Ethiopia and the Blue Nile

Development Plans and Their Implications Downstream

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The Blue Nile, located in East and North Africa is a river about which much has been written since the publication of Alan Moorehead's *The Blue Nile* in 1962. Like its companion volume, *The White Nile* (1960), the book has been accused of presenting a biased, orientalist account of the river, its peoples, and its history; as this article argues, however, some of its themes persist and have become stronger today. Moorehead discusses the themes of war, invasion, and the encounter between Europeans (the French, British, and Ottoman Turks) and Africans (the Egyptians, Sudanese, and Ethiopians). He also addresses the question of the deep latency of Ethiopian power in the Nile basin, a theme not taken seriously in past writings. Yet, the present contains its own challenges because of the effects of humans on the Nile basin generally. The population of the basin at the time of Ethiopian emperor Tewodros was significantly smaller than the present number. In that very different world, Egypt could not only feed itself but also occasionally export food. African megafauna still roamed wild in areas of today's Sudan and northern Ethiopia. The levels of precipitation were also higher. Concerns like global warming, climate change, and catastrophic environmental change were the stuff of either science fiction, then already past its infancy, or biblical myth. In my father's lifetime, our hometown of Gedarif, Sudan, had elephants nearby and ostriches as well. Today, those animals are a fading memory at best.

Despite challenges posed by population growth, resource depletion, and climate alteration, the states of the Nile basin are not close to cooperating with regard to their common resource, regardless of the false dawn offered by the Nile Basin Initiative, Technical Cooperation Committee for the Promotion of the Development and Environmental Protection of the Nile Basin (TECCONILE), and myriad other attempts at feigned cooperation. This article seeks to explain the reasons behind that failure, arguing that the

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governments of the Nile basin rely on prejudice to boost legitimacy and that this behavior manifested itself in Egyptian policy discourse and actions towards both Ethiopia and Sudan. It begins with a discussion of methodology; expounds on the issues of climate change and population growth; offers a literature review that examines the primary discourses about the Blue Nile; explains the status quo of the use of the river; discusses the Ethiopian dam project and the responses of Egypt, Sudan, South Sudan, and the Central African states; and examines the shift of the material balance of power in the basin. Prior to the conclusion, the article addresses the implications of the Blue Nile in terms of constructivist international relations theory. The central theme maintains that people's images of their neighbors have been just as determinative regarding the natural environment for the course of riparian international relations as the physical environment and resources themselves. The limitations imposed by nature and their policy implications have not been relevant to policy until threats reached critical levels. Even then, the need to cooperate was not universally accepted. Egypt continues its policy of self-help while Sudan, with the apparently coincidental presence of Ethiopian peacekeepers on its soil, has had to cooperate with its eastern neighbor despite Egyptian protests.

Theoretical Foundation and Methodology

Transboundary river basins offer us a wonderful test base for constructivist theory in international relations. They contain diverse populations, many states at the same time bound by a very material and real artery of life. They offer us the ability to see whether or not outcomes in terms of conflict and cooperation are based on physical considerations of maximizing water utility, environmental quality, and agricultural yields. Should these states show no desire to cooperate in light of urgent material pressures, then we can posit the existence of nonmaterial reasons for such a lack of cooperation, and these can be located in the roots of unilateral self-help. Should policy and ideational discourse have clear links between them, then ideas must have at least some influence over outcome.

This work is broadly embedded in the constructivist tradition of international relations and will include both constitutive and causative aspects. The former involve both the material attributes of the Blue Nile basin and the treaties governing their use; the latter relate to policy, seen here as problematic and contrary to the general well-being of both the river system and its populations. The causative aspects are located in the ideational perspectives of both Egypt and, to a lesser extent, Ethiopia. The perspective of Sudan towards its two neighbors is also important and will be addressed in its own terms.

Material Aspects of the Blue Nile

Several physical qualities of river systems have been said to influence the politics of a transboundary river system. Thomas Naff emphasizes the location and military power of the state in determining outcomes. He also lists the river's usable discharge and sourcing as important and determinative of outcomes.[1] More recent work by social scientists such

as Ariel Dinar, Getachew S. Nigatu, Marit Brochmann, and Nils Petter Gleditsch points to use pattern, environmental degradation and climate change.[2] These factors correspond directly to the distribution of material capabilities described by both neorealists and realists. Indeed, the default approach in water studies by specialists outside the field of international relations and international studies can best be characterized by an acceptance that the material realities of the basins impose a certain mandate for peace. As David Brooks maintains, this is a field about peace—not conflict.[3]

This article contends that the material aspects of the Blue Nile enjoin cooperative behavior but that these facets, themselves given additional urgency through population growth and climate change, are not sufficient to explain policies that have frequently proven anticooperative and not peaceful at all. These physical factors include the geography of the Blue Nile, its levels of discharge, and the effects of climate change. More directly androgenic effects, such as the levels of water consumption and deforestation, would also fall under the category of physical factors. From a constructivist perspective, the material reality matters in the sense that it frames ideas and choices. In the words of Alexander Wendt, it is "ideas almost all the way down."[4]

