

The Grand Ethiopian Renaissance Dam: Legal Challenges and Dimensions in Shared Water Governance

سد النهضة الإثيوبي الكبير: التحديات القانونية وأبعاد إدارة المياه المشتركة

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Abstract:

This study critically evaluates Ethiopia's approach to the filling and operation of the Grand Ethiopian Renaissance Dam (GERD) within the scope of international law governing transboundary watercourse management. Focusing on the complex legal and diplomatic tensions between Ethiopia, Egypt, and Sudan, it analyzes Ethiopia's unilateral actions in light of international legal principles, such as equitable utilization, no significant harm, and the necessity for cooperation among riparian states. The research situates Egypt's reliance on colonial-era agreements alongside Ethiopia's assertion of its sovereign rights, exploring how these competing arguments challenge the application and enforcement of international legal frameworks. By assessing the implications of the GERD conflict for economic development, regional stability, and environmental sustainability, the study seeks to identify the extent to which international law offers viable solutions for equitable resource management and conflict resolution.

Keywords: Renaissance Dam, Nile River, Egypt, Ethiopia, Customary International Law.

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Introduction

Water security is an indispensable pillar for achieving sustainable economic growth and fostering human development, particularly in Africa, where rapid urbanization and an escalating population are reshaping societal demands. The Nile River, spanning eleven riparian states, is a lifeline for over 370 million inhabitants—a figure projected to double in the coming decades—emphasizing its critical role in addressing food security, water availability, and energy needs. This unprecedented demographic surge has intensified reliance on the Nile's waters, magnifying the geopolitical and socioeconomic stakes associated with its governance and utilization.

The construction of the Grand Ethiopian Renaissance Dam (GERD) in 2011 marked a pivotal juncture in the region's hydropolitics, igniting longstanding tensions between Ethiopia, Egypt, and Sudan. Historically, disputes over the Nile's waters were shaped by colonial-era treaties, such as the agreements of 1929 and 1959, which largely favored Egypt's dominant position. Leveraging these agreements, Egypt employed robust diplomatic efforts to thwart upstream projects, effectively curbing Ethiopia's capacity to harness the river's resources. However, Ethiopia's assertive approach—underpinned by domestic ambitions, international partnerships, and financial support from entities like Chinese banks—enabled the GERD to emerge as a symbol of sovereignty and developmental progress, while simultaneously challenging the established status quo.

From an international legal perspective, the GERD dispute embodies the intricate dynamics of managing transboundary watercourses, where states' sovereign rights must coexist with principles of equitable and reasonable utilization. Anchored in the 1997 UN Convention on the Law of Non-Navigational Uses of International Watercourses, core doctrines such as "no significant harm," cooperation, and prior notification offer a legal framework for resolving disputes. However, their implementation often collides with diverging national interests, as evidenced by Egypt's insistence on a binding legal framework for the dam's operations and Ethiopia's unilateral pursuit of its completion. These conflicting approaches underscore the pressing need for innovative legal and institutional mechanisms that balance development goals with equitable resource sharing, while preserving regional stability.

This introductory overview sets the stage for analyzing Ethiopia's actions in light of international legal obligations and examining how the GERD controversy serves as a microcosm of broader challenges in global transboundary water governance. Consequently, the study addresses the following research problem:

Does Ethiopia's approach to the filling and operation of the Grand Ethiopian Renaissance Dam (GERD) align with its obligations under international law, or does it constitute a breach of established legal frameworks governing transboundary watercourse management?

To tackle this issue, the study is structured as follows:

Introduction

Firstly: Legal frameworks governing the construction of dams on international rivers

1. The principle of equitable and reasonable utilization
2. The principle of no significant harm
3. The principle of cooperation and exchange of information among riparian States

4. The principle of prior notification

Secondly: The GERD dispute within the context of equitable utilization and no harm

1. Egypt's legal arguments for maintaining control over the Nile
2. Ethiopia's legal arguments for asserting its right to utilize the Nile

Conclusion

Firstly: Legal frameworks governing the construction of dams on international rivers

The governance of dam construction on international rivers poses significant legal and diplomatic challenges, as states must navigate competing interests while ensuring the sustainable management of shared water resources. These projects, often critical for national development, can trigger tensions between upstream and downstream nations, particularly when the impacts on water flow, environmental sustainability, and economic stability are in question. To address these complexities, international legal frameworks emphasize key principles such as equitable and reasonable utilization, no significant harm, cooperation among riparian states, and the obligation of prior notification, forming the foundation for conflict resolution and cooperative management.

1. The principle of equitable and reasonable utilization

As outlined by this principle, states sharing a watercourse are both entitled and obligated to engage in its utilization, development, and conservation in a balanced and just manner¹. This notion forms the foundation of "equitable participation," a concept enshrined in the 1997 United Nations Watercourses Convention (UNWC). The principle grants states the right to benefit from the watercourse while simultaneously requiring collaborative efforts to ensure its preservation and sustainable development. To uphold the system of equitable and reasonable use, this participation necessitates proactive measures by watercourse states, either individually or in partnership, to responsibly manage and safeguard the shared resource.

