated as Victory Day in Bangladesh to honor those who laid down their lives during its nine-month Liberation War with Pakistan, then its aggressor, and with India as a key ally for Bangladesh's liberation forces, the Mukhti Bahani. Often lost in this blood-let, subcontinent-shattering story, however, was the life-support and protection afforded by the land's more-than-human martyrs. They are the actual bloodlines of Bangladesh. They are river systems and their mighty flows halted the advance of Pakistani forces during *borsha*, the monsoon season, virtually ensuring Bangladeshi victory in the months to come. This was well-known to freedom fighters at the time, who, upon witnessing the might of their monsoon-fed rivers, dubbed "General Monsoon" as a Liberation War leader. General Monsoon, according to Sheikh Rokon is a direct play on "General Winter," when the Russian winter contributed to German defeat in World War II. All in all, the era's freedom fighters took deep inspiration from Bangladesh's riverine natures, livelihoods, and identities on the world's largest delta.

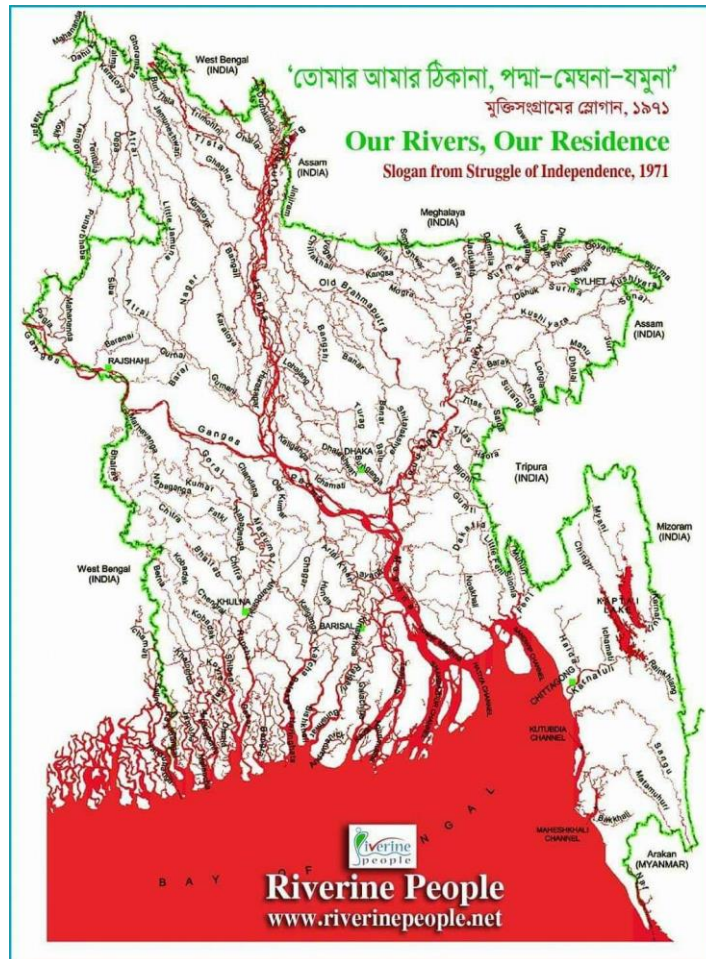


Figure 19: Riverine People poster celebrating Independence Day in Bangladesh

This was also reflected in the rise of the Liberation War's slogan: *Tomar amar thikana – Podda–Meghna–Jomuna* (“Our address is the Padma-Meghna-Jamuna rivers”). The above poster published by Riverine People celebrates March 26, a national holiday honoring the date of Bangladesh's independence, by highlighting the role of rivers in the Liberation War that followed. These words from a household song composed during the struggle appear in Bangla script (তোমার আমার ঠিকানা, পদ্মা- মেঘনা- যমুনা) and

together with the map visualize Bangladesh's riverine identity and setting on the world's largest delta.

*Podda–Meghna–Jomuna* is so metaphorically the country's address remarks Md. Khalequzzaman of BEN, whose scientific research focuses river geology and the formation of the Bengal Delta. He states water and river-borne sediment is what created this "address." Birth by rivers is a concept expressed in a myriad of popular phrases and sobriquets for Bangladesh like *Nodi Matrik Desh*, whose literal meaning is "the country mothered out of rivers." They clearly link the country's nationalism with the Bengal Delta, making it easy for civil society groups to tie their environmental activism with national pride. Khalequzzaman notes Bangladesh's culture and existence is so fundamentally tied to the environment, so much so that concepts like *Sonar Bangla* ("Golden Bengal") catalyze popular discourse, political speech, and of course the outreach and communications of groups like BEN. The concept of Golden Bengal, which evokes vivid imagery of the delta's preciousness and natural beauty, is central to Bangladesh's national anthem, *Amar Sonar Bangla* ("My Golden Bengal").

Sheikh Rokon states rivers are a "culture" with a social narrative in Bangladesh. As a result, people working on riverine issues must directly connect them to those sociocultural narratives. He says one can borrow hundreds of quotations from the Bengali poet Rabindranath Tagore or local mythology on rivers. It's difficult to connect mythology, poetry, and political speech and slogans to rivers in countries like the United States, "but in Bangladesh, it's very easy," he adds.



Nation-pride and identity formation around rivers is central Riverine People's organizing and outreach even outside national holidays. Mohammad Azaz says during 1971 and the years preceding it, *Tomar amar thikana – Podda–Meghna–Jomuna* “was the identity of our nationalism.” He describes Bangladesh's national identity as "you're a river son.” Likewise, if one believes *Podda-Meghna-Jomuna* is their national identity, they should have a river they identify with. He says this is akin to Vladimir Lenin's adoption of the alias “Lenin” from the River Lena in Siberia or the many Bangladeshi freedom fighters in 1971 who incorporated *Bangali* into their names in reference to their place-based identities. Azaz, who identifies as a “son” of the Turag River, was born and brought up near the bank of the Turag in Dhaka. He notes the cultural attachment many modern Bangladeshi youth have towards particular consumer brands and celebrities is unfortunately not extended towards rivers despite the nation being replete with hundreds of rivers. For this reason, one of Riverine People's primary goals is building cultural affinity towards rivers among youth as a way of inspiring them to preserve them. One of their first call-to-actions for new members is having them explore a river physically or virtually and later prompting it in their social networks, such as in the form of selfies. Azaz says expressing one's feelings about a river digitally is a critical part of their engagement process. Riverine People thereafter ties engaged members with relevant river conservation platforms and campaigns. These points illustrate how metropolitan-secular and ethnic-regional forms of ecological nationalism converge in Bangladesh.

Riverine People views issues like transboundary river governance and climate change from an ecocentric or river's perspective because they are a “source of life,” says

Azaz. Being a source of life isn't limited to water for irrigation or drinking. It extends to one's innermost feelings, culture, and lifestyle, he says. This broader understanding of rivers is why Riverine People refers to them as "lifelines."

Rivers, as the primary form of communication in South Asia for millennia, developed Bangladesh's indigenous civilization. Food habits and human interactions came from the knowledge and cultural connotations transferred through its common rivers. Rivers were honored as *devis* (goddesses) in South Asia because *devi* refers to those who gave to humanity, says Azaz. Rivers, in providing life in the forms of food, navigation, and drinking water, were and continue to be treated as *devis*. The shared reverence for the Ganges (Ganga) River in India and Bangladesh, for example, is why many smaller rivers in the region, like Dhaka's Buriganga ("Old Ganges"), are named after it.

Language, including the cultural connotations transferred through them, is a major example of rivers shaping life and lifestyles. A spoken language's dialect generally changes every 25 kilometers, but in riverine areas like the Bengal Delta and upper GBM basin, dialects change less often due to their high connectivity, according to Azaz. He notes, as river water flows, emotions and cultural connotations flow, which is why the many languages and dialects spoken along the banks of rivers are similar to those spoken 100-200 kilometers away. Likewise, the dialects and emotions of imposed and superimposed cultures of the 21st century, like Anglo-English culture, are being exchanged and spreading globally. Azaz says before the era of globalization, this sort of

cultural exchange happened most frequently in riverine areas, and that's why there are a lot of similarities and interchangeability in food and culture (i.e. song and literature).

As evidenced by the Bangla folk song, *Amar Jomunar Jol Dekhte Kalo* (“The water of my Jamuna is black”), the Jamuna River in Bangladesh and the Yamuna River in India share both a common story and as well as name in different dialects. Azaz states the water turned black because the Hindu deity Krishna, who has a dark complexion, was brought up along the river. The folk song, which describes taking a bath in and melting and mixing one’s youth into the black water, is often sung at Bengali Muslim marriages in Bangladesh. While the Yamuna River and characters from this song originated in North India, the folk culture developed in lower riparian Bangladesh as a result of the cultural exchange along their common rivers over thousands of years. The only cause is the river “because it flows,” says Azaz. “Knowledge came through that.”

This echoes Rabindranath Tagore's argument that cultures continue to persist along the flow of rivers (Sharma, 2017: 76). Ahmed (2017) and Sharma (2017) mention applying Tagore’s notion to South Asia’s rivers. Doing so suggests drawing on the region’s “civilizational strength, which incidentally lies more with its ‘cultures’ than in politics,” says Ahmed (2017: 9). For instance, shared language and culture along rivers could infuse principles of watershed democracy and “hydro-solidarity” among riparian communities in the Bengal Delta and upper GBM basin (Sharma, 2017: 76).

