

Avoiding Conflict and Fostering Collaboration within Transnational River Basins

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## Introduction

In mid-July this year, seasonal rains began to fall in northern Ethiopia, initiating the filling of the Grand Ethiopian Renaissance Dam (GERD) and igniting the latest escalation of tensions between Ethiopia and Egypt over a shared resource vital to both countries, the Nile River.<sup>1</sup> For years, Egypt and Ethiopia have quarreled over the construction of the GERD, how quickly the dam's reservoir would be filled, and how Ethiopia would manage the water supply. As a civilization predicated on dependency of a steady and reliant supply of high quality water from the Nile River, and as the most downstream nation that river, Egypt is immensely impacted by any upstream dam project; meanwhile, Ethiopia desires a complete overhaul of its economy and views the GERD as the method through which to achieve this goal.

There are divergent views as to whether shared natural water resources are more prone to cause conflict or serve as a catalyst for cooperation. Understanding the politics of shared water is all the more important given worldwide population growth, climate change, and socioeconomic factors that affect the availability of, and access to, clean water. This paper will argue that both conflict *and* cooperation over shared water sources is possible. When establishing water management institutions, having an initial focus on issues that have a universal benefit on all riparian nations creates a higher likelihood of cooperation. Prioritization of water quality and comprehensive regional data collection and enforcement mechanisms are examples of attributes that can create alignment, while conversely water quantity, dam building, and other zero-sum issues typically induce regional tensions based on misaligned interests.

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<sup>1</sup> Declan Walsh. "As Seasonal Rains Fall, Dispute Over Nile Dam Rushes Toward a Reckoning." The New York Times. September 4, 2020. <https://www.nytimes.com/2020/07/18/world/middleeast/nile-dam-egypt-ethiopia.html>

This paper focuses on the challenges created by multinational reliance on rivers as a primary water source and solutions aimed at fostering collaboration among riparian nations, and uses two modern-day examples, the Nile River and the Mekong River. For each, the geographical context will first be established, followed by a brief overview of the history of conflict and cooperation in the river basin, including all relevant treaties and institutions. Next, we will examine the major interests and priorities of riparian nations and discuss the current state of cooperation within these regions, highlighting factors that have made certain approaches successful in fostering peaceful coexistence. Lastly, a brief look towards the future and possible ways to avoid conflict and ensure river security and sustainability will be offered.

## **Literature Review**

### *Increasing Discussion around Two Competing Arguments*

While this paper will posit that shared water resources can be managed through effective mechanisms which may also lead to constructive dialogue on other aspects of international relationships, historical literature offers varied opinions on the propensity toward conflict or collaboration among countries bordering a common waterway. Former vice president of the World Bank and director of the Library of Alexandria, Ismail Serageldin, illustrated the importance of water to security studies in a 2009 interview, stating:

“As I predicted back in 1995, when I said the wars of the twentieth century were fought over oil and the wars of the next century will concern water increasingly, countries will be demanding more water - yet there is less water available. Climate change brings wide swings between floods and droughts, making the management of water a particularly important issue for our times.”<sup>2</sup>

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<sup>2</sup> Ismail Serageldin. “Water Wars? A Talk with Ismail Serageldin.” *World Policy Journal* 26, no. 4 (2009), <https://www.jstor.org/stable/pdf/40468735.pdf?refreqid=excelsior%3A3c4f8c1b25660571249ed7e758e94177>

This interview popularized the concept of a link between shared water and war/conflict.

Proponents of the water-war link often point to past Middle East conflicts, including the 1965 skirmishes between Israel and Syria and the 1982 Israeli invasion of Lebanon as examples of shared water sources leading to violent conflict.<sup>3</sup> However, these examples are centered in one region of the world, are multiple decades old, and were likely impacted by preexisting political instability in the region. Opponents of the water-war link offer compelling views on why cooperation is, in fact, a more likely result of trans-national water resources, as summarized by Aaron T. Wolf in a 1999 article:

“War over water seems neither strategically rational, hydrographically effective, nor economically viable. Shared interests along a waterway seem to overwhelm water’s conflict inducing characteristics.”<sup>4</sup>

Echoing this sentiment three years later, professor of International Relations at Florida International University, Shlomi Dinar wrote: “While the annals of hydropolitics include examples of conflict, examples of cooperation are even more apparent. In fact, the existence of hundreds of treaties signed among nations over water for non-navigational uses is evidence that countries pursue cooperation over shared water resources and that the pessimistic outlook on international freshwater is not entirely justified.”<sup>5</sup>

Management of shared water sources has become a topic of growing interest around the globe. Patricia Wouters commented on this increased awareness in 2010, writing: “International interest in this issue has deepened: there are now some 24 UN agencies involved with water-related issues, and in 2003, the UN-Water organization was established to coordinate UN action

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<sup>3</sup> Shlomi Dinar. “Water, Security, Conflict, and Cooperation.” *SAIS Review* 22, no. 2 (2002), <https://muse.jhu.edu/article/30595/pdf>

<sup>4</sup> Aaron T. Wolf. “‘Water Wars’ and Water Reality: Conflict and Cooperation Along International Waterways.” Lonergan S.C. (eds) *Environmental Change, Adaptation, and Security*. NATO ASI Series 65, (1999). [https://link.springer.com/chapter/10.1007/978-94-011-4219-9\\_18](https://link.springer.com/chapter/10.1007/978-94-011-4219-9_18)

<sup>5</sup> Dinar, “Water, Security, Conflict, and Cooperation.”

on freshwater and sanitation.”<sup>6</sup> Many of these organizations have been established to oversee water security, a critical component to ensuring cooperation rather than conflict over water resources, and success has occurred primarily through regional rather than global entities as the former are able to establish regulations that effectively consider the unique needs of all local countries. As Muthiah Alagappa notes in a 1997 article: “Regional actors have a deep interest in conflict management in their respective regions, and they can provide legitimacy, local knowledge and experience, and some resources especially in the form of personnel.”<sup>7</sup> Localized institutions are better situated to create cooperation among riparian nations as will be illustrated in the two case studies later in this paper, although it is worth noting that there *are* challenges that regional institutions face that international institutions (such as the United Nations) are better equipped to address.

### *The Importance of Water Security*

The United Nations defines ‘water security’ as: “The capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water related disasters, and for preserving ecosystems in a climate of peace and political stability.”<sup>8</sup> As this definition suggests, water’s importance extends beyond drinking and food production to its impact on local economies. Rivers serve as a means for

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<sup>6</sup> Patricia Wouters. “Water Security: Global, regional and local challenges.” *The Progressive Policy Think Tank*, May 5, 2010. <https://www.ippr.org/research/publications/water-security-global-regional-and-local-challenges>

<sup>7</sup> Muthiah Alagappa. “Regional Institutions, the UN and International Security: A Framework for Analysis.” *Third World Quarterly* 18, no. 3 (1997). <https://www.jstor.org/stable/pdf/3993261.pdf?refreqid=excelsior%3A7a953832a13a94990b212669312cb839>

<sup>8</sup> “What is Water Security?” United Nations, UN Water. May 8, 2013. <https://www.unwater.org/publications/water-security-infographic/>

regional transportation, energy supply, and fishing (for both local food consumption and exportation). A 2019 report by the Pew Research Center estimated that, by 2100, seven of the top ten most populous countries would be situated along the world's largest river basins (namely the Nile, Mekong, and Ganges).<sup>9</sup> Population growth also creates increased demand for energy and food/water, services often supplied by rivers. Increased incidence of uncontrolled and sporadic flooding, as well as increased drought (both likely influenced by broader climate change forces) also add to the challenge. Furthermore, the displacement of populations that often results from dam building is an element of river management that can lead to both domestic and systemic level conflicts.