The principle of equitable and reasonable utilization establishes a compromise between the doctrines of "territorial sovereignty" and "territorial integrity" within the framework of international water law. By treating international watercourses as "shared resources," this principle ensures their fair and balanced use among all riparian states. It integrates upstream states' rights to utilize the resources within their territories with the downstream states' right to maintain territorial integrity,

promoting the concept of shared sovereignty. This approach not only emphasizes sovereign equality among the involved states but also supports the equitable distribution of water usage. Furthermore, it resonates with the notion of limited territorial sovereignty, permitting each state to make reasonable use of the water resources within its borders while simultaneously preserving the rights of other riparian states to access their fair share.²

This principle acts as a cornerstone in mediating the competing demands of upstream and downstream states by reconciling territorial sovereignty with territorial integrity. It encapsulates the essence of shared stewardship and cooperative engagement among nations interconnected by a single watercourse, underscoring the importance of sovereign equality and equitable access to shared resources. Through the notion of "restricted sovereignty," it bridges the gap between individual state interests and collective benefits, fostering sustainable and inclusive management of transboundary waters. By promoting environmental preservation and socioeconomic advancement, the principle highlights the necessity for collaborative efforts—whether undertaken independently or jointly—to ensure the responsible use and protection of shared water systems. As such, it stands as a vital element in advancing equity and sustainability within the broader framework of international water law.

Several authoritative voices in the domain of international water law affirm the importance of the principle of "equitable and reasonable utilization" in addressing transboundary water conflicts. Stephen McCaffrey articulates this principle as an essential tool for harmonizing the sovereignty of upstream states with the territorial integrity of downstream nations, thereby promoting balanced resource management.³ Similarly, M.A. Salman describes this principle through the lens of "limited territorial sovereignty," advocating for the equitable use of shared water systems while safeguarding the rights of other riparian states to access these resources.⁴ David Hunter further highlights the significance of this principle, linking it to the broader goals of sustainable development and the equitable distribution of benefits from international watercourses.⁵ These interpretations underscore the principle's fundamental role in facilitating cooperation, ensuring fairness, and advancing sustainability in the governance of shared water resources.

2. The principle of no significant Harm

The principle of no significant harm serves as a foundational element of international water law, obligating states to manage their shared watercourses responsibly to avoid causing substantial harm to other riparian nations. Drawing its roots from the Roman legal principle "sic utere tuo ut alienum non laedas" (use your property in such a way that it does not harm others), this concept underscores the importance of balancing sovereign rights with transboundary responsibilities. Codified in modern legal instruments, it is a key provision in the 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses ("1997 Convention"), which frames it within the broader context of equitable water utilization.⁶ Moreover, the 1992 Convention on the Protection and Use of

Transboundary Watercourses and International Lakes ("1992 Convention") explicitly integrates this principle, emphasizing the prevention of transboundary impacts as a core responsibility of states.⁷

As one of the cornerstone principles of international water law, the principle of no significant harm plays a vital role in shaping the cooperative and coordinated interactions between states sharing watercourses. It provides a fundamental framework for balancing the interests of upstream and downstream nations, ensuring responsible utilization and protection of shared water resources while fostering sustainable and equitable management practices.

The principle of "no significant harm" is interpreted differently within various international water law frameworks due to discrepancies in terminology and application. For instance, the UN Watercourses Convention employs terms such as "significant harm," "significant adverse effects," and "adverse effects," implicitly addressing this principle through provisions aimed at mitigating pollution and encouraging notification and consultation processes.⁸ In contrast, the UNECE Water Convention adopts the term "transboundary impact" to reflect its approach to preventing cross-border harm⁹. Similarly, the World Bank guidelines on international waterway projects utilize the phrase "appreciable harm" to describe obligations to avoid substantial damage to other states.¹⁰ These terminological variations reveal the persistent challenge in developing a universally accepted definition for this principle in international water law.

The obligation of "no significant harm" entails multifaceted responsibilities, both qualitative and quantitative, which present significant difficulties for states tasked with managing transboundary watercourses. To effectively address potential harm, states must engage in comprehensive information-sharing, providing accurate technical and scientific data to the relevant parties. Moreover, processes of notification and consultation must be conducted in a transparent and genuine manner, ensuring that potentially affected states are actively involved in devising strategies to prevent and mitigate risks. Such collaborative efforts are essential for building trust among riparian nations and fostering the sustainable management of shared water resources.¹¹

The relationship between the principle of "no significant harm" and the principle of equitable and reasonable utilization has been a focal point in scholarly debates within international water law. Many researchers argue that the former is applicable only in scenarios where harm exceeds the thresholds permissible under the latter. In this regard, harm encompasses changes to the quantity or quality of water that jeopardize the capacity of riparian states to derive full benefits from the shared watercourse.¹² These discussions underscore the delicate balance between achieving fairness in resource distribution and mitigating adverse impacts on co-riparian states, highlighting the interconnectedness of these foundational principles.