Despite the depth of river culture in Bangladesh, Azaz states Riverine People’s perspective of rivers as sources of life and lifestyles is uncommon among urbanites and environmentalists. They often regard rivers in a raw, scientific way as opposed to

authentic sources of one's culture and identity. An ideal river, in their view, is lined with trees and wooden embankments, and managed for clean water quality. This dynamic is different among rural people who live along the bank of rivers due to continued interactions with them for their daily livelihood tasks like fishing and washing clothes. Azaz, who often conducts river field research outside Dhaka, notes such people have a deep attachment with rivers, including intimate knowledge of tidal flows over the month based on the phases of the moon.

In an effort to better protect riverine livelihoods, CSO such as Riverine People are working to deepen public perception of rivers through the continuous exchange of their views. This includes organizing to revive the country and region's traditional "riverine culture" under their "re-mainstreaming the river" campaign.

Riverine People's Nusrat Khan says while many Bangladeshis see as well as emotionally perceive rivers to be the country's bloodlines, their role in people's lives has taken a backseat in recent decades and turned them into dumping grounds for trash and other discarded sources. Khan adds this also going on in upstream India, where many are dumping waste into the Ganges, despite considering it their most sacred river. She notes the contradictory treatment towards rivers in both countries is due to lack of public awareness about their necessities for life, especially now that the traditional functions of rivers like transport and communication have been displaced by roads. Khan says the uniqueness of Bangladesh is the Bengal Delta and says its well-being and ecology are tied to the nation's survival and existence. Tanzila Ahmed, President of Independent University, Bangladesh's (IUB) River Conservation Club (RCC), echoes this message in

her recital of the club's tagline, *Nodi bachle, desh bachpe. Ashon amara nodir poribesh roka kori* ("If rivers survive, the country will survive. Let's go protect the river environment"). RCC IUB, a student wing of Riverine People, inscribes these words into their t-shirts in Bangla script (নদী বাঁচলে, দেশ বাঁচবে আসুন আমরা নদীর পরিবেশ রক্ষা করি), reinforcing the ease in connecting river conservation to nation-pride in Bangladesh. It also reinforces Pellow's (2016) first pillar of Critical Environmental Justice (CEJ), which stresses intersecting oppressions—as well as interdependence—between people (particularly members of frontline communities) and the more-than-human world (e.g. riverbodies).

The ever-presence of rivers in Bangladeshi life is also expressed by political organizations. BAPA's Ahmad Kamruzzaman Majumder, a professor of Environmental Science at Stamford University Bangladesh, conducted a 2018 study on environment-related content in the election manifestos of Bangladesh's political parties. He notes the logo of the country's largest party, the Awami League, is a country boat. He says this boat is specifically used on rivers and is an example of their omnipresence Bangladeshi's culture and national psyche. During elections themselves, supporters and opponents of the party alike simply refer to the party as the "boat." For instance, casting a ballot for the Awami League is described as voting for the "boat."

Rivers are often the setting of popular songs and imagination. Brotee, which often holds cultural programs by the riverside in rural Bangladesh, uses song to galvanize community people to protect rivers. "In any village, anybody who starts to talk about

rivers immediately quote a song,” says Sharmeen Murshid. “Rivers make Bengalis very emotional,” she continues. Brotee once organized a demonstration to save a coastal river by the Sundarbans and made use of *bhatiyali*, a unique form of folk music local to the greater Bengal Delta. *Bhatiyali* songs are usually sung by *majhis* (“boatmen”) while going down streams of rivers and traditionally consist of metaphorical and emotional verses about the waters and life. The word *Bhatiyali* comes from the word *bhata*, meaning “ebb” or downstream. The music and singing hosted by Brotee helped rally community people together, and there was also a boat competition to raise excitement about rivers. Community people would get into the boats and the *majhis* would all get into a competition, showing how ethnic and regional forms of ecological nationalism work to mobilize political activism.

BAPA, Bangladesh’s largest environmental group, also recognizes tapping into the local culture is integral to the success of their movement. Matin compares the scale of BAPA’s actions to those organized by their USA-based counterpart, BEN. In 2013, BEN held a rally containing 10-15 people before the United Nations headquarters in New York City to protest against the IRLP. While this is significant in the USA, a similar demonstration in a densely populated country like Bangladesh wouldn’t be noticed and makes very little sense to pursue according to Matin. For this reason, BAPA aims for larger gatherings in the form of public processions to draw people's attention.

Processions, which involve hundreds of people moving in slow dance, are a major part of Bangladeshi political, cultural, and religious life. For example, in neighborhoods like Old Dhaka, processions are an important gathering during Muharram, the first month of the

Islamic calendar. Processions were also vital to Bangladesh's liberation struggle during and in the years leading up to 1971. BAPA's processions often include poets expressing the need for river protection. "In that way, we attend to the people's mind," says Matin. BAPA also hosts cultural programming during their seminars via renowned singers, actors, dancers, writers, teachers. Passionate songs about rivers and other natural entities are often played in-between the sessions of BEN-BAPA's annual conferences.

India-based Himanshu Thakkar states SANDRP draws inspiration from Bangladesh's attachment to rivers through the various aspects of its cultures, songs, and music. "It's possibly one of the closest linked society with its rivers, among all that I know of," he says. SANDRP's Parineeta Dandekar (2017: sixth paragraph), who specializes on the cultural dimensions of South Asian rivers, writes "rivers dominate not only the landscape, but mindscapes of people" of the Bengal Delta through "river genres" like bhatiyali. Just as *majhis* say "*Sarbanasha Podda nodi*" (The all-destroying Padma river) or "*Amay dubaili, amay bhaasiali re*" (You are drowning me, you are cheating me) to describe their limitless wrath in floodtimes, they also sing "*Ganga amar maa, Podda amar maa*" (The Ganges is my mother, the Padma is my mother) in praise of the unity in their limitlessness (Dandekar, 2017: seventh paragraph). Like rivers, the bhatiyali genre defies political boundaries by being sung and celebrated with equal enthusiasm in Bangladesh and West Bengal (Dandekar, 2017). Indian films featuring Salil Choudhury, S D Burman and Ritwik Ghatak as directors have used bhatiyali, the music and poetry of rivers which have "flown throughout the ages," to mock the "parochial water-sharing treaties and protests of the two nations trying to divide the limitless waters," writes

Dandekar (2017: eighth paragraph). This shows how ecological nationalism in the Bengal Delta, while being the basis of the Bangladeshi nation-state, also transcends nation-state borders and binds localities otherwise bifurcated by such boundaries. Here, ecological nationalism is simultaneously of the ethnic-regionalist and cosmopolitan varieties in the context of shared bioregional cultures and international solidarity.

In a land popularly known as *Nodi Matrik Desh* (“land mothered by rivers”) or *Hazar Nodir Desh* (“land of thousand rivers”), it is natural that the omnipresence of rivers will spill into the song, art, and legends of the region (Dandekar, 2019). Rivers are also ever-present in the scope, structures, and strategies of Bangladeshi civil society organizations advancing issues as broad as human rights and sustainable development.



Figure 20: A typical scene in Bangladesh, popularly known as *Nodi Matrik Desh*, the “land mothered by rivers” (International Rivers)

### Masses and Experts, Expanding the Environmental Movement

The need to organize with and build awareness among common people has forced questions about who and who cannot be environmentalists. Many of the



participants in their events and individual interviews, stressed the importance of diverse groups of people collaborating, and that everyone, including diasporic community members, have something to contribute to river activism and the greater environmental movement. This includes “experts” within scientific, academic, and policy-making communities, and “masses” in the forms of youth, students, women, street-agitators, rural, marginalized communities with their traditional ecological knowledge and experience on the frontlines of environmental injustice. Many of those I engaged with fit one or multiple categories.

#### Community-based approaches

The CSO Brotee is a rights-based center of social change advancing human dignity and social harmony for vulnerable communities in Bangladesh. Sharmeen Murshid, whose experience base is Brotee, says they began as a human rights group and expanded into environment advocacy since they go hand-in-hand and are necessary to achieve harmony. Brotee’s philosophical position of harmony is represented in its logo. Its circular design is divided into two parts, with one side being dark and the other light. Sharmeen Murshid says this represents “the balance, the ying and the yang, the negative and the positive, the day and the night, and how important it is to recognize the opposites so that you can deal with that harmony.”



Figure 21: Brotee logo (Citizen's Platform for SDGs, Bangladesh)

Brotee works on a village-to-village level, where they organize young people to become human rights defenders in their community. As of October 2019, Brotee has 3000 young girls and boys vigiling over human rights abuse in 260 villages according to Murshid. They've all come together under a methodological framework called *Gonokriya Gobeshona*, which means “People's Action Research,” or “action research of the poor, by the poor, for the poor.” Brotee applies this framework to mobilize the communities in their support as they secure human dignity and combat poverty. This has led to increased literacy and sanitation, as well as drastic decreases in dowry violence and child marriage in the villages Brotee operates in.

Brotee's role for rivers mirrors their approach to human rights. In every village by which there is a river, the community youth take a pledge to preserve that river. The pledges, when translated into action, means monitoring what is happening to their river and identifying concerns at the community level, such as talking to school kids about it. Murshid identifies this as a river-based awareness cradled in the community. “The community becomes a vigil over its water bodies,” and because a system by which they

report to Brotee exists, they work together, she says. And if Brotee gets to know about these concerns on rivers, they are able to act on them.

Brotee's community-based approach and emphasis on youth is shared by Riverine People, which is working to increase participation in the environmental movement. Riverine People's Sheikh Rokons mentions the culture of environmentalism in Bangladesh, like in the U.S. and Europe, was once led by retirees. "Riverine People has changed this narrative in Bangladesh" through engaging students at the university level first, he says. Many of their members were and continue to students, and this is a way of "taking back the culture," he adds.

