ARTICLES

WATER SECURITY AND HYDRO-EGOISM: ENDogenous HEGEMONY AND THE GRAND ETHIOPIAN RENAISSANCE DAM

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ABSTRACT

In 2011, Ethiopia surprised the international community and its two downstream riparian neighbors, Sudan and Egypt, when it unilaterally announced plans to construct the Grand Ethiopian Renaissance Dam (GERD) on the Blue Nile tributary. In 2021, this self-financed mega-dam project is now fast coming to completion as Ethiopia begins the second phase of filling the massive reservoir that Sudan and Egypt fear will cause water shortages in their respective countries. This impoundment process is of existential concern to Egypt, which is completely dependent on Nile water and is one of the most water stressed countries in the world. A history of hydro-egoism, exacerbated by imperial politics, colonial treaties, and broader disruptions across the Horn of Africa attach to the riverine cultures of the Nile. This history has problematized the legal concept of water security and has forestalled efforts to establish a Cooperative Framework Agreement to holistically manage this transboundary water resource upon which 430 million people depend. While discussions have tended to concentrate on the problem of hydro-hegemony in a historical context, this article introduces the idea of the international law’s endogenous hegemony over the creation of the processual structures, emerging courses of dealing, and multi-basin wide practices that already have established the pathway forward toward the transboundary management of this critical resource.

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I. INTRODUCTION

At approximately 6,853 kilometers long, the Nile River is the longest river in the world. More than three hundred million people from eleven countries live along its banks. It flows from the fabled Mountains of the Moon, the two main sources in equatorial Africa—the White Nile and the Blue Nile. The White Nile rises from the great catchment surrounding Lake Victoria, the greatest of Africa’s Great Lakes, and proceeds toward the Mediterranean Sea from Lake Victoria’s northern shore. It is the longer tributary and obtains its name from the clay


3. The inland origin of the Nile River achieved canonical status with Ptolemy’s second-century depiction of the mythical Mountains of the Moon (Lune Montes) as represented in his atlas Geographia. See PTOLEMY’S GEOGRAPHY: AN ANNOTATED TRANSLATION OF THE THEORETICAL CHAPTERS, Plate 2 (J. Lennart Berggren & Alexander Jones eds., 2000). Ptolemy’s origin myth of the Nile captured the western imagination well into the Renaissance. See, e.g., Sebastian Münster, Tothius Africae Tabula, & Description Uniuersalis, Etiam Ultra Ptolemæi Limites Extensa (Basiliae, 1554), https://maps.princeton.edu/catalog/princeton-sq87bw441 [https://perma.cc/LJS7-BAJS] (but he may have received the idea from Arab sources); see generally WILLIAM DESBOROUGH COOLEY, CLAUDIUS PTOLEMY AND THE NILE (1854).

4. The popular yet dated study of the history of the rivers remains Alan Moorehead’s two travel-adventure stories, The White Nile, covering the years between 1856 and 1900, and its equally sensational prequel, The Blue Nile, which begins half a century before with Napoleon’s 1798 invasion of Egypt. See generally ALAN MOOREHEAD, THE WHITE NILE (1960); see generally ALAN MOOREHEAD, THE BLUE NILE (1962).


sediment that gives the river a discernably light gray color. The Blue Nile rises in the highlands of Ethiopia and Eritrea and feeds from its commonly misidentified source, the sacred spring at Gish Abay. The Blue Nile’s basin drains the headstreams and rivers of the Northeastern Ethiopian Plateau into Lake Tana, Ethiopia’s largest lake. The Blue Nile is Lake Tana’s only outward flowing (exorheic) river, coursing a 150 kilometer semi-circular loop clockwise across the central portion of the Northwest Ethiopian Plateau into Sudan. Planetary scientists debate when the Blue Nile first drained into the Ethiopian Highlands to create a watercourse of continental proportion. Over millennia it

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10. Oestigaard & Gedef, supra note 8, at 27.
11. Vijverberg et al., supra note 9, at 163.
has cut deep and wide depressions throughout central Ethiopia.\footnote{14. See I. McDougall et al., Age and Rates of Denudation of the Trap Series Basalts at Blue Nile Gorge, Ethiopia, 254 NATURE 207, 207 (1975) (noting a gorge 1,400 meters deep and 20 kilometers wide incised into the plateau of the Ethiopian Highlands).}

Forty kilometers south of its unassuming egress from Lake Tana, the Blue Nile enters a 400 km-long canyon,\footnote{15. Major Rivers of Ethiopia, ETHIOVISIT, https://www.ethiovisit.com/major-rivers-of-ethiopia/34/ [https://perma.cc/WLT8-VAKM].} transforming quickly into what Alan Moorehead described as “the grandest spectacle that either the Blue or the White Nile has to offer” – Tissisat Falls.\footnote{16. MOOREHEAD, THE BLUE NILE, supra note 4, at 11-12 (comparing the spectacle of Tissisat Falls with its only rival in all of Africa, Victoria Falls on the Zambezi River).} From Tissisat Falls, the Blue Nile cuts through the Ethiopian Highlands to a depth comparable to the gorge cut by the Colorado River to form the Grand Canyon.\footnote{17. See Major Rivers of Ethiopia, supra note 15.} So begins, according to Moorehead, “the end of all peace on the Blue Nile.” More than a remark about water turbulence, Moorehead’s observation serves as a metaphor for much of the last two hundred years of riparian relations on the Nile.

The deep gorges of the Blue Nile account for eighty-seven percent of the volume of the Nile River.\footnote{18. MOOREHEAD, THE BLUE NILE, supra note 4, at 12.} Its confluence with the White Nile in North Khartoum forms its trunk and extends another 3,080 kilometers to the Mediterranean Sea.\footnote{19. Musa Mohammed Abseno, Nile River Basin, in THE UN WATERCOURSES CONVENTION IN FORCE: STRENGTHENING INTERNATIONAL LAW FOR TRANSBOUNDARY WATER MANAGEMENT 139, 140 (Flavia Rocha Loures & Alistair Rieu-Clarke eds., 2013) (citing an Eastern Nile Technical Regional Office draft report).} The Nile proper is fed once more by its third major and most northern tributary at Atbara in north-central Sudan.\footnote{20. J.F. Talling, The Longitudinal Succession of Water Characteristics in the White Nile, 11 HYDROBIOLOGIA 73, 73 (1957).} Thereafter, it flows for 2,700 kilometers across the arid Sahara Desert, maintaining its load despite seepage and evaporation, to debouche into the Mediterranean Sea.\footnote{21. From the confluence of the Atbara, the Nile flows through the Sahara and through all of Egypt without receiving additional flow. See Abdelazim Negm et al., An Overview of Aswan High Dam and Grand Ethiopian Renaissance Dam, in GRAND ETHIOPIAN RENAISSANCE DAM VERSUS ASWAN HIGH DAM: A VIEW FROM EGYPT 3, 4 (Abdelazim M. Negm & Sommer Abdel-Fattah eds., 2019).} Most other rivers are not able to pursue their course for that long a distance, making the Nile’s integrity “remarkable and unique.”\footnote{22. SAID, supra note 8, at 12.} Importantly, the nutrient-rich sediment supplied to the Nile valley of Egypt, critical to irrigation and large-scale crop cultivation of the Nile delta, comes from the Blue Nile (fifty to sixty-one percent) and the Atbara (twenty to
forty-two percent). “The extensive swamps of South Sudan (the Sudd) trap the vast majority of White Nile sediment load. Consequently, the White Nile accounts for less than three percent of the total sediment reaching the modern delta, making Egypt and Ethiopia “more heavily dependent” on the Blue Nile than any other countries.” The delta’s fertile cone forms north of Cairo and fans out east and west through its two main distributaries the Rosetta (Rashid, on the west) and the Damietta (Dumyat, on the east). It is one of the world’s largest river deltas, and it is the most important source of Egypt’s ecological goods and services. Egypt’s construction of the Aswan High Dam increased agricultural production overall in the delta, however, it reduced the flushing out of the river, increased sedimentation and soil salinization, severely eroded the delta’s coast, and created a dependence on more intensive harvesting methods and chemical additives. Rapid urbanization and projected sea-level rise are turning the delta into a “highly vulnerable coastal region,” leading urban designers to strategize about the consequences of additional adulterations to the Nile’s upstream flow as a result of “dams, impoundments, dikes, and canals.”

For Egypt, the Nile “is functionally the only real source of water.” Almost all Egyptians live in the low-lying Nile River delta or in the “ribbon of green winding through hundreds of miles of desert sand.” Egyptians live on just three and a half percent of their land, and practically all of it is part of the delta or

24. Fielding et al., supra note 13, at 166. The delta cone forms north of Cairo and fans out east and west through its two main distributaries the Rosetta (Rashid, on the west) and the Damietta (Dumyat, on the east). See generally J.D. Stanley et al., Geoarchaeological Interpretation of the Canopic, Largest of the Relict Nile Delta Distributaries, Egypt, 20 J. COAST. RES. 920 (2004).

25. Fielding et al., supra note 13, at 169.

26. Id.; see also McDougall et al., supra note 14, at 208 (noting less than two percent).

27. Paisley, supra note 2.

28. See generally Stanley et al., supra note 24.


30. See Aswan High Dam, River Nile, Sudan, Egypt, WATER TECH., https://www.water-technology.net/projects/aswan-high-dam-nile-sudan-egypt/ [https://perma.cc/L9AH-M6JG] (noting the dam’s effects on flood control and agricultural production and that the dam’s construction began in 1960, was completed in 1968, and inaugurated in 1971).


