Research Article

Unveiling the power play: Exploring the intricacies of the Grand Ethiopian Renaissance Dam's negotiations and their impact on the security of the Horn of Africa.

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Abstract: The aim of this article was to investigate the domestic and geopolitical of the Grand Ethiopian determinants Renaissance Dam's (GERD *hereafter*) negotiations and their impact on the Horn of Africa's security, stability and peace. The study also aimed to explore the motivations and instruments of involvement of regional and global powers in the GERD's negotiations. The research followed a mixed methods approach. Secondary data were collected from published books, chapters, articles, unpublished theses and dissertations, and primary data were collected from governmental documents. policies. agreements, archival sources, press releases, and statistical data on one hand and six key informants, on the other hand. Besides, the author attended four national and international conferences on GERD and its impact and gathered important information from the vibrant discussions. Content, discourse and thematic analysis were employed. The analysis is also supported by the political ecology theoretical

framework. The results showed that both domestic and geopolitical determinants caused the impasse over the GERD, and these deadlocks have impacted the Horn of Africa's security, stability and peace. In this regard, the involvement of external powers driven by their national interests on one hand, and the domestic-driven devious politicization of the triad negotiations on the other hand, have undermined the success of the GERD's myriad processes and exacerbated the deadlock over the GERD and insecurities in the Horn. Thus, addressing the two determinants is critical for achieving positive negotiation outcomes over the GERD and promoting the Horn's security, peace and stability.

Keywords: Geopolitics, Security, Horn of Africa, Nile River, Collective Action

Article History: Received 24 January,2024; Accepted 8 May,2024

DOI: https://doi.org/10.20372/ejss.v10i1.1796

1. Introduction

In the Nile basin, collective water governance is shaped by diverse but competing interests, norms, institutions, and strategies of different actors. Political ecology frames water governance as a hydrosocial cycle that links local governance dynamics with multi-level institutional analysis across different levels, scales and scopes. For instance, local communities' strategies to cope with water scarcity, caused by competition of other users and uses, are analyzed in relation to different stakeholders' interests and positions in water use. This framework also puts power relationships, power struggles and outcomes at the centre of water governance analysis, mainly the analysis of structures and processes. In this regard, power dynamics influence the overall performance of collective action (inclusion and exclusion, development and marginalization, and distribution of benefits and burdens). The power involved in water governance has instrumental, structural and ideational dimensions (Jones, 2015). The instrumental is about how actors and institutions define and exercise their influence over others through financial, technical and socio-political resources such as blocking financial supports or exerting diplomatic pressures. The structural is about the role of socio-economic and political contexts (competitions, asymmetry of power, mistrust) within which decisions and actions are formulated and implemented. The ideational is about actors' ability to shape social norms, values, principles and identities in favor of their interests and positions (Jones, 2015). For instance, the 1997 UNWC, which came into force in 2014, the 2010 CFA over the Nile water, and the 2015 DoP over the GERD have recognized the principles of equitable and reasonable right to use the shared river waters without causing significant harm. This convention also emphasized shared water basin solidarity and cooperation rather than the traditional statecentered sovereignty of water governance.

The Horn states are members to different multilateral organizations such as the AU, COMESA, Community of Sahel–Saharan States, EAC, GCC, IGAD, Indian Ocean Rim Association, International Conference on the Great Lakes Region, League of Arab States, NBI, and the Organization of the Islamic Conference. All IGAD states, except Somalia and Djibouti, are riparian states to the Nile River. The Horn has a total population of 230 million and is projected to reach 440 million by 2050. A large percentage of this population relies on rain-fed agriculture as primary livelihood. The rapidly growing population with increasing demand for water-energy-food will

further complicate the geopolitical tensions among countries of the Horn and the Nile basin. Climate change also impacts the Horn and the Nile basin regions' security, stability and their external relations. Mainly variable rainfall patterns and frequent droughts and floods are exacerbating insecurity (food-energy-water-environment), poverty, political instability, securitization, resources and resilience capacity degradation in the Horn and Nile basin regions. At domestic level, these determinants resulted in worsening livelihood conditions and created huge migration and insecurities with trans-boundary security implications.

