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The Grand Ethiopian Renaissance Dam - A Water Diplomacy Challenge

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Background

The Grand Ethiopian Renaissance Dam (GERD) is a hydroelectric dam on the Blue Nile, a tributary of the Nile River, in Ethiopia. Since the inception of its construction, the dam has been controversial and a source of tension between Ethiopia, Egypt, and Sudan (Abtew & Dessu, 2019). Egypt is concerned that the dam will reduce its water supply from the Nile River (Kheireldin, 2016). Sudan worries about the dam's impact on water resources and downstream irrigation projects (Asiedu, 2018). On the other hand, Ethiopia has insisted on its right to develop its water resources as it sees the construction of the GERD as a crucial development project that will help alleviate poverty and improve the lives of its citizens (Lossow et al., 2020).

Construction of the GERD began in 2011 and was projected to complete in 2023. However, since the construction commenced, negotiations between Ethiopia, Egypt, and Sudan have been ongoing to reach an agreement on the filling and operation of the dam (PSC Report, 2020). These negotiations have been complex and tense, with each country seeking to protect its interests (Tawfik, 2015). However, Ethiopia has rejected Egypt and Sudan's demands for a binding agreement on the filling and operation of the dam (IANS, 2023).

Despite strong opposition from Egypt and Sudan, the construction of the GERD is nearing full completion as of

Highlights

Egypt and Sudan's dominance over Nile waters stems from exclusionary colonial-era treaties, which Ethiopia seeks to challenge with GERD.

Conflicts over the dam's filling rate, water releases, and lack of a binding resolution mechanism remain unresolved.

Ethiopia sees GERD as a national milestone, while Egypt views it as an existential threat, fuelling geopolitical strains.

The dam boosts Ethiopia's energy independence but raises concerns about water shortages and ecosystem disruption.

Despite a 2024 pledge for an agreement, no binding deal exists, keeping the risk of conflict high.

December 2024 (DT Next, 2023). The civil works for the dam are 100% finished, marking a significant milestone in the project. The dam has a height of 145 meters and a width of 1,800 meters, with a reservoir capable of holding 74 billion cubic meters of water (Abtew & Dessu, 2019). Once fully operational, the GERD will have an electricity generation capacity of 6,450 MW, making it the largest hydropower project in Africa.

Key Issues in Negotiations

- **Filling Rate:** Ethiopia favours rapid filling to expedite electricity generation, while Egypt and Sudan advocate for a slower process to mitigate water shortages (Lossow et al., 2020).
- **Water Releases:** Disagreements persist over the quantity of water to be released downstream during the filling and operational phases (Tawfik, 2015).
- **Dispute Resolution:** The three countries have yet to agree on a robust mechanism for resolving future conflicts over the dam (Ragy, 2021).

Historical Context

The GERD dispute is rooted in the legacy of colonial-era agreements, notably the 1929 and 1959 Nile Waters Agreements, which granted Egypt and Sudan the majority of Nile waters while excluding upstream nations like Ethiopia (Tawfik, 2015). These agreements, designed without Ethiopian input, entrenched inequities that Ethiopia seeks to redress through the GERD (Asiedu, 2018).

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Ethiopia's exclusion from these agreements has fuelled longstanding resentment, driving its efforts to assert control over its water resources (Lossow et al., 2020). By developing the GERD, Ethiopia is not only addressing its energy deficit but also enhancing agricultural productivity and reducing dependency on foreign aid (Abtew & Dessu, 2019). This positions the country as a regional power with the potential to improve its citizens' lives significantly.

Main Issues of Contention

1. **Historical Inequities:** Egypt's historical dominance over Nile resources, rooted in colonial agreements, contrasts sharply with Ethiopia's aspirations for economic modernisation (Tawfik, 2015). This historical inequity has fuelled resentment and mistrust, particularly as Ethiopia seeks to modernise its economy and alleviate poverty.
2. **Water Security vs. Development:** Egypt and Sudan prioritise water security, whereas Ethiopia emphasises its developmental needs (Kheireldin, 2016). The GERD's potential to reduce the Nile's flow seriously threatens Egypt and Sudan's water security. Both nations heavily rely on the river for agriculture, industry, and domestic use. The uncertain future of water availability, exacerbated by climate change and increasing water demand, further intensifies these concerns. Ethiopia, seeking to modernise its economy and alleviate poverty, views the GERD as a crucial component of its development strategy. This aspiration clashes with Egypt's historical water security concerns.
3. **Nationalism and Sovereignty:** The GERD symbolises national pride for Ethiopia, while Egypt views it as an existential threat (Ragy, 2021). This nationalist sentiment has intensified political tensions and hindered diplomatic efforts.
4. **Environmental Impacts:** Potential adverse effects, including ecosystem disruptions and changes in sedimentation, add another layer of complexity to negotiations (Abtew & Dessu, 2019).

The ongoing dispute has significant implications for regional stability. Continued tensions could escalate into conflict, disrupting economic activities and causing humanitarian crises. Moreover, the dam's construction and operation may have adverse

environmental impacts, affecting the river's ecosystem and biodiversity. These impacts could include changes in water flow, sedimentation patterns, and displacement of local flora and fauna. It is, therefore, crucial for all parties involved to consider and address these potential environmental impacts in their negotiations and planning for the dam's operation.

Diplomatic Efforts

So far, efforts by relevant stakeholders on the GERD have included frameworks and principles rather than binding treaties. Below are the principal agreements:

2015 Declaration of Principles (DoP)

This agreement, signed by Ethiopia, Egypt, and Sudan, outlines ten key principles related to cooperation, equitable and reasonable utilisation, and avoidance of significant harm (PSC Report, 2020). It is a crucial document that informs the negotiations, emphasizing the importance of prior notification, mutual trust, and transparency in the dam's operation and filling.