Ideational Factors in the Blue Nile Basin

Rather than duplicate the whole structure of constructionist international relations theory in this article, it strives to focus on several key factors. The first concerns the ideas that the two key states with stakes in the Blue Nile—Egypt and Ethiopia—had about each other at the point of first contact and how these views evolved and persisted. Second, the article uses official Egyptian discourse towards both Ethiopia and Sudan to show how prejudice prevents the implementation of cooperative policies regardless of powerful environmental and economic incentives. Additionally, it examines the role played by Ethiopia's response to Egyptian views and its own construction of its neighbor as a threat—and an existential one at that. The Sudanese perspective, historically determinative in the Nile basin, is undergoing a dramatic transformation. Shorn of its south, the Sudan no longer feels that the relationship with its former colonial master, Egypt, has worked in its best interests. Consequently, rather than viewing Egypt as the font of its civilization and of Islam, Sudan treats Egypt as a problematic neighbor, best balanced by an alliance with Ethiopia.

Why the Blue Nile—and So What?

The Blue Nile, the primary contributor of water in the Nile basin, directly influences life in Sudan, Egypt, and Ethiopia, having a combined population of more than 210 million people. This number does not include the people inhabiting the White Nile areas of South Sudan and the Central and East African Great Lakes states. Any disruptions and armed conflict in the basin are likely to lead to catastrophic consequences not only in the region but also in neighboring states of East and Central Africa as well as the Middle East. The Blue Nile's health matters to more than just its inhabitants; it also provides us

a useful case study to evaluate the utility of constructivist theory using Wendt as an example of such an approach. Implicit within this tack is an evaluation of neorealist and theory-independent approaches that focus on material factors.

Climate Change and Population Growth

Compounding the problem is the lack of effective tools to measure the effects of climate change in the Nile basin generally and the Blue Nile subbasin specifically. Global circulation models used to study the effects of climate change at the local level are simply not helpful in terms of resolution, predicting vastly different outcomes. The Blue Nile's source subbasin is extremely large, quite variable in terms of composition, and at the same time very sensitive. Slight changes in global temperature can influence it in both directions, and the consensus in the literature on the impact of climate change on the Blue Nile appears to be that better models are needed to understand its full effects.[5] Adding the planned dams into the analysis raises the level of uncertainty. Yet, with respect to one crucial factor, the dams seem to reduce uncertainty by regulating the extreme variation in water supply. Indeed, the two planned Ethiopian dams are likely to have little effect on water available downstream:

> The Ethiopian government's proposed construction of two dams (Karadobi and Border) adds to the uncertainty of changes in precipitation, temperature, potential evapotranspiration, and runoff across the sub-basin. The lessons from the scenarios reviewed indicate that both hydropower generation and water-storage goals can be regulated in ways that do not affect downstream flow.[6]

Yet, on at a global level, changes in temperature are bound to have an effect on Lake Tana and its surroundings; these in turn will influence the Blue Nile and, with it, Sudan and Egypt.

> Future changes in climate will certainly affect the lake ecosystems since they are considered hot spots for environmental change. Key climate parameters, including average monthly temperature, evapotranspiration, average monthly precipitation, average monthly cloudiness, and average monthly (vapor) pressure, will change. [Emma] Tate and others . . . used the HadCM3 A2a and B2 emission scenarios to analyze the sensitivity of Lake Victoria's water balance to climate change, finding that changes in annual rainfall and evaporation could lead to declining water levels over the 2021–50 period. Climate change will affect Nile basin flows through fluctuations of lake levels, such as those in Lake Tana and Lake Victoria, both of which control water flows in the Blue Nile and White Nile, respectively, directly affecting rainfall and runoff—the main contributors to lake inflows.[7]

Consequently, clear risks are associated with climate change, and governments presumably should pursue strategies to reduce them. Many such reductions can be conducted internally through water conservation methods such as drip irrigation, water metering, and crop shift, but in the case of transnational river systems, one could gain a premium

through cooperation with neighboring states. In light of the total dependence of Egypt on the Nile, any payoff in terms of cooperation should be seized immediately, but that has not actually taken place historically and it is not likely to do so again. Attempting to use a rational-actor model through game theory in the study of the Nile misses the central point of Egyptian Nile policy—it is a national policy, not a water policy. Indeed, Egypt leaves Ethiopia no cooperative venue, and, eventually, this policy resulted in Sudan's recent defection from Egypt's side, leaving the country isolated. This article visits such a cooperative premium later in the discussion of the background of the current Ethiopian dam plans.