Geopolitical interests and calculations involved in GERD's negotiations have security and stability implications for the Horn of Africa (Beyene, 2023b). Many external powers (China, USA, Russia, EU, WB, Turkey, UAE, Qatar, and Saudi Arabia) have involved in different sectors (agriculture and farmland, manufacturing, transport, logistics, energy and infrastructure) of the region. They have also involved in anti-piracy and maritime security. This resulted in geopolitical competitions and the scramble for military and port bases in the region (Beyene, 2023a). Port politics is mainly critical for Ethiopia and South Sudan – the two landlocked states in the Horn region. Ethiopia and Kenya are investing in the Lamu Port which is essential for Ethiopia, South Sudan and Kenya. Ethiopia also joined the UAE in an agreement with the Somaliland's port of Berbera in 2017. Furthermore, interstate insurgencies, long history of interstate disputes, and cross-border violence are critical security challenges of the Horn. For instance, the South Sudan and Sudan conflict, since the former's independence in 2011, over territories rich in resources (oil and gas), and the ongoing boundary disputes between Ethiopia and Sudan are critical examples of such disputes. Additionally, disputes over ENB water allocation and use, mainly over the CFA and GERD, have also been significant in the region.

The Nile basin is characterized by asymmetry of water use and contribution, increasing insecurities, competitions, competitive unilateralism, variability and uneven distribution of rainfall, and lack of agreed collective governance frameworks. In this regard, there are several treaties in the Nile basin but none of them are collectively recognized (Salman, 2016). Without any agreement, there are also many existing and planned dams in the Nile basin where nationally and unilaterally driven damming of the Nile water has more than 120 years of experience (Salman, 2016). Besides, the ENB countries have largely neglected the different alternative sources and instruments of water-

food-energy to ameliorate their shortages. Moreover, although they have good underground water (Egypt and Sudan), and surface-water (Ethiopia) potentials, these potentials are underdeveloped so far. Furthermore, weak institutional capacity, long history of distrust, lack of a reliable and collectively accepted information and data system, positions based and conflicting foreign policy attitude and behavior, competitive geopolitical environment, lack of agreed and effective governance arrangement, the dominance of unilateralism, reluctant mindset for learning and change, and a zero-sum narratives impede the acceptance of a collective actions framework at basin level in general and resolving the GERD impasse in particular (Caruso, 2022; Beyene, 2023c). Besides, increasing water demand, decreasing water supply and quality, climate change, and regional geo-politics also aggravate the problem (Swain, 2011).

Since the commencement of the GERD construction in April 2011, the three parties have been engaged in extended and often demanding negotiations over GERD. The negotiations have been conducted in a variety of forums and formats (Helal and Hesham, 2023). Many trilateral meetings at the level of heads of government and state, water affairs ministers, foreign affairs ministers, and nongovernmental academics have been held to discuss the impasse over the GERD. Besides, external powers such as the USA, Russia, South Africa, UAEs, UNSC, AU, and AL have either participated in the negotiations or offered their good offices to mediate the dispute. The UNSC convened two sessions directly related to the GERD and issued a Presidential Statement on the GERD and the Arab League held several discussions and made several resolutions over the GERD (Helal and Hesham, 2023). With some degree of cooperation and collective action, the GERD could have been the replacement of water wasteful dams in downstream countries, and it could also have been a joint project but all this failed because of Egypt's and Sudan's refusal of Ethiopia's call for a tripartite project (Salman, 2016). These gaps exacerbated water governance crisis on one hand, and limited the mitigation and adaptation capacities, on the other hand. After the CFA was signed by six negotiating parties in 2010, Ethiopia announced the beginning of the GERD construction in April 2011. The NBI's weakness to bring collectively agreed permanent institutional and legal frameworks encouraged Ethiopia's unilateral action over the GERD.