The principle of no significant harm, a cornerstone of international water law, presents considerable conceptual and practical challenges in its implementation.

While it is essential for fostering collaboration among riparian states, its ambiguity arises from varying interpretations across legal frameworks and conventions, which use terms like "significant harm" and "transboundary impact." Such terminological differences create uncertainty, complicating its enforcement and the prevention of conflicts. Additionally, the principle's relationship with equitable utilization introduces another layer of complexity, requiring a delicate balance between minimizing harm and ensuring the fair distribution of water resources. Implementing this principle effectively hinges on reliable data exchange, transparent consultation processes, and building mutual trust among states—factors often impeded by political and logistical obstacles. Moreover, the unresolved complexities surrounding its qualitative and quantitative aspects highlight the inherent difficulties in translating this principle into practice, making it a focal point in ongoing discussions within the field of international water law.

In her analysis, Joyeeta Gupta underscores the principle of "no significant harm" as a fundamental tenet of international water law, highlighting its pivotal role in promoting collaboration among riparian nations. She points to its incorporation in major legal instruments, including the 1997 UN Watercourses Convention and the 1992 UNECE Water Convention, while tracing its origins back to the Roman maxim, "Use your property in a way that does not harm others." Gupta critiques the variability in terminology across legal frameworks, such as "significant harm" and "transboundary impact," arguing that these inconsistencies create challenges in the principle's application. Additionally, she examines its relationship with the principle of equitable utilization, stressing the difficulty of reconciling harm prevention with equitable resource sharing. Gupta advocates for transparent cooperation and robust data-sharing practices as vital measures for the sustainable governance of shared water resources.¹³

3. The principle of cooperation and exchange of information among Riparian States

The 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses underscores the pivotal role of transparency and cooperation, particularly emphasized in Articles 8 and 9, in achieving sustainable water resource management.¹⁴ By advocating for sovereign equality, territorial integrity, and mutual benefit, the convention fosters an environment of trust and constructive dialogue among riparian states. Moreover, its recommendation to establish joint mechanisms or commissions reflects a practical strategy, offering a framework for states to adopt and adapt proven regional models for effective watercourse governance.¹⁵

Moreover, the emphasis on the exchange of essential data, such as ecological and water quality information, enhances decision-making through accurate and comprehensive insights. The flexibility shown by allowing the requesting state to bear reasonable costs for data collection and processing takes into account the unique circumstances of each state.¹⁶

In essence, these principles underscore the significance of shared responsibility and sustainable utilization of transboundary water resources, paving the way for more equitable and inclusive collaboration to address global water challenges.

Researcher Nkechinyelu Patricia Oranye underscores the essential role of cooperation among riparian states as a cornerstone of international water law. She highlights that principles like sovereign equality, territorial integrity, and mutual benefit are critical for building trust and promoting collaboration. Oranye further advocates for the establishment of joint mechanisms or commissions, suggesting these as effective frameworks that draw on successful regional examples. She also emphasizes the importance of sharing vital data, such as ecological and water quality information, to facilitate informed decision-making based on accurate and reliable insights. By integrating adaptive strategies like cost-sharing arrangements, Oranye argues that states can address their specific needs while upholding shared responsibility and advancing sustainable management of transboundary watercourses.¹⁷

4. The principle of Prior Notification

The principle of prior notification represents a critical component of cooperation and information-sharing obligations among riparian states. It mandates that any state intending to undertake a project that might impact the quantity or quality of water in an international watercourse must notify other concerned states beforehand. This requirement serves as an early warning mechanism, enabling states to anticipate potential adverse effects on shared water resources and implement necessary adaptive measures. While this principle might appear to challenge the traditional notion of state sovereignty, which confers full authority over internal matters, modern sovereignty is no longer absolute. It is increasingly balanced by collective interests and guiding principles, especially in the pursuit of sustainable management of transboundary resources.¹⁸

The obligation to provide prior notification of planned measures is well-supported across numerous international legal instruments, including UN General Assembly Resolution 2995 (1972), the 1997 UN Watercourses Convention, various codes and declarations, and judicial precedents. Specifically, Article 12 of the 1997 Convention outlines the necessity for a watercourse state to issue timely notice before undertaking or permitting activities that may significantly affect other states. This notice is required to contain essential technical details and findings from environmental impact assessments, allowing the affected states to evaluate potential risks comprehensively and adopt informed strategies. The principle thus plays a critical role in fostering transparency and cooperative governance for shared international watercourses.¹⁹