In extremely arid regions of the world, such as the Middle East and Northern Africa, water and food security (especially as impacted by irrigation) have illustrated how shared rivers can become divisive, however, conflict over shared rivers can also emerge in humid and other non-arid regions, albeit often for different reasons.<sup>10</sup> In a 2009 article in the *World Politics Review*, Aaron Wolf notes that “arid climates harbored no more conflicts than humid climates,” but shared that the presence of a strong regional institution to oversee water rights was the greatest determinant of cooperation.<sup>11</sup> In *Shared Rivers and Conflict -- A Reconsideration*, Marit Brochmann and Nils Petter Gleditsch write: “For as many as 39 countries, home to more than

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<sup>9</sup> John Gramlich. “For World Population Day, a look at the countries with the biggest projected gains -- and losses -- by 2100.” *Pew Research Center*, July 10, 2019. <https://www.pewresearch.org/fact-tank/2019/07/10/for-world-population-day-a-look-at-the-countries-with-the-biggest-projected-gains-and-losses-by-2100/>

<sup>10</sup> Miriam R. Lowi. “Rivers of Conflict, Rivers of Peace.” *Journal of International Affairs* 49, no. 1 (1995). <https://www.jstor.org/stable/pdf/24357445.pdf> : Marit Brochman and Nils Petter Gleditsch. “Shared rivers and conflict -- A reconsideration.” *Political Geography* 31, no. 8 (2012). <https://www.sciencedirect.com/science/article/pii/S0962629812001394>

<sup>11</sup> Aaron Wolf. “Troubled Waters: Conflict and Cooperation Over Shared Rivers.” *World Politics Review*, March 2, 2009. <https://www.worldpoliticsreview.com/articles/3379/troubled-waters-conflict-and-cooperation-over-shared-rivers>

800 million people, at least half of their water resources originate beyond their borders.”<sup>12</sup> Most of the world’s freshwater runs through international rivers.<sup>13</sup> Thus, as demand for drinking water increases, and as countries rely on water for agricultural production, the potential for international disagreements remains a concern that should be actively managed. Countries depend on the fresh water carried by rivers for both drinking and agriculture, however, rivers are also home to major fisheries and other aquatic life that is important to local *and* global economies.

Beyond the many direct factors that contribute to the strategic importance of rivers, social issues can evolve when modifications to rivers are enacted, or even just considered. River basins are often historically important to indigenous communities, and any action, such as dam building, will likely anger displaced local populations. Wolf commented on this issue, writing: “Numerous violent incidents have occurred at the subnational level, generally between tribes, water-use sectors, or states/provinces.”<sup>14</sup> Additionally, the displacement of people, usually caused by dam building, can make international cooperation difficult. J.D. Petersen-Perlman et al. explains this below:

“When a nation or a private corporation receives permission from a nation to develop a shared water resource, the quality, quantity and access to that resource may change for existing users. Even in cases of relocation, success rates for the river community’s security are called into question. Occasionally, people with deep roots near a river are asked to become farmers or city-dwellers, or compensation packages may not be sustainable...changes to shared water resources on multiple scales can threaten the stability of human security and result in reverberating problems throughout a region.”<sup>15</sup>

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<sup>12</sup> Brochman. “Shared rivers and conflict -- A reconsideration.”

<sup>13</sup> *ibid*

<sup>14</sup> Wolf. “Troubled Waters: Conflict and Cooperation Over Shared Rivers.”

<sup>15</sup> Petersen-Perlman. “International water conflict and cooperation: challenges and opportunities.”

Dam building, internal borders, and human displacement can ultimately make systemic level cooperation extremely difficult, as these issues need to be addressed first. Thus, it is important to pay close attention to domestic issues related to shared rivers before engaging in discussions to enhance regional cooperation and collaboration.

According to the Stockholm International Water Institute (SIWI): “Some 276 river basins cross the political boundaries of two or more countries and are home to about 40% of the world’s population. However, roughly two-thirds of these do not have a cooperative management framework.<sup>16</sup> As will be illustrated in the case studies later in the paper, water management institutions and organizations can make significant contributions to the sustainability of trans-national water sources and can serve as platforms for regional communication during times of conflict, and thus creating these institutions with reliable enforcement mechanisms (which are crucial to ensure their effectiveness) must be prioritized.

#### *Understanding the Positions of Individual Riparian Nations*

In river basins, upstream communities tend to have substantially more power and influence than their downstream counterparts, and these intrinsic advantages are impossible to change.<sup>17</sup> This presents a unique challenge when trying to foster cooperation among countries with a shared river. Miriam R. Lowi highlights this issue in the *Journal of International Affairs*, stating: “Hence, the challenge in international river basins is to get states to forego their unilateral advantages for the sake of interests of all riparians.”<sup>18</sup> At the extreme, it is unrealistic to expect countries to overlook or minimize their natural advantages, but as discussed in the two

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<sup>16</sup> “Cooperation Over Shared Waters.” Stockholm International Water Institute. <https://www.siwi.org/priority-area/transboundary-water-management/>

<sup>17</sup> Lowi. “Rivers of Conflict, Rivers of Peace.”

<sup>18</sup> *ibid*



case studies, common goals can be identified and used to establish a framework for collaboration. Shlomi Dinar, in another article published in the *SAIS Review* in 2002, further explains the role of geography when talking about trans-national river systems, writing: “The stage for both conflict and cooperation among riparians is set, to a large degree, by geography as it confers advantages on particular riparians who may choose to unilaterally exploit the shared resource, thereby affecting other riparian states.”<sup>19</sup> Rakesh Tiwary elaborates on “the interrelationship of the basin states,” stating: “The riparian structure is a static concept which allots almost permanent privileges and disabilities as far as access, utilization and management of water resources are concerned.”<sup>20</sup> Here, the operative word is “static” because it is impossible to change one’s geography and the benefits or disadvantages that follow.

The inherent asymmetry on many topics among riparian nations needs to be considered in treaties related to sharing of a river’s resources. Brochmann and Gleditsch further explain this writing: “Any action taken by an upstream state may result in a unidirectional externality for the state downstream, i.e. a burden for the downstream state at no cost to the upstream state.”<sup>21</sup> This is an unavoidable, inherent element of all river basins, and therefore must be taken into consideration by institutions that work to resolve and prevent regional conflict. Naho Mirumachi argues that this asymmetry must be acknowledged in prospective solutions, writing: “The London Water Research Group has argued that transboundary water arrangements assume that basin states are equal when in fact power asymmetry gives rise to notable differences in the ways basin states can engage in negotiation processes and their outcomes.”<sup>22</sup> The exploitation by

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<sup>19</sup> Dinar. “Water, Security, Conflict, and Cooperation.”

<sup>20</sup> Rakesh Tiwary. “Conflicts over International Waters.” *Economic and Policy Weekly* 41, no. 17 (2006). <https://www.jstor.org/stable/pdf/4418147.pdf>

<sup>21</sup> Brochman. “Shared rivers and conflict -- A reconsideration.”

<sup>22</sup> Naho Mirumachi. “Reflections on Enabling Conditions through the Lens of Power Asymmetry,” in *Complexity of Transboundary Water Conflicts: Enabling Conditions for Negotiating Contingent*

upstream nations, as J.D. Petersen-Perlaman et al. write, “forms the basis of the theory of hydro-hegemony, which postulates that the most powerful country in the basin, the hydro-hegemon, can create its preferred mechanism of transboundary water management due to its relative power within the watershed.”<sup>23</sup> The idea of a “hydro-hegemon” does not mean that the upstream state *always* prevails in negotiations, but it does help to define how the “hydro-hegemon” has significantly more influence. J.D. Petersen-Perlman et al. acknowledge unique exceptions to this postulate, writing: “certain dynamics where the non-hegemons have been able to achieve positive outcomes have been prevalent in such transboundary basins as the Mekong, La Plata and Nile.”<sup>24</sup>

The asymmetrical nature of some elements of river sharing can result in a zero-sum game related to the quantity and velocity of available water controlled by a river. When an upstream nation diverts river water for irrigation or builds a dam to produce electricity and reduce flooding, both the quantity of water and its velocity (which is important for downstream dams), are negatively impacted. Thus, the upstream nation’s gain is the downstream nation’s loss. Importantly, not all aspects of a shared river are zero-sum, providing a basis for agreements and cooperation. Water quality is one such aspect. In the interview referenced in the introduction, Ismail Serageldin lays out how water quality is something that is typically not a zero-sum issue because everyone can benefit from better quality of water, saying: “The key, in my experience, is to start talking collaboratively about the *quality* of water -- not the *quantity*. Europeans, for example, are coming together to clean up the Rhine. Everybody wins when you clean up things.