Although the risks of climate change are unclear regarding direction, in terms of whether they are likely to cause floods or droughts in the Blue Nile subbasin, the trends in population, unfortunately, are clearer and far more threatening. Table 1 includes population projections for Ethiopia, Egypt, and Sudan (the northern rump).

Table 1. Latest and projected populations for Ethiopia, Egypt, and Sudan (in millions)

Country	*2010*	*2020*	*2030*	*2040*	*2050*
Ethiopia	87	112	138	164	188
Egypt	78	91	102	113	122
Sudan	35	44	55	66	82

Source: United Nations, *World Population Prospects: The 2012 Revision* (New York: United Nations, Department of Economic and Social Affairs, Population Division, Population Estimates and Projections Section, 2013), http://esa.un.org/unpd/wpp/unpp/panel_population.htm.

When the often-quoted rule that an industrial society needs about 1,000 cubic meters per citizen per year is taken into account, the projected increase in population acquires a very frightening image. Many Ethiopians will live on other basins, but the Blue Nile basin includes the population-rich Amhara, Tigray, Oromia (western districts), and Benishangul-Gumuz Regional State. Furthermore, the total annual discharge of the combined River Nile, estimated at 90 cubic kilometers of water, is already insufficient for the creation of industrial society in Egypt and Sudan—Egypt's current population is about 84 million. At least 70 percent of the water reaching Aswan originates in the Blue Nile. Of course, other factors such as civil war and secession of regions such as Sinai or Darfur, as well as famine and mass migration, may influence the population figures and reduce water demand. Nevertheless, the projections are fairly clear and will influence not only water demand but also the relative distribution of power among the three states, as understood by realists of all sorts. Sudan remains in the grips of a civil war and in a contest over wealth as power between its capital and its regions. The diagnosis of the problem of the inequalities between its Arab core and African periphery is found in the pro-rebel *Black Book of Sudan*, which is generally considered accurate.[8] Egypt is experiencing a prolonged confrontation between its military and the Muslim Brotherhood that is inevitably weakening the country. Although not a bastion of stability and prosperity on a global level, Ethiopia's position versus Egypt's and Sudan's has steadily improved, and its economy has come to life.

Literature Review

There is a "standard" approach, at least in the social sciences, to the study of the social and political implications of international or transboundary river systems. That approach is supplemented by studies from a regimes perspective (covering international law, treaties, and governance systems like international organizations) and studies of the effects of human activities on river systems. These three approaches to the Blue Nile—the social science approach, the legal approach, and the hydrological/climate approach—are epistemologically distinct and share few if any tools, but they are complementary. Cross referencing is lacking, and at times authors writing in the third tradition treated the 1959 Nile Waters Agreement as if it were binding on Ethiopia and therefore in need of "renegotiation." Obviously, in terms of interaction, mutual quotation, or even basic information, little is exchanged among the three areas. The basic scientific approach discussed in the section dealing with climate change, above, needs no repetition here; at least it has reached a consensus of sorts concerning the need to get more information and run the models again in the Blue Nile basin. The report provided by the United Nations Environment Programme details the climate change literature and its stance very well, and it is discussed in terms of its role above. Regarding the social science approach, there is some treatment of the legal aspects as well as use of the natural environment as a framing context. Of course, this treatment considers nature a fixed system and lacks the dynamic aspects of the hydrological and climate approaches. Further, it does not address changes in legal regimes, taking them as a given.

The Social Science Approach

Until the appearance of recent and highly innovative work by Ariel Dinar and Getachew S. Nigatu, the social science approach relied heavily on comparative case studies, participant observation, and action research.[9] These tended to address several key variables, including the natural context of the river system, patterns of abstraction, legal regimes present, disputes over use, and historical factors. The author has written articles as part of this tradition, and to some extent, this piece falls broadly within that tradition. The actual data gathering and structure of these studies vary, and they could include chronological narratives, comparative case studies, and reports of direct-participant observation. Classical works under this approach include those of Arun Elhance, Thomas Naff, Meriam Lowi, Peter Gleick, Peter Chesworth, John Waterbury, and Mark Zeitoun.[10] This basic model has seen additions and improvements, including the application of social statistics by Hans Toset, Petter Wollebaek, and Nils Petter Gleditsch, as well as by Marit Bronchmann and Gleditsch; the use of game theory by Dinar and Nigatu; and an in-depth case study combined with participant observation by Jan Selby.[11] In all of this literature, the issue of how the participants see each other has been studied only rarely. Indeed, social science literature on the role played by identity in transboundary rivers remains the domain of a few. Lowi's work touches upon this issue through its analysis of the links between water and foundational political discourse in Israel;[12] otherwise, the literature

simply does not deal with how people see each other and the political implications of what that means. Indeed, Selby casts Palestinian-Israeli water relations into a Marxian mold, thereby losing many hard-earned observations of the field, including some very creative approaches to bureaucratic policies. One exception is the standpoint-like literature emerging from the Middle East that explicitly includes identity through the open association of the social scientist / author with his or her group. Examples include Nurit Kliot, Hamad Bu-rahmah, and Walid Radwan.[13] Using the well-established social science methodologies discussed above, these authors indicate their belonging to a community and take on a direct or an indirect interest in promoting its water interests. This is not to say that the scholarship is bad or substandard. In fact, it may be a more honest form of scholarship because no one "is an island." In the case of the Blue Nile, the scholarship has often placed it as a part of studies of the Nile basin in general rather than treated it as a river on its own.