Scholar Susanne Schmeier highlights the procedural principle of prior notification as an essential element in international water law and water diplomacy. She asserts that this principle is crucial for ensuring transparency and fostering cooperation among riparian states, while also serving as a preventive measure to

reduce or resolve conflicts over shared water resources. Schmeier emphasizes that prior notification facilitates structured interactions between states regarding planned activities and their potential effects, thereby promoting trust and collaboration. Although the principle may seem at odds with traditional notions of state sovereignty, she argues that modern sovereignty is increasingly reconciled with collective interests and the pursuit of sustainable transboundary resource management. This perspective is reinforced by global frameworks such as the 1997 UN Watercourses Convention, along with basin-specific agreements that outline procedural requirements for notification and consultation.²⁰

Secondly: The GERD dispute within the context of equitable utilization and no harm

Analyzing the complexities of the Nile dispute requires an in-depth exploration of its historical, legal, and political aspects. However, past attempts to apply international water law to transboundary watercourses have often led to increased tensions, particularly due to the uncertain relationship between the principles of equitable utilization and the duty to prevent significant harm. This ambiguity has intensified the challenges surrounding the Grand Ethiopian Renaissance Dam (GERD) dispute, as the international community endeavors to establish a definitive legal framework to address the dam's construction and its implications for riparian states.

The Grand Ethiopian Renaissance Dam (GERD) dispute illustrates the intricate dynamics of national, regional, and international efforts in resolving conflicts over shared water resources. Egypt and Ethiopia each turn to international water law to support their claims over the Nile, yet the legal framework remains ambiguous regarding the precedence of conflicting principles. If completed and operational, the GERD is expected to set a significant precedent in international water law, potentially redefining the legal governance of the Nile and other transboundary watercourses, particularly in the face of increasing water demands driven by climate change. Egypt's position emphasizes established principles, such as the obligation to prevent significant harm, the duty of prior notification, and colonial and post-colonial treaty frameworks. Ethiopia, on the other hand, bases its arguments on the principle of equitable utilization and its sovereign right to manage natural resources within its territory.

1. Egypt's legal arguments for maintaining control over the Nile

Historically, Egypt has leaned on colonial-era agreements established with Britain to legitimize its dominance over the Nile, allocating exclusive water rights to Egypt and Sudan while granting Egypt authority to oversee upstream development projects. Ethiopia's absence from these agreements, however, casts doubt on their legal validity as the foundation for Egypt's claims. In response to Ethiopia's assertion of absolute sovereignty over the Grand Ethiopian Renaissance Dam (GERD) and control of its natural resources, Egypt initially invoked the doctrine of prior appropriation, emphasizing its long-standing reliance on the Nile's waters.

Nevertheless, Ethiopia's robust argument for equitable utilization has prompted Egypt to adapt its strategy by prioritizing the principle of no significant harm, a widely recognized standard in international water law. This shift illustrates the complex legal and political interplay shaping the GERD negotiations.

A. The Principle of No Significant Harm in the Context of Water Scarcity

The dispute over the Grand Ethiopian Renaissance Dam (GERD) highlights the intricate challenges of transboundary water conflicts under international water law. Central to the controversy is Egypt's historical reliance on colonial-era agreements, established during British rule, which allocated exclusive control over the Nile's waters to Egypt and Sudan while granting Egypt oversight over upstream developments. Ethiopia's exclusion from these agreements raises critical doubts about their validity as a legal foundation. Sudan, which also bases its claims on these agreements, plays a significant role in the negotiations, navigating the benefits of the dam—such as improved water flow regulation and irrigation potential—against its potential risks, including impacts on its allocated 5 billion cubic meters of water.²¹ In response to Ethiopia's arguments for absolute sovereignty and equitable utilization, Egypt has strategically pivoted to emphasizing the principle of no significant harm, a widely recognized standard in international water law. This shift underscores not only Egypt's evolving legal strategy but also the layered political dynamics involving Sudan and the broader regional consequences.²²

Egypt's escalating water needs, driven by rapid population growth, expanded economic activities, and efforts to mitigate the effects of climate change, strongly support its reliance on the principle of no significant harm. With over 100 million people concentrated in the Nile Valley—a region comprising just 6% of Egypt's total land area and surrounded by vast deserts—Egypt faces a severe water scarcity crisis, as its per capita annual freshwater availability remains below 550 cubic meters, as classified by the World Bank. Researcher Sami Jad Abdel Rahman Wasel emphasizes this principle within the framework of the 1997 UN Convention, which identifies "substantiality" of harm as a crucial threshold for liability. This encompasses cases where riparian states, such as Ethiopia, initiate projects—like the GERD—without prior agreement or meaningful consultation, potentially infringing on the water rights and interests of downstream nations like Egypt and Sudan. Additionally, activities that result in flooding, reduced water allocations, or abuse of rights further substantiate Egypt's legal stance in opposing the GERD project.²³

The practical application of the principle of no significant harm raises critical questions: Should Egypt and Ethiopia negotiate binding agreements to secure balanced compromises and shared advantages for all parties? Will Ethiopia maintain full autonomy over the filling of the GERD, or will evolving conditions necessitate limits on its unilateral control? These issues are compounded by the lack of a comprehensive institutional structure to ensure equitable, efficient, and sustainable management of the Nile Basin. In the absence of a legal framework that reconciles the principles of equitable utilization and no significant harm, the region faces the

possibility of prolonged diplomatic impasses and further difficulties in addressing the ongoing conflict.