32. Redeker & Kantoush, supra note 29, at 201-02 (specifically noting the GERD project).


adjacent to the Nile valley. Egypt is listed as the driest country in the world and surpasses the deficit threshold for countries experiencing severe water scarcity. Only through increasingly stressed conservation, recycling, and food subsidy measures is Egypt currently able to cover its Nile River water deficit. However, its margins are thin and diminishing. These circumstances represent “the heart of the matter” regarding the “ever-deepening controversy” over the Nile’s waters.

No Eastern Nile basin-wide agreement to utilize and manage the water exists among these three countries. A succession of colonial treaties established rights and duties that successor states either depend on or dismiss, prompting reconsideration of the law of state succession and the binding nature of colonial obligations as applied to the post-colonial management of the Nile River.

35. Id. (noting that 45-50 million Egyptians live in the Delta, which represents 2.5 percent of Egypt’s land, and the remaining population lives along the banks of the Nile River valley, which represents another 1 percent of the country’s total land).


37. See Mahmoud Aziz, Egypt’s Water Challenges: Beyond the Dam Aaga, AHRAMONLINE (Jan. 15, 2020), https://english.ahram.org.eg/NewsContent/1/64/359272/Egypt/Politics-Egypts-water-challenges-Beyond-the-dam-saga.aspx [https://perma.cc/36BT-X8QR] (detailing Egypt’s current 30 billion cubic meter water deficit, its 110 billion cubic meter demand, and its 55.5 billion cubic meter supply from the Nile); Hoda El-Enbaby et al., What’s the Future of Food Subsidies in Egypt?, INT’L FOOD POL’Y RES. INST. (July 16, 2019), https://www.ifpri.org/blog/whats-future-food-subsidies-egypt [https://perma.cc/6RYN-9BKS] (detailing efforts to improve the Tamween food subsidy system, which accounts for six percent of the government’s budget).

38. Nadeen Ebrahim, This is the Water Crisis that Egypt is Facing, WORLD ECON. FORUM (Nov. 7, 2019), https://www.weforum.org/agenda/2019/11/water-crisis-builds-in-egypt-as-dam-talks-falter-temperatures-rise/ [https://perma.cc/ZUB4-YGES] (reporting that Egypt’s current and insufficient supply of approximately 570 cubic meters (150,000 gallons) of water per person per year is expected to drop to 500 cubic meters by 2025).


41. For a list of Nile basin treaties dating from 1891, see Abseno, supra note 19, at 144-45.

Because most of the treaties reflected the water-use interests of Britain\textsuperscript{43} up to and beyond the formal period of its treatment of Egypt as a protectorate (1882-1922),\textsuperscript{44} upper riparian interests were “virtually forfeited.”\textsuperscript{45} Italy’s failed
imperial designs in Ethiopia prompted Great Britain to negotiate an agreement with Ethiopian Emperor Menelik II in 1902. Although originally structured to settle frontier issues, Britain attached Nile considerations late in the negotiations. Article III prevented, absent British agreement, any Ethiopian construction that would “arrest the flow” of the Blue Nile. Ethiopia subsequently construed this provision to preclude full stoppage of the flow; Great Britain assumed it deprived Ethiopia of any use of the water except for domestic consumption and local irrigation. Egypt further claimed the law of state succession obligated Ethiopia to abide by its terms. Ethiopia countered that the treaty was not ratified by any Ethiopian government organ, that it failed because of differences between the English and Amharic versions of disputed Article III, and also did not, in line with the principle of pacta tertiis create obligations or entitlements on which Egypt could rely because the treaty was only between Britain and Ethiopia. Filling the gap between these two interpretations presents considerable problems today.

Despite Ethiopia’s geographical status as the “water tower” for the Nile, and
indeed for the Horn of Africa, political instability, lack of access to international finance and foreign investment, and regional suspicion and hostility have historically impeded its development of water resources. Currently, the COVID-19 pandemic, locust infestation, a punishing and persistent drought, and internal displacements contribute to Ethiopia’s designation as a food insecurity hotspot. The United Nations Food and Agriculture Organization and the World Food Program list Ethiopia among the countries of “absolute urgent and imminent concern.”

Ethiopia’s population growth rate, which is “equal to or greater than Egypt’s, establishes an equally compelling need for water” and electricity. Despite climate model projections of increasing regional precipitation across the Upper Nile basin, the “compound extremes” of particularly hot and dry years indicate chronic if not critical regional water scarcity problems by this century’s end. Notwithstanding capacity advantages for electricity generation, and a well-developed transmission and distribution network, “[a]bout 70 percent of the population in Ethiopia live without electricity.” Only “24 percent of primary


54. Id. at 18.

55. WORLD FOOD PROGRAMME & FOOD AND AGRIC. ORG. UNITED NATIONS, HUNGER HOTSPOTS: FAO-WFP EARLY WARNINGS ON ACUTE FOOD INSECURITY: MARCH TO JULY 2021 OUTLOOK 5 (2021).

56. Id. at 7, 13.


58. See infra notes 61-63 and accompanying text.


schools and 30 percent of health clinics have access to electricity."  

As it was in ancient times between the neighboring Nubian Kingdom of Kush and Egyptian pharaonic dynasties, the Blue Nile remains critical to the economies, cultures, and identities of its riverine civilizations.  

Military and diplomatic efforts to control water security on the Nile date as far back as seven hundred years.  

From the conflicts between the Christian Ethiopian Zagwe dynasty and Egyptian Islamic rulers of the early Middle Age, to the golden ages of the Mamluks and the Solomonians, to the modernizing influences of the Khedive, Muhammad Ali Pasha (1805-1848), and nineteenth-century Anglo-French intrusions, the Blue Nile has stood as the totemic touchstone of multicultural identities and imperial designs. Modern sovereign borders now separate Egyptian and Ethiopian identities, with Sudan and its increasingly independent hydro-politik situated between the two. However, the Nile remains the existential umbilical cord that irrevocably connects the futures of these countries and the 430 million people across the continent who use it as their primary water source.  

This article examines the looming problem of “water security” and the Blue Nile. It investigates the problem of hydro-hegemony and its more virulent expression of hydro-egoism, not in terms of the significant and dangerous consequences that they undeniably portend, but in terms of the co-substantiating

62. Id.  
65. See Marie-Laure Derat, Before the Solomonids: Crisis, Renaissance and the Emergence of the Zagwe Dynasty (Seventh-Thirteenth centuries), in A Companion to Medieval Ethiopia and Eritrea 31 (Samantha Kelly ed., 2020) (discussing Ethiopian dynastic developments following the fall of the Aksumite Kingdom).  
66. See Erlich, supra note 39, at 36-38.  
67. See generally Araf lutfi al-sayyid marsot, Egypt in the Reign of Muhammad Ali (1844) (discussing the bureaucratic and military reforms during the reign of this central Egyptian figure).  
69. See generally Housam Darwisheh, Egyptian-Sudanese Relations Amidst Changing Geopolitics, 7 IDE M.E. Rev. 65 (2020) (discussing Sudan’s shifting and complex environmental, socio-economic, and political Nile interests and riparian relations).  
solutions they tend to obscure. Forty percent of the world’s population share the transboundary waters of the 264 largest river basins in the world. These basins cover more than forty-five percent of the earth’s land surface, and yet two-thirds of the world’s transboundary watercourses are not covered by international agreements. These statistics cloud the inner workings of international law. As an idiomatic expression of international law, water security connotes a primordial impulse so natural and existential as to seemingly defy objection. Yet the idiom has been characterized as a politically loaded Trojan Horse and a vacuous legal idiom.

The power and sway of rational and realist models of egoism identify self-interest as a given and locate its formation in the exogenous relations of an anarchic international system. Hegemonic stability theory focuses on the stabilizing influence of a single, strong actor to promote international cooperation and desirable collective outcomes for all states in the system. The presumption of such a dominant actor may have prevailed during the period of British colonial rule, and during Egypt’s rise as a regional power with Nasser’s pan-Arabism and Sadat’s strategic cooperation with the United States, however, the geopolitics of the region, particularly since the advent of the Arab Spring in 2011, markedly diminish Egypt’s strategic plan and ability to control Nile water supplies.

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*Egypt and Sudan Over the Nile River Waters: The Challenges of Duality, in The Nile River and Riparian States: Cooperative Diplomacy, Regional Stability and National Interests 39, 51 (Korwa G. Adar & Nicasius A. Check ed. 2011) (noting Egypt’s ‘beyond the borders’ military contingency plan (Waraa-el-hidoud) involving each country in the Nile basin).*


*73. BJORN-OLIVER MAGSIG, INTERNATIONAL WATER LAW AND THE QUEST FOR COMMON SECURITY, 6 (2015).*

*74. Patricia Wouters, ‘Dynamic Cooperation’—The Evolution of Transboundary Water Cooperation, in WATER AND THE LAW: TOWARDS SUSTAINABILITY 13, 63 (Michael Kidd et al. eds., 2014).*

*75. See infra notes 253-55 and accompanying text.*


*78. See generally Fouad Ajami, The End of Pan-Arabism, 57 FOR. AFF. 355 (1979) (describing Arab unification as “a thing of the past”). See also BERNARD LEWIS, WHAT WENT WRONG? WESTERN IMPACT AND MIDDLE EASTERN RESPONSE (2002) (presenting a macro-interpretation of impediments to Arab unity).*

*79. See Joel Okundi Obengo, Hydropolitics of the Nile: The Case of Ethiopia and Egypt, 25 AF. SEC. REV. 95, 99 (2016) (noting Egypt’s post-Arab Spring focus on state security rather than hydro-politics, and China’s entry into hydroelectric issues across the Horn of Africa); Fred H. Lawson, Egypt Versus Ethiopia: The Conflict Over the Nile Metastasizes, 52 INT’L SPECTATOR 129*
Of greater interest here is international law’s endogenous influence on egoism, which does not always preclude expression in collective form.80 Beyond the political theater of Nile riparian relations,81 beyond the social theory literature on the Nile River and identity formation,82 and beyond the practices of othering and vilification,83 which externalizes the blame for pervasive authoritarian misrule along the Nile,84 exists the subliminal operation of endogenous international law, moving procedurally and institutionally to substantiate a paradigmatic shift toward an eco-systemic recalibration of hydro-egoism along the Nile.85 Only through an understanding of the contours of endogenous international law, founded on institutional influences, the duty to cooperate, and the process-oriented emphases of communication, information exchange, consultation, and management can dynamic meaning extend to such a concept as water security.86 The internal workings and intersubjective dynamics of riparian relations, as framed by the discursive and organizational practices at work in the institutional sub-structures of international law, have already created an underappreciated hegemonic framework for cooperation that this article seeks to put into sharper relief.87

(2017) (noting the changing geopolitics of the region).