Riverine People has also helped to shift the narrative of the environmental movement as being an urban, middle class phenomenon by taking their activism to local communities throughout the country. While some of Riverine People's secretaries may be excellent orators and river experts, Rokon says it's ultimately the community's river to protect. One of Riverine People's major goals is having local community members commit to conserve their rivers in the long term. "You are the sufferer of the river. It's your movement," Rokon says of the local community. This approach distinguishes Riverine People from traditional NGOs, which focus on projects with fixed timescales. "It's a life-long commitment. You have to hand over the torch to the next generation because river is there. This is the second narrative we started. We didn't start among the urban, middle class society. We have started in the communities," says Rokon.

Riverine People's community-based approach was inspired, in part, from the experience in Japan following the devastation of World War II. At the time, Sumida, the

river flowing through central Tokyo, was more polluted than Dhaka's Buriganga River. Rokon says Japan started reviving their rivers "through the community" as opposed to via government mechanisms, like coming in with restoration projects, in the following decades. The "community itself will have to revive the river, not the government," Rokon says. Whenever Riverine People recruits new members, they tell them to commit to doing whatever they can within their limitations and existing institutional arrangements and laws. This philosophy is encapsulated in the Rabindranath Tagore quote, "*tomar kadde ny jogotar var*" (The whole world is not in your shoulder, you do your work), Rokon says. Riverine People avoids usage of raising "awareness" in their messaging for this reason. "People are already aware. We want to make people committed. What you will do. That's the extent of Riverine People. Apart from the youthness," he says.

Riverine People supports community-based river movements through its River Conservation Committees. The scope of the work done by river committees (e.g. the Turag River Conservation Committee) include looking after one's own river and working for all conservation related issues, says Mohammad Azaz, who oversees all river committees as well as all Riverine People activities in Bangladesh's Dhaka Division.

For Riverine People's Nusrat Khan, their focus on uplifting the voices of young people as the stewards of rivers intersects with her emphasis on women. Bangladeshi women, being disproportionately impacted by river degradation, should have greater representation in discussions and decision-making on river governance, she says. Social inclusion for women, disabled people, and all vulnerable groups, is an area Riverine People is prioritizing so the masses have an opportunity to be vocal about their

perspectives and become committed to river issues. According to Riverine People's Altaf Hossain, their core focus on youth inclusion is consistent with the United Nations' Sustainable Development Goals emphasizing that natural resources and a habitable world be conserved for future generations. Hossain adds the next generation should also raise their voice for rivers.

### Mobilizing next generations

When Riverine People began in 2010, many of their older members were students. They found there was a gap in river consciousness among young people as well as ordinary citizens of the country. Rivers were being polluted and encroached upon, and conserving them was considered to be the domain of experts and the government. The idea of rivers providing ecosystem services and other forms of support had moreover become abstract concepts in urban areas. Motivating Bangladeshi youth to conserve rivers had become particularly difficult as many had increasingly become distracted by new technologies like smartphones and social media since the turn of the century, says Nusrat Khan.

Mohammad Azaz, who often tells young people to plan for their livelihoods and regard themselves as being part of something greater for the world and nation, says doing so isn't regarded as "cool" for youth. Many young people believed, and continue to believe, the opportunity to make national history were as freedom fighters in the Liberation War of 1971. In response, Azaz tells youth they can "make this country free" and contribute to its history as "a glorious freedom fighter" once more by saving rivers.

When a river is conserved or rescued from land grabbers 20-30 years later, today's youth will be able to reminisce about their efforts to save rivers. "You can be a part of history through joining our river conservation movement," he says.

Nusrat Khan says youth "can mobilize any kind of change in the world," as history has shown that all kinds of movements have been led by young people. She says this notion prompted Riverine People's founders to form a "platform where youth can interact with other stakeholders" to raise their voice for rivers, including sharing and doing river research together. Riverine People, which focuses on promoting youth participation in the environmental movement as opposed to implementing specific policies, is about "how youth can engage" and "raise their voice using their common platform," says Khan. This encourages them to understand that their presence in riverine or river diplomacy issues is valuable, she continues. This includes youth participating in seminars and conferences—formal or informal and global, national or local—, and negotiating with local political parties or government officials whenever there's an opportunity. Khan says the important part is to get involved and make a particular issue "your own issue," and remind yourself it is not only an issue for experts.



Figure 22: A Riverine People banner showcasing their tagline, “Be Riverine, Be Fine” (Riverine People)

Riverine People youth garner experience in these issues through participation at Riverine Conversation Clubs (RCCs) at their universities. RCC chapters exist at all of Bangladesh’s public universities, including some major private universities. They engage in academic activities as well as activism based on their locality. For example, the RCC at Rangpur University oversees all the river committees in the Rangpur area of Bangladesh. “So they feed intellectually to these particular communities because river communities need knowledge. They need information, they need activism, they need to be guided,” says Azaz. This includes what they should or should not do and their involvement in advocacy. Since RCCs involve both students and teachers, they possess immense knowledge in terms of river data and information. Khan says, “you will find that community members are not particularly from any special department.” Some can be from the art or literature departments, while others hail from the sciences or commerce. Some people are from the English department, while others are in the political science, geography, as well as physics and chemistry departments. “So that diversity is also [the]

beauty of those committees and club[s],” Khan adds. The issues addressed by RCCs are local, national, and to some extent, global issues. Khan says RCCs as well as community-based river committees are platforms for youth and local people to raise their voice and express their perceptions on river issues.

Given most of Bangladesh’s universities are situated in urban areas, activism at RCCs have an overall focus on urban rivers. The banks of urban rivers like Dhaka’s Balu River have a different reality compared to the other rivers in terms of industrial pollution, land grabbing, and encroachment. Independent University, Bangladesh (IUB)’s RCC, which was assigned to care for the Balu River adjacent to campus, is among the most active RCCs in the country. They are based out of the IUB’s Department of Environmental Science and Management (ESM), and there’s a close relationship between the latter’s coursework and the former’s local river protection activities. Students and teachers affiliated with RCC IUB are promoting sustainable waste management and educating community people about the river, including how polluted waters may affect their livelihoods (e.g. contamination of river fish) through the two-year Plastic Free Balu River Project. The Balu River is a popular tourist spot in Dhaka that suffers from urban pollution. RCC IUB President Tanzila Ahmed, who centered her undergraduate thesis around the Plastic Free Balu River Project, notes while the area’s textile industry plays a vital role in polluting the river, its main pollution stems from discarded plastic from local people and commercial settlements. After doing a survey on community members on the river’s socioeconomic condition, RCC IUB held a workshop to make them understand about the impacts of plastic pollution. The Plastic Free Balu River Project has resulted in



tree plantation along the Balu riverbank to protect against river erosion, waste collection, and waste disposal bins for the local community and garnered support from BAPA as well as from government agencies like the BIWTA and NRCC during its phases.

### Activist scholarship

Riverine People's university-based activism and knowledge-building is shared by activist scholars Ahmad Kamruzzaman Majumder and Md. Khalequzzaman.

Kamruzzaman, a professor at Stamford University Bangladesh's (SUB) Department of Environmental Science (DoES), supports BAPA as their Joint Secretary and Scientific Advisor. With a foot in both an academic and activist organization, Kamruzzaman, often oversees collaborative efforts between them. Khalequzzaman is a professor at Lock Haven University in Pennsylvania who has written extensively on river issues through publication, and typically organizes BEN-BAPA's joint annual conferences in Bangladesh as a co-chair of its Scientific Committee.

Khalequzzaman reflects on the point that "anyone can be an environmental activist, but not everyone can be an environmental scientist." A major factor limiting the expansion of the environmental movement, according to Azaz of Riverine People, is the necessity of substantiating one's positions with concrete data and findings (e.g. an environmental management plan or assessment). While one can comprehend how river ecology might be affected or biodiversity might be hampered by a development project at an abstract or peripheral level, one can't take an affirmative stance on ecosystem

evaluation without concrete research. This reality forces the need to combine science with activism.

Bringing experts in the realms of science and academia closer to masses is a core focus of Kamruzzaman Majumder's work. At DoES courses, he along with other faculty members teach the need to bridge the following three types of environmentalists. The first group are simply called "environmentalists," those who possess and practice strong environmental ethics on an individual level. The second group consists of "environmental activists," those who actively prevent the destruction of the environment through direct action or advocacy, while the third group consists of "environmental scientists" or academics, those who possess conservation or ecology-related credentials, as well as research experience on ways to prevent environmental degradation. This is internal policy at the DoES and "keeping all three in mind, our students are trained," remarks Kamruzzaman Majumder. Kamruzzaman Majumder, who identifies as being part of all three groups, adds if environmental scientists don't carry traits of the first two kinds of environmentalists, they will be relegated to publishing scientific articles in an academic journal and not adequately contributing to environmental safety. He says while scientific publications might be sufficient in developed countries, policymakers in Bangladesh put more weight on "people's" demands, that is, what the masses are saying through movements, than on scientific data alone. To ensure the "people's demand," Bangladesh needs environmental activists and civil society groups like BAPA to raise their voice. Kamruzzaman Majumder notes BAPA's strength lies in community involvement and a large number of scientific personalities.