During the 76th General Assembly of the United Nations on September 21, 2021, Egyptian President Abdel Fattah El-Sisi highlighted Egypt's unwavering commitment to equitable management of the Nile Basin. He underscored the existential necessity of the Nile's waters for Egypt, emphasizing that no single nation should monopolize these shared resources. El-Sisi advocated for a balanced resolution that would enable Ethiopia to leverage the hydropower potential of the GERD, while ensuring that the rights and interests of Egypt and Sudan remain protected.²⁴

The GERD dispute underscores the challenges of managing shared watercourses under international water law. Egypt bases its arguments on colonial-era treaties and the principle of "no significant harm" to protect its water rights amid intensifying scarcity, whereas Ethiopia advocates for sovereignty and the principle of "equitable utilization" to validate the dam's construction and operation. This tension highlights the absence of strong institutional frameworks to foster equitable and sustainable cooperation among Nile Basin states. With Egyptian President Abdel Fattah El-Sisi emphasizing the importance of collaborative resource management, the GERD continues to play a pivotal role in shaping diplomatic efforts that reconcile Ethiopia's developmental aspirations with the water rights of Egypt and Sudan.

B. The Doctrine of Prior Appropriation

Egypt has long relied on the doctrine of prior appropriation to validate its claims of longstanding dependence on the Nile's waters. This principle, rooted in the notion of "first in time, first in right," awards water rights to the entity that first diverted and utilized the resource for beneficial purposes. Within this framework, Egypt asserts its status as the initial appropriator, emphasizing its historical and continuous utilization of the Nile's resources to establish its entitlement.

Emerging during the silver mining boom along the Colorado River in mid-19th century California, the concept of prior appropriation addressed miners' inability to claim water rights under prevailing laws, which required land ownership for such claims. To overcome this barrier, a system was established granting exclusive water rights to the first individual who put the resource to productive use, barring others from access and ensuring continued use throughout the claimant's lifetime. This principle later evolved into the natural flow doctrine, guaranteeing riparian landowners access to unaltered water flow on their property, reflecting the "first in time, first in right" notion and eliminating land ownership as a criterion for water rights. However, invoking prior appropriation to justify Egypt's stance on the GERD is widely contested. As outlined in Article 6 of the UN Watercourses Convention,²⁵ the principle of equitable utilization has become the dominant norm, relegating prior appropriation to a secondary consideration in determining fair water resource management, thereby weakening its relevance as a foundation for Egypt's claims.

Scholars have drawn notable parallels between the doctrine of prior appropriation and the legal complexities surrounding the Nile Basin. Dale Whittington's analysis, particularly regarding the 1959 Nile Waters Agreement, demonstrates how Egypt's reliance on historical frameworks, such as prior appropriation, has shaped its approach to the Grand Ethiopian Renaissance Dam (GERD) negotiations. Whittington highlights the tension between these historical claims and modern legal principles like equitable utilization and no significant harm.²⁶ Likewise, Philine Wehling, in her work on *Customary Principles of International Water Law*, examines how traditional doctrines, including prior appropriation, interact with evolving legal standards, emphasizing their influence on transboundary water disputes and Nile Basin governance.²⁷ These scholarly contributions reveal the shifting legal landscape surrounding the GERD and the broader challenges of managing shared water resources within the Nile Basin.

Egypt's reliance on the doctrine of prior appropriation to justify its claims to the Nile's waters reflects an attempt to defend its historic dependence on this vital resource. Yet, this doctrine—anchored in the principle of "first in time, first in right"—faces considerable challenges in aligning with the contemporary norms of international water law. The principle of equitable utilization, enshrined in Article 6 of the UN Watercourses Convention, has emerged as the prevailing standard, diminishing the relevance of prior appropriation as a legal argument. While Egypt's historical claims carry weight, its adherence to dated and rigid frameworks risks weakening its position in an era that increasingly values fairness, cooperation, and sustainability. This juxtaposition of traditional doctrines and modern principles highlights the need for Egypt to adopt more balanced and progressive strategies for managing shared water resources within the Nile Basin.