The Legal Approach

Plenty of studies taking the legal approach discuss the Blue Nile alone. These tend to argue along standpoint lines, the authors clearly preferring the positions of their respective countries—specifically, Egypt or Ethiopia. The legal approach shares some features with the social sciences approach, including framing within the natural context as well as discussions of use. These tend to be rather limited, though, when compared to the body of treaties governing the Blue Nile in whole or in part. The primary object of the legal approach is to argue about the norms and regimes embedded in the treaties, agreements, and organizations that operate or fail to operate in the Blue Nile. The field has matured greatly since Mamdouh Shahin argued that Egypt has absolute rights to the waters in the Nile basin because they are Egyptian due to prior use.[14] Current discourse is a great deal more sophisticated but remains deeply committed to the cause of one country or another. The papers resemble legal briefs, and indeed in some ways, they are.

The three camps within this school deal with reactions, within the context of the Blue Nile, to the current Ethiopian dam project, the Cooperative Framework Agreement (CFA), and the Nile Basin Initiative (NBI). The NBI was established in 1999 as a forum for dialogue and communication concerning the Nile. Of the three legal approaches, the first is pessimistic towards cooperation and views the Ethiopian Renaissance Dam as a logical consequence of Egypt's refusal to negotiate concerning the waters of the Blue Nile. In its efforts, Ethiopia has recruited nearly all the Nile basin states, save for Sudan, and has effectively isolated Egypt. Even Sudan has abandoned Egypt, a subject that will be discussed later. In terms of law, representing this first school, Habtamu Alebachew asserts that Egypt is not a prisoner of its own rhetoric because it has declined to negotiate in the past. His article reads like an Ethiopian legal brief at the International Court of Justice, and the relationship is clearly seen as adversarial:

> Ethiopians now stand as a legal challenger not only to the timely relevance of the traditional Egyptian policy that founded itself on the perceptions of Ethiopia's capacity limi-

> tations to make use of the Nile waters but also to the adequacy of international law to preempt interstate misunderstandings. Obviously, the Renaissance Dam has showed that Egyptians have created a formidable duty more on themselves than on Ethiopia by their insistence on pursuing "No Negotiation" Nile Policy. At present, it means that Egyptians, in demonstrating their loyalty to their policy, have to wait patiently until practice proves whether the Dam would actually harm or does not harm their advantages. Legally speaking, Egypt finally finds itself prisoner of its own policy.[15]

Implicitly, Alebachew appears to suggest that initiatives like the NBI are failures and that the future will really be determined through power and the systematic isolation of Egypt. This perspective is neither the sole nor even harshest one on cooperation. Egypt is seen as a bully and a hegemon, and Ethiopia is cast nearly in the role of the underdog—a sort of David versus the Egyptian Goliath. As already pointed out, however, at least in the discussion of the population, this perception may no longer hold true. Using the harshest possible language, Dereje Zeleke Mekonnen rejects the NBI and the CFA as an Egyptian ruse:

> The Egyptian proposal at Sharm El-Sheikh to further continue the negotiation under the auspices of the Nile Basin River Commission proves that the non-hegemonic riparians are allowed only to endlessly negotiate with and never to win any concessions from the basin bully. To accept this, however, would be a volitional forfeiture by the non-hegemonic riparians of their right to any consumptive use of the Nile waters; hence, the Sharm El-Sheikh fiasco. It should thus be no surprise that what had been said of the Pharaohs millennia ago may validly be said of Egypt's rulers of today: "Pharaoh king of Egypt, . . . you say, 'The Nile is Mine; I made it for myself.'"[16]