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*Resolutions*, ed. Enamul Choudhury and Shafiqul Islam, (Anthem Press, 2018)  
[https://www.jstor.org/stable/pdf/j.ctv8xngkk.16.pdf?ab\\_segments=0%2Fbasic\\_SYC-5187%2Ftest&refreqid=search%3Ae5ec78374b522a3d414c73bf405e30f9](https://www.jstor.org/stable/pdf/j.ctv8xngkk.16.pdf?ab_segments=0%2Fbasic_SYC-5187%2Ftest&refreqid=search%3Ae5ec78374b522a3d414c73bf405e30f9)

<sup>23</sup> Petersen-Perlman. “International water conflict and cooperation: challenges and opportunities.”

<sup>24</sup> *ibid*

If you start with quantity, then immediately it's a zero-sum game...but we can get countries to collaborate with each other around the proper management of river basins."<sup>25</sup> Thus, honing in on the quality of water can ignite productive regional dialogue which can then form a basis for constructive dialogue on other topics.

In addition to often representing a zero-sum game, asymmetrical river sharing can also lead to a security dilemma, as one national will prioritize its own security by taking more aggressive/militaristic actions against another nation. Shlomi Dinar explains this principle, and gives an example, stating:

“The pursuit of survival and relative gains leads to the perpetuation of the security dilemma. As contending nations attempt to increase their own security, their actions are seen as threatening by others. For example, Egypt, the furthest downstream riparian in the Nile Basin, sees any attempt by the upstream nations to change the status quo of water allocation as a threat to its security. Conversely, upstream states regard the status quo prescribed by Egypt over their use of the Nile waters as threatening to their security.”<sup>26</sup>

This seemingly asymmetric scenario can be reframed as a basis for collaboration on the Nile, for example, as both Egypt and upstream states share common goals of maintaining sustainability of the Nile's supply and its quality, both of which can be impacted by external environmental factors, thereby aligning all nations to work collaboratively on these issues.

### *Understanding the Impact of River Resources to all Nations*

Building a framework that encourages collaboration and minimizes conflict among riparian nations requires thoughtful assessment of the impact of a river's resources on a wide range of economic and social factors. While many of these elements are closely interrelated,

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<sup>25</sup> Serageldin. “Water Wars? A Talk with Ismail Serageldin.”

<sup>26</sup> Dinar. “Water, Security, Conflict, and Cooperation.”

some point to asymmetric advantages enjoyed by individual countries while others demonstrate areas of clear alignment in goals, as noted below:

- Access to water flow - River water, in some communities, is often the primary source of drinking water, but also important for domestic food needs, cleaning/sanitation and other technical purposes. This represents an area of both potential alignment *and* conflict as countries have a common need for a high quality of water (as discussed below), but quantity of water is often a zero-sum issue and is thus an example of an asymmetric advantage.
- Quality of water - Environmental factors can impact the suitability of river water for drinking which may align the interest of all nations on this point. Additionally, non-environmental factors, such as dam building and pollution, can also impact the quality of water and lead to issues for humans using the water for drinking and eating purposes, as well as local wildlife populations (which morphs into an agricultural issue as noted in the next bullet).
- Agricultural needs - River water is essential to support the agriculture of many nations around the globe, through extensive irrigation systems which provide needed irrigation to food supply for domestic consumption and for export. Here again, quantity of water can point to asymmetry among nations along the river, while there is commonality related to the need for good water quality.
- Fishing and food production - Many countries rely on fish from rivers as a local food source or as an export.
- Transportation - Rivers serve a vital role as a method of transportation for trading ships and vessels, as well as supporting the tourism industry for a number of countries around

the globe (particularly Egypt and China). This particular issue is often seen as an area for conflict and asymmetric advantage as the most downstream nation that borders a larger body of water often has the most control of the transportation network.

- Security - Trans-national rivers often act as a natural barrier between nations, and thus provide security for both riparian nations (instances where rivers divide two parallel nations is one example of a river basin that does not conform to the usual asymmetric upstream-downstream structure).
- Energy - The flow of rivers can be harnessed through dams and turned into power to supply electricity to a civilization's population. The construction of dams is also helpful in reducing and managing flooding, but represents a clear example of potential misalignment of interests between upstream and downstream nations.
- Potential displacement of affected populations - Particularly through the building of dams, primarily indigenous populations may be forced to relocate, which can lead to domestic strife and instability.

The above attributes must be considered for all nations in the context of establishing a basis for peaceful coexistence and ultimately collaboration, and present an appropriate framework for reviewing the below case studies. This will help understand the historical advantages and disadvantages of nations along the Mekong and Nile Rivers, which have influenced river management approaches in these regions and have also led to positive success through focus on certain issues (such as quality of water) that are not inherently zero-sum and do not represent asymmetrical advantages.

### **Case Study One: Mekong River Basin**

The waters of the Mekong river originate from far western China, in the south-eastern region of the Himalaya Mountains which lay in the Tibetan plateau.<sup>27</sup> The Mekong is the world's tenth-largest river in terms of water volume, and passes through six countries: China, Burma, Thailand, Laos, Cambodia, and Vietnam, with China occupying the most upstream position and thereby benefiting from the asymmetric advantages afforded to it, which are also enhanced by its position as the largest economic power in the region (Source: Mekong River Commission website).<sup>28</sup> Over 70 million people live in the Mekong River basin, many of whom rely on the river for important aspects of day to day life.<sup>29</sup> In a paper published in *The Geographical Journal* in 2002, Jeffrey Jacobs notes: "Roughly 85% of basin inhabitants make their living directly from the natural resources base through commercial and subsistence fishing, irrigated rice production and swidden agriculture."<sup>30</sup> While all three of these are critical resources for the people of the Mekong River basin, the importance of fishing in the region cannot be overstated. In another discussion about the Mekong River basin, Pichamon Yeophantong writes: "The river also features a concentration of fish biodiversity second only to that of the Amazon."<sup>31</sup> The immense breadth and size of the fish population in the Mekong river accounts for 50% of the protein

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<sup>27</sup> Jeffrey W. Jacobs. "The Mekong River Commission: Transboundary Water Resources Planning and Regional Security." *The Geographical Journal* 168, no. 4 (2002).

[https://www.jstor.org/stable/pdf/3451477.pdf?ab\\_segments=0%2Fbasic\\_SYC-5187\\_SYC-5188%2F5187&refreqid=fastly-default%3Ab17a744a1fcfe47950be598d4a679cbc](https://www.jstor.org/stable/pdf/3451477.pdf?ab_segments=0%2Fbasic_SYC-5187_SYC-5188%2F5187&refreqid=fastly-default%3Ab17a744a1fcfe47950be598d4a679cbc)

<sup>28</sup> Jacobs. "The Mekong River Commission: Transboundary Water Resources Planning and Regional Security." : "MRC Secretariat affirms Mekong basin size, length." Mekong River Commission, December 18, 2018. <http://www.mrcmekong.org/news-and-events/events/mrc-secretariat-affirms-mekong-basin-size-length/>

<sup>29</sup> Sokhem Pech and Kengo Sunada. "Population Growth and Natural-Resources Pressures in the Mekong River Basin." *Ambio* 37, no. 3 (2008). <https://www.jstor.org/stable/pdf/25547886.pdf>

<sup>30</sup> Jacobs. "The Mekong River Commission: Transboundary Water Resources Planning and Regional Security." : "Swidden Agriculture," referenced above, is another term for rotational farming. This common agriculture practice involves rotating the land used for farming from year to year to allow soil to regain essential nutrients.