Among Kamruzzaman Majumder's core objectives is cultivating student-driven research and expanding the reach of environmental studies, which he says is not that popular in Bangladesh. The DoES' Center for Atmospheric Pollution Studies (CAPS), which he founded and serves as the director of, focuses on atmospheric studies like air pollution and climate change, but financially supports river and other environment-related research through book publication and research assistants. The departmental studies, such as those addressing consequences of river degradation and ways to revive them, are published in English and Bangla newspapers, as well as in scientific journals to help build public awareness about such issues.

Consistent with his objective to produce activist scholars, Kamruzzaman Majumder often attends to the field himself with other scientists and activists to promote DoES studies, such as those shedding light on the water quality of Dhaka rivers before journalists. Kamruzzaman Majumder says SUB, which previously did not concentrate on river or environmental issues, is preparing the next generation of Bangladeshis to conserve and advocate justice for rivers.

To support DoES graduates following their graduation as well the greater cause of rivers, Kamruzzaman Majumder is advocating that the Bangladesh government creates an environmental officer post for each of Bangladesh's 64 districts. While rivers are omnipresent throughout the country, only 64 District or Deputy Commissioners (DCs) are responsible for monitoring them via the NRCC. Given the DCs sit in the headquarters of the districts, they don't have the capacity to monitor all the rivers in their district. Kamruzzaman Majumder says the introduction of environmental officers will ensure

river governance on a micro-scale, as if polluters know an officer is in the area, they will be less likely to take action. Bangladesh has strong environmental laws, regulations, and high officers at the macro-scale, but lacks the human resources and field offices to implement them on its myriad of rivers. This is further complicated by the fact that many rivers are part of multiple districts.

#### NRCC-civil society collaboration for river protection

To address the lack of field officers monitoring rivers, CSOs like Brotee are feeding their information and human resources into the NRCC. Sharmeen Murshid, who represents both the NRCC and Brotee, is working to facilitate this effort with the masses affiliated with other organizations who are also working with rivers. People are being mobilized based on the conditions identified on the country's rivers. Murshid says this includes training regarding existing environmental laws and legal instruments protecting rivers, such as the landmark 2019 Supreme Court order declaring the country's rivers as living entities, and sharing this information at the community level, such as at schools and colleges next to rivers. For groups like Brotee, the goal would be to have young people who will transfer and translate this knowledge into community-level action and become protectors of the river. This includes understanding when a law is being broken and reaching out to the NRCC. DCs, whom the NRCC collects information on river degradation and implements its work through, have been given departmental orders to immediately identify who is grabbing or polluting a river as of October 2019. According to Murshid, more than 46,000 grabbers and polluters were identified throughout the

country, and the NRCC is undertaking a massive operation gradually to bring them under legal challenge and remove them from rivers.

An additional reason for civil society and river activists working together as an auxiliary force is to countercheck the corruption and influence of powerful vested groups DCs are also subject to. This often manifests in DCs targeting less significant polluters and grabbers and leaving out the most influential ones. Sharmeen Murshid states the community mobilization that Brotee does would be an excellent way to collect this information. While the NRCC has to have its official source of information through DCs, if a whole community of people who live by the rivers and have access to this information, Brotee is in a position to countercheck them, she says.

Following the directives outlined in the 2019 Supreme Court verdict, all relevant government ministries have been brought together under the NRCC so that this work could be done. This includes the NRCC preparing profiles of each of Bangladesh's rivers with satellite images and a government administration ready to identify and punish polluters. Murshid notes the collaboration between the government and civil society activists on the ground cooperation will be extremely important moving forward:

You have a civil society which is increasingly becoming actively centered around rivers, and you have a government that has made a huge commitment to protect its rivers for the first time in the history of this country. And you got a Supreme Court that has backed the rivers 100%, and you've got an NRCC on the job whose task is to organize all those so that the rivers can be set free.

The necessity of experts and government agencies collaborating with CSOs and mass people for river protection through capacity building, youth engagement, and

knowledge production, represent a gap in the literature this research addresses. Simultaneously, the focus on and necessity of expanding the environmental movement to bring in voices traditionally excluded from it (e.g. youth, students, and rural community members) finds alignment in Pellow's (2016) Critical Environmental Justice (CEJ) argument that marginalized and othered groups are indispensable to our collective futures. It's crucial to address these dynamics as they are a response to the unique set of circumstances the delta country finds itself in. Although Bangladesh has a rich cultural heritage centered around rivers, the advances of its rising environmental movement are being seemingly offset by its challenges as a rapidly developing nation of the Global South. While this section focused on expanding the environmental movement, the next centers on these challenges in Bangladesh and how they influence the strategies of CSOs.

### Bangladeshi Environmentalisms

While the overall health and well-being of rivers in Bangladesh continue to decline, the country's ordinary citizens are far more environmentally conscious than around the turn of the century. This is a consensus view among civil society, and around the time groups like BEN and BAPA formed (1998 and 2001 respectively). Mohd. Abdul Matin of BAPA says the proof lies in the number of river saving movements and environmental journalism (such as Sheikh Rokon's writings) that has flourished since then. As of October 2019, BAPA has 76 local river movements affiliated with them, most of which are based outside Dhaka city in village areas. They consist of small river organizations all over the country who are grouped with BAPA (e.g. the Baral River

Saving Movement). These movements are working to raise demands on a local level on the basis of river ecology and people's livelihoods. The demands differ locality by locality. In many parts of Bangladesh, BAPA and its river saving network are mobilizing to stop the cutting of trees lining the banks of rivers to prevent erosion. In places where the demand for chemical agriculture is high, activists are encouraging people to reduce the use of fertilizers or insecticides, which are killing river fish and polluting the human body.



Figure 23: Bangladesh Poribesh Andolon logo (Citizen's Platform for SDGs, Bangladesh)

Riverine People, which formed a decade ago (2010) has been particularly successful in mobilizing students and young people in Bangladesh, whom they regard as the country's next leaders. Their efforts have created a ripple effect that has made its way to the halls of government. Riverine People's Sheikh Rokon says the Bangladesh government, including their current Prime Minister, have grown more conscious about rivers in rhetoric. While the government hasn't been successful in adequately reining in river degradation throughout the country, acknowledging the importance of rivers in

one's talking points is "progress" towards Riverine People's goal to "re-mainstream" river issues, he says.

While people are mobilizing under organizations all over Bangladesh on specific river issues, the contributions of unaffiliated individuals can sometimes be greater. Riverine People's Altaf Hossain notes this can happen in instances where there is competition between two or more organizations. It can also happen on specific rivers like the Boral River, which he says which is protected by some local people to some extent. While the local people may receive support from Riverine People or BAPA, some devoted individuals on rivers like Boral can outperform their collective contributions as a result.

The demands of many of these organizations are being presented directly to the government. Matin credits BAPA's wide reach among masses and clout among experts to their access to the Bangladesh government. Staying in touch with government ministries has, for example, enabled BAPA members to attend budget meetings where they advocate issues such not allocating money to bridges that encroach on rivers. Despite their willingness to collaborate with the government, Matin states this relationship "is decided by the government itself" because they are not always accepting of BAPA or their positions. Matin mentions BAPA's visit to the Rampal area near the Bangladesh Sundarbans, where a controversial coal-fired power plant is proposed to be built via a joint collaboration between the governments of Bangladesh and India. BAPA, despite holding a position against the coal-fired power plant for its contribution to climate change and impacts on the fragile Sundarbans forest and river ecosystem, joined a Bangladesh



government tour of the area to express their willingness to collaborate with them. The Bangladesh government's view that the power plant would have minimal impacts on the Sundarbans and climate change continues to be challenged by BAPA and other environmental groups like Riverine People. According to Matin, BAPA earlier submitted 13 scientific research documents by 13 internationally renowned scientists on coal burning and sensitivity of Sundarbans to the Bangladesh government and are still waiting to hear back from them. Matin believes this is due the government's reluctance to consider their science-backed demands is due to their own political concerns.

The Bangladesh government's sluggish behavior towards the environmental movement and ways to mobilize them is the subject of BAPA-BEN's most conference, titled "Political Effectiveness of Environmental Activism in Bangladesh: Challenges and Way Forward." At the January 2020 conference, activists and scientists discussed how politics plays a vital role in almost every decision-making process in the country, including the widespread perception that environmentalists should avoid the government due to its associated corruption and vested interests. Matin, whom I interviewed in October 2019, was firmly of the belief that civil society movements will fail to reverse environmental degradation if the government isn't mobilized.

The government of Bangladesh's tenuous relationship to its environmental movement is common in other developing nations of the Global South. BEN's Md. Khalequzzaman, who is based in the U.S., notes Bangladesh is in a "different developmental phase" than Northern countries. Administrators and policymakers in the South generally look at the environmental movement as an issue of luxury and think

“development” needs to precede it, he says. This includes characterizing environmentalists as urban, educated or university-affiliated people who are “luxurious enough to talk about the environment” and eschew essential issues of survival and existence. Khalequzzaman turns this notion around, stating that environmentalism in Bangladesh is actually an issue of “essential existence,” as well as a “mode of survival” for being able to provide for such a densely populated and land-starved country. Life and death in riverine Bangladesh is directly tied to issues of river degradation and arsenic contamination of groundwater. In this respect, the stakes of environmental issues in Bangladesh are greater than in Northern countries. Khalequzzaman compares the developmental discourse in countries like Bangladesh to a Bengali fable, where a farmer had a goose that laid a golden egg every day. The farmer got impatient and decided to cut open its belly and get all the eggs out of it instead. In the name of development, you are destroying the environment to reap its benefit quickly, he says. If this situation persists, Bangladesh will reach a point of no return with polluted waterbodies, as well as toxic skies and degraded landscapes. Khalequzzaman remarks Bangladesh needs “to take care of that goose rather than killing it” by taking heed of past mistakes and catastrophes in developed countries. In a positive development, he notes there’s greater consciousness that environmentalism “is not a luxury issue imported from the West” due to BEN and BAPA’s continuous awareness building and effort over the last two decades.