Wondwosen B. Teshome offers a more moderate critique of the NBI, arguing that water sharing is a conflict-laden concept that should be replaced by "benefits-sharing."[17] Given the history of the region, it is very difficult to see how the concept of benefit sharing can be accepted without clear water allocation, and the concept itself invites serious questions. Specifically, had the Nile basin been unified in a single state, many projects like the Aswan High Dam, the Egyptian reclamations project, and perhaps some aspects of the Gezira scheme in Sudan probably would have been redundant if not outright harmful. Wondwosen's approach towards water is similar to the perspective of Salman M. A. Salman: although the Nile basin CFA was well intentioned, it nevertheless led to further conflict and division not only between the upper and lower riparians but also between Egypt and Sudan in a more direct way.[18] Sharing in this optimistic outlook, Nadia Sanchez and Joyeeta Gupta declare that the breakup of Sudan, the ongoing conflict in Egypt, and the construction of the Grand Ethiopian Renaissance Dam (in Ethiopia) offer all stakeholders a chance to develop a "more equitable" distribution of water in the basin.[19] This assumes, however, that current arrangements are inequitable and need changing. The middle ground represented by Salman, Wondwosen, Sanchez, and Gupta contrasts sharply with perspectives from Egypt, which have undergone significant evolution nevertheless. Representing this viewpoint, Abdel Fattah Metawie argues that the NBI is the latest in cooperative agreements in the Nile basin that reflect the desires of all riparians.[20]

His article stands in sharp contrast to the arguments raised by Alebachew and Mekonnen. Nowhere does Metawie discuss allocations although he examines all of the agreements in the basin in great detail. Indeed, the worlds of Metawie and Mekonnen are far apart. Unfortunately, little had changed between the founding of the NBI and the Ethiopian announcement of the Grand Ethiopian Renaissance Dam project. That fact leads the author to note that a primary complaint by Mekonnen and Alebachew was Egypt's use of cooperative forums to delay and prevent allocation of water to upper riparians, a position that finds more than sufficient support, as shown below, in terms of Egyptian policy debates that were inadvertently made public.

This Work and the Literature

As stated earlier, very few works address how identity issues influence water policy. This article attempts to fill a bit of gap by bringing the issue into international studies as one involving identity in a primary and elemental way. Indeed, the Egyptian policy debate showed that the matter has not been approached "rationally" by any stretch of the imagination and that some variables operating on the dispute over the waters of the Nile have little to do with water sharing, water allocation, benefit sharing, or international cooperation in whatever guise cooperation has assumed. Consequently, it is vital to approach the problems of the Nile riparian states as primarily problems of relating to the other, with the implications these problems have in terms of socialization, schooling, and public policy concerning acceptance of difference in terms not only of international relations but also domestic issues. Given past evidence, the Aswan High Dam was built for political and ideational reasons that have little to do with either water security or benefit maximization. Some individuals attributed the decision, made during the heady Nasser era, to Egyptian nationalism. Although correct, such a view misses the larger picture of how this nationalism saw the Sudanese, Ethiopians, and Central Africans. With the current Ethiopian dam project, we can also perceive the long-term consequences of such a view. Using a Wendtian analysis, this article adds the dimension of identity to the discussion of the dispute over the Blue Nile. Towards that end, it seeks to reveal the complexities that a real solution would entail in the long run.

Current Water-Consumption Patterns

In this article, allocation and actual use are accorded a higher priority than discussions of cooperation and forums for as-of-yet unrealized cooperation. Before the current dam project, the waters of the Blue Nile were being used almost exclusively by Egypt and Sudan under a bilateral treaty under which the two states simply helped themselves to the water of the whole Nile basin. It is best to leave discussions of the normative implications of the 1959 Nile Waters to ethicists and other specialists in values. Nevertheless, the imbalance inherent in the agreement, which built upon the 1929 British-Egyptian Nile Waters Agreement, certainly contains much of the causality for Ethiopia's decision to

dam the Blue Nile without the consent of Egypt. More often than not, Sudan has not used its allocation under the 1959 agreement, and the waters passed on to Egyptian use without prior or subsequent consideration. The lack of any Egyptian water contribution and the excessive losses at Lake Nasser render Egypt's positions concerning the Nile unacceptable to Ethiopia—and perhaps even Sudan—were it able to choose its policies freely. Table 2 shows the differences between contributions and abstractions of water.

Table 2. Contributions and consumption of Nile waters by states and regions (in cubic kilometers)

Country or Region	*Water Contribution*	*Water Use*
Egypt	0	55.5
Sudan and South Sudan	minimal	18.5
Ethiopia	72.0	1.0
Central African Great Lakes	12.0	1.7

Source: Adapted from Dale Whittington and Elizabeth McClelland, "Opportunities for Regional and International Cooperation in the Nile Basin," *Water International* 17, no. 3 (September 1992): 146.