The question why co-riparian states of ENB disagreed on an effective governance arrangement for the shared and strategic resource has been seen differently by different scholars. Capacity

limitations of riparian states and lack of community of interests (Arsano, 2007); weak state capacity and a long history of distrust (Krampe, 2020); flawed political will and weak institutional settings (Luzi, 2010); contradictory interpretations or claims over the civilization of the region (Arab vs Africa) and the tendency to use religion as instrument (Islam by Sudan and Egypt; Christianity by Ethiopia) and lack of broader participation (Kalpakian, 2015); lack of effective communication, participation, and dialogue (Mason, 2004); the domination of the elite and lack of active participation of all stakeholders (Paisely, and Henshaw, 2013); the absence of constructive dialogue, active participation, cooperative framework and collective action (Wossenu and Shimiles, 2019); lack of basin-wide collective arrangement (Tafesse ,2011); asymmetric power relations, unequal development (Cascão, 2012; Hamada, 2017); unfair balance between contribution and utilization, partisan colonial and post-colonial treaties (Stoa, 2014); mistrust (Samaan, 2019); misunderstanding (Waterbury et al., 2014); incompatibility of interests, lack of trust, and unwillingness to compromise and poor economic ration among the entire riparian states (Samaan, 2019); legal disparity (Stoa, 2014; Krampe, 2020) are some of the results of previous studies. Generally, from the aforementioned authorities, the domestic and geopolitical determinants and their impact on the Horn's security is not comprehensively explored. Therefore, this paper tries to do an in-depth study of the impact of domestic and geopolitical factors on GERD's negotiations.

2. Methodology

The GERD is the first and seventh largest hydraulic infrastructure in Africa and the world, respectively. It has been under construction since 2011 on the Blue Nile basin, one of the tributaries of the Nile River. The three principal riparian countries of the Eastern Nile Basin (ENB, hereafter), Ethiopia, Sudan and Egypt have been negotiating over the GERD for the last 12 years but unable to reach a mutually accepted agreement. Therefore, the main questions that this article tried to answer were: how do the domestic and geopolitical determinant factors influence the GERD's negotiation processes and outcomes? What are the instruments used by the three parties and external powers? What are the geopolitical and security implications of the GERD's impasse to the Horn of Africa? In order to provide a comprehensive answer to the aforementioned questions and understand the complex issues underlying the GERD's negotiation and its impact on the security of the Horn of Africa, the research adopted a mixed design.

Secondary data were collected from published books, chapters, articles, unpublished theses and dissertations; and primary data were collected from governmental documents, policies, agreements, archival sources, press releases, and statistical data on one hand and six key informants on the other hand. Besides, the author attended four national and international conferences on the GERD and its impact and gathered important information from the vibrant discussions. Content, discourse and thematic analysis were employed. The analysis is also supported by the political ecology theoretical framework. The research employed qualitative thematic, content and discourse analysis of both secondary and primary data sources (diplomatic correspondence, policy documents, and interviews) on one hand, and quantitative statistical analysis of historical data on water usage, economic repercussions, and regional security dynamics, on the other hand. Given the alarming population growth, scarcity of water, climate change, the increasing competing demands, adopting a collective water governance action is an urgent imperative in the Nile basin.

3. Findings and Discussion

3.1. Domestic determinants of GERD's negotiations

The Nile water shapes the domestic and foreign policy attitude and behavior, national identity, national interests, and development of Ethiopia, Sudan, and Egypt – the three core states of the Eastern Nile Basin. The three countries are challenged by both first order (physical) and second order (socio-economic, governance) water scarcities which are aggravated by increasing population growth and climate change (Beyene and Aslam, 2018). Besides, the three countries have focused on supply driven water resource development projects, and they are not using different alternative resources and instruments to ameliorate the problems (Beyene, and Mohammed, 2018). The domestic contexts and structures, in the three negotiating parties, negatively impacted the GERD's negotiation processes and outcomes and securities of the Horn region (Beyene, 2023c; Seid and Embiale, 2021). Frequent domestic instability and regime changes in the three countries have also implications for the GERD's impasse and the Horn's securities and stability. The ongoing instabilities and disputes in northern Ethiopia, since November 2020, have also impacted the negotiation processes over the GERD, stability and security of the Nile basin and Horn regions.