<sup>31</sup> Pichamon Yeophantong. "China's Lancang Dam Cascade and Transnational Activism in the Mekong Region: Who's Got the Power?" *Asian Survey* 54, no. 4 (2014).

[https://www.jstor.org/stable/pdf/10.1525/as.2014.54.4.700.pdf?ab\\_segments=0%2Fbasic\\_SYC-5187\\_SYC-5188%2F5187&refreqid=fastly-default%3Abe7ed9783af2c3c31ce25d39c2e1c695](https://www.jstor.org/stable/pdf/10.1525/as.2014.54.4.700.pdf?ab_segments=0%2Fbasic_SYC-5187_SYC-5188%2F5187&refreqid=fastly-default%3Abe7ed9783af2c3c31ce25d39c2e1c695)

consumed by Cambodians.<sup>32</sup> A 2016 article from *The Diplomat* citing scientists from the Mekong River Commission (MRC), noted that “fisheries alone from the Lower Mekong Basin are valued at a whopping \$17 billion a year, contributing three percent to the combined GDP of Vietnam, Cambodia, Laos, and Thailand,” emphasizing the vulnerability of these downstream nations to a disruption in fish supply.<sup>33</sup> The Mekong River also establishes national borders, notably between Burma and Laos and Laos and Thailand.<sup>34</sup> Trade, transportation and shipping networks are also supported by the Mekong River basin illustrating an area of potential alignment among all bordering countries. The most contentious resource associated with the Mekong River, however, is a massive source of power and electricity through hydroelectric dams. In a 2005 analysis of China’s involvement in the Mekong River basin, Alex Liebman discusses how both Laos and China in particular have a strong desire to harness the river’s flow to support economic growth and export electricity.<sup>35</sup> Further emphasizing this point, when describing China’s interests along the Mekong River, Pichamon Yeophantong refers to it as a “dam-building boom.”<sup>36</sup> Thus, while the riparian nations along the Mekong share common goals

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<sup>32</sup> Liebman. “Trickle-down Hegemony? China’s ‘Peaceful Rise’ and Dam Building on the Mekong.”

<sup>33</sup> Luke Hunt. “What is the Value of the Mekong River?” *The Diplomat*, January 4, 2016.

<https://thediplomat.com/2016/01/what-is-the-value-of-the-mekong-river/>

<sup>34</sup> Jacobs. “The Mekong River Commission: Transboundary Water Resources Planning and Regional Security.”

<sup>35</sup> Liebman. “Trickle-down Hegemony? China’s ‘Peaceful Rise’ and Dam Building on the Mekong.”

<sup>36</sup> Yeophantong. “China’s Lancang Dam Cascade and Transnational Activism in the Mekong Region: Who’s Got the Power?”

related to reliance on its actual resources, the priorities and position of each individual country along the river create potential for mis-alignment with fellow Mekong neighbors.

Understanding this framework of differing needs and priorities for the river's resources, in 1957 Cambodia, Laos, Thailand and Vietnam, with assistance and endorsement from the United Nations, established the Committee for Coordination of Investigations on the Lower Mekong Basin (The Mekong Committee).<sup>37</sup> As implied by its name, this organization included only 'Lower Mekong Basin' nations, excluding China and Burma. The omission of China from



The Mekong Committee (and all subsequent similar organizations, as will be discussed below) made it difficult for this group to stimulate comprehensive and lasting regional change, as China was one of the biggest contributors to poor environmental conditions along the Mekong River Basin. However, The Mekong Committee served a number of other important functions throughout the region, including the creation of enhanced security and sustainability, capitalizing on common goals among the four member states. For the United Nations' Economic

Commission for Asia and the Far East (ECAFE), which helped establish the committee, this was "the largest single development project the UN had ever undertaken."<sup>38</sup> The Mekong Committee was initially extremely effective and secured additional funding and technical assistance from the

<sup>37</sup> "History" *Mekong River Commission*. <http://www.mrcmekong.org/about-mrc/history/>

<sup>38</sup> *ibid*



United States, which saw immense economic potential in the river basin, as well as support from France and Japan.<sup>39</sup>

An early notable achievement of The Mekong Committee was the publishing of a report by Gilbert White on “the basin’s social and economic features,” and resulted in a number of important recommendations coming to fruition, such as flood forecasting and warning systems that saved numerous lives.<sup>40</sup> After the White report was released, the Mekong committee initiated a number of other programs, including data collection and standardization, and research of “investment potential and engineering feasibility.”<sup>41</sup> While these initiatives were extremely important in creating a foundation for the role of future regional organizations and institutions, growth in the region was hampered by “limited resources and by the complexities of multi-purpose, international river basin development,” and was compounded by the regional turmoil caused by the end of the US-Vietnam War in 1975, all of which led to the collapse of the Mekong Committee.<sup>42</sup> The importance of the Mekong Committee during its nearly 20 years, however, cannot be minimized because, in addition to saving lives through improved flood prediction and warning systems and the creation of a number of dams to provide energy to the region, the committee also fostered increasing communication and dialogue between countries during the war, in many cases where communication had not been present.<sup>43</sup> This exemplifies how shared water dependency can be the catalyst for initial collaboration which can be broadened to build a forum for dialogue related to other, non-riparian, issues. The Vietnam War

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<sup>39</sup> Jacobs. “The Mekong River Commission: Transboundary Water Resources Planning and Regional Security.”

<sup>40</sup> Jacobs. “The Mekong River Commission: Transboundary Water Resources Planning and Regional Security.”

<sup>41</sup> *ibid*

<sup>42</sup> *ibid*

<sup>43</sup> *ibid*

led to massive regional instability, including the success of the communist movement in Laos in 1975 and the 1978-79 Vietnamese invasion of Cambodia.<sup>44</sup> The Mekong Committee persisted in continuing data collection and overseeing multiple dam projects throughout this period despite regime changes in multiple riparian countries. Notably, the Nam Ngum Hydroelectric Dam in Laos was overseen by the Mekong Committee which helped construct an agreement between Laos and Thailand where a substantial portion of the power generated by the dam would be sold to Thailand.<sup>45</sup> Here and more generally, The Mekong Committee gave riparian nations a platform to resolve contentious regional issues, under the umbrella of the shared interest of a more sustainable Mekong River.

It is important to conclude the discussion of early Mekong collaboration initiatives by emphasizing the significant accomplishments and contributions of the Mekong Committee, and the validation that identifying common priorities among nations can serve as a basis to create alignment related to river management issues which can then extend into constructive dialogue in many other areas. Jeffrey Jacobs discusses these contributions, writing:

“Security issues were at the heart of the Mekong Committee’s activities from its inception. The war in Indochina and political instability in the region affected donor contributions, Committee membership and areas of the basin in which data could not be gathered and projects initiated. The Mekong Committee persisted despite these and other tensions and provided a sustained forum for discussion on issues of common interest especially during a long period during which these nations found little to agree upon. The Mekong Committee history during this period demonstrates how regional security and international relations were enhanced through the Mekong Secretariat’s collaborative, science-based programmes.”<sup>46</sup>

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<sup>44</sup> Jeremy Black. “The Vietnam War: A Lesson in the Geopolitics of Southeast Asia.” *Foreign Policy Research Institute*, March 30, 2018. <https://www.fpri.org/article/2018/03/the-vietnam-war-a-lesson-in-the-geopolitics-of-southeast-asia/>

<sup>45</sup> “Staff Appraisal Report, Lao People’s Democratic Republic, Nam Ngum Hydroelectric Project.” *The World Bank*, Report No. 3346-LA, December 1, 1981. <http://documents1.worldbank.org/curated/en/592941468276537012/pdf/multi-page.pdf>

<sup>46</sup> Jacobs. “The Mekong River Commission: Transboundary Water Resources Planning and Regional Security.”