Were the benefits of Egyptian water use shared with Ethiopia, this picture may have been acceptable, but Egypt not only refuses to share benefits but also utilizes the Nile abusively. Seepage and evaporation at the Aswan High Dam between 1970 and 1988 ranged between 5.7 in 1986 and nearly 15 cubic kilometers in 1976.[21] These numbers were further corroborated by Mosalam Ahmed Mosalam Shaltout and T. El Housry.[22] These numbers show a pattern of use that is not considerate of other users' needs. To further aggravate the situation, Egyptian irrigation systems remain "primitive," according to Abdrabbo Abou Kheira:

> About 2.52, ha (6 million feddans) are old lands irrigated by surface irrigation methods with low on-farm water application efficiency (40–60%). Waterlogging, salinization, and low application efficiency are the main problems inherent with surface irrigation. Replacing the surface irrigation method with precise irrigation systems became the main interest of the decision makers and policy planners in Egypt.[23]

It is indeed wonderful that water planners in Egypt are concerned about implementing more efficient methods of irrigation, but the larger question is, after what? Egypt has squandered hundreds of cubic kilometers of water at the Aswan High Dam in the decades since it was built, oblivious to Ethiopian protest over both the 1959 agreement and the dam itself. As long as the water wasted both at the dam and in the inefficient Egyptian irrigation system was seen as a cost-free loss for Egypt, the country had no real incentive to change its water-consumption habits. At various points, Egypt was wasting between 20 and 50 percent of the water that flowed in its irrigation system.[24] This fact suggests that it is too late for ideas like "benefit sharing" and "cooperation" in the Nile basin. Egypt chose self-help at the implicit expense of others in terms of externalities, and now Ethiopia is doing the same.

Grand Ethiopian Renaissance Dam and Other Ethiopian Blue Nile Projects

At present, the Grand Ethiopian Renaissance Dam is the main object of contention between Egypt and Ethiopia. Its reservoir will be able to hold 63 cubic kilometers of water—or about a year's worth of the Ethiopian Blue Nile water contribution. The dam will be located about 40 kilometers from the Sudanese border in the Benishangul-Gumuz Regional State. It is expected to have a generating capacity of about 5,250 megawatts. Ethiopia would like to use the dam primarily for power generation to rid itself of butane imports and as a catalyst for industrialization. It will also be used for irrigation.[25] The costs of the dam are being borne by the Ethiopian people through both taxes and bond-subscription drives both in Ethiopia and in the overseas communities of Ethiopian origin. The overall cost is estimated to be about $5 billion (US), and the power-generation capacity of the dam—about $2 billion (US) out of the $5 billion (US) overall cost of the dam—is being financed by China.[26] In short, Ethiopia has set up the financing in such a way that Egypt's patrons cannot influence events as they had in the past, particularly during the British era. China is the sole external supplier of capital, and it is hard to see how Egypt can make demands of that country.

This built-in resiliency can be understood in other ways as well. Were Egypt to resort to a violent attack on the dam, in violation of Sudanese sovereignty as well as Ethiopian territory, Ethiopia could use an alternative means of withholding the water through construction of a large number of small dams to use irrigation in its share of the Blue Nile basin. By building 5,000 small dams, Ethiopia would irrigate about 1.8 million hectares and reduce the flow of the Blue Nile by about 7.2 cubic kilometers.[27] The results for Egypt might be even less positive than the current situation, which, ironically, could prove beneficial to Egypt in some unexpected ways. Indeed, calmer voices in Egypt, such as Mahmoud Salem's, have indicated that the dam would increase the amount of water available to Egypt because of the lower rates of evaporation in the cooler, rockier highlands of Ethiopia:

> Let's start with the fact that Ethiopia is a sovereign nation and is well within its right to build any dam it pleases on its land, as long as it doesn't violate the international agreements governing the water share of downstream nations, and it likely will not. Then let's talk about water loss: from the share of water we receive, we lose about 12% of it due to evaporation while the water is stored in Lake Nasser for 10 months between the flood time and irrigation needs. Ethiopia has a lesser evaporation rate (almost half of Egypt), and the electrical dam will slow down the rate of water we receive, thus making sure that the water that gets stored in Lake Nasser arrives in stages and thus decrease [*sic*] our evaporation rate considerably. This will lead to an actual reduction in lost water and an increase in actual water by 5%. Believe it or not, storing the water in Ethiopia before it reaches Egypt will actually lead to an increase in our water supply. So why the hysteria?[28]

At no time did Egypt or Sudan consult with Ethiopia concerning projects on water use within their borders. Moreover, the Aswan High Dam as well as the 1929 and 1959

Nile Waters agreements took place without Ethiopian consent, so it is rather strange for Egypt to protest a project that is remarkably similar to its own previous efforts. The Egyptian response, as pointed out below, is not conditioned by hydrology but by exclusionary nationalism—and a particularly "unreconstructed" (in the American sense of the word) one at that.