The absolute poverty level is also very wide in Ethiopia where nearly 30% of its population lives under absolute poverty and 52% of them do not have access to electricity, and 50% of them do not have access to clean water (WB, 2019). Ethiopia's economy is dependent on monoculture (rain-fed agriculture) and its electricity generation is also heavily reliant on hydropower. However, these sectors in particular and Ethiopia's food-energy-water security in general are affected by climate change and poor mitigation and adaptation capacities. To mitigate the impact of climate change, since 1970s to 1990s, Ethiopia has introduced environmental conservation campaigns with a topdown approach. However, since 1990s, the green economy approach that capitalized on a lowcarbon emission approach, production of clean energy, mainly hydropower, and the participation of non-state actors has been introduced in Ethiopia. In this regard, Ethiopia's Growth and Transformation Plan II (GTPII) stipulates the country's ambition to build a climate resilient green economy by 2030. All these Ethiopia's domestic gaps are urgent imperatives to develop and use the shared Nile water (Arsano, 2023). In this regard, the growth of Ethiopia's internal financial capacities and financial support from non-Western partners, the relative stability, and economic development also contributed greatly to the new geopolitical dynamics in ENB (Swain, 2011). Moreover, the absence of a comprehensive agreement with downstream countries enables Ethiopia to pursue a unilateral move to develop and use the Nile water. Successive regimes in Ethiopia have showed and maintained consistency to develop and use the Nile River and ameliorate its myriad problems. They have been unwilling to compromise Ethiopia's sovereign and natural rights over the Nile water. Currently, too, Ethiopia opposes any position that seeks to maintain the pre-CFA water governance order in ENB (Arsano, 2023). Ethiopia also prefers non-binding general principles and frameworks, and political solution over the GERD (Idris, 2023).

The GERD is central to Ethiopia's domestic and foreign policy matter, namely its development vision of becoming a middle-income country and its desire to change the power dynamics in ENB (Attia and Saleh, 2021). Ethiopia has four imperatives (ideology, development, independence, and national security) to build the GERD (Akamo, 2022). Ideologically, the GERD is understood as a nation building project which aims to have a shared vision and solidarity over Ethiopia's fate and independence. It is an undertaking of a national pride, a symbol of Ethiopian nationalism and identity, prestige, renaissance, source of legitimacy, and thus being financed by domestic sources.

The GERD is also a development project that aims to enhance industrialization, citizen welfare and human development, and to address Ethiopia's basic development needs: energy-food-water (Akamo, 2022). It also represents an independent and pan-African project, and Ethiopia's natural and sovereign rights to use the Nile water (Akamo, 2022). Notably, the slogans "It is my dam!" and "No more!" show critical concerns about Ethiopia's sovereign rights and independence to use the Nile water. And finally, the GERD, as a geopolitical project, also contributes to the growth of Ethiopia's regional dominance, both economically and politically, and geopolitical power balance shift in the Nile basin, the Red Sea, and the Horn (Attia and Saleh, 2021). Generally, the GERD enhances Ethiopia's development, sovereignty, independence, solidarity and geopolitical influences in many aspects. In its full capacity, the GERD will generate \$27 million per day or \$810 million per month or \$9.72 billion per year and increases the total electricity access in Ethiopia by 50% (Gedion, 2023). So far, the GERD's construction has been more than 95% completed. Ethiopia has also started filling and operating the GERD. In this regard, 4.9 BCM in 2020, 13.5BCM in 2021, and 4.5BCM in 2022, 21.3BCM in 2023 and totally 44.2BCM of water have been stored in the GERD's reservoir. Ethiopia has been generating 540 MW power from the GERD's two turbines (270MW from each), since February and August 2022 (Gedion, 2023).