80. See Wendt, supra note 76, at 388.

81. See e.g., ERVING GOFFMAN, STRATEGIC INTERACTION (1969) (developing ideas of expression games and strategic interactions); ERVING GOFFMAN, INTERACTION RITUALS (1967) (exploring the ritualization of expressions as elements of social interaction).

82. See generally ISRAEL GERSHONI & MEIR HATINA EDS., NARRATING THE NILE: POLITICS, IDENTITIES, CULTURES (2008) (presenting essays on the river’s role in shaping the early modern and contemporary histories).


86. See Wouters, supra note 74, at 64 (discussing the innovations of and dynamism of transboundary water cooperation).

87. See generally James G. March & Johan P. Olsen, The New Institutionalism:
Following this introduction, Part II of this article investigates the colonial-era roots pertaining to hegemonic claims to the Nile and the riparian implications regarding the construction of the Grand Ethiopian Renaissance Dam (GERD) project, the filling of its reservoir, and the complexities of border conflicts arising in nearby areas of the Horn of Africa. Part III looks at the concept of hydro-hegemony as an analytic concept in specific relation to transboundary water frameworks, how it has interfered with the establishment of a basin-wide Cooperative Framework Agreement (CFA), and how it has problematized the legal recognition of the idiom of “water security.” Here, international law’s endogenous substructures are discussed as a new kind of hegemony—endogenous hegemony—whereby it is concluded that the elusive solution to water security along the path of the CFA has already taken shape notwithstanding the rhetorical perturbations that deflect attention from the established path forward.

II. COLONIAL HEGEMONY AND SHIFTING POWER DYNAMICS

Customary international law recognizes the principle of reasonable and equitable utilization of transboundary water resources as the sine qua non for peaceful riparian relations. At the same time, customary international law recognizes the principle of no harm, meaning that upper riparians must take appropriate measures to not substantially encroach on lower riparians’ reasonable utilization of the resource. Harmonizing the tension between these two substantive principles deeply occupies scholarly attention, and after much discussion, the UN Watercourses Convention struck an admittedly still contentious balance between the two. A third factor affecting the dynamics of


88. Tekuya, supra note 42, at 10.


91. Article 7(2) of the Convention stipulates that one state causing harm to another must
general international water law are the procedural obligations that give effect to the equitable utilization and no harm principles, namely: information exchange, obligations of notification and consultation, and the practice of setting up of joint administrative and scientific bodies to manage international riparian issues.  

Notwithstanding these three prongs of riparian relations, Egypt has historically “exercised various hegemonic strategies to control the water sources of the Nile,” as if it were a birthright. Indeed, the ancient Greek historian Herodotus assumed in the fourth century BCE that Egypt itself was a gift of the river. Asserting dominion over this donation resulted in a series of conflicts in the eighteenth and nineteenth centuries between Egypt and Ethiopia. Before decisive defeats at Gundet in 1875 and Gura in 1876, Egypt had advanced toward the Lake Tana area with military conquests of Kasala (1834), Metema (1838), Massawa (1846), Kunama (1869) and Harar (1875), to secure the western frontiers of Ethiopia and establish a “quasi-empire” in Sudan. The 1929 Anglo-Egyptian Exchange of Notes granted Egypt control of twelve times the water flow allotted to Sudan, with a veto power over construction projects on the Nile and its tributaries. The 1959 Nile Waters Agreement adjusted Egypt’s share upward “take all appropriate measures, having due regard to Article 5 (requiring utilization of waters in an equitable and reasonable manner) and 6 (setting out a non-exhaustive list to determine what constitutes equitable and reasonable use).” Convention on the Law of the Non-Navigational Uses of International Watercourses, May 21, 1997, 2999 U.N.T.S. 52106 [hereinafter UN Watercourses Convention]; see also UN Watercourses Convention User’s Guide Fact Sheet Series: Number 5, No Significant Harm Rule, UNWATERCOURSESCONVENTION.ORG, https://www.unwatercourses convention.org/documents/UNWC-Fact-Sheet-5-No-Significant-Harm-Rule.pdf [https://perma.cc/TJF5-C698] (noting as well that the “text that was eventually agreed upon by states appears to strike a balance between these two principles [and] is still a contentious issue.”).  

92. Tanzi in A BRIDGE OVER TROUBLED WATERS, supra note 85, at 363.  
94. HERODOTUS, THE HISTORIES, bk. 2, ch. 5 (A.D. Godley trans. 1920) (“For even if a man has not heard it before, he can readily see, . . . that that Egypt to which the Greeks sail is land deposited for the Egyptians, the river’s gift.”).  
95. See Tekuya, supra note 42, at 10-11 (noting Ethiopia’s victorious efforts to parry Egyptian coercive hydro-strategy to control the Nile, as most decisively demonstrated at the Battle of Gura in 1876, where Ethiopia annihilated 12,000 Egyptian forces).  
96. Daniel Kendie, Egypt and the Hydro-Politics of the Blue Nile River, 6 NE. AFR. STUD. 141, 145 (1999) (listing the various Egyptian occupations); MANSFIELD, supra note 44, at 65 (noting that Egypt, through the brute force of Mohammed Aly’s armies, invaded Sudan and established a “quasi-empire”).  
98. See 1929 Exchange of Notes, supra note 45, at art. 4(ii) (“[e]xcept with the prior consent of the Egyptian Government, no irrigation works shall be undertaken nor electric generators
to 55.5 billion cubic meters, according 18.5 billion cubic meters to Sudan,99 “leaving 10 billion cubic meters to account for seepage and evaporation.”100 The agreement required any increase in the Nile annual flow above 84 billion cubic meters be shared equally between the two states. However, Sudan has never been able to use its original share (using about 12 billion cubic meters annually), allowing Egypt to use “a far larger amount of Nile waters than 55.5 [billion cubic meters].”101 Egypt’s current water uses contrast with Sudan’s rights established under the 1959 agreement; and although Egypt and Sudan disagree on the operative standard today, “Egypt has not specified any figure as its current uses.”102 Intake limits as between the two downstream signatories obviously implicated the development rights of upstream Ethiopia, however neither agreement accounted for Ethiopia’s future water needs.103 Moreover, the agreement established full utilization of the Nile waters as between Sudan and Egypt, and “[t]he two countries ignored calls from Ethiopia and Uganda” to participate in the negotiations.104 Before the UN General Assembly in 2019, Egypt’s President, Abdel Fattah Al-Sisi affirmed that “Nile water is a matter of life and an issue of existence for Egypt.”105 While sounding the existential alarm, Egypt now faces a challenge to its historical sense of hydro-hegemony. Ethiopia’s water minister called Egypt’s claims to the Nile “the most absurd thing you ever heard.”106


102. Id. at 391 n.29 and accompanying text.

103. See Kimenyi & Mbaku, supra note 100 (noting that the 1929 and 1959 agreements “did not make any allowance for the water needs of the other riparian states, including even Ethiopia, whose highlands supply more than 80 percent of the water.”).


A. The Grand Ethiopian Renaissance Dam

In 2011, Ethiopia began construction of the Grand Ethiopian Renaissance Dam (GERD), a 6000 megawatt hydroelectric dam on the Blue Nile.\(^{107}\) It will be Africa’s “largest hydroelectric power plant.”\(^\text{108}\) The dam sits in the Guba area of Ethiopia’s Benishangul-Gumuz region, approximately 40 kilometers east of the border with Sudan.\(^\text{109}\) Construction of the dam began unannounced,\(^\text{110}\) “after a secretive planning and design process that did not include any other riparian states[,]”\(^\text{111}\) without international funding,\(^\text{112}\) amid concerns of corruption and financial mismanagement,\(^\text{113}\) and without publicly available environmental impact...
analysis,\footnote{See 5 Myths Surround the Grand Ethiopian Renaissance Dam (GERD), INT’L RIVERS (Jan. 30, 2017), https://archive.internationalrivers.org/pt-br/node/11894 [https://perma.cc/J99N-HYGH] (noting the Ethiopian government has made public “no Environmental and Social Assessment study.”).} which the International Court of Justice has adjudged to be “a requirement under general international law.”\footnote{Case Concerning Pulp Mills on the River Uruguay (Arg. V. Uru.), Judgment, 2010 I.C.J. 135, ¶ 204 (Apr. 20).} “Based on its specifications and sensitive location,” it appears to match Food and Agricultural Organization (FAO), United Nations Development Programme (UNDP), and World Bank criteria establishing GERD as a “high-risk infrastructure” project.\footnote{Amal Kandeel, Nile Basin’s GERD Dispute Creates Risks for Egypt, Sudan, and Beyond, ATL. COUNCIL (July 10, 2020), https://www.atlanticcouncil.org/blogs/menasource/nile-basins-gerd-dispute-creates-risks-for-egypt-sudan-and-beyond/ [https://perma.cc/ZX9Z-X5TB].} Ethiopia’s former head of the Ethiopian Environmental Protection Authority, Tewoldebirhan Gebregzabber, noted that a technical workforce of Ethiopian, Sudanese, and Egyptian experts concluded that GERD’s effect on water flow and flooding will be positive in both Sudan and Egypt.\footnote{E.G. Woldegebriel, Ethiopian Dams Won’t Cause Harm - Ex-Head of Ethiopian Environmental Protection Authority, REUTERS (Aug. 12, 2013), https://news.trust.org/item/20130812133857-74iy1/ [https://perma.cc/TXG9-8EJ5].}