Identity in the Nile Basin

Egypt's response to the construction of the dam cannot be described as anything other than hysterical, as Salem notes. The Egyptian government held a National Security Council meeting on 3 June 2013 to discuss the Ethiopian dam. Chaired by President Mohamed Morsi, the meeting involved representatives of all the political and social forces in the country, including representatives of the Coptic Church and other minority religions in the country. The churchmen offered to mediate the dispute through their links with the Ethiopian Church, but the mood in the room was particularly warlike, and a leading Egyptian liberal, Ayman Nour, proposed a program of political violence against and destabilization of Ethiopia using economic and political means. Nour's proposals called for using Ethiopia's ethnic and religious diversity against it as well as military actions and diplomatic and geopolitical encirclement. His discourse and arguments turned the meeting into something akin to a nineteenth-century imperial war council.[29] In response, Ethiopia called the Egyptian ambassador for consultations and dismissed Nour's suggestions as "daydreaming."[30]

To those unfamiliar with the tone and tenor of nationalism and the use of identity politics in the region, the ideas expressed by the otherwise relatively liberal Nour would come as a shock. But a quick glance at modern Ethiopia's first encounter with modern Egypt would rapidly dispel any remaining questions as to the location of the problem. Alexander Wendt explained this method by using the encounter between Cortes and Montezuma abstracted to "ego and alters."[31] The two states encountered each other as modern entities during the nineteenth century when Egypt was expanding its Red Sea littoral (now called Eritrea)—an action that led it to friction with Ethiopia at a time when both countries faced European incursions. The Ethiopian emperor, Yohannes IV, wrote to Khedive Isma'il of Egypt indicating that the two states, which shared religions, should not be at odds. Isma'il did not take the Ethiopian emperor seriously because he was "like an Egyptian bishop." At the time, the head of the Ethiopian Church was appointed by the Coptic Pope in Egypt, so Khedive Isma'il simply saw Ethiopians as an extension of Egypt's own Christians, then living under Ottoman laws, which reduced them to second-class status. In 1875 Isma'il's arrogant dismissal of Ethiopia led him to launch a catastrophic war against Ethiopia that ended in a complete Egyptian defeat.[32]

In Egypt's eyes, Sudan is a backyard—a former colony that, due to historical accidents, somehow managed to become independent. Upon Sudan's gaining independence in the 1950s, its attempts to foster an integrated water-management regime were met with an Egyptian destabilization program, economic sanctions, and threats of war that

prompted the Sudanese army to seize power and appease Egypt in 1958. The 1959 Nile Waters Agreement was signed by that particular military government, led by Lt Gen Ibrahim Abboud. Sudan, which tends to centralize Islam in its identity matrix, had historically viewed Egypt as its source and Ethiopia as its enemy. During the country's stint with independence between 1886 and 1899, the Mahdist Sudan waged a war of religion against Ethiopia. Consequently, Ethiopia has seen both Sudan and Egypt as enemies or at least potential adversaries in the past. With Egypt, this stance appears to be ongoing. Such a viewpoint proved a great deal harsher during the time when Coptic Christianity was an established religion in Ethiopia, but it persists even with the secular state in place today. Unfortunately, identity issues—brutally exploited by leaders—rather than disputes over water have killed and continue to kill millions of people in the Nile basin:

> Without belaboring the point, we note that all governments in the basin are either outright dictatorships or quasi-authoritarian. In the interest of political survival and personal wealth accumulation, virtually all leaders in the Nile basin are habituated to exploiting the external markers of identity, be it kinship or ethnicity, religion or region. In the last quarter century, for example, more than eight million people have perished in Sudan, Rwanda, and the DRC [Democratic Republic of the Congo] alone, not because of interstate wars over Nile waters, but as a result of internal politics.[33]

Some of the more radical theorists of international relations see identity as a violation of human rights because it is an imposition. Although this work does not go that far, it is not without sympathy for that perspective. Egypt's insistence on not paying heed to the views and needs of others on the river stems from perceiving itself as somehow better than others in the basin, as somehow superior, and as entitled to water and to sole decision making over Nile waters, regardless of the needs of anyone else. Egypt is not alone in having a sense of nationalism, but it has acted as a hegemon in the nineteenth century in a manner that led to significant loss of lives, and if Ayman Nour had his way, it would do so again, regardless of the lessons of 1875 and 1886. A cooperative scheme of integrated water management in the Blue Nile basin or the Nile basin in general is not possible under current conditions of Egyptian nationalism. People who believe that it is simply a question of structuring payoffs or instating a trading system miss the point completely. Egypt already imports most of its food and could not achieve water and food security were every single drop of the Nile allocated to its use alone. Yet it insists on denying others the right to develop their stretches of the Nile even if such developments lead to an increase in its own water supply. To argue that Egyptian policy is driven by some cost-benefit calculus misses the point; identity is not something in the realm of the rational.