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African Union-Led Negotiations

The African Union has played a crucial role in mediating the dispute, hosting several rounds of negotiations between the three countries (Lossow et al., 2020). The AU's involvement in the GERD negotiations has been driven by a desire to find an African solution to an African problem, demonstrating the organization's commitment to regional stability and cooperation (PSC Report, 2020). These negotiations aim to:

- **De-escalate Tensions:** The AU has worked to reduce tensions between the three countries and prevent the dispute from escalating into a regional conflict.
- **Facilitate Dialogue:** The organisation has provided a neutral platform for constructive dialogue, fostering communication and understanding. The AU's role in this regard provides reassurance about the presence of a neutral mediator in the negotiations.
- **Mediate and Negotiate:** The AU has actively mediated the negotiations, proposing solutions and compromises to bridge the gap between the parties' positions.
- **Seek a Win-Win Solution:** The AU has actively sought a solution that balances the interests of all three countries. This approach ensures water security for Egypt and Sudan while allowing Ethiopia to harness the Nile's water resources for development, potentially leading to a mutually beneficial outcome.

Despite the AU's efforts, the GERD negotiations have faced numerous challenges, including:

- **Divergent Interests:** The three countries have fundamentally different interests, with Egypt and Sudan prioritising water security and Ethiopia focusing on economic development.
- **Historical Tensions:** Historical grievances and mistrust between countries have complicated the negotiations.
- **Geopolitical Factors:** External powers have sometimes interfered in the dispute, further complicating the situation (PSC Report, 2020).

2020 U.S.-Mediated Discussions

Egypt, Ethiopia, and Sudan participated in U.S.-facilitated talks, culminating in an agreement on general principles. However, Ethiopia did not attend the signing ceremony, leaving this understanding incomplete. It included elements like phased filling schedules and drought mitigation mechanisms but

lacked enforcement requirements (U.S. Department of the Treasury, 2020).

International Mediation Efforts

Countries like the United States and the European Union have offered mediation services to facilitate a peaceful resolution. These external actors have sought to encourage compromise and provide technical expertise to support the negotiation process. Despite these efforts, the dispute remains unresolved. As of late 2023, Ethiopia has completed filling the dam's reservoir, a significant step towards its full operation. However, this has further strained relations with Egypt and Sudan, who argue that the unilateral filling violates previous agreements and jeopardizes their water security.

High-Level Commitments (2024)

In July 2024, Ethiopian Prime Minister Abiy Ahmed and Egyptian President Abdel Fattah al-Sisi pledged to finalise a binding agreement by year-end. While promising, this remains a political statement rather than a concrete agreement.

These agreements reflect incremental progress but highlight the need for a comprehensive, legally binding resolution addressing key operational and water-sharing concerns.

Recent Developments

Recent developments on the GERD have focused on continued negotiations and diplomatic efforts between Ethiopia, Egypt, and Sudan. While there have been periods of tension and disagreement, the three countries have also tried to find a mutually acceptable solution. However, a definitive agreement on the dam's filling and operation has not yet been reached. The primary sticking points remain the rate at which Ethiopia fills the dam's reservoir and the amount of water that will flow downstream to Egypt and Sudan during periods of drought.

It is important to note that the region's geopolitical landscape and international factors can influence the progress of negotiations

A significant development in the GERD dispute occurred in September 2023 when Ethiopia announced the completion of the fourth and final filling of the dam's (IANS, 2023). This milestone brought the dam closer to full operation and heightened tensions with Egypt and Sudan. Egypt, in particular, expressed strong concerns about the unilateral filling of the dam, arguing that it violated previous agreements and could severely impact its water supply. Egypt even threatened to take military action to protect its water rights (Fahchouch, 2023).

The dispute has also drawn international attention, with various countries and organisations offering mediation and diplomatic support. However, the core issues of water sharing, dam operation, and dispute resolution mechanisms remain unresolved. The international community continues to closely watch the future of the GERD and its potential impact on regional stability. While diplomatic efforts are ongoing, the risk of escalation remains, emphasising the urgent need for a negotiated settlement that addresses the concerns of all parties involved. (Lossow et al., 2020). It is important to note that the region's geopolitical landscape and international factors can influence the progress of negotiations. Therefore, the situation remains fluid, and further developments may occur in the coming months and years.

Conclusion

The Grand Ethiopian Renaissance Dam (GERD) is an example of water diplomacy in action. In the case of the GERD,

Ethiopia, Egypt, and Sudan have been engaged in complex negotiations to balance their competing water interests. Still, no significant success has been chalked.

Despite these complexities, the construction and operationalisation of the GERD presents an opportunity for a mutually beneficial resolution (Ragy, 2021). It is hoped that the three countries will reach a final agreement that benefits all parties involved significantly. This will mean increased electricity generation, improved water management, and enhanced regional cooperation for Ethiopia. For Egypt and Sudan, it could mean a more stable and predictable water

supply and potential benefits from the electricity generated. Emphasising these potential mutual gains should inspire optimism for the future of the negotiations.

Diplomacy remains indispensable in addressing the impasse and offers a platform for constructive dialogue, mutual understanding, and compromise. Effective diplomacy can bridge the differences among Ethiopia, Egypt, and Sudan by emphasising shared interests over conflicting positions. The dispute highlights critical issues such as equitable resource allocation, environmental sustainability, and regional stability, making diplomatic engagement essential for a peaceful resolution (Abteu & Dessu, 2019).

By analysing the GERD case, policymakers, diplomats, and water experts can draw lessons for future water diplomacy efforts, promoting cooperation and ensuring sustainable water management in transboundary river basins.

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