Others are not so sure. Ecologists have criticized GERD, concluding that its construction has been “rushed and non-transparent” and “has raised serious questions about its sustainability aspects.”\footnote{Huiyi Chen & Ashok Swain, The Grand Ethiopian Renaissance Dam: Evaluating Its Sustainability Standard and Geopolitical Significance, 3 ENERGY DEV. FRONT. 11, 17 (2014).} The Benishangul-Gumuz region where GERD is being built “is one of the last few places in Ethiopia with remnant forest vegetation” and it is expected to flood an area, “90 percent of which is forest resources.”\footnote{Id. at 14.} Paleobiologists noted in the 1990s the adverse effects to the natural Nile cycle of flow and sediment discharge caused by human disruptions, including the completion of Egypt’s Aswan High Dam.\footnote{See generally Daniel Jean Stanley & Andrew G. Warne, Nile Delta: Recent Geological Evolution and Human Impact, 260 SCI. 628 (1993) (calling attention to the “profound impact” and “long-term trends of . . . human activity . . . in the Nile delta ecosystem”); Daniel Jean Stanley & Andrew G. Warne, Nile Delta in Its Destruction Phase, 14 J. COASTAL RESCH. 794 (1998) (noting the conversion of the Nile delta to a “destruction phase during the past 150 years[,]” making it no longer a functioning delta but rather a subsiding and eroding coastal plain).} Evidence now suggests the GERD project will “seriously exacerbate[]” the water and sediment flow that can now reach the delta coast.\footnote{Stanley & Clemente, supra note 108, at 4.} A former legal counselor to the Egyptian Foreign Ministry forewarned of GERD’s potential to cause “incalculable harm on Egypt’s
water interest.” The Egyptian Ministry of Emigration has asserted that GERD will store five-times the amount of water needed in Ethiopia and cause critical water shortages in Egypt. Nationalists in both countries have launched cyber-campaigns to influence international public opinion and taunt the opposition.

Filling the reservoir is expected to take between five and fifteen years. If Ethiopia fills the reservoir too quickly, Egypt fears it will suffer drought. If Ethiopia maintains too much water in its reservoir during actual periods of drought, Egypt fears the same—food shortages due to irrigation shortages. “During this period of fill, the Nile’s fresh water flow to Egypt may be cut by 25 percent, with a loss of a third of the electricity generated by the Aswan High Dam.” The dam and its reservoir will impact human geography, including the resettlement of twenty thousand people, including five indigenous populations. Egypt and Sudan demanded a binding agreement over the dam’s operations during this critical but indeterminant fill period, however the parties failed to negotiate such an agreement and Ethiopia is moving apace to fill the reservoir. A Dutch scientific impact study noted alternative cooperative and adaptive filling strategies that Ethiopia could employ to reduce downstream impact, particularly during dry periods. Beyond the politics of the

124. See Ayenat Mersie, The Ethiopian-Egyptian Water War Has Begun, Foreign Pol’y (Sept. 22, 2020), https://foreignpolicy.com/2020/09/22/the-ethiopian-egyptian-water-war-has-begun/ [https://perma.cc/7Q3B-FWJ3] (noting the nationalist use of online sources such as Facebook and Twitter to influence public opinion and deride opposing views).
126. See Negm et al., supra note 21, at 13 (discussing the perils to Egypt in the time it may take to fill the reservoir).
129. Id. at 8 (noting five indigenous “‘owner’ nationalities of the region: [the] Berta, Gumuz, Komo, Mao, and Shinasha.”).
impoundment phase is the flow of Nile and Atbara waters into Lake Nasser, the huge reservoir in southern Egypt and northern Sudan created by the Aswan High Dam. This inflow fluctuates substantially on a seasonal and on a yearly basis.\footnote{132} A 102-year study of Lake Nasser’s inflow demonstrates that the Nile’s natural hydrological cycle can produce low flows that last for years, as occurred during the major drought period in the 1980s.\footnote{133} Scientific models project that the mean and interannual variability of water flow in the Nile River basin will increase by almost fifteen percent and fifty percent due to climate change.\footnote{134} This coming and dramatic increase in the variability of the Nile’s output is one of the “real issues facing the Nile”; it is much bigger than the controversy surrounding the initial yet prolonged filling of GERD’s reservoir.\footnote{135} During periods of light rainfall, it is projected that Ethiopia may seek to store GERD water for the purpose of power generation, while Egypt and Sudan would still demand “extra water for agricultural and municipal use.”\footnote{136} Therein lies the rub.

B. Ethiopia’s Hydro-Hegemony

Ethiopia’s unilateral course of action to build the dam reportedly stunned donor countries,\footnote{137} which had supported the enhanced cooperation and management of the waterway through the Nile Basin Initiative (NBI) for more than a decade.\footnote{138} Construction commenced during the Arab Spring, when both

\footnote{132. The Nile’s historically unpredictable flow has been of human interest for millennia and presents a biblical tale. See Genesis 41:1-27 (detailing Pharaoh’s dreams of seven fat cows arising from the Nile followed by seven scrawny cows, and Joseph’s interpretation of seven years of feast followed by seven years of famine).
133. See Cairo Water Week 2019, supra note 131, at 6:40.
136. \textit{Bridging the Gap}, supra note 33, at 25.
138. The NBI was created in 1999. It is an intergovernmental partnership of ten Nile basin stakeholders (including Burundi, Democratic Republic of Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, The Sudan, Tanzania and Uganda (with Eritrea observing)), to seek more sustainable and equitable approaches to the river’s use. See generally \textit{About, Nile Basin Initiative}, https://nilebasin.org/ [https://perma.cc/Z6B2-LMKV]. In 2001, ten development partners (Canada, Denmark, the European Union, France, Finland, Netherlands, Norway, Sweden, the United}
lower riparians were preoccupied, Egypt by the revolutionary uprising in Tahrir Square and Sudan by international investigations into gross human rights violations by the Bashir regime.\textsuperscript{139} The construction undercut the NBI’s Eastern Nile Subsidiary Action Program (ENSAP),\textsuperscript{140} and the efforts of its executive arm,\textsuperscript{141} the Eastern Nile Technical Regional Office (ENTRO),\textsuperscript{141} to forward a Joint Multipurpose Project (JMP) developing the hydraulic infrastructure of the Blue Nile basin.\textsuperscript{142} It blindsided and nullified a joint Ethiopian-Norwegian project to design two other Nile dams,\textsuperscript{143} and it cut against the core objectives of the Nile Basin Discourse, a network of civil society organizations formed in 2003 to


 141. See id.


support sustained integrative river basin management.144 “[T]wice as tall as the Statute of Liberty and as wide as the Brooklyn Bridge is long[,]”145 the reservoir behind it will be the eighth largest in the world.146 With a reservoir impounding capacity of 74 billion cubic meters,147 it is projected to submerge an area approximately four times the size of Cairo.148 GERD will join Egypt’s Aswan High Dam, which created the third largest reservoir in the world, to create two gargantuan multipurpose dams operating on the same river system.149 The rippling effect of mega-dam structures on the Nile River has caused alarm among hydrologists.150 Although Nile basin countries share challenges relating to water demand, environmental degradation, recurrent flooding, droughts, and energy insecurity—and notwithstanding international efforts to facilitate what now amount to 30 projects of regional significance151—no coordinated and comprehensive agreement holistically manages the Nile.152 For millennia, claims

144. See Our Identity, NILE BASIN DISCOURSE, https://www.nilebasindiscourse.org/about-nbd/our-identity.html [https://perma.cc/6A8G-PHMG] (detailing the history, vision, and core values of the civil society networks in national and regional partnership with the NBI).


147. Water Technology, supra note 109. Seventy-four billion cubic meters translates to approximately 64-million-acre feet, or the amount of water needed to submerge 64 million acres in one foot of water. See Conniff, supra note 34.

148. The Grand Ethiopian Renaissance Dam Fact Sheet, supra note 143.

149. Some experts imply that the dam is overbuilt. They contend that the dam’s design will only be able to operate at peak capacity twenty-eight percent of the time, or, during those few months of the year when rainfall is highest in the Ethiopian highlands. See id.; see also Bridging the Gap, supra note 33, at 8. If both countries “seek to simultaneously fill up their reservoirs in anticipation of drought[,] . . . chances for conflict would be high” due to insufficient water supply. Id. at 20.

150. “[O]ver 25 dams and major water control infrastructures” operate on the Nile. The GERD will join the Tekeze and Finchaa structures in Ethiopia. Sudan operates major dams at Roseires, Sennan, Kasm El Girba, and Gebel El Aulia. Egypt operates the Aswan High Dam on the Nile along with two other dams in the Nile delta. See ABTEW & DESSU, supra note 65, at 97-99 (mapping the locations of major dams on the Nile).