To compound difficulties, ample evidence indicates that Egypt is actually carrying out some of Nour's policy suggestions, including attempts at isolating Ethiopia and bringing Arab and Islamic world pressure on the country.[34] Such actions should come as no surprise. The Grand Ethiopian Renaissance Dam was first proposed as part of a series of projects suggested by the United States Bureau of Reclamation in 1964.[35] Although

the proposed dam was somewhat smaller, Egypt reacted in the same manner as it has in response to the current plans. In short, Egypt has not stopped viewing the Nile as a carrier of "its" water. Egypt is too attached to its fears:

> That both the Sudanese and Egyptian allocations could still be higher is simply due to the Aswan reservoir being operated at relatively low levels, thus reducing evaporation losses below the estimates of the treaty. . . . Egypt, however, would not be the beneficiary of additional water in years of high flood, which would then be stored and regulated in the Blue Nile reservoirs, not at Aswan. Moreover lowering the level of Lake Nasser in order to limit the evaporable loss would concomitantly reduce the hydroelectric power, but in return, Egypt would receive additional water for irrigation. Ethiopia could, of course, malevolently withhold water it did not need in a year of low rainfall to threaten disaster in the Nile Valley. The Egyptians have historically deeply feared this threat to their survival, and such an action would be tantamount to an act of war. It was just such a fear, in the jungle of predatory nation states, which determined the construction of the High Dam at Aswan.[36]

Reflections and Conclusion

Despite the continuity in Egyptian foreign policy over the last 50 years, some remarkable changes have occurred during that time. Sudan desperately signed any document Egypt placed in front of it in 1959 and sought to avoid conflict with Egypt not only in terms of water but also even in terms of the history with which it socialized its youth. Sudanese children were raised to think that the colonial Sudan was a British artifact rather than an Anglo-Egyptian creation. So subservient was the country to Egypt that Nurit Kliot, perhaps one of the most insightful scholars in this field, remarked that "Sudan has subjected her will to Egypt before, and may do so again."[37] Ironically, the shift in Sudanese behavior came under the tenure of the one Sudanese government most hostile to the country's African identity, its religious minorities—especially Christians—and the one that is chauvinistically both Arab Nationalist and Islamist to the point of having its chief of state indicted for genocide. The Sudan shifted for several reasons, including the Egyptian attempt to seize Halaib, a triangle of land on the Red Sea; the presence of Ethiopian peacekeepers separating north and south Sudan at Heglig and other oil-rich areas; and for the cardinal reason that water for the country's breadbasket in the central and eastern provinces comes from Ethiopia. The hegemon in the Nile basin is no longer Egypt, and current Sudanese realignment is the primary indicator of this shift.

In terms of theory, we see from the Sudanese move towards alignment with Ethiopia that although ideas matter a great deal and may be determinative in most cases, the physical realities concerning the distribution of resources matter as well. It is as Wendt described "ideas almost all the way down." The larger question involves when Egypt will follow Sudan in accepting that water, and therefore life, comes from Ethiopia and that religious and ethnic ideology, even when financed by the Gulf States, does not feed or water a population. In Egypt's case, that ideology includes the Fashoda complex that

denies upper riparians the right not only to develop their water resources but also to develop at all.

In their treatment of Egyptian expansion upstream, Moorehead's books, mentioned above, capture the conflict between Cairo and its subject states in Sudan and northern Uganda. Despite their shortcomings, these studies contain nearly all the major themes that the Nile basin continues to grapple with, and *The Blue Nile* brings out the power of Ethiopia as a determined and full player in the international system even in the face of immense poverty and technological backwardness. Other themes of Moorehead's work remain with us. These include religious conflict, mobilization on the basis of Islam in Sudan and Egypt during the Urabi and Mahdist revolts, and mobilization on the basis of Jacobite Christianity in Ethiopia against the Egyptians, the Sudanese, and eventually the Europeans. Ethiopia is secular today as a state, but both Egypt and Sudan have become more religious and more prone to define the self and other in terms of religious identity.

In the meantime, there have been no movements to speak of towards cooperative use of the river system, which should unite rather than divide these states and peoples. Donors and foreign partners need to consider whether or not their involvement with the three states sharing the waters of the Blue Nile induces them towards cooperation; they need to consider whether or not their respective relations with these states are entrenching ideological pathologies; and, finally, they need to consider whether or not aid and other forms of assistance are delaying the implementation of both water-saving regimes and birth-control programs. They also need to ponder the well-noted tendency of the region to mobilize along the lines of identity markers for violence.

An Egyptian attack against Ethiopia's dams will escalate to a civilizational conflict between Christians and Muslims as well as between Arabs and Africans, placing the lives of Egyptian Copts and Ethiopian Muslims at extreme risk. In the nearby and decidedly more developed Middle East, we have seen an outbreak of ultraviolence along the lines of religious and sectarian identity, so why assume that the Nile region will be different? Given current global tensions, it is incumbent upon Egypt to outgrow its Fashoda complex and consider participating in the very sort of integrated water-management regime, suggested by a liberal Sudanese government, that it rejected in 1956. Compounding the dangers is the risk of climate change, which could one day make the Nile a memory in Egypt and perhaps much of northern Sudan as well.

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