Sudan's dilemma and unpredictable behavior is another challenge for the GERD negotiations (Idris, 2023; Abebe, 2023). About 43% of the Nile basin lies within Sudan's territories (FAO, 2015). Given the frequent drought, flooding, variability of rainfall, and irrigated agriculture economy, Sudan is heavily dependent on the Nile waters for its energy-water-food securities. Sudan has significant potential for agricultural development and the largest irrigated area in sub-Saharan Africa and the Blue Nile serves around 70% of its irrigated land and 50% of its population. However, it had utilized only 14.5bcm/year water which is less than the water allocated to it (18.5BCM) by the 1959 agreement. Many studies showed that (by regulating water flow, controlling flooding, expanding irrigation and hydropower generation seasons) the GERD will enhance and expands Sudan's irrigation and hydropower productivity. Sudan's position over the GERD has been changed in the post al-Bashir or post 2019 era. This changing position can be seen as a direct consequence of its domestic contexts: instability, and to get Egypt's and its allies support to suppress antigovernment protests. Its regime has used rising tensions over the GERD's

construction and its border disputes with Ethiopia in the al-Fashaga region to deflect domestic tensions at home. The political instability that came with Sudan's revolution in 2019 and the military coup in 2021 has led the country's leaders to turn their back on what appears to be in the country's best interest, the GERD. It also used it for Sudan's overall reintegration into the global financial system after spending years under USA sanctions. Thus, Sudan's opposition to the GERD was not based on the hydrological facts but based on domestic political upheaval and geopolitical interests and miscalculations.

The Nile River has been the cornerstone of Egypt's foreign policy. For more than 5500 years, Egypt has used the Nile water (Swain, 2011). Egypt has fully utilized its allocation by 1959 agreement (55.5BCM) and utilizes additional water from Sudan as a 'water loan' amounting to almost 4bcm/year from Sudan (El-Zain, 2007). Egyptians firmly believe they have more rights to the Nile waters than any other country. It incorporates in its 2014 constitution (Art.44) the Herodotus' famous quote: "Egypt is the gift of the Nile and the Nile is the gift of Egypt" by stating that "the State shall protect the River Nile, preserve Egypt's historical rights to the river, and recognizing access to the Nile as a right of Egyptian citizens". This is both procedurally and substantively illegitimate and this constitutional rigidity made Egypt's governments constitutionally not to commit to any compromise, both on CFA and the GERD negotiations. Initially, Egypt totally opposed the construction of the GERD but later insisted on having a binding agreement over it. Egypt has continued to frame the GERD as a national security threat, and as the precedent for further unilateral water developments in upstream areas. Egypt has used both hydro-military and hydro-diplomacy strategies to deter Ethiopia from building the GERD in particular and to develop and use the Nile water in general. In line with these strategies, much of Egypt's population has also remained confident that Egypt's military would secure the free flow of its self-claimed historic water rights over the Nile water (Halawa, 2022). Egypt has also used the narrative of existence of alternatives for other countries and the absences of alternatives for itself.

Egypt entered a period of internal political and economic instability in 2010/201, part of the Arab Spring. After thirty years in power, the Egyptian revolution removed President Hosni Mubarak of Egypt, a long-time foe of Sudan, in 2011. Between 2011 and 2013 Egypt had a government led by the Muslim Brotherhood, but was removed from power via a military coup in 2013 and replaced by

president al-Sisi. Egypt's growing population, which surpasses 103 million in 2022, and increased water consumption, also aggravates the problem. Egypt currently needs 25% more water than it gets so far. In 2025, it is predicted that the water per capita in Egypt will be reduced to 337m³. Moreover, inefficient irrigation and water delivery system resulted in huge water loss. Climate change, drought, and rising sea levels also aggravate water crisis in Egypt. Besides, for long, water is a priceless commodity and understood as abundant in Egypt. Only since 2020, Egypt has enacted legislation that seeks to price water (Halawa, 2022).

The GERD is Ethiopia's self-funded unilateral, sovereign, geopolitical and development project. It is not a multilateral or international project. The downstream countries and their geopolitical alliances have tried to coerce Ethiopia into a binding agreement, in a way that undermines its sovereign and natural rights to use the Nile waters in the future (Yemane, 2021). Though the three countries agreed, by the 2015 DoP, that the construction and the filling of the GERD went side by side, the two downstream countries insisted to have a binding agreement before the filling started or proceeded (Arsano, 2023). The ongoing GERD's negotiations are deeply rooted in each country's domestic contexts and national interests. The complexity of the negotiation processes reflects the complex interplay among the legal, hydrological, environmental, political, and economic domestic determinant factors within Ethiopia, Sudan and Egypt.