The 1995 ‘Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin’ established the Mekong River Commission (MRC) as a regional institution dedicated to preserving the “Spirit of Mekong Cooperation” initiated by The Mekong Committee in 1957.<sup>47</sup> Ecological protection, fair and equitable use of the river’s resources, and mutual development are among the central principles guiding the MRC. The official MRC website describes part of its mandate, writing:

“Ultimately, the objective of cooperation among Member Countries is to promote optimal and well-balanced development of the Basin while ensuring the equitable sharing of benefits among all users of Basin water and related resources. The objective also aims to prevent any harmful effects that may hinder the continued functioning of the Mekong River systems to ensure the continuation of the multi-generational benefits that the Mekong River Basin brings to all its people.”<sup>48</sup>

Similar to previous regional institutions, the MRC is only officially composed of representatives from Cambodia, Laos, Thailand and Vietnam, however, both China and Burma participate in the institution as ‘Dialogue Partners.’<sup>49</sup> The designation of ‘Dialogue Partners,’ significantly enhances the role of these two countries (although Burma has substantially less interest than China) in regional river water management discussions, as previously these two upstream nations contributed minimally to these talks. The absence of China and Burma from prior regional institutions prohibited the development of comprehensive regional dam building policy, and their participation in the MRC represented an important acknowledgement of the asymmetric advantage they held based on their location along the river, and the importance of identifying areas for collaboration while also recognizing that cooperation on all topics may not be realistic. While China has been offered and encouraged to join a number of times by the MRC nations, it

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<sup>47</sup> “1995 Mekong Agreement and Procedural Rules.” *Mekong River Commission*.

<http://www.mrcmekong.org/assets/Publications/MRC-1995-Agreement-n-procedures.pdf>

<sup>48</sup> “Mandate.” *Mekong River Commission*. <http://www.mrcmekong.org/about-mrc/mandate/>

<sup>49</sup> “About MRC.” *Mekong River Commission*. <http://www.mrcmekong.org/about-mrc/>

instead focuses on sharing technical data rather than officially joining the MRC.<sup>50</sup> Additionally, China, as Alex Liebman writes: “has not agreed to...cooperate with the downstream states on environmental impact assessments for its projects.”<sup>51</sup> Unlike the Mekong Committee, the MRC is not affiliated with the United Nations. While the MRC continues the work of the Mekong Committee, it importantly operates as a policy making body, a role not targeted by the Mekong Committee. The MRC is extremely important to the stability and security of the Mekong Basin region, however, in recent years its power has been tested by Chinese (as well as other nations’) upstream dam building.

Currently, China has 11 dams on the Mekong River, with more planned in the near

future.<sup>52</sup> China built these dams along

its section of the Mekong River to

create reliable energy supply for its

massive population. The image on the

left displays the location of current

dams along the Mekong River, as well

as planned projects (Source: Stimson

Center).<sup>53</sup> Clearly, China is not the only

nation building dams along the

Mekong, however it *does* have more

total dams, and as the most upstream



<sup>50</sup> Liebman. “Trickle-down Hegemony? China’s ‘Peaceful Rise’ and Dam Building on the Mekong.”

<sup>51</sup> *ibid*

<sup>52</sup> Brian Eyer. “Science Shows Chinese Dams Are Devastating the Mekong.” *Foreign Policy*, April 22, 2020. <https://foreignpolicy.com/2020/04/22/science-shows-chinese-dams-devastating-mekong-river/>

<sup>53</sup> *ibid*

nation working on these projects, its dams impact more downstream nations than the Don Sahong dam in southern Laos, for example. Furthermore, China has shown virtually no interest in cooperating or even discussing its dam building with downstream nations.<sup>54</sup> Indicative of a shared river trait that can create mis-alignment, Chinese dam building (which began in the early 1990s despite objections from downstream riparians and regional institutions) has had a number of adverse effects, the most notable being measurement of record low river flows over the last two decades, impacting downstream fisheries.<sup>55</sup> Decreasing fertility of Lower Mekong Basin soil has also been documented, as dams collect silt and sediment that is important to restoring the fertility of soil along the river.<sup>56</sup>

These dams have negatively impacted downstream riparians, and severely worsened a 2019 drought that resulted in river waters on the Mekong being reduced to their lowest levels in over 100 years.<sup>57</sup> This particular drought also left the lower Mekong region with little to no ‘flood pulses,’ which are mini-floods that carry sediment and fish populations.<sup>58</sup> Flood pulses also serve a vital purpose to local fish populations as a signal of when to begin spawning.<sup>59</sup> In 2018 “the MRC predicted up to 40% reduction in Mekong fish stocks by 2020, and up to 80% by 2040 as a result of hydropower dams in the region.”<sup>60</sup> Amidst this concern, the MRC has been instrumental in researching the environmental consequences of large scale dam building and offering solutions to help curb the negative effects of these dams. Reports, such as the Strategic

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<sup>54</sup> Liebman. “Trickle-down Hegemony? China’s ‘Peaceful Rise’ and Dam Building on the Mekong.”

<sup>55</sup> *ibid* : Eyer. “Science Shows Chinese Dams Are Devastating the Mekong.”

<sup>56</sup> Liebman. “Trickle-down Hegemony? China’s ‘Peaceful Rise’ and Dam Building on the Mekong.”

<sup>57</sup> Stefan Lovgren. “Mekong River at its lowest in 100 years, threatening food supply.” *National Geographic*, July 31, 2019. <https://www.nationalgeographic.com/environment/2019/07/mekong-river-lowest-levels-100-years-food-shortages/#close>

<sup>58</sup> *ibid*

<sup>59</sup> *ibid*

<sup>60</sup> DW News. “Dam-building race threatens the Mekong River.” *Bangkok Post*, August 19, 2019. <https://www.bangkokpost.com/thailand/general/1733071/dam-building-race-threatens-the-mekong-river>

Environmental Assessment of Mainstream Dams (completed in 2010) and the Study on Sustainable Management and Development of the Mekong River including Impacts of Mainstream Hydropower Projects (aka The Council Study, completed in 2017) have been the most circulated and influential results of this research.<sup>61</sup> While the MRC has limited enforcement mechanisms and cannot control the dam building of individual nations (especially China), its immense data collection and dam evaluation processes have helped reduce environmental impacts of these dams through suggested changes in location, construction and usage of dams. These benefits would likely have not been possible without a regional institution that had the ability to monitor and collect data on numerous different sections of the Mekong River and again represents an example of finding common ground while acknowledging the propensity for those enjoying asymmetric advantages to leverage their position. Additionally, the MRC (similar to the Mekong Committee during the Vietnam War) has created a platform for basin-wide dialogue on a number of issues relating to Mekong River issues (and other topics) that, while not always resulting in substantive policy or changes in the way countries operate, ensures that there is a channel for riparian countries to communicate if they so desire.