For BEN’s diasporic organizing, environmentalism isn’t as strong a mobilizing issue as they would like. Khalequzzaman notes while close to a million diasporic Bangladeshis live in New York City, only a handful of them could be mobilized for the

2014 People’s Climate March and anti-IRLP demonstration at the city’s UN headquarters in 2013. Despite being a life and death issue for the community and their friends and families back in the motherland, diasporic Bangladeshis, like other racial minorities and communities of color in the U.S., don’t see environmental issues as their burning issues. Similar to Bangladesh, it’s perceived as an “issue of luxury” or discourse elusive to universities, where racial minorities lack representation. While people of color (POC) in the U.S. are trapped “in a vicious cycle of poverty” and “struggling with their life and existence,” better organizing and outreach could convince them to become environmentalists, says Khalequzzaman. He adds Black Americans, who suffered from generations of slavery, continue to bear the brunt of environmental injustice in present-day. This presents an opportunity for BEN to form coalitions with POC-community organizations to advance river and environmental causes in the U.S. and globally.



Figure 24: Bangladesh Environment Network logo (Bangladesh Circle)

Regarding the differences between the environmental movement in Bangladesh and developed nations, Riverine People’s Sheikh Rokon says because the issues are different, the government mechanisms and efforts of civil society should be different. He states, “you can’t copy [the] environmental movement anywhere,” including movements

within Bangladesh “because all the rivers are different.” Rokon, who physically visited all the enlisted transboundary rivers between India and Bangladesh, notes the approach towards the Brahmaputra, the largest river shared between Bangladesh, India, and China, is very different from the approach taken towards smaller rivers.

The varied nature of the environmental movement has produced an equal variety of organizers and organizations, including differing funding structures and theories of change on how to best protect rivers. One aspect binding Riverine People, BAPA, and BEN together is that they follow self-funded, grassroots models in contrast to traditional non-profit or non-governmental organizations (NGOs).

Riverine People has been able to establish itself at every public university and many private universities in Bangladesh without much money and funding. To maintain their independence, they generally don't apply for funding from grantmaking or philanthropic organizations. Riverine People's Azaz says if the vision and objective of the charity doesn't contradict with theirs, or it's for research, they will consider committing to it because knowledge is essential. Riverine People is generally able to avoid venue costs at education institutions due to their value and heavy engagement with them. They also lack the need to hire paid experts to talk for them through their diverse memberbase and connections with university faculty members and researchers. A combination of volunteers, interested participants, and stakeholders who willingly contribute allows Riverine People to sustain their movement at universities with relative ease.

Riverine People's community-based river committees often need money, and they encourage local people who are well off to contribute in the form of money for a venue, or transportation to, or food for an event. Azaz says, "If one generation will not do such a thing, a change will never come." Azaz, who is employed as a researcher and saves most of his income for his family, activist, and research activities, believes the self-funded, grassroots model pursued by Riverine People will ultimately be the most successful in advancing river protection. He continues, "change will never come based on availability of money" and refers to the inability to bring meaningful change through the NGO and donor-driven models that have so far been implemented in Bangladesh. Azaz refers to NGOs as organizations with paid staff and where one crore *taka* or 1 billion dollars are invested in particular projects. As their operating costs "would be 70% or 80% of that," it makes little sense to pursue paid staff with high salaries as they will get into the way of giving back to the target audience, he says. "Rather, indigenous, self-funded, self-motivated, small movements [have been built] and it's made a big avenue to change the world," Azaz continues. The success of these efforts lie in the large number of movements that have risen from the ground. Azaz observes around 70 of the 75 organizations present at Riverine People's 2018 Bangladesh River Forum were developed by their organization.

Riverine People's movement is fueled by the capabilities and commitments of their youth demographic. "Once you sacrifice, your followers will sacrifice," says Azaz, who notes platforms and initiatives started by Riverine People are being held up by youth continually coming forward and donating time and energy to their movement. The

success of their model is partially grounded in existing cultural traditions. The general practice in Bangladesh and other Asian countries is that a child's parents typically provide their food and shelter up to the university level, says Azaz. Bangladeshi youth, by not having to chase after such necessities during their student life, are allowed to think and contribute more freely than youth in other parts of the world. The support and responsibilities shouldered by one's family, and to some extent, the state, potentially make movements in Asia more effective than their Western counterparts, says Azaz. He emphasizes this collectivism allows many movement activists to have time, bear emotions, and be able to inquire deeply about their work, as a result. "Nature has taken their responsibility," he says, metaphorically referring to the social support offered to youth by their families. "You just go and throw a seed. After six months, you come and see how big the tree has grown. So nature is taking responsibility." The tree sprouts (youth) can run after money their entire lives or make a decision to pursue money for one's necessity, he says. "Once your necessity is done, you have another responsibility. Make history. People [will] really remember you. The nation will remember you."

BAPA and BEN, like Riverine People, also distinguish themselves from NGOs. "Funded NGOs want to share governmental work and take some money from the government," says Matin. BAPA, in contrast, wishes to collaborate with the government when it comes to policy discussions without taking any funds from them. Matin notes a basic principle of BAPA is that they exist separately from the government, and that it's a government's duty to implement laws that remedy river degradation because they're paid to do so. This was exemplified during past cleanup days BAPA participated in on

invitation from the UNDP's (United Nations Development Programme) Bangladesh branch. BAPA opposes taking up projects that commit their memberbase to such work (e.g. picking up polythene bags and plastic bottles), and told the UNDP, a governmental body, the presence of a couple of their activists on the field will have minimal impact in remedying widespread pollution other than slightly raising environmental awareness among local people. Governmental bodies and publicly funded institutions should shoulder such work as opposed to NGOs, CSOs, and local people, says Matin. BAPA joined the UNDP's cleanup days for two hours weekly due to not wanting to turn down the invitation, but placed member participation at the events on low priority.

BAPA maintains its grassroots model as well as level of neutrality by not taking money from the government or NGOs. A major source of their funding comes from BEN, whose donations allow BAPA to host their conferences as well as their small office and equally small group of staff members. In contrast, the homes and laptops of BAPA's secretaries generally serve as their offices. Khalequzzaman says though BEN members have limited capacity and it's a completely voluntary organization, they raise funds annually out of their own pockets to support BAPA. Of this interdependence, he adds the two groups are "two sides of the same coin," with BEN fielding a global network of diasporic academics and researchers who're "well-founded in terms of their education" and commitment to resolving environmental issues in Bangladesh, while BAPA acts as the "boots on the ground." Matin concurs, identifying BEN's diasporic activists as "associate members of BAPA" in disguise. Some of BEN's most active members are also full-fledged members of BAPA by filling up their forms and contributing money to them

directly. BEN, whose members are scattered all over the world, came about in 1998, actually initiated BAPA's birth in 2001.

Whenever BAPA raises an issue to the government, they consider a detailed study on it before moving toward discussions in the form of conferences, seminars, or workshops. Any sort of expert opinion is considered to make their study stronger. BAPA thereafter presents the study to the government and typically moves to promote it to the public by chanting slogans matching their solutions. A major river issue BAPA continuously agitates the Bangladesh government about is the importance of sound bridge and road design over soil and riverbed. As a deltaic country, poor road and bridge designs are leading to widespread river encroachment and damlike obstruction of their flows.

The government's negligence towards such issues is why Riverine People is focusing on educating new and existing officials whose jobs involve rivers or river management. Azaz says it's common for such officials to be appointed from other divisions of the government like agriculture or commerce and lack sufficient knowledge about rivers. Azaz says some training can make one operationally efficient, but for the greater management or representation of any country, one has to be educated about their particular department. To work on rivers, one must possess hydrological knowledge as well as be versed in local culture and geopolitics.

Riverine People introduced three river-related days now celebrated in Bangladesh. The first is World River Day, which they initiated following the lead of Canadian river activist and professor, Mark Angelo. The United Nations later ratified the day and Mark



Angelo was the chair of its committee. Riverine People has been celebrating World River Day for the last 10 years, which is directly linked to the right of transboundary rivers. They decided on the theme of the World Rivers Day in Bangladesh for its first four years after its inception. Since 2014, the theme of the day has been announced in consultation with nearly 50 organizations working for the rivers, water, and environment. The second river-related day introduced by Riverine People, International Day for Action for Rivers, pertains to what one is doing for rivers on the individual and community level. The third day, River Rights Day, is held the same day the UNWCC was ratified at the United Nations. This makes it another event tied to the rights of transboundary rivers. River Rights Day advocates rivers must be free from dams, barrages, as well as any anthropogenic interference, and is particularly important in light of recent events like the 2019 Bangladesh Supreme Court verdict declaring rivers as living entities with legal rights. Riverine People's Nusrat Khan says the celebrations of these are often organized jointly with other aligned organizations like BAPA, as well as the and the government via the NRCC.

While mobilizing the government around policy changes, education for public officials, or days to celebrate rivers, CSOs' grassroots models and membership, and level of independence from the state and as well as capital, indicate an anti-statist/anarchist perspective of mutual aid and solidarity. This partially aligns with Pellow (2016)'s third pillar of Critical Environmental Justice, which calls for such a perspective. CSOs believe mobilizing the government is necessary to halt river degradation, but also observe the harms inflicted by state power when dictated by market systems (e.g. the commercial

approach to rivers). As the current social order is seen as a fundamental obstacle to environmental justice, a logical conclusion for CSOs is that their movements are better off thinking beyond the state and capital as reliable partners with regard to funding and hospitable institutional arrangements (Pellow, 2016). This also aligns with Guha's (2000) observations of southern environmentalists and their adversarial relationship with their governments.