C. Natural and Historical Rights in the Framework of the Nile Water Agreements

Egypt's historical control over the Nile has been anchored in legal rights established through a series of agreements with Britain, collectively known as the Nile Water Agreements. These agreements include the 1929 Anglo-Egyptian Treaty and the 1959 bilateral accord between Egypt and Sudan. At the time of the 1929 treaty's negotiation, Ethiopia—then the Abyssinian Empire—was not under British rule but rather a fully independent and sovereign state. As Ethiopia neither participated in nor signed these agreements, its government has consistently rejected the legitimacy of the Nile Water Agreements and the claims of natural and historical rights asserted by Egypt over the river's waters.²⁸

During the American Civil War, the disruption of cotton supplies from the southern United States, which had been Britain's primary source, created an urgent need for alternative sources. The Nile Delta emerged as a crucial region for British agriculture, with Egyptian cotton becoming central to Britain's economy during this period. To secure a steady supply and protect its economic interests, Britain reinforced its foreign policy in Egypt through the formulation of Nile Water

Agreements. These agreements heavily favored Egypt while marginalizing upstream countries under British colonial rule, significantly restricting their access to the Nile's resources. As a result, Egypt's agriculture became increasingly dependent on cotton production, leading to a loss of economic independence and reliance on the Nile's waters for sustaining its single-crop industry.²⁹

In essence, the historical Nile agreements played a pivotal role in establishing Egypt's dominance over the river and shaping water resource allocation in the region. Treaties such as those of 1929 and 1959 were instrumental in Egypt's claims to legal rights over the Nile, yet Ethiopia, as an independent state, rejected their validity, fueling long-standing disagreements over equitable water distribution. British economic priorities during the American Civil War further bolstered Egypt's control, as the demand for Egyptian cotton deepened its dependency on a monoculture economy, leaving upstream nations at a significant disadvantage.

In 1959, the bilateral agreement between Egypt and Sudan replaced the 1929 Anglo-Egyptian Treaty by allocating "the entire flow of the Nile waters from Aswan to Egypt and Sudan" and reinforcing the 1929 treaty. While the downstream states (Egypt and Sudan) continue to adhere to the 1959 agreement, Ethiopia and upstream states have declared that they are not parties to this agreement and therefore are not bound by any obligations.³⁰ In 1997, Ethiopia's Minister of Water Resources stated, "Ethiopia, as a source and significant contributor to the Nile's waters, has the right to a fair share of the Nile's waters and reserves its right to benefit from its waters. No earthly power can prevent Ethiopia from benefiting from the Nile River".³¹

In 1959, the bilateral agreement between Egypt and Sudan supplanted the earlier 1929 Anglo-Egyptian Treaty, granting both nations exclusive control over the Nile's waters downstream of Aswan. This agreement also reaffirmed the provisions of the 1929 treaty, solidifying Egypt and Sudan's dominance over the river's allocation. However, upstream countries, notably Ethiopia, have consistently rejected these agreements, arguing their lack of representation in the decision-making process absolves them of any binding obligations. In 1997, Ethiopia's Minister of Water Resources articulated the nation's position, underscoring Ethiopia's rightful claim to a fair share of the Nile's waters as its principal source.³² He firmly declared that Ethiopia retains the sovereign right to benefit from the Nile and asserted that no external entity can prevent the country from exercising this entitlement.

The historical disputes over the Nile's water allocation, exemplified by the 1959 agreement between Egypt and Sudan, remain a key factor in shaping the Grand Ethiopian Renaissance Dam (GERD) conflict. This treaty granted downstream nations significant control over the Nile's waters, excluding upstream countries like Ethiopia from decision-making processes. Ethiopia, as a major contributor to the river's flow, has consistently challenged the legitimacy of these agreements, asserting its sovereign right to utilize the Nile's resources for national development and energy generation. The GERD has intensified these longstanding tensions, with Egypt and Sudan voicing concerns over potential threats to their water security. In 1997,

Ethiopia's Minister of Water Resources reaffirmed the country's stance, emphasizing its legitimate claim to benefit from the Nile despite external opposition. The GERD conflict highlights the historical imbalance favoring downstream nations and underscores the broader challenge of achieving equitable water management and sustainable resource utilization in the region.

2. Ethiopia's legal arguments for asserting its right to utilize the Nile

Ethiopia justifies its right to build and manage the Grand Ethiopian Renaissance Dam (GERD) by asserting absolute sovereignty over the utilization of the Nile's resources. This argument, grounded in Ethiopia's role as the source of the Blue Nile and the origin of most of its waters, has been met with strong objections from downstream nations, particularly Egypt and Sudan. Ethiopia's position asserts ownership rights over the river, granting it exclusive authority to construct and oversee the dam. However, this reliance on the contentious doctrine of absolute sovereignty over international waterways has provoked extensive criticism in both legal and diplomatic contexts. Despite this, Ethiopia's strongest claim resonates with customary international water law, as it champions the principle of equitable utilization to justify the GERD's role in addressing the country's energy deficits and supporting sustainable development of the Nile's resources.