152. See Hassan & Al Rasheedy, supra note 40, at 36 (noting the best option for the states in the Nile region would be to establish a comprehensive and durable legal regime.
to the Nile and uses of its water remained within the domain of hegemonic powers. However, such claims remained abstract, even nominal in terms of affecting the river’s holistic integrity. Like Grotius’s sixteenth century belief that the oceans were too mighty to be possessed, the Nile, too, appeared subject only to certain uses such as navigation, fishing, irrigation, and trade. On the cusp of controlling the flow of the Blue Nile, Ethiopia has suddenly brought into sharper relief the shifting course of the Nile’s hegemonic history. According to one commentator, “[t]he most troubling lesson one can draw from this [GERD] episode is that unilateralism works.”

After nearly a decade, the dam is nearing completion. Despite conflicting reports, Ethiopia began filling the reservoir during the 2020 summer rainy season. Egypt responded by placing its armed forces on the “highest state of alert”, insinuating military action against the dam. The office of Ethiopia’s Prime Minister, Nobel Peace Prize Laureate Abiy Ahmed, then announced that “enough water had accumulated to test . . . two [of the dam’s energy-producing] turbines.” Sudan complained that this limited filling diminished water flow at its al-Deim water station bordering Ethiopia and “caused interruption to the


155. See River Nile Dam: Reservoir Filling Up, Ethiopia Confirms, BBC NEWS (July 15, 2020), https://www.bbc.com/news/world-africa-53416277 (citing Ethiopian Water Minister Seleshi Bekele’s statement to an Ethiopian state broadcast that the reservoir had started to fill “in line with the natural process.”); but see Addis Ababa, Ethiopian TV Apologizes for Error in Nile Dam Reporting, DAILY SABAH (July 16, 2020), https://www.dailysabah.com/world/africa/ethiopian-tv-apologizes-for-error-in-nile-dam-reporting (clarifying that the Water Minister’s remarks “were due to recent heavy rainfall and not due to the conscious efforts to fill the dam.”).


drinking water supply of Khartoum.\textsuperscript{159} Ethiopia’s second filling, contemplated at the commencement of the 2021 rainy season, intends to capture 13.5 billion cubic meters of water—three times the size of the 2020 filling.\textsuperscript{160} Egypt maintains that historic rights guarantee its access to receive approximately two-thirds of the Nile’s flow.\textsuperscript{161} While promising not to threaten anyone, Egypt’s President Abdel Fattah Al-Sisi intoned that no country “can take a single drop of water from Egypt” without stepping over a “red line” and provoking “unimaginable instability.”\textsuperscript{162} According to former Egyptian President Anwar Sadat (1918-1981), that red line would not be drawn in Egypt. Responding to Ethiopia’s proposal to build a series of dams on the Nile in 1978, Sadat said, “[w]e are not going to wait and die of thirst in Egypt. . . [w]e’ll go to Ethiopia and die there.”\textsuperscript{163}

Al Sisi’s slightly more veiled threat belies a potentially destabilizing condition of powerlessness in view of Ethiopia’s resolute course of action.\textsuperscript{164} As neither Ethiopia nor Egypt have ratified the 1997 UN Watercourses Convention,\textsuperscript{165} which requires upstream States to consult downstream States

\begin{footnotesize}
\textsuperscript{159} Yasser Abbas: Will There Be Armed Conflict Over Nile Dam Dispute?: Talk to Al Jazeera, YOUTUBE, at 8:28 (Apr. 1, 2021), https://www.youtube.com/watch?v=5T723qS9BwQ (interviewing Sudan’s Irrigation Minister who claims that a drinking water interruption has already caused by the dam’s retention of just four billion cubic meters of water) [hereinafter Abbas].


\textsuperscript{161} Egypt’s historic rights claim received modern expression in two 1929 letters exchanged by Mohammed Mahmoud Pasha, President of the Egyptian Council of Ministers, and Lord Lloyd, the British High Commissioner. For excerpts of the correspondence, see Pierre Crabitês, The Nile Waters Agreement, 8 FOR. AFF. 145, 145-47 (1929).


\textsuperscript{163} Walsh & Sengupta, supra note 106.


\end{footnotesize}
before beginning such mega-projects, and, absent any major regional agreement other than a 2015 Declaration of Principles promise to pursue a “spirit of cooperation” on the first filling and operation of the dam, Al-Sisi must pivot away from the *fait accompli* arising on his upstream Nile doorstep and harness international support for a negotiated management scheme or face a potentially disastrous military option.

**C. Primordial Politics, Filling the Dam, and the Wider Political Context of the Horn of Africa**

Research on the likelihood of conflict over transboundary water resources focuses on rational choice calculations on the benefits and limits to negotiating differences. The strongest state in a basin historically has best been able to manage riparian interactions, although “visceral and primordial” issues

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166. See, e.g., UN WATERCOURSES CONVENTION, at art. 3(5) (one of 53 references to consultation in the treaty, requiring watercourse states to consult in good faith for the purpose of concluding a watercourse agreement).

167. 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), Principle V, Mar. 23, 2015, https://www.internationalwaterlaw.org/documents/regionaldocs/Final_Nile_Agreement_23_March_2015.pdf [https://perma.cc/S5AY-9DXN] (committing the three countries to other principles as well, such as regional integration and sustainability, prevention of causing significant harm, equitable and reasonable utilization, prioritized downstream purchase of power generated, information exchange, dam safety, territorial integrity, peaceful settlement of disputes through requests for conciliation, mediation or Head of State consideration). Salman has argued that the Agreement on Declaration of Principles establishes in its preamble the “equality of all riparians” and “for the first time in history” levels the playing field in the Nile basin. See also Salman, The Nile River Basin, supra note 52, at 388-89.


170. See Jaroslav Tir & John T. Ackerman, Politics of Formalized River Cooperation, 46 J. PEACE RSCH. 623, 626-27 (2009) (recognizing security concerns of hegemonic states that may lead to riparian cooperation); Marit Brochmann & Paul R. Hensel, The Effectiveness of Negotiations over International River Claims, 55 INT’L STUD. Q. 859, 866 (2011) (assessing the likelihood of riparian negotiations based on the relative power of the upstream and downstream state).
attaching to the identities of the riparians can hinder peaceful management.\textsuperscript{171} Egypt’s “role in the Nile basin [provides] an example of a downstream state that has [dictated management terms] due to its relative power advantage.”\textsuperscript{172} Yet Ethiopia stands alone as the only sub-Saharan African country to successfully resist colonization.\textsuperscript{173} Its ability to unilaterally put into place the financial and administrative means to launch GERD signals its rising economic status\textsuperscript{174} and its disregard for anachronistic descriptions of Egypt’s hydro-hegemony.\textsuperscript{175} The Trump Administration withheld between $100 to $270 million in foreign aid to prod Ethiopia to the negotiating table, however the Biden Administration ended that linkage policy to not further antagonize relations with Ethiopia.\textsuperscript{176} This policy switch may indicate growing realization of the shifting geopolitical power dynamics governing the Nile River basin.\textsuperscript{177} Scholars have spotlighted Ethiopia’s challenge to Egyptian hydro-hegemony.\textsuperscript{178} Although eschewing a military

\begin{itemize}
\item \textsuperscript{172} Brochmann & Hensel, supra note 170, at 865.
\item \textsuperscript{175} See Tekuya, supra note 42, at 11-12 (noting Egypt’s leveraging of influence among international financial institutions such as the World Bank and African Development Bank to preserve its resource capture of Nile water).
\item \textsuperscript{176} See Salem Solomon, \textit{US Restoration of Foreign Aid to Ethiopia Signals New Course}, VOA NEWS (Feb. 25 2021, 3:55 PM), https://www.voanews.com/africa/us-restoration-foreign-aid-ethiopia-signals-new-course [https://perma.cc/PSZ7-3NY3] (noting the diplomatic strain between the two countries following President Trump’s claim Egypt would “end up blowing up” the dam).
\item \textsuperscript{178} See generally Tekuya, supra note 42 (analyzing recent upstream challenges to Egyptian hydro hegemony and proposing a basin-wide treaty); Hala Nasr & Andreas Neef, \textit{Ethiopia’s
response, Sudan’s Foreign Minister Mariam al-Sadiq al-Mahdi indicated a “significant mobilisation of global opinion. . . to prevent Ethiopia from moving ahead with destabilising the security of its significant neighbours.”

Scientific models suggest that cooperative management schemes minimize the projected “trade-off between the increase in electricity production and decrease in returns from irrigation in the wider basin area.” Estimates vary greatly as to the time needed to fill the reservoir, with a recent study suggesting eight to nine years for filling while retaining twenty percent of the Nile’s annual flow.

Egypt’s circumspect position maintains that the dam should be filled over a period of 12 to 21 years, with agreements in place about water management and release during future droughts. Egypt and Sudan desired a trilateral agreement on these two issues before filling commenced. Sudan has recently pressed Ethiopia to elevate the role of the United States and European Union from observers to mediators of the dispute.

Sudan and Egypt have fruitlessly asserted the need to put into place a binding agreement before disagreements over fill and release issues materialize over water flow and drought periods.

Sudan previously supported Ethiopia’s project, envisioning it as a source of flood control and cheap and much needed electric energy. If managed cooperatively, GERD promises energy and water rewards for each of the riparian

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180. Kenny, supra note 156.

181. ABTEW & DESSU, supra note 65, at 106, 110 (noting “diverse conclusions” about the time needed to fill the reservoir and suggesting approximately eight to nine years).

182. Kenny, supra note 156.


184. See Abbas, supra note 159, at 3:22 (expressing Sudan’s interest in elevating the observers and adding United Nations representatives to the negotiations under the aegis of the African Union).