Looking towards the future, further developing the MRC and continually encouraging China and Burma to join the MRC may lead to a more secure and stable region. Focusing on common concerns related to water security and fertility may catalyze China's increased participation and possibly lead it to join as the organization has substantial data on dealing with

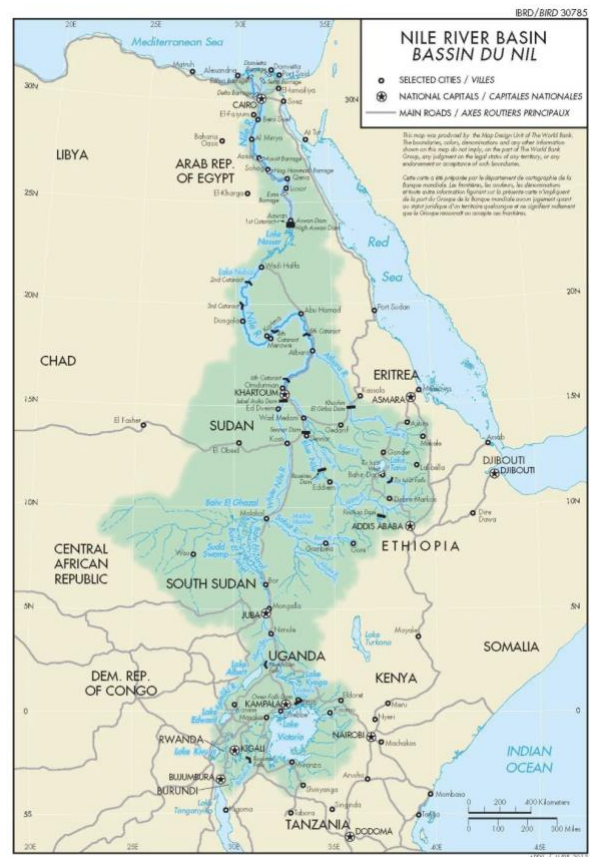
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<sup>61</sup> "Strategic Environmental Assessment of Mainstream Dams." *Mekong River Commission*. <http://www.mrcmekong.org/about-mrc/completion-of-strategic-cycle-2011-2015/initiative-on-sustainable-hydropower/strategic-environmental-assessment-of-mainstream-dams/> : "The Study on Sustainable Management and Development of the Mekong River including Impacts of Mainstream Hydropower Projects." *Mekong River Commission*. <http://www.mrcmekong.org/highlights/the-study-on-sustainable-management-and-development-of-the-mekong-river-including-impacts-of-mainstream-hydropower-projects/>

drought and low fertility soil that might be of interest to China.<sup>62</sup> There is no doubt that China's asymmetric advantages (including its geographic position and size of its economy) have limited the scope of full cooperation on all issues related to transnational river cooperation. However, China's concern with the environmental consequences of the numerous dams on its own land and the platform that increased cooperation would create to discuss non water-related issues (such as massive infrastructure projects between China and southeast Asia) could move it closer to participation in institutions such as the MRC.

## Case Study Two: Nile River Basin

Stretching over 4,000 miles and passing through more than 10 nations, the Nile River is the longest river in the world and has contributed to the development of notable civilizations, including the Ancient Egyptian Empire.<sup>63</sup> The Nile River Basin includes eleven nations: Burundi, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, South Sudan, Tanzania, Uganda and the Democratic Republic of the Congo (DRC), as shown on the map (Source: International Water Law Project Blog).<sup>64</sup> Over 200



<sup>62</sup> Liebman. "Trickle-down Hegemony? China's 'Peaceful Rise' and Dam Building on the Mekong."

<sup>63</sup> National Geographic Society. "Nile River." *National Geographic*, February 22, 2019.

<https://www.nationalgeographic.org/encyclopedia/nile-river/#:~:text=It%20begins%20in%20the%20rivers,the%20development%20of%20ancient%20Egypt>.

<sup>64</sup> Salman M.A. Salman. "The Nile Basin Cooperative Framework Agreement: The Impasse is Breakable!" *International Water Law Project Blog*, June 19, 2017.

<https://www.internationalwaterlaw.org/blog/2017/06/19/the-nile-basin-cooperative-framework-agreement-the-impasse-is-breakable/>

million people rely on the Nile for food and water security and its importance is rapidly growing due to expectations that the population of the Nile Basin will double over the next twenty-five years.<sup>65</sup> In addition to being a primary source of potable water for basin nations and serving multiple irrigation needs, the flow of the Nile powers a number of dams that generate substantial electricity -- 10% of Egypt's electricity generation capacity comes from the Aswan Dam alone.<sup>66</sup> In total, Egypt relies on the Nile River for 97% of its water needs, and the arid climate and low rainfall in Egypt in comparison to upstream nations magnifies the impact of any decline in Nile river flow on the lives of its 100 million citizens.<sup>67</sup> Additionally, as of 2013, Egypt imported 60% of its total food needs, making the country extremely vulnerable to global food shortages and price spikes, and therefore any *additional* reliance on food imports caused by reduced domestic farming will increase the vulnerability of the country.<sup>68</sup>

The Nile is also extremely valuable to upstream nations, notably Uganda and Ethiopia, which increasingly rely on the Nile to provide for their burgeoning populations.<sup>69</sup> Jack Di Nuzio, in a 2013 paper, explains this trend: "Population growth in several upstream nations has been accompanied by strong economic growth. This is stimulating the development of infrastructure projects along the Nile, such as dams, irrigation networks and pipelines."<sup>70</sup> Many of these dams serve vital roles in not only controlling flooding and generating electricity for domestic use, but

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<sup>65</sup> Jack Di Nunzio. "Conflict on the Nile: The future of transboundary water disputes over the world's longest river." *Future Directions International*, November 25, 2013. <https://www.futuredirections.org.au/publication/conflict-on-the-nile-the-future-of-transboundary-water-disputes-over-the-world-s-longest-river/#:~:text=Egypt's%20extreme%20reliance%20on%20the,conflict%20in%20the%20river%20basin.&text=Unless%20it%20embarks%20on%20a,trigger%20conflicts%20with%20its%20neighbours.>

<sup>66</sup> *ibid*

<sup>67</sup> *ibid* : Declan Walsh. "As Egypt's Population Hits 100 Million, Celebration Is Muted." *The New York Times*, February 11, 2020. <https://www.nytimes.com/2020/02/11/world/middleeast/egypt-population-100-million.html>

<sup>68</sup> Nunzio. "Conflict on the Nile: The future of transboundary water disputes over the world's longest river."

<sup>69</sup> *ibid*

<sup>70</sup> Nunzio. "Conflict on the Nile: The future of transboundary water disputes over the world's longest river."



also producing electricity for export, which provides a significant boost to upstream economies. The most notable of these dams is Ethiopia's US\$4.7 billion Grand Renaissance Dam (GERD).<sup>71</sup> This massive dam project, the largest on the African continent, has sparked immense outrage from Egypt and has put strain on the cooperation of Nile River Basin states, illustrating potential misalignment among Nile Basin countries that likely will need to be managed more actively than in the past.

Initiated while Egypt was preoccupied with massive political instability caused by the Arab Spring, the GERD is a key component of Ethiopia's solution to provide power for its growing population and revitalize its economy through the exportation of electricity.<sup>72</sup> With approximately 75 million Ethiopians not connected to the power grid, finding a way to support the growing need for this population to have access to electricity has long been a challenge until plans for the GERD were unveiled.<sup>73</sup> Ethiopia is home to the origins of the Blue Nile, the dominant tributary to the Nile River -- supplying around 85% of the river's water -- and therefore any action taken on the Blue Nile by Ethiopia is of immense importance to downstream nations.<sup>74</sup> While Sudan, Egypt's historical ally in the region, is excited to benefit from a new source of cheap electricity, Egypt is particularly concerned over the pace at which the dam will be filled and its subsequent impacts on Egyptian agriculture.<sup>75</sup> As Egyptian President Abdel

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<sup>71</sup> Nunzio. "Conflict on the Nile: The future of transboundary water disputes over the world's longest river."

<sup>72</sup> Al Jazeera English. "What's behind the Egypt-Ethiopia Nile dispute? | Start Here." *YouTube* video, 6:47. January 26, 2020. <https://www.youtube.com/watch?v=JdizU0arrJ0>

<sup>73</sup> *ibid*

<sup>74</sup> Reuters Staff. "Factbox: The Nile River: treaties, facts and figures." *Reuters*, July 8, 2011. <https://www.reuters.com/article/us-sudan-nile-fb/factbox-the-nile-river-treaties-facts-and-figures-idUSTRE76742R20110709>

<sup>75</sup> Al Jazeera English. "What's behind the Egypt-Ethiopia Nile dispute? | Start Here."