A. Ownership and Sovereignty: The Nile and the Ethiopian Highlands

The Ethiopian Highlands, which provide approximately 86% of the Nile's waters, serve as the cornerstone of Ethiopia's claims to partial ownership of the river. This substantial contribution has strengthened Ethiopia's assertion of its rights to the Nile, positioning it against Egypt's attempts to exert control over the development and operation of the Grand Ethiopian Renaissance Dam (GERD). Grounded in a doctrine of national sovereignty, Ethiopia argues that, as the main contributor to the river's flow, it is entitled to utilize the Nile's resources for its own benefit without external intervention. This position remains a key source of contention in the ongoing discussions around equitable utilization and the governance of shared water resources in the Nile Basin.

Ethiopia's argument regarding ownership of a transboundary watercourse opens complex debates about the criteria for determining ownership. It challenges whether such rights should be based on the source of the water, the regions contributing the majority of its flow, or those that utilize it most extensively. The paradox lies in Ethiopia's adoption of an ownership stance to justify its unilateral construction and control of the GERD, mirroring the very national sovereignty argument historically employed by Egypt. This approach highlights the broader tensions and contradictions in transboundary water governance, where competing principles of sovereignty and equitable utilization continue to shape the discourse and fuel regional disputes.³³

The notion of ownership over transboundary watercourses has been examined extensively by scholars like Demeke Chanie Mengistu, who evaluated Ethiopia's strategies for managing rivers like the Nile. Mengistu emphasizes Ethiopia's historical disadvantage, stemming from agreements that disproportionately benefited

downstream nations, and advocates for equitable and reasonable utilization of shared water resources. This perspective closely aligns with Ethiopia's claims of sovereignty over the Nile, as articulated in its justification for the Grand Ethiopian Renaissance Dam (GERD). Mengistu's research sheds light on the broader challenges and potential pathways for headwater countries to address the complexities of transboundary river governance.³⁴

B. Equitable Utilization and Poverty Alleviation

Ethiopia's appeal to the principle of equitable utilization in advocating for the construction and management of the Grand Ethiopian Renaissance Dam (GERD) serves as a cornerstone of its argument. Faced with widespread poverty, food insecurity, and malnutrition, Ethiopia regards the dam as a transformative initiative with the potential to bring electricity to millions currently disconnected from the national grid. By tapping into the country's vast and largely untapped hydropower reserves—of which only 3% had been exploited by 2001—the GERD is envisioned as a vital pathway to sustainable development. Historically reliant on environmentally harmful energy sources such as biomass fuels, Ethiopia views the dam as a crucial shift toward cleaner and more efficient energy solutions, aligning its developmental aspirations with environmental sustainability.³⁵

Ethiopia's reliance on the principle of equitable utilization underscores its ambition to harness its immense, untapped energy resources, which have the potential to transform the lives of millions. The GERD represents a symbol of progress and opportunity, offering the promise of electricity to power businesses and enhance everyday living for countless Ethiopians. Many citizens have heavily invested in commercial ventures, placing their confidence in the government's guarantees of the dam's benefits. For these individuals, any failure of the GERD would not merely signify a setback but a profound disruption to their livelihoods and dreams, underscoring the dam's pivotal role in driving Ethiopia's economic growth and social advancement.

Ethiopia emphasizes the significant regional and global benefits of the Grand Ethiopian Renaissance Dam (GERD) as part of its rationale for the project. With plans to fully exploit its hydropower capacity, Ethiopia envisions not only meeting its domestic energy demands but also exporting surplus electricity to neighboring countries with limited access, fostering regional economic development and equity. Moreover, Ethiopia foresees expanding its energy exports to international markets, including China and Western Europe, bolstered by foreign investments and funding initiatives related to the GERD. On the environmental front, Ethiopia recognizes that while reservoir filling poses potential risks to Egypt's water supply, careful simulations suggest it could offer certain advantages for Ethiopia and Sudan under proper management. Ethiopia underscores the need for precise planning and coordination to address potential challenges, such as prolonged droughts, ensuring the sustainability of water resources and equitable benefits for all impacted nations.³⁶

Ethiopia's use of the principle of equitable utilization to justify the Grand Ethiopian Renaissance Dam (GERD) underscores its commitment to reducing energy deficits, alleviating poverty, and improving living standards by tapping into its hydropower potential. While the dam holds considerable promise for Ethiopia's progress and regional energy cooperation, its unilateral approach has raised concerns about the broader repercussions for downstream nations. Ethiopia's sovereignty-based claims to the Nile resonate with historical arguments made by Egypt, exposing contradictions in the governance of transboundary resources. Though Ethiopia emphasizes the environmental and economic gains the project could offer, its success depends on coordinated efforts and mutual trust among Nile Basin countries. Without this cooperation, mismanagement or extended droughts could heighten tensions in the region. Thus, the GERD stands as a symbol of Ethiopia's ambitions and the challenges of fostering equitable and sustainable resource management within a politically sensitive context.