186. See Abbas, supra note 159, at 10:56 (expressing Sudan’s view of a need for a binding agreement on data and information exchange).

187. See id., at 13:59 (explaining Sudan’s change in position).
neighbors on the Blue Nile. It may also serve as a catalyst for regional integration across the basin. However, Sudan’s support has shifted from “being broadly welcoming to being suspicious and belligerent” due to the overthrow of President Omar Bashir’s autocratic rule and the “increasing influence of the military” in Sudan’s transitional government.

Sudan’s newly operating military junta reviews with unease the consequences of GERD and its proximity to Sudan’s Roseires Dam on the Blue Nile, which is one-tenth the size of GERD. Moreover, Sudan’s transitional government deployed troops in December 2020 along the disputed but agriculturally fertile border region of the 250 kilometer square al-Fashaqa triangle. This area forms part of Ethiopia’s and Sudan’s 1600 kilometer common border. This move reignited a border dispute with Ethiopia dating from the beginning of the Anglo-Egyptian condominium rule over eastern Sudan (1898-1956). However, this stretch was never demarcated with certainty by a series of treaties with British and Italian colonial powers. The disputed delimitation line that materialized in

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191. See Abbas, supra note 159, at 15:22.


194. Id. at 441-42 (tracing the Ethio-Sudan boundary dispute to the period of Egyptian-British condominium rule over Sudan and a 1902 treaty concluded with no representation from Ethiopia).

1903, the “single-handed” creation of Britain’s Major Charles Gwynn, has been the source of “on-and-off tensions between Sudan and Ethiopia” for decades.\footnote{196} Ethiopia alleged that while preoccupied with a rebellion in Tigray province to Al-Fashaqa’s immediate east,\footnote{197} Sudanese troops launched a campaign to retake the Al-Fashaqa region from Ethiopian militias that had occupied the region for 25 years.\footnote{198} Eritrean forces, embroiled in enmity over a poorly drawn Italian borderland stretch separating Tigray province,\footnote{199} allied with the Ethiopian government to combat the mutually reviled resistance movement in Tigray. These aggregated ethnic tensions, compounded by incomplete and ill-conceived colonial line-drawing, have, again, propelled the Horn of Africa into a major humanitarian crisis.\footnote{200} Ethiopia’s multi-front foreign policy engagements now implicate and compromise the GERD project, allowing “Egypt a chance to reshuffle its negotiation cards and gain international and African support” against the pace of the mega-dam completion.\footnote{201}

architect of the border demarcation, British Major Charles Gwynn, later admitted the problem of demarcating this frontier was due to the lack of means for making border reconnaissance trips, supply shortages, the region’s backwardness, and the unwillingness of the Ethiopians to employ Europeans to represent Ethiopia in the demarcation process. Dr. Wondwosen Teshome, Colonial Boundaries of Africa: The Case of Ethiopia’s Boundary with Sudan, 9 EGE ACAD. REV. 337, 346 (2009) (quoting, in part, border architect Major Charles Gwynn).


201. See George Mikhail, Ethiopian Armed Conflict May Affect Nile Dam Dispute, AL-MONITOR (Nov. 18, 2020), https://www.al-monitor.com/originals/2020/11/ethiopia-tigray-conflict-
III. THE BIRTH OF NILE HYDRO-EGOISM

With hundreds of international river basins covering about half of the earth’s land surface, hydro-political security practices range from integrated and cooperative expressions of hydrosolidarity to contested and fragmented forms of hydro-hegemony and hydro-egoism. The term ‘hegemony’ traces to the Italian critical Marxist theorist, Antonio Gramsci (1891-1937). Contrary to Marx’s materialistic and deterministic construction of history, Gramsci emphasized the importance of politics, ideology, and law as dynamic, subtle hegemonic forces. He wrote “the supremacy of a social group manifests itself” in terms of domination and intellectual and moral leadership that may influence “kindred and allied groups.” Mark Zeitoun and Jeroen Warner adapted the idea to transboundary water frameworks, concluding that water conflicts cover a range of power relations but that a hydro-hegemon establishes the form of riparian relations. This form may result in a “positive/leadership” management and sharing or a “negative/dominative” exploitation or control of water resources. As an analytical tool, the concept of hydro-hegemony has been explored in relation to Southeast Anatolia and Turkey’s control of the headwaters of the Tigris and Euphrates rivers, China’s dominant position vis-à-vis the Mekong.
River, and Israel’s asserted authority over the Jordan River. Notable to Egypt, the United Nations Educational, Scientific and Cultural Organization (UNESCO)’s World Heritage Committee inscribed Kenya’s Lake Turkana on its list of endangered sites due, in part, to the “disruptive effect of Ethiopia’s Gibe III dam on the flow and ecosystem of [the lake].” Hydro-hegemony informs the contested sovereignties over some of the largest international water systems, such as the massive Indus River basin and the Brahmaputra-Ganges system (involving China, India, Pakistan, and Bangladesh), as well as the world’s smallest and shortest transboundary water dispute between Bolivia and Chile over the Silala/Siloli.

Hydro-egoism represents the control of a riparian resource to the exclusion of downstream riparian interests, as most notoriously represented by the Harmon Doctrine. Named after the 1895 United States attorney general, this discredited doctrine attempted to justify the use of multiple irrigation trenches dug by Colorado and New Mexico farmers on the upper Rio Grande and its affluents. This drew the river to run dry in Mexico. According to Harmon’s hydro-egoistic reasoning, “[t]he fact that there is not enough water in the Rio Grande for the use of the inhabitants of both countries for irrigation purposes does not give Mexico the right to subject the United States to the burden of arresting its development.”

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218. Id. at 77-79 (discussing the absolutist and discredited 1895 doctrine articulated by U.S. Attorney General Judson Hudson Harmon).

219. Id. at 78.

220. Id.
Hydro-egoism has been paradigmatically identified as likely to lead to violence when a series of conditions are met: the downstream country is highly dependent on the water; the upstream country is able to restrict the flow; history of antagonism between the two exists, where the downstream country is in a much stronger military position than the upstream country.\textsuperscript{221} Such conditions describe Egypt’s modern historical relationship with Ethiopia.\textsuperscript{222} However, a colonial form of hydro-egoism set the stage for Nile River water management today. Agreements among colonial powers, mostly securing British colonial rule over most of the Nile,\textsuperscript{223} established the basis for modern riparian law in the region.\textsuperscript{224} Foreshadowing yet inverting the Harmon Doctrine, these agreements dismissed the interests of upper riparians.\textsuperscript{225} British Nile imperialism had the hydrological aim of controlling the Nile upstream,\textsuperscript{226} and the aim was to police the Nile, influence Egypt, support Britain’s textile industry,\textsuperscript{227} and secure control over the Suez Canal.\textsuperscript{228} Britain attempted to achieve this hegemony through an uncommon but not unheard of condominium agreement with Egypt over Sudan.\textsuperscript{229} However, this agreement only nominally involved Egypt and employed

\textsuperscript{221.} See Câtălin Badea, \textit{Water Conflicts: The Case of the Nile River and the Grand Ethiopian Renaissance Dam}, 65 STUDIA UBB. EUROPAEA 179, 184 (2020) (referencing the research of Val Percival and Thomas Homer-Dixon).

\textsuperscript{222.} See Jeroen Warner & Neda Zawahri, \textit{Hegemony and Asymmetry: Multiple-Chessboard Games on Transboundary Rivers}, 12 INT’L ENVIRON AGREEMENTS 215, 217 (2012) (citing Egypt as an example of a downstream riparian tending to use military power to gain more control of water).


\textsuperscript{224.} See generally Emmanuel B. Kasimbazi, \textit{The Impact of Colonial Agreements on the Regulation of the Waters of the River Nile}, 35 WATER INT’L 718 (2010).

\textsuperscript{225.} The Harmon Doctrine attempted to dismiss the interests of the lower riparian, Mexico.

\textsuperscript{226.} See Harald G. Marcus, \textit{Ethio-British Negotiations Concerning the Western Border with Sudan, 1896-1902}, 4 J. AFR. HIST. 81 (1963) (noting the decision in 1889 by Lord Salisbury to “retain control over the entire Nile basin” and to support Italian colonial ambitions in Ethiopia to help parry Britain’s main rival in the Nile Valley, France, and to contain Ethiopia Emperor Menelik II’s expansion intentions); see also Protocol between Great Britain and Italy for the demarcation of their respective spheres of influence in Eastern Africa from the river Juba to the Blue Nile (Apr. 15, 1891), in 2 EDWARD HERTSLET, \textit{MAP OF AFRICA BY TREATY} (No. 135) 667 (2d rev. 1896) (demarcating Italian colonial interests in Abyssinia to the Red Sea from British Nile interests).

\textsuperscript{227.} See DUNSTON, supra note 43.


\textsuperscript{229.} Agreement between Her Britannic Majesty’s Government and the Government of His Highness the Khedive of Egypt, Relative to the Future Administration of the Soudan, U.K.-Egypt,
Egyptian and Sudanese administrators as low-to-mid-level functionaries.\textsuperscript{230} Between 1899 and 1954, Sudan’s administration mostly derived from 400 British provincial governors (\textit{mudirs}), district commissioners (\textit{mufatishni}), and Sandhurst military officers populating the Sudan Political Service.\textsuperscript{231} Ironically, many divisive disputes about Nile waters today derive from international law’s corrupted importation of a shared sovereignty arrangement for Sudan, which was designed to treat the Nile system holistically—the same solution to which international law attempts to resurrect in the form of the stalled Cooperative Framework Agreement (CFA).