The collaborative arrangements between civil society groups, educational institutions, and the government is a mainstay of the environmental movement in Bangladesh. Owing to the deltaic country's downstream river and climate vulnerability, the coalitions built with activists and organizations throughout the South Asia region and world are indispensable in the fight for a future that is free of environmental degradation and exploitation.

### Indispensability and Global Coalition-Building

Bangladesh's lowermost riparian, deltaic setting, and relative political power in regional and global affairs is prompting CSOs in the country, across South Asia, globally, and in the diaspora to mobilize across and beyond established borders in support of rivers. "It comes with our destiny," remarks Khalequzzaman of BEN, referring to the fact 93% of the GBM basin lies outside the deltaic nation's borders (see also Khalequzzaman (2015), which clarifies Bangladesh accounting for 7% of the GBM catchment area). Bangladesh has no choice but to engage with its co-riparian neighbors, "because it is in a disadvantageous geographic position," he continues. Riverine People's Altaf Hossain

concur, calling it a “prerequisite to be connected with the global network” since Bangladesh is immediately affected by the decisions of co-riparian countries and isn’t capable of revolving such issues on its own. “If we want to get justice, then we must through international effort,” he says. Khalequzzaman says impartiality when calling for justice and fairness is all they are asking for:

I think that is the main strength of Bangladesh. There's justice, science and fairness on our side, because we are not asking for anything illegal, or a favor, or something that we don't deserve. So that's why we can be so vocal [...]. We are just saying the way things are being done is not right.

Given Riverine People specializes in rivers and is based in a country where they are regarded as living entities, Hossain says it is incumbent on them to connect with similar organizations in other countries. Riverine People’s Sheikh Rokon says one their mantras is that no river movement can be successful in Bangladesh if it isn’t viewed within a broader scope compassing South Asia. One must think beyond Bangladesh’s political boundaries if they want to address its riverine issues given most of its rivers originate from transboundary water bodies. This post-statist, basin-wide perspective is reflected in their conscious choice to call themselves “Riverine People,” as opposed to “Bangladesh Riverine People” or a Bangla translation of those names. Rokon notes this is also why they name their community-based committees after rivers as opposed to the administrative boundaries they flow through. Localities or administrative divisions don’t make rivers; “river makes the locality,” he says. When asked if it would make sense to have community-based river committees and university RCCs in upper riparian India and Nepal, Rokon remarked, “This is still beyond our capacity, but it is definitely in our

mind.” For example, a Riverine People chapter in the Indian state of Assam could potentially cooperate with its Bangladeshi counterparts on the Brahmaputra River issues. Failing to engage with the upper riparians means sitting in the lower riparian country and not addressing many rivers at their sources, says Rokon. Cross-border activism and organizing for transboundary rivers must be introduced for the common betterment. Rokon says Riverine People uses the following Bangla saying to express their belief in free-flowing rivers from source-to-sea: *Nodi-k nodir moto thakta dow. Nodi-k sagor-ar kacha jata dita hobe. Onathai, sagor nodir kache chola ashbe, ebong shati hobe bepothjonok* (“You have to let the river go to the sea, otherwise the sea will come to the river. It will be disastrous.”)

The necessity of Bangladeshis and their global allies to build cross-boundary coalitions to protect rivers directly addresses Pellow’s (2016) fourth pillar of Critical Environmental Justice (CEJ), which relates to concepts of racial and socioecological indispensability. CEJ articulates the perspective that “excluded, marginalized, and othered populations, beings, and things—both human and more-than-human—must be viewed not as expendable but rather as indispensable to our collective futures” (Pellow, 2016: 231). Here, indispensability celebrates key EJ and ecological principles by regarding all communities (human and more-than-human) “as interconnected, interdependent, but also sovereign and requiring the solidarity of others” (Pellow, 2016: 231). The global coalition-building between Bangladeshis and their global allies is based on the understanding that their solidarity and interdependency is required to advance environmental justice in South Asia and globally.

This solidarity is visible in Bangladeshi civil society's continuous outreach and conversations with CSOs in Bhutan, Nepal, India, and Myanmar on transboundary river governance. Their interactions with Chinese groups are minor for the country's size (likely due to the China restrictions on CSOs), but interest in doing so has been growing in recent years. Groups like Riverine People, which are well-respected for their experience in Bangladesh, are finding allies all over the world (e.g. United Kingdom's Norfolk River Trust). These allies consist of groups Riverine People interacts with on an everyday basis via social media and share organizational arrangements to exchange views through. International allies sometimes come to Bangladesh and Riverine People sometimes sends its representatives to their countries (e.g. a conference in Nepal). BAPA's engagement with international allies mirrors Riverine People's experience in most respects. Due to their older age (established in 2001), they place great emphasis in maintaining existing relationships with groups and individuals they interacted with over their history of environmental activism. In 2005, BAPA joined Indian and Nepalese civil society members over a three-day long meeting in Amsterdam to maintain the unity forged through the anti-IRLP movement the year prior.

CSOs are also advocating transboundary river cooperation through regional platforms facilitated by international organizations. One major platform is Oxfam's Transboundary Rivers of South Asia (TROSAs), which is funded by the Government of Sweden (Transboundary Rivers of South Asia (TROSAs), 2020). TROSAs is a five-year program (2017-2021) which aims to reduce poverty and marginalization among vulnerable GBM basin communities of Nepal, India and Bangladesh and the Salween in

Myanmar through increased access to and control over riverine water resources (Transboundary Rivers of South Asia (TROSAs), 2020). The program is working “with a cross-section of stakeholders involving river basin leaders, communities, women groups, and CSO networks, governments, and the private sector at various levels” (Transboundary Rivers of South Asia (TROSAs), 2020: second paragraph). Riverine People, which expresses healthy skepticism with TROSAs’s NGO model, praises their holistic approach connecting transboundary rivers with socioeconomic issues in the region and previously organized a youth program with them.

Another platform for transboundary river cooperation is the BRIDGE GBM or “Building River Dialogue and Governance (BRIDGE) for the Civil Society Organizations (CSO) in the Ganga-Brahmaputra-Meghna (GBM) River Basins” project (IUCN Asia Regional Office, 2017). BRIDGE GBM is funded by The Asia Foundation and facilitated by IUCN. Sharmeen Murshid, who participates in its discussions through Brotee, believes the networking facilitated by IUCN is indispensable in the fight to establish a multilateral, basin-wide, ecological approach to rivers. She notes IUCN is the largest nature conservation body in the world, and is recognized by the United Nations and the many populations they work with. IUCN also carries a lot of experience and clout, but is, in many ways, conservative because there’s a lot of contention with the way it operates. Murshid says, any “organization of that size that represents so many different voices would not possibly be very radical.”

IUCN’s BRIDGE GBM initiative is working to bring CSOs in Bhutan, Bangladesh, China, Nepal, and India closer together in the hope that it will consequently

create an environment for their governments to come and sit together. This is a positive development since “CSOs of the region tend to speak in the same foreign policy line of their governments,” says Murshid. She notes the robust language of Bangladesh CSOs like BAPA and Brotee are an exception, partially due to their country being a major victim of the current situation. Since the Bangladesh government shares an interest in resolving the situation, it behooves them to have strong voices like BAPA and Brotee in the background.

Indian environmentalists and networks like SANDRP have long shown solidarity with Bangladeshi activists. Initiated in 1998, SANDRP’s activities include monitoring, research, documentation, networking, and awareness building on river governance issues. The network often gets in touch with Bangladeshi CSOs like BAPA and Riverine People, including usage of Bangladesh government information, to raise issues of concern about projects with transboundary impacts. SANDRP, whose website specializes in regulatory information on the governance of rivers and dams in India and other South Asia countries, is also actively learning lessons from the governance of rivers and dams around the world.

The necessity of building regional platforms and coalitions in South Asia for transboundary river cooperation is the same reason the global Bangladeshi diaspora is getting engaged through BEN. BEN is indispensable to BAPA and the wider environmental movement in Bangladesh through their knowledge base, commitments, financial support, and global reach with other organizations. The RB-NRB [Resident Bangladeshi - Non-resident Bangladeshi] partnership between BAPA and BEN is a very

much a role model, Khalequzzaman says. To grow their coalition, Khalequzzaman says BEN members in the United States are discussing the potential of contacting and pushing for transboundary river issues through U.S. Senators and Congresspeople “because they poke their nose in all world issues.” He notes Bangladesh gets irritated when people internationalize such issues, because its current government doesn't want to agitate the Indian government. The Bangladesh government is very dependent on them, “so there is a fine balance” between timid advocacy and going “all out on war with them.” This is why BEN-BAPA conferences are always seeking participants from India. “We want them to advocate for a right cause. That is our goal,” he says. If their dialogue is confined to a room of only Bangladeshis, that message won't get out to India.