Fattah el-Sisi stated in a speech at the United Nations: “The Nile is a question of life, a matter of existence to Egypt.”<sup>76</sup>

Egypt’s current concern over control of the Nile River, however, is a somewhat new phenomenon. Despite its seemingly inferior position along the river, Egypt has been able to maintain sufficient control over its resources based on historical dominance of the region and cooperation with the English Empire. Additionally, due to lack of complete sovereignty, many upstream nations, including Ethiopia, were unable to contest this unfair allocation of resources. Only within the last few decades has Egypt begun losing significant influence over how the Nile River is governed, as upstream nations became more aware of the opportunity for greater control afforded by their position along the river. In 1929 a Nile River agreement was signed between Great Britain (representing its colonies in the Nile Basin) and Egypt which granted Egypt significant control and influence over how this river was governed.<sup>77</sup> Because the modern-day nations of Uganda, Kenya, and Tanzania were under the colonial rule of Great Britain (at that time most of the other Nile Basin Nations were under the control of other European empires, such as Belgium), their opinions were not taken into account. Instead, Great Britain negotiated a deal with Egypt directly that would benefit the English Empire and its goal of increasing access to trade with Egypt, with little effort taken to address common needs and priorities among the other local Nile nations.<sup>78</sup> Additionally, and of even more importance to Great Britain, Egypt controlled the Suez Canal, a waterway that connected the Mediterranean Sea to the Red Sea and

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<sup>76</sup> Declan Walsh and Somini Sengupta. “For Thousands of Years, Egypt Controlled the Nile. A New Dam Threatens That.” *The New York Times*, February 9, 2020.

<https://www.nytimes.com/interactive/2020/02/09/world/africa/nile-river-dam.html>

<sup>77</sup> Nunzio. “Conflict on the Nile: The future of transboundary water disputes over the world’s longest river.”

<sup>78</sup> Salam Abdulqadir Abdulrahman. “Agreements that favor Egypt’s rights to Nile waters are an anachronism.” *The Conversation*, November 4, 2018. <https://theconversation.com/agreements-that-favour-egypts-rights-to-nile-waters-are-an-anachronism-103353>

ultimately the Indian Ocean. Easy access to the Suez Canal was immensely important to Great Britain in connecting to the crown of its imperial empire, India.<sup>79</sup> A 2015 Brookings report provides details of the 1929 Nile River agreement:

“It granted Egypt an annual water allocation of 48 billion cubic meters and Sudan 4 billion cubic meters out of an estimated average annual yield of 84 billion cubic meters. In addition, the 1929 agreement granted Egypt veto power over construction projects on the Nile River or any of its tributaries, in an effort to minimize any interference with the flow of water into the Nile.”<sup>80</sup>

Egypt’s total water allocation was further increased by the 1959 *Nile Water Agreement* that gave Egypt “three-quarters of the total water volume,” according to a 2013 paper.<sup>81</sup> This agreement was signed by Egypt and Sudan, the only two nations involved in negotiation of this agreement. None of the other upstream nations were even consulted, primarily because they were all still under colonial rule and thus did not have effective bilateral relationships with their downstream counterparts.<sup>82</sup>

The remaining Nile sharing nations were brought into the fold by the 1999 Nile Basin Initiative (NBI), which created a “forum for consultation and coordination among the Basin States for the sustainable management and development of the shared Nile Basin water and related resources for win-win benefits.”<sup>83</sup> However, a decade later in 2010, a group of countries from the NBI signed an agreement called the Cooperative Framework Agreement (CFA) which aimed to lay out a more equitable distribution of the Nile’s resources and “would be a permanent legal and institutional framework for governing the Nile River basin,” differentiating it from the

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<sup>79</sup> Abdulrahman. “Agreements that favor Egypt’s rights to Nile waters are an anachronism.”

<sup>80</sup> Mwangi S. Kimenyi and John Mukum Mbaku. “The limits of the new ‘Nile Agreement.’” *The Brookings Institution*, April 28, 2015. <https://www.brookings.edu/blog/africa-in-focus/2015/04/28/the-limits-of-the-new-nile-agreement/>

<sup>81</sup> Nunzio. “Conflict on the Nile: The future of transboundary water disputes over the world’s longest river.”

<sup>82</sup> Patrick Loch Otieno Lumumba. “The Interpretation of the 1929 Treaty and its Legal Relevance and Implications for the Stability of the Region.” *Sfrican Sociological Review* 11, no. 1 (2007). <https://www.jstor.org/stable/pdf/24487583.pdf>

<sup>83</sup> “Who We Are.” *Nile Basin Initiative*. <https://nilebasin.org/nbi/who-we-are>

NBI.<sup>84</sup> This agreement was a predictable outcome of talks to establish a *permanent* regional institution to address river management issues dating back to 1997. This newfound effort towards regional cooperation was in part enabled by the African Independence movements and decolonization throughout the continent. While a large number of the Nile Basin nations received independence during the 1960s, many spent the first few decades of their independence organizing governments and addressing internal political instability.<sup>85</sup> By the 1990s, most nations had achieved sufficient stability to begin looking towards regional cooperation, and were better organized to confront downstream Egypt and Sudan over their claim to the waters of the Nile. The number of participants participating in the drafting of the CFA and the institution's structure elongated the process from ideation to implementation. The CFA, which was signed by Burundi, Ethiopia, Kenya, Rwanda, Tanzania, and Uganda, was notably rejected by both Egypt and Sudan due to discontent over how their historical allotment of Nile River resources would not be honored including their loss of influence over dam building by upstream nations.<sup>86</sup> Specifically, Egypt and Sudan lobbied for Article 14(b) within the agreement to read: "Nile Basin States therefore agree, in a spirit of cooperation:... (b) not to significantly affect the water security and *current uses and rights of any other Nile Basin State*."<sup>87</sup> The obvious emphasis on "current uses," was intended to afford Egypt and Sudan the positive treatment they had gained from colonial-era treaties and agreements despite the reality that these agreements were not recognized as legitimate by their upstream counterparts.

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<sup>84</sup> Kimenyi. "The limits of the new 'Nile Agreement.'"

<sup>85</sup> Alistair Boddy-Evans. "Chronological List of African Independence." *ThoughtCo*, January 25, 2020. <https://www.thoughtco.com/chronological-list-of-african-independence-4070467>

<sup>86</sup> Kimenyi. "The limits of the new 'Nile Agreement.'" : Reuters Staff. "Who controls the world's longest river?" *Reuters*, April 23, 2018. <https://www.reuters.com/article/us-egypt-rice-factbox/who-controls-the-worlds-longest-river-idUSKBN1HU1OE>

<sup>87</sup> Kimenyi. "The limits of the new 'Nile Agreement.'"

The next major agreement relating to the Nile River Basin was the 2015 Declaration of Principles, signed by the Presidents of Egypt and Sudan and the Prime Minister of Ethiopia, specifically addressing the construction of the GERD (and was therefore of little importance to the other Nile Basin nations). While this 5 page agreement was more symbolic than providing technical solutions to the conflict, it did outline the mutual desire among all three nations for an equitable distribution of the Nile's resources, gave priority to downstream nations (Sudan and Egypt) for the purchase of electricity generated by the dam, and highlighted the need for a peaceful settlement of any disagreements caused by the dam.<sup>88</sup> It is important to emphasize that this treaty did not provide any substantive solutions by itself, but did lay the groundwork for establishment of several committees that would evaluate the impacts of the GERD, the most notable being the Tripartite Committee of Experts.<sup>89</sup> The Tripartite Committee of Experts was an organization "comprising 12 Egyptian, Sudanese, and Ethiopian experts to accomplish the recommendations of the International Committee of Experts," which had been established in 2011 to research "the impact of GERD construction."<sup>90</sup> Furthermore, it signaled a positive change in the narrative between Ethiopia and Egypt, primarily based on identification of aligned interests which could be used to at least partially erase a history plagued with anger and hints of conflict. The 2015 Declaration of Principles paved the way for joint meetings between Ethiopia,

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<sup>88</sup> "Agreement on Declaration of Principles between The Arab Republic of Egypt, The Federal Democratic Republic of Ethiopia And The Republic of the Sudan On The Grand Ethiopian Renaissance Dam Project (GERDP)." March 23, 2015.