\textit{A. The Cooperative Framework Agreement}

The CFA is the product of a thirteen-year multilateral negotiation process involving all the Nile Basin countries except Eritrea, which opted not to join the process.\textsuperscript{232} The process involved the creation of a panel of experts in January 1997, the promulgation of a draft agreement in 2001, committee and ministerial negotiations and resubmissions to achieve joint agreement\textsuperscript{233} and a final document, which was opened for signature on May 14, 2010.\textsuperscript{234} The agreement’s

\begin{footnotesize}
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\item Jan. 19, 1899, 91 \textit{British Foreign State Papers} 19 (establishing in art. III: “The supreme military and civil command in the Soudan shall be vested in one officer, termed the ‘Governor-General of the Soudan.’ He shall be appointed by Khedival Decree on the recommendation of Her Britannic Majesty’s Government, and shall be removed only by Khedival Decree, with the consent of Her Britannic Majesty’s Government.”). For other notable examples of condominium arrangements in international law, see Christopher R. Rossi, \textit{Jura Novit Curia? Condominium in the Gulf of Fonseca and the “Local Illusion” of a Pluri-State Bay}, 37 \textit{Hous. J. Int’l L.} 793, 796-99 (2015).
\item See M.W. Daly, \textit{Imperial Sudan: The Anglo-Egyptian Condominium, 1934-1956} 1-5 (2003) (detailing Britain’s dominance and Egypt’s nominal condominium partnership, including its “distinctly military character”); see also Anthony Kirk-Greene, \textit{The Sudan Political Service, in Britain’s Imperial Administrators, 1858-1966}, 164 (Anthony Kirk-Greene ed., 2000) (noting rarely did Britain’s administrative force exceed 125 officials on the ground to administer a territory four times the size of Texas, and never exceeding 400 officers in the whole 56 years of the Service’s existence.).
\item See Kimenyi & Mbaku, \textit{supra} note 100 (noting Eritrea’s refusal to sign the CFA).
\end{itemize}
\end{footnotesize}
general principles clause reinforces established customary and conventional laws relating to riparian relations.\textsuperscript{235}

Most important, the very undertaking reinforced the understanding that harmonious utilization of the waters is the \textit{sine qua non} of holistic coordination of this water resource. This idea finds direct expression in the CFA’s ‘community of interest’ clause in Article 3,\textsuperscript{236} which limits a state’s sovereignty by recognizing the similar rights of other states and the positive duty to “render active cooperation in the rational development and utilization of the shared water resources.”\textsuperscript{237} The CFA follows other cooperative African frameworks to manage water resources, including the Volta River Authority (established in 1961, involving mostly Ghana but linking to the national electricity grids of Cote d’Ivoire, Togo, Benin, Burkina Faso, and serving as part of the West Africa Power Pool),\textsuperscript{238} the Lake Chad Basin Commission (established in 1964, involving Cameroon, Niger, Nigeria, Chad, Central African Republic (post-1996), and Libya (post-2008)),\textsuperscript{239} the Zambezi River Authority (passed in 1987, involving Zambia and Zimbabwe),\textsuperscript{240} the Niger Basin Authority (renamed in 1980, involving Benin, Burkina Faso, Cameroon, Côte d’Ivoire, Guinea, Mali, Niger, Nigeria, and Chad),\textsuperscript{241} the Regional Rusumo Falls Hydroelectric Project on the Kagera River (established in 2012, involving Burundi, Rwanda, and Tanzania),\textsuperscript{242} and the highly regarded Senegal River Basin Development Organization (\textit{Organisation pour la mise en valeur du fleuve Senegal}, created in 1972).\textsuperscript{243}

The CFA’s object would be to establish a permanent river basin commission

\textsuperscript{235} See id. at art. 3 (affirming principles of cooperation, sustainable development, subsidiarity (implementing protections “at the lowest appropriate level”), equitable and reasonable utilization, prevention of significant harm, the right to use water within signatories’ territory, protection and conservation, information exchange, community of interest, data and information exchange, environmental impact, peaceful resolution of disputes, integrated and holistic management, water’s social and economic value, and water security.)

\textsuperscript{236} Id. at art. 3(9).

\textsuperscript{237} Alebachew, supra note 139, at 76-77.

\textsuperscript{238} Profile of VRA, VOLTA RIVER AUTH., https://www.vra.com/about_us/profile.php [https://perma.cc/74W6-KUYB].

\textsuperscript{239} LAKE CHAD BASIN COMMISSION, https://cblt.org/ [https://perma.cc/KHK8-WCSZ].

\textsuperscript{240} About Us, ZAMBEZI RIVER AUTH., http://www.zambezira.org/ [https://perma.cc/95UX-Y63G].


to replace the transitional mechanism of the NBI.\textsuperscript{244} This commission “would be vested with legal personality” to “ensure that national development projects are coordinated with basin-wide development to achieve optimal use of the Basin’s resources.”\textsuperscript{245} However, Egypt and Sudan refuse to sign the agreement,\textsuperscript{246} and this impasse has locked Nile water governance issues between the two-track transitional cooperative mechanism of the NBI and the multilateral successor arrangement the CFA purports to secure.\textsuperscript{247} The failure to ratify the CFA has “widen[ed] the rift between the two lower riparians and the upper riparians.”\textsuperscript{248} Their refusal rejects the framework’s “political and counter-hegemonic value,”\textsuperscript{249} as expressed by the CFA’s incorporation of a new, quasi-legal idiom—“water security.”\textsuperscript{250}

\textbf{B. The Meaning of Water Security}

The agreement’s “water security” provision “obliquely” upends the 1929 and 1959 agreements that apportion the volumetric water allocation to Egypt and Sudan alone and serves as the basis of Egypt’s claim of acquired rights.\textsuperscript{251} The wording of CFA’s Article 14(b) holds that Nile Basin States agree, in a spirit of cooperation “not to significantly affect the water security of any other Nile Basin States.”\textsuperscript{252} Egypt and Sudan proposed the alternative language that Nile Basin States agree “not to significantly affect the water security and current uses and rights of any other Nile Basin State.”\textsuperscript{253}

\begin{itemize}
  \item 244.   \textit{Cooperative Framework, supra} note 234, at art. 31 (detailing the institutional structure of the Nile River Basin Commission).
  \item 245.   \textit{Cooperative Framework, supra} note 234.
  \item 246.   Salman, \textit{The Nile River Basin, supra} note 52, at 393. Burundi, Ethiopia, Kenya, Rwanda, Tanzania, and Uganda have signed the CFA; Egypt and Sudan refuse to sign; Democratic Republic of Congo, Eritrea, and South Sudan “have not taken any action or indicated their stance.”
  \item 252. See \textit{Cooperative Framework, supra} note 234 at Annex 1.
  \item 253. Kimenyi & Mbaku, \textit{supra} note 100.
\end{itemize}
Discursive interpretations of the CFA’s usage of the term “water security” underscore the sensitivity of the political stakes. Egyptian agronomist Youssef Hamada referred to the phrase as a “cunning interpolation” and a “treacherous, nonlegal concept.” Ethiopia international water law expert Dereje Zeleke Mekonnen noted its intent of achieving compromise but claimed the phrase was legally elastic, amorphous, and incapable of achieving a productive solution. University of Khartoum law professor and World Bank water law advisor Salman M.A. Salman regarded it as a political rather than a legal concept, noting that the term finds no expression in the Watercourses Convention. However, he regarded the discursive controversy as overblown, holding that “the whole section of the CFA on water security is no longer needed, given that the CFA includes the same provisions of the [Watercourses Convention] on equitable and reasonable utilization, as well as on the obligation not to cause significant harm.”

The idiom, legal or political, implies reciprocity, good neighborliness, and the avoidance of unreasonable injury to others (sic utero tuo ut alienum non laedas). While data suggest a tendency of downstream support and upstream ambivalence towards the Watercourses Convention, adverse effects on all parties arise absent a consideration of reciprocity. The underexplored prospect of downstream riparians harming upstream riparians by foreclosing future use through assertions of priority based on prior use cannot be ignored. Construing the problematic term as a simple assault against Egyptian interests obscures the rejection of the absolutist territorial sovereignty extension to transboundary water system. More than the rejection of the Harmon Doctrine, customary practice has imposed good faith obligations on upstream states “to take into account the different interests at stake, to strive to give them all satisfactions compatible with the pursuit of its own interests, and to demonstrate . . . [a] real solicitude to reconcile the interests of the other riparians with its own.”

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256. Salman, The Nile River Basin, supra note 52, at 396 (noting “this is not a legal concept—merely a political pronouncement.”).

257. Id.


259. See id. at 821.

260. See Salman, The Nile River Basin, supra note 52, at 397 (contesting the common one-way view that only upstream riparians can harm downstream riparians).

261. Affaire du Lac Lanoux (France v. Spain) (1957) 12 R.I.A.A. 281, 315 (“Le Tribunal est d’avis que l’Etat d’amont a, d’après les règles de la bonne foi, l’obligation de prendre en considération les différents intérêts en présence, de chercher à leur donner toutes les satisfactions compatibles avec la poursuite de ses propres intérêts et de montrer qu’il a, à ce sujet, un souci réel...”)
C. Endogenous Hegemony

Behind this idiomatic debate about water security are the workings of international law’s endogenous forces, which continue to structure possibilities and prod the parties along the cooperative pathway they seemingly disavow. The Agreement on Declaration of Principles recognized the mutual benefit of cooperation and the significance of the Nile as a “source of livelihood” for the peoples of Egypt, Ethiopia, and Sudan. This treaty impliedly negated the hegemonic claims to the Nile asserted by the colonial agreements, rendering them and their totalizing assertions favoring British and Egyptian nineteenth and twentieth century interests as anachronistic and fanciful as Portugal’s and Spain’s fifteenth century agreement to divide the world’s oceans and new-found lands as between the two (the Treaty of Tordesillas).