In addition to operating in the U.S., BEN has local branches in Australia, Canada, Germany, Japan, Russia, South Korea, and the United Kingdom, and is committed to advancing the environmental movement in their respective countries. Their Australian branch is particularly active in working with local environmental organizations. BEN's U.S. members are associated with a variety of issues and organizations. Khalequzzaman is involved with watershed alliances in the U.S. and has conducted research on Pennsylvania's watersheds. In 2014, he collaborated with the California-based group, Brown and Green: South Asian Americans for Climate Justice (which I am part of), to organize a joint BEN-Brown and Green seminar in New York City, as well as a South Asian contingent at the city's People's Climate March in 2014 in coalition with 150 diasporic scholars, activists, and eleven South Asian community groups (see also Chatterjee & Soundararajan, 2014). Due to a dispersed diaspora population in the United



States, BEN's physical activities in the country are limited and typically reserved for the diaspora-populous New York City whenever they do take place (e.g. when BEN visitors from BAPA or other Bangladeshi organizations). BEN recently participated in the 2019 Global Climate Strike from New York, and some members work with the group, DRUM - Desis Rising Up & Moving, which organizes South Asian and Indo-Caribbean low wage immigrant workers, youth, and families in New York City to win economic justice and civil rights. BEN also worked with the U.S. based Bangladesh Development Initiative (BDI), which hosts a yearly conference bringing policymakers and people who support initiatives in Bangladesh aimed at improving its quality of life. BDI facilitates scholarly exchange between Bangladesh and overseas scholars through educational programs, and also has a peer reviewed publication called the Journal of Bangladesh Studies (JBS), which plans to publish a special issue highlighting BENs work.

International Rivers (IR), a global organization that defends rivers and the rights of their communities, is another international coalition encompassing the Bangladeshi environmental movement. Mohd. Abdul Matin, who serves on IR's South Asia Advisory Board, says the organization's stance on free-flowing rivers (e.g. not harnessing river water in such a way that kills them) parallels BAPA ecological approach to rivers. He calls IR a "natural friend" and says the platform helps facilitate communication with other river protectors throughout South Asia and the world. Riverine People is another Bangladesh-based organization in coalition with IR. In March 2019, Nusrat Khan participated in International Rivers' first Women Congress for Rivers, a huge platform connecting over 90 women from different countries working at the intersections of

women's and river issues. Khan says the connections between Riverine People and IR are reciprocal. For example, Riverine People often shares its stories in Bangladesh with IR, which IR in turn shares on its social media platforms.

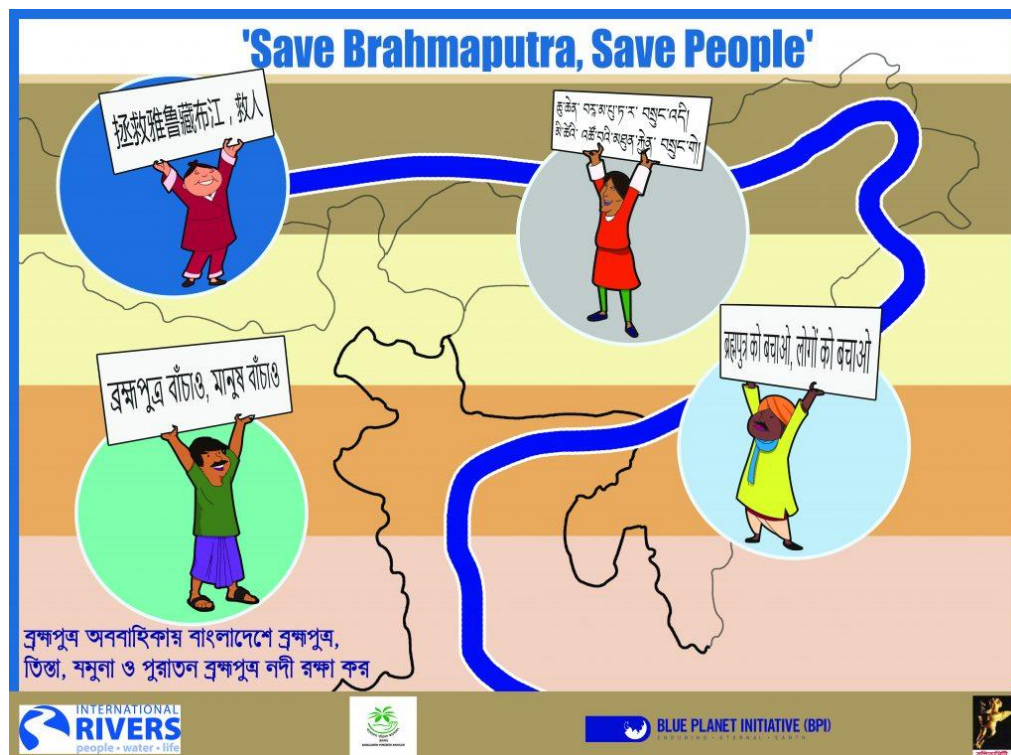


Figure 25: “Save Brahmaputra, Save People” expressed in four major languages spoken in the Brahmaputra River basin (art produced in a collaboration between International Rivers, BAPA, and other ally-CSOs)

Closely paralleling the coalition-building of IR is Waterkeeper Alliance, a global network of grassroots leaders protecting people's right to clean water. Comprising numerous Waterkeeper groups around the world, the alliance ensures they are as connected to each other as they are to their local waters. BAPA's Sharif Jamil, who is also coordinator of Waterkeepers Bangladesh, often organizes river events as a joint effort between both organizations. Together with BEN and IR, Waterkeeper Alliance

helps ensure the fight for clean water and free-flowing rivers in Bangladesh are coordinated through a global movement.

Just as international allies are indispensable to Bangladesh, the reverse also has potential. The overpopulated delta nation's experience in addressing its downstream river and climate vulnerability could be a global model for river conservation. This was Riverine People's thinking when it began its movement in 2010. Mohammad Azaz says the group believed that human survival due to ecosystem stress will be a burning global issue over the next century. As water will be a burning issue in water-stressed regions like the Middle East, India, and Mexico, Riverine People's experiences in an overpopulated delta country and model of activism, research, and solutions to surface and groundwater using indigenous and traditional ecological knowledge could be exported globally. Azaz notes this has already been done with the climate justice movement from Western countries (e.g. the popularity of youth climate strikes in Bangladesh). He notes an ecocentric approach like theirs, such as thinking from the "river's perspective" would mean a fundamental shift in how the world relates to the environment. For example, simply approaching river conservation from the perspective of the UN's sustainable development goals (SDGs) as opposed to the rivers themselves is "top down." They represent the "old approach" of reshaping "pragmatic capitalism to a sustainable manner," which cannot ultimately be sustained, he says. Just as rivers are shifting and changing every day and every moment, one has to innovate their ways of thinking. This is what it means to think from a river's perspective, he says.

From SANDRP in upper riparian India to the BEN, International Rivers, and Waterkeepers Alliance activists scattered around the world, the coalitions forged with organizations outside of Bangladesh are indispensable to the social movements to protect the country's rivers and build regional cooperation and watershed democracy in South Asia. Given Bangladesh's unique experience in addressing its downstream river and climate vulnerability, the knowledge and local efforts of its grassroots CSOs like Riverine People, BAPA, and Brotee are equally indispensable in their contributions to the fight to protect the world's rivers and address global environmental justice.

## TOWARDS BIOREGIONALISM AND WATERSHED DEMOCRACY:

### CONCLUSIONS

Civil society is responding to the degradation of Bangladesh's transboundary rivers through various angles. Those I engaged with in my field experience and their documented material highlighted many common themes. They included, foremost, a near unanimous advocacy for a multilateral, basin-wide, integrated water resources management approach to river governance. Common rivers should foster bonds of friendship rather than sow discord (Islam & Islam, 2006). Members of BAPA and BEN distinctively stated their demand as an "open" or "ecological" approach to protect rivers from dams and diversionary infrastructure, which sees rivers as the progenitor of various ecosystems and cultures. These include abolishing existing structures and restoring a river's natural course. Participants voiced concern over the non-reciprocal relations between Bangladesh, India, and other countries in the South Asian region. The Bangladesh Supreme Court verdict on living rivers in 2019 was regarded as a powerful step in the right direction.

This was backed by visually striking descriptions of Bangladesh's deltaic setting. Brotee's Sharmeen Murshid, in particular, spoke of Bangladesh as a link to the ocean and a cradle for the whole of the Ganges-Brahmaputra-Meghna Basin. This means regarding Himalayan rivers, from source-to-sea as one, and the importance of working with co-riparian neighbors on transboundary advocacy as rivers know no political boundaries.

Participants emphasized Bangladesh's livelihoods and ecologies as hanging on the line due to upstream river and floodplain interventions and the acceleration of the climate crisis through the lens of unequal harm and as well as ecological principles. This includes their role in driving river erosion, obstructing sediment transport, and ultimately destroying the Bengal Delta. They moreover cited that big dams and diversions have not met their stated development objectives.

Although such perspectives sound like a nationalistic competition between Bangladesh and upper riparians like India, participants across the civil society organizations (CSOs) stated their view was better described as a tension between big development interests versus ecosystem science. BEN and BAPA describe the cordon or commercial approach (opposite of the open and ecological approach) to rivers as inspiring projects to chain and shackle rivers, fragmentize their basins, confine them to reservoirs and canals, drain them to death, and uproot and unsettle the people who live in river basins. They, including representatives of Riverine People and Brotee maintain that dams to promote “development” have devastating impacts on people and ecology by benefiting urban-industrial development and undermining local knowledge and methods of irrigation.