When viewed through the lens of equitable utilization, Ethiopia's argument for a greater share of the Nile's waters aligns with modern demands for fairness, contrasting with the outdated allocations entrenched in historical Nile Water Agreements. However, Ethiopia's current strategy for managing potential harm to Egypt's share of the river is lacking, as it does not fully incorporate the principle of no significant harm. Proceeding with the GERD's construction and reservoir filling based solely on equitable utilization—without implementing safeguards against adverse impacts—could set a controversial precedent. This may lead to a reinterpretation of international water law, prioritizing equitable utilization while compromising the enforcement of no significant harm. Such a shift could redefine the balance of obligations within transboundary water governance.

Conclusion

The Grand Ethiopian Renaissance Dam (GERD) presents a critical test case for the interpretation and application of customary international water law in managing transboundary rivers. At the heart of the dispute are the competing principles of equitable utilization and no significant harm, which each nation strategically employs to support its position. For Egypt, the principle of no significant harm holds particular resonance amid growing concerns over climate change and water security. Conversely, Ethiopia's reliance on equitable utilization underscores its pressing need to address domestic developmental challenges, leveraging the Nile's waters to alleviate poverty and power economic growth. The intricate legal balance between these principles remains a considerable challenge for the international legal community.

The ongoing Nile conflict highlights a broader clash between historical legacies and contemporary legal demands. Egypt's adherence to colonial-era treaties and its prioritization of harm prevention illustrate its heightened focus on securing water supplies amidst demographic and environmental pressures. However, this approach has drawn criticism for sidelining the principle of equitable utilization, which is

foundational to modern international water law. The narrative Egypt advances often struggles to fully align with regional equity and cooperation, emphasizing the urgent need for progressive governance strategies that favor inclusive and sustainable water management.

Ethiopia, on the other hand, emphasizes its sovereign rights and equitable utilization as the basis for its claims over the Nile, offering a developmental rationale for the GERD that promises transformative progress. Despite these aspirations, Ethiopia's unilateral management of the dam raises contradictions reminiscent of historical sovereignty claims once championed by Egypt. The exclusion of downstream nations from meaningful decision-making undermines its commitment to equitable and cooperative governance, which is essential for the realization of its broader developmental goals.

Ultimately, the GERD dispute reflects a deeper challenge in reconciling entrenched inequities with evolving legal principles. Both Egypt and Ethiopia bring forth valid yet opposing claims, which expose institutional gaps within the governance frameworks of the Nile Basin. While Egypt emphasizes harm prevention and historical rights, Ethiopia champions development and equitable utilization, necessitating a cooperative governance model that bridges these differences. Transparency, trust, and mutual benefit must form the foundation of any strategy seeking to transform the Nile into a source of regional collaboration rather than conflict.

The resolution of the GERD conflict carries profound implications for international water law. If the reservoir filling process results in harm to Egypt's water security, it could reinforce the prominence of no significant harm in future legal interpretations. Conversely, the successful operation of the dam, coupled with economic advancements, might elevate equitable utilization as a standalone principle, potentially challenging its linkage to harm prevention. In either case, the GERD offers critical lessons for managing transboundary resources. As climate change exacerbates regional challenges, achieving a harmonious balance between these principles will be essential for equitable and sustainable shared water management.

Key observations from the analysis include:

1. **Balancing Legal Principles:** The GERD dispute highlights the complexity of reconciling equitable utilization with no significant harm, demonstrating the need for comprehensive legal approaches to address their interaction effectively.

2. **Developmental Opportunities:** The dam offers Ethiopia substantial prospects for economic and social progress, including electricity access for millions and opportunities for regional investment.

3. **Environmental and Coordinative Risks:** The dam's operation requires precise coordination among Nile Basin states to mitigate potential harm to downstream nations, particularly Egypt, under climate-induced challenges.

4. **Precedents in Legal Frameworks:** The resolution could redefine the principles governing transboundary water resources, setting influential precedents for future disputes.

Margins

¹Article 8 of the Convention on the Law of the Non-Navigational Uses of International Watercourses, accessed Mars 27, 2025, https://legal.un.org/avl/pdf/ha/clnuiw/clnuiw_a.pdf.

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⁴M.A. Salman, "The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law," *International Journal of Water Resources Development* 23, no. 4 (2007): 625–640.

⁵David Hunter et al., *International Environmental Law and Policy* (New York: Foundation Press, 2015), 1127–1129.

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⁹UNECE Water Convention, op. cit., Article 7.

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¹²Stephen C. McCaffrey, op. cit., 405–408.

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¹⁶Ibid. Article 9.

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²¹M.A. Salman, op. cit., 627.

²²Stephen C. McCaffrey, op. cit., 405–408

²³Sami Jad Abdel Rahman Wasel, "The Ethiopian Renaissance Dam Crisis in Light of International Law Provisions," *Journal of Legal and Economic Studies* 7, no. 2 (2023): 1546.

²⁴Abdel Fattah El-Sisi, "Speech at the 76th Session of the United Nations General Assembly," September 21, 2021, accessed Mars 27, 2025, <https://digitallibrary.un.org>.

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³² *Ibid.*

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