Nine months later, Egypt, Ethiopia, and Sudan promulgated the Khartoum document, which impaneled two French studies intended to establish a joint approach to the joint management of the regional water supply. Although forestalled by politics, the Khartoum document nevertheless forwarded an evolving shared vision program for the Nile, which has identified four sectoral projects (environmental management, power sales and transfers, irrigation, and planning and management) that pre-dated the NBI, and has been extended by

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262. See UN WATERCOURSES CONVENTION, supra note 166 (quoting the Agreement on Declaration of Principles’ Preamble and referencing art. I (principle of cooperation)).


NBI subsidiary action programs,\textsuperscript{266} which were designed to build confidence, improve institutional and technical capacity and create investment opportunities.\textsuperscript{267}

Egypt further petitioned the World Bank to serve as a technical mediator and help to facilitate negotiations as it did to establish the NBI and the CFA.\textsuperscript{268} Gulf powers such as Saudi Arabia, the United Arab Emirates, and Qatar, as well as Turkey, have wielded financial influence along the Nile, primarily as a return on cross-cutting security interests,\textsuperscript{269} as have the financial contributions of the Nile Basin Trust Fund and the Cooperation for International Waters in Africa Trust Fund (CIWA).\textsuperscript{270} It is expected that the establishment of the Nile Basin Commission under the CFA will introduce a “new phase” of financial mobilization for Nile riparian management because of the consolidation under an organization with a “fully-fledged legal status . . . able to mobilize and manage its own funds.”\textsuperscript{271}

Egypt and Ethiopia continue to hedge against future contingencies. Ethiopia refuses to guarantee “any set amount of water to downstream countries”\textsuperscript{272} and Egypt refuses to quantify its current water use.\textsuperscript{273} While the internationalization of GERD questions now involve the UN Security Council,\textsuperscript{274} the World Bank, the

\begin{itemize}
\item \textsuperscript{266} NBI subsidiary action programs have involved local actions to increase power interconnection, food security, and watershed management. See Benefit Sharing Opportunities in the Nile Basin, NILE BASIN INITIATIVE 9, https://unece.org/fileadmin/DAM/env/documents/2018/WAT/02Feb_06-07_BenefitsWS_Geneva/2.3_NBI_Ntabana.pdf [https://perma.cc/P53W-WG62]. See also Cascão, supra note 142, at 235 (presenting the structurer of the shared vision programs and subsidiary action programs).
\item \textsuperscript{267} Cascão & Nicol, in THE GRAND ETHIOPIAN RENAISSANCE DAM AND THE NILE BASIN, supra note 142, at 236.
\item \textsuperscript{268} Salman, The Nile River Basin, supra note 52, at 392.
\item \textsuperscript{269} See Bridging the Gap, supra note 33, at 26.
\item \textsuperscript{270} See Nile Basin Donors Stunned by Ethiopia’s Unilateral Move, supra note 137.
\item \textsuperscript{271} Cascão & Nicol, in THE GRAND ETHIOPIAN RENAISSANCE DAM AND THE NILE BASIN, supra note 142, at 241-42.
\item \textsuperscript{272} Roundtable: Keeping the Peace in the Nile Basin, supra note 154.
\item \textsuperscript{273} See Salman, The Nile River Basin, supra note 52, at 391.
\end{itemize}
African Union, the European Union, Gulf states, China and Russia, there remains the fundamental understanding that the Blue Nile presents a lock and key relationship between the two protagonists, Egypt and Ethiopia. The temptation to frame GERD as an international security issue rather than a water issue forces a false dichotomy between the two. The joint appearance of the two countries’ leaders at the Ittihadiya Palace in Cairo in 2018 attempted to affirm the intertwined relationship by stressing the need to cooperate on water issues while mindful of the historical costs of conspiring against each other politically.

As Egypt cycles through “the five stages of grief” presented “to arrive at a place of [GERD] acceptance,” Ethiopia, too, must come to recognize the underacknowledged fait accompli of endogenous international law. Six countries have signed the CFA, with ratification likely should Ethiopia and Egypt come to the table. The benefits of cooperation, provided for by structures of international law that allow for data collection and technical interpretation, remain the single pathway forward. International law’s assemblage of independent and neutral parties aligns to assist in the establishment of the CFA because management of this basin and the holistic perspectives involved admit of no hegemonic solution or singular course of state action.

The risks of non-cooperation crowd out a significant amount of international organizational involvement and financial support absent a foundation of cooperation among Egypt, Ethiopia, and Sudan. The legal squabble over the meaning of “water security” obscures the more intricate calibrations of management that can only come about through cooperation, conciliation, and discussion. Only casuistry supports the position that water security is a meaningless shibboleth. If definition of the idiom fails due to Egypt’s demand that no agreement can alter its current use (which it obliquely quantifies), or due to Sudan’s demand for its rights established under the 1959 agreement (which it has never fully claimed), or due to Ethiopia’s unwillingness to submit to third party review, water security will remain the primordial impediment to cooperation.

275. See Lawson, supra note 79, 183-84, 266, and 267.


277. See Mohamed Abdel Maguid, We Will Not Cause Any Harm to Egypt’s Water: Ethiopian PM, EGYPT TODAY (June 10, 2018), https://www.egypttoday.com/Article/1/51898/We-will-not-cause-any-harm-to-Egypt’s-water [https://perma.cc/PJ6H-PL6A] (quoting both countries’ presidents pledges to build confidence and cooperation to preserve water share on the Nile).

278. Roundtable: Keeping the Peace in the Nile Basin, supra note 154 (comment by Frezer Getache Haile).
Endogenous international law’s underacknowledged *fait accompli* is found in the grey area falling between scenarios of complete hydro-political cooperation on the one hand and hydro-egoism on the other.\textsuperscript{279} Areas of partial cooperation have long represented a riparian course of dealing that is likely to extend into the future,\textsuperscript{280} or result in the perpetuation of a two-track approach, where some riparians will move toward ratifying the CFA and others “may opt for the status of observers” while remaining outside the system or joining at a later time.\textsuperscript{281}

Interpreting this grey area, Salman M.A. Salman has suggested that Egypt and Ethiopia are cautiously inclining toward “inevitable cooperation.”\textsuperscript{282} He recommended de-emphasizing the problematic idiom of water security, accentuating confidence building provisions involving notification, and recognizing the benefit-sharing rewards.\textsuperscript{283} GERD’s installed turbine capacity is more than two times that of the Aswan High Dam and Ethiopia is projected to trade fifteen percent of its yearly electricity generation in the Eastern African Power Pool, which will benefit Egypt, Sudan, and the other EAPP countries—Rwanda, Djibouti, Tanzania, Kenya, Burundi, and Uganda.\textsuperscript{284} Revenues from hydropower exported to the Eastern Africa Power Pool and the priority accorded to Egypt and Sudan per the 2015 Declaration can alleviate Ethiopia’s debt burden, foreign currency shortage, and high dependency on oil imports.\textsuperscript{285} The potentials for the endogenous hegemonic workings of communication, information exchange, consultation, and management persist and are put at greater risk not by problematizing the idiom of water security, but by the shifting alliances that have formed in the interstitial border regions of Tigray’s Al-Fashaqa province. These alliances, which have precipitated a humanitarian disaster and potential regional conflict, have isolated Ethiopia, forged a complicated alliance between Egypt, Sudan, and the continent’s most repressive government, Eritrea, and threaten to undermine the hydro-diplomacy incrementally stumbling toward Nile riparian cooperation.


\textsuperscript{280.} Id. (noting cooperative bilateral and trilateral transboundary water management schemes implemented by the Lake Victoria Basin Commission and the power-transmission projects in the Eastern Nile basin).

\textsuperscript{281.} Id. at 247.


\textsuperscript{283.} See id.


IV. CONCLUSION

Regional political and security interests, historical claims of hegemony if not dominium, and colonial legacies relating to hydro-egoism inform discussions about Ethiopia’s construction of GERD. Evidence of unilateral decision-making permeates debates about the current construction and filling of the dam and the existentially more problematic future regulation of the reservoir (and the trade-off between upstream power generation and downstream agricultural and municipal water uses) during extended periods of drought, which scientists claim climate change will exacerbate.

Common descriptions of riverine relations on the Blue Nile point toward the diplomatic impasse between Egypt and Ethiopia as the major impediment forestalling the implementation of the CFA. This implacable relationship suggests that international law’s contribution toward ending the worsening water shortage problem of the Nile basin spins in a riparian whirlpool that forestalls the creation of a permanent river basin commission and entangles meaningful discussion of water security in the embankment reeds of a debate of the term’s idiomatic legal significance.

While peripheral politics affecting Horn of Africa relations in Tigray province threaten to further derail Blue Nile management discussions, international law’s significance in resolving this dispute has been demonstrated by the endogenous hegemonic tracks that link the processual influences of the transitional NBI mechanism with the foundation for a permanent Nile basin commission. The pillars of communication, information and scientific date exchange, consultation and equitable utilization contribute material and ideational supports for water management issues schemes across Africa, including the Nile basin. Although caught between the two tracks of the transitional NBI mechanisms and the permanent Nile basin commission, the social relations of riparians quietly embrace the parameters of international law’s endogenous hegemonic influences, as related to the regulative processual norms that constrain and enable transboundary water relations, and the constitutive agencies and managerial actors that riparian countries are cycling toward accepting in the face of increasingly problematic projections of water shortages along the mightiest river of them all.