In light of the above concerns, research participants drew from Bangladesh and South Asia's riverine cultures and heritage as an inspiration for their river activism. This included statements such as rivers are the “lifelines and lifestyles” of Bangladesh, as well as living entities (commonly heard following the Supreme Court’s landmark verdict). Both highlight socio-cultural and socio-economic dimensions of rivers. This included a

need to return to “riverine culture” and protect rivers for the prosperity and livelihoods of millions. As the terminal delta floodplain of the transboundary Ganges, Brahmaputra, and Meghna rivers, nationalism in Bangladesh strongly correlates with its riverine environment and informs the perspective and outreach of civil society organizations.

The need to organize with and build awareness among common people has forced the “experts and masses” conversation among civil society, that is, who can, and cannot be an environmentalist? Many of the participants in their events and individual interviews, stressed the importance of diverse groups of people to collaborate, that everyone, including diasporic community members, has something to contribute to river activism and the greater environmental movement. This includes “experts” within the scientific, academic, and policy-making communities, “masses” in the forms of youth, students, women, street-agitators, and rural, marginalized communities with their traditional ecological knowledge and experience on the frontlines of environmental injustice. Many of those I engaged with fit one or multiple categories.

The insights discussed above prompted a conversation about the role of civil society in relation to the state and capital. Is the government a reliable partner in river conservation? Some differences across CSOs and activists include differing mission statements and focuses. This is sometimes reflected in their funding structures and has prompted discussions that cut into existing theories of change. Should one pursue the path of a traditional NGO with paid staff but be dependent on outside sources? Or is it more effective to be a grassroots civil society organization that is fully self-funded and independent of outside actors?

A focus on grassroots, self-funded models prompted conversations about the possibilities of movement and coalition-building in civil society work. Participants and their representative organization's activities include academic seminars, urban conferences, village meetings about river awareness as well as street demonstrations, rallies, protests and direct-action to halt destructive projects or celebrate important events like World Rivers Day. Others directly engaged with governments to promote river advocacy on a national, regional, and global level. Bangladesh's lowest riparian, deltaic setting, and relative political power in regional and global affairs is thus prompting civil society groups in the country, across South Asia, globally, and in the diaspora to mobilize across and beyond established borders. For example, some of BEN's most prominent members are in the United States and offer intellectual and fiscal support to BAPA, Bangladesh's largest grassroots environmental group. Indian environmentalists and civil society organizations like SANDRP have long shown solidarity with Bangladeshi activists. All are contributing to a movement for a multilateral, basin-wide, ecological approach to rivers in response to the existing statist approach and political economy of river management. This includes water diplomacy and bioregional notions of river governance, with a goal of bringing South Asia's common watersheds within a common water-sharing framework and actualizing true "watershed democracy."

While rivers will continue to be harvested as a means of economic production and drinking water, Donald Worster (1985: 331) reminds us "a river is also an entity unto itself, with its own processes, dynamics, and values. It is a sacred being, something we have not created, and therefore worthy of our respect and understanding." From



Bangladeshi CSOs who have called to recognize common rivers as living entities to protect their rights “to flow uninterrupted and be saved from pollution” (Hasan, 2017: i) (words acknowledged by the Bangladesh Supreme Court in 2019) to international journalists like Cheryl Colopy (2012) who note that the people of South Asia do indeed regard rivers as “sacred,” this ethos must be translated into common practice by the region’s nation-states and institutions of river governance (Dixit, 2017: 97). South Asia’s common rivers deserve greater respect and a much deeper level of comprehension than at present (Dixit, 2017: 97).

### Relationships with Research Participants

It was a great honor to engage with many of the individuals and organizations who continue to actively contribute to such shifts in culture and governance. Given the identities I shared with participants (e.g. university students and their professors, river researchers, and civil society, youth, and environmental activists), most regarded me as a co-participant in their work and someone to keep in touch with in the long term.

For example, in my participant observation of RCC IUB, its members initially thought I had been recruited to work with them. During the event, and in my separate interview with their president, Tanzila Ahmed, they expressed interest in me creating an RCC/Riverine People platform in California or working with them whenever I'm in Bangladesh. During the event, Md. Abdul Khaleque, Dean of the IUB's Department of Environmental Science and Management, stated they philosophically work for rivers around the world, but due to the limitations of being a student-driven group, they're

relegated to working with water bodies surrounding their campuses. This also ties into Riverine People's community-based approach with local river committees and university-based RCCs as intellectual feeders.

I had similar experiences after interviewing BAPA scientist and Stamford University professor, Ahmad Kamruzzaman Majumder. Several of his student research assistants had observed the interview. One stayed in touch with me following the event and has been exploring ways to open up a river institute that promotes activist scholarship at the university with my participation sometime in the future.

As an (albeit very peripheral) BEN member, Md. Khalequzzaman as well as Mohd. Abdul Matin of BEN (whom I interacted with multiple times over the course of my Dhaka visit) eyed our conversations as an extension of the global outreach and coalition-building they do. Khalequzzaman, in particular, viewed it as a sort of capability building exercise on my part, and expressed gratitude throughout the interview that I, as part of the younger generation of diasporic Bangladeshis, is carrying on the activism and scholarship he and others have been sustaining at for the past two decades. Naturally, this made me happy.

Sheikh Rokon, the founder of Riverine People and whose core area of work is on transboundary rivers, also expressed gratitude that their collective efforts would have presence in academic spheres through this research. Rokon, who works as a journalist and writes about transboundary river issues in national newspapers, emphasized their reach in academia was comparatively low and that more was needed at the moment.

Keeping the words of Rokon and my other participants in mind, my hope is that this research will be disseminated in South Asian environmental academic spheres and support on the ground river activists with scholarly literature. This includes this thesis (or parts of it) being republished in their organization's newsletters and reports, and perhaps even in newspapers.

### Further Research

Indispensability and ways to expand their movements and coalitions remain a common theme in this thesis through my very personable experiences with participants in Bangladesh and the diaspora. Many have been extremely receptive to this research and would appreciate it if I could continue working with them on this topic. It could come through my participation as an advocate in a civil society body as well as through my research capacities. The latter is important to note because scholarship centering the country's rivers and environmental movement is lacking and desired. This ties into my interests as a PhD student researcher in the future—perhaps through collaboration with one or some of the civil society bodies or universities I engaged with, as interviewees in those respective groups have suggested.

My field research took place entirely within the capital city of Dhaka. I was also unable to reach many people due to my time limitations. Given my focus was on civil society activism, I moreover only engaged with members of civil society organizations. Given the narrow scope of a master's thesis, this worked well. However, there are many

unanswered questions that could be addressed in PhD-level research. They include the following:

1. Engaging with common people from each region of Bangladesh (including those not active in civil society). This is crucial given the country's wide urban-rural, socio-cultural and socio-economic divides, and also given that virtually all of Bangladesh is a river delta. Many of the civil society organizations I've engaged with in Dhaka have branches and/or operate in rural areas where people are more directly impacted by river health, so incorporating their perspectives and responses is crucial to shed light on the overarching fields of study mentioned earlier.
2. Exploring state governance in greater depth. While environmental governance is a field explored in my master's thesis, my sources either come from secondary sources or from civil society bodies expressing their experience with it. This can include directly engaging with members of the government.
3. Working with some local communities and agencies included in the above points to measure the flow of some of Bangladesh's 54 enlisted transboundary rivers with India during the dry and wet seasons, with particular attention to which (if any) dams and embankments are obstructing their course during the year. That way, I don't fully rely on outside (and often outdated) hydrological studies to make a point on river flows impacted by diversionary projects or marine/climate influences. I've taken hydrology courses offered by Humboldt State University

and have some hands-on experience in watershed management in California, but I haven't yet done original research of this type.

### Rationale

In this thesis' Introduction, I introduced myself as an activist and environmental practitioner in the Bangladeshi diaspora. I expanded on my experiences as a *probashi* ("diasporic Bengali") in the Methods chapter with mentions of my family and their key role in ensuring my field research was successful. Indeed, one of my longstanding rationales for pursuing this research has been to bridge my California-based work and volunteer experiences with various environmental justice, watershed restoration, and South Asian American diasporic causes by grounding myself in the civil society and environmental activism of Bangladesh. While the genesis of this project can be traced to summer 2017 conversations with my Bangladeshi relatives about the state of the country's rivers, my interest in environmentalism in the motherland was piqued when I learned about BEN through its participation in the South Asians for Climate Justice contingent at the 2014 People Climate March in New York City. As mentioned in the Introduction, many of my activist Desi friends and mentors were there while I participated in our parallel demonstration in Oakland, California.

In addition to being inspired by BEN's global coalition building and inquiring about the perspectives of other ecologically-minded civil society groups identifying with my ancestral country, I had always been deeply intrigued by the cultural dimensions of rivers. This was not a focus of my research in its inception but became a prominent

feature of this thesis as articulated in the sections exploring music, literature, imagery, political speech, and its links to notions of ecological nationhood. Long before I read official mentions of *Tomar amar thikana – Podda–Meghna–Jomuna* (“Our address is the Padma-Meghna-Jamuna rivers”) or heard the phrase uttered in the field, the rivers of the Bengal Delta attended my mind through popular Bangla folk songs from my childhood. Being physically removed from them halfway around the world, song has been potent in linking my consciousness with the Bangla language and the rivers that flow down to Bangladesh from co-riparian nations. Perhaps the most nostalgic Bangla lyric and melody in my memory is of a song titled *Ei Podda, Ei Meghna* (“This Padma, this Meghna”), which, like the various songs and phrases named throughout this thesis, evoke images of the beauty of the Bengal Delta and the limitlessness and unity of its transboundary waters. Here’s to a future where the Padma-Meghna-Jamuna remains Bangladesh’s “address” and a “cradle” for the world’s third largest river basin.

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