[https://www.internationalwaterlaw.org/documents/regionaldocs/Final\\_Nile\\_Agreement\\_23\\_March\\_2015.pdf](https://www.internationalwaterlaw.org/documents/regionaldocs/Final_Nile_Agreement_23_March_2015.pdf)

<sup>89</sup> Noha El Tawil. "Declaration of Principles on Renaissance Dam is 'exclusive agreement' binding Egypt, Ethiopia, Sudan together: intl. Law expert." *Egypt today*, June 23, 2020.

<https://www.egypttoday.com/Article/1/88909/Declaration-of-Principles-on-Renaissance-Dam-is-exclusive-agreement-binding#:~:text=The%20Declaration%20of%20Principles%20on,Khartoum%20consists%20of%2010%20principles.&text=%2D%20Cooperation%20must%20be%20based%20on,the%20principles%20of%20international%20law.>

<sup>90</sup> Tawil. "Declaration of Principles on Renaissance Dam is 'exclusive agreement' binding Egypt, Ethiopia, Sudan together: intl. Law expert."

Egypt, Sudan, the United States (as a mediator) and the World Bank in Washington D.C., earlier this year. These discussions illustrate Egypt's acknowledgement of the unsustainability of relying on past, colonial-era agreements related to the Nile's resources and, in turn, the importance of exploring collaborative opportunities to work with other Nile countries.<sup>91</sup> This most recent set of talks came with the request of Egyptian President al-Sisi for the U.S. to be a mediator (the US is an important ally for both Egypt and Ethiopia and is a top export destination for both nations).<sup>92</sup> These talks, however, have since fallen apart and the only real positive change came with the arrival of President Cyril Ramaphosa of South Africa and Chairperson of the African Union. While the talks mediated by President Ramaphosa have not yet resulted in an official agreement or treaty, a number of extremely contentious issues have been resolved, namely "the volume of water and time needed to complete the fill [of the GERD dam]."<sup>93</sup> In addition, the three nations have agreed on the technical definition of what constitutes a drought, although Ethiopia has yet to officially state how much water they will release in these particularly dry periods.

Recent rainfall in the Ethiopian highlands has initiated the filling of the dam, and thus escalated tensions between the two nations, however, parallel diplomatic accomplishments, aided by President Ramaphosa, illustrate that things are heading in the right direction.<sup>94</sup> Going forward,

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<sup>91</sup> Kimenyi. "The limits of the new 'Nile Agreement.'"

<sup>92</sup> Addisu Lashitew. "Why Ethiopia, Egypt, and Sudan should ditch a rushed, Washington-brokered Nile Treaty." *The Brookings Institution*, February 18, 2020. <https://www.brookings.edu/blog/africa-in-focus/2020/02/18/why-ethiopia-egypt-and-sudan-should-ditch-a-rushed-washington-brokered-nile-treaty/> : "Egypt." OEC, n.d. <https://oec.world/en/profile/country/egy> : "Ethiopia." OEC, n.d. <https://oec.world/en/profile/country/eth>

<sup>93</sup> Antoaneta Roussi. "Row Over Giant Nile Dam Could Escalate, Experts Warn." *Springer Nature Limited* 583, July 23, 2020. <https://media.nature.com/original/magazine-assets/d41586-020-02124-8/d41586-020-02124-8.pdf>

<sup>94</sup> John Mukum Mbaku. "The controversy over the Grand Ethiopian Renaissance Dam." *The Brookings Institution*, August 5, 2020. <https://www.brookings.edu/blog/africa-in-focus/2020/08/05/the-controversy-over-the-grand-ethiopian-renaissance-dam/>

a comprehensive agreement between *all* Nile Basin countries with adequate and agreeable resource allocation, conflict resolution measures, and enforcement mechanisms is needed to ensure the stability of the region, and can be modeled off the Mekong River Commission discussed above, as it has proven to be relatively successful. As the initial Egypt/Ethiopia GERD talks targeted areas of alignment and validated that this approach is likely to lead to progress, continued effort needs to be taken to find more commonality between these two important countries and the other Nile nations, as this will be the basis for successful institutionalized management of the Nile River. While, at times, violent conflict between Egypt and Ethiopia might seem likely, both countries have much more to lose through initiating adversarial actions than they do through cooperation.

**Conclusion:**

The above two cases studies present many similarities regarding shared river attributes that can create tension among riparian nations or can be used to identify aligned interest to create a basis for positive resolutions. However, the asymmetric advantages in each case have thus far been manifested to different degrees, resulting in important differences which lead to one river basin having an inherently higher chance of conflict (albeit still very low). Despite China's historical actions along the Mekong River (excessive dam building resulting in lower water flow and reduced quality of water), in recent years this upstream hegemon has begun to realize that the environmental impacts of its actions are not sustainable, and that cooperating with downstream nations through the Mekong River Commission's valuable knowledge and data expertise can help lead to a better and cleaner Mekong River for all riparian nations. The Nile River Basin is not a perfect comparison, as the regional hegemon (Egypt) is *not* the upstream

nation that enjoys inherent asymmetric advantages related to river resources, and at this point in time, the region's organized water management efforts have not been as successful or comprehensive as the Mekong River Commission. However, the *existence* of a pre-established regional water management institution, and current, mostly constructive dialogue between Egypt and Ethiopia indicate that cooperation may be more likely than conflict, illustrating the potential for positive relations to create a self-reinforcing cycle that may translate into an effective outcome related to shared water policies.

Despite Egypt's rocky history with the Nile Basin Initiative (refusing to endorse the initiative numerous times), this institution can serve as the foundation for future, more comprehensive oversight. Addisu Lashitew, from the *Brookings Institution*, recently wrote: "The Nile Basin Initiative Comprehensive Framework Agreement, which has not yet received the endorsements of Sudan and Egypt, could be modified to serve as a basis for a future agreement."<sup>95</sup> Lashitew continues by noting the importance of having this new organization be focused on issues that are not inherently zero-sum, such as climate change and quality of water, as this approach will find areas of commonality which can be used as a foundation for future agreements.<sup>96</sup> This would represent a parallel approach to the Mekong River Commission, which found that while enforcing dam building restrictions can be extremely difficult, cooperating on data collection and climate change relief efforts related to shared rivers can be an easier way to assure regional cooperation, which then can positively bleed into other areas of riparian nations' relationships. This shift away from focusing on solely zero-sum issues, such as quantity of water and general water allocation can, hopefully, lead to a basis for collaboration around the numerous shared benefits rivers offer to all riparian nations. The clear challenge in the Nile

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<sup>95</sup> Lashitew. "Why Ethiopia, Egypt, and Sudan should ditch a rushed, Washington-brokered Nile Treaty."

<sup>96</sup> *ibid*



Region is the need to continue alleviating tensions between Egypt and Ethiopia over the GERD, a project that is *currently* underway. However, as Lashitew concludes in the article referenced above: “Instead of rushing into a treaty now and dealing with its consequences later, Ethiopia, Egypt, and Sudan should join shoulders to design a legal framework that advances their common long-term interest.”<sup>97</sup> While most countries are inherently self-interested and will prioritize their security over the security of their neighbors, there are a number of attributes and resources created by shared rivers that, through cooperation and regional institutions, provide benefits to *all* riparian nations. Collaboration around these areas of alignment can also serve as the platform for cooperation on other, non-water related issues which in turn has the potential to reinforce river related cooperation. Global climate change, population growth and increasing water scarcity heighten the importance of nations realizing that the most comprehensive and effective way to address these challenges is through regional cooperation, and not through conflict.

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<sup>97</sup> Lashitew. “Why Ethiopia, Egypt, and Sudan should ditch a rushed, Washington-brokered Nile Treaty.”

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