3.2. Geopolitical determinants: The triad

The global water governance legal frameworks such as the 1966 Helsinki Rules, the 1997 UNWC, and the 2004 Berlin Rules do not agree with what the 1902, 1929 and 1959 Nile water agreements that protect downstream countries' historic water rights over the Nile water. The Nile basin riparian countries established NBI in 1999 for creating contexts and structures conducive to collective actions in the basin. NBI was entrusted with three core functions: collective water governance, development and cooperation (NBI, 2014). Nevertheless, similar to the pre-NBI period, unilateral actions and projects have been dominant in post-NBI periods (Seid and Embiale, 2021). In 2003, Ethiopia, Egypt and Sudan had agreed on the Joint Multipurpose Project (JMP), studied under ENTRO/NBI, and trusted for collective actions, confidence-building, regional cooperation and integration, benefit-cost sharing, and effective water governance processes and outcomes (Cascão

and Nicol, 2016). However, due to numerous political obstacles, the JMP project did not materialize.

The NBI's D3 Project, the CFA, is a product of the decade-long negotiations and aims to establish permanent legal (CFA) and institutional (NRBC) frameworks for effective water governance arrangements and practices (Akamo, 2022). By 2007, all of the countries involved agreed on all 45 articles of CFA except article 14b, on water security. In 2010, the upstream countries decided to modify Article 14b (to be resolved by the NRBC within six months of its establishment) and going forward by signing and ratifying it. So far, three countries have ratified the CFA (Ethiopia, Rwanda and Tanzania), and four others (Kenya, Uganda, Burundi and South Sudan) are in the process of ratification. As a reaction to the signing of CFA, both Sudan and Egypt suspended their participation in all NBI activities and projects, but Sudan resumed its full membership to both NBI and ENTRO in November 2012. Unlike the 1959 agreement that gives Egypt and Sudan priority of use and control over the Nile waters, the CFA capitalizes on equitable water use and control rights of all riparian countries. Similar to the post-NBI period, in the post-CFA era unilateral and competitive approach is dominant in ENB. The NBI's failure to come up with an agreed upon collective action framework, such as the CFA, encouraged Ethiopia's unilateral actions. The context of lack of a smooth historical past, dominance of incompatible positions and unwillingness to compromise are critical challenges to the GERD's negotiation processes and outcomes. Despite the change of regimes, mainly in Ethiopia and Egypt, much has remained the same with regard to the Nile issue in general and the GERD in particular.

The GERD is under construction since April 2011. It is not the first dam in the Nile basin but part of previously constructed several dams (First-1902, and High-1970 Aswan Dams in Egypt; Sennar-1925, Rossaries-1967 and Merowe-2000 dams in Sudan; Fincha-1970, Adobo- 1980s, Tekeze-2009, Tana Belese diversion-2010 dams in Ethiopia) (Arsano, 2023). The GERD is a geopolitical object grounded on the longstanding geopolitical tensions between Ethiopia, Sudan and Egypt. By framing the GERD as a foreign policy issue each party has tried to mobilize popular support or distract public attention from other pressing domestic matters (good governance, democratization and development) and by doing involved in denial or misrepresentation of reality. All the parties have used the GERD issue to appear strong domestically and divert internal pressures such as elections in

Ethiopia and concerns about how to regulate water access and usage in Egypt, and domestic instability in Sudan. For the three parties, the GERD remains a card that can be played to rally the population against domestic and external pressures (Attia and Saleh, 2021). Generally, the politicization and securitization of the GERD in all parties' domestic discourses and contexts made the GERD's negotiations reach a deadlock. Thus, the national level context of each negotiating party has a detrimental impact on the GERD's negotiation processes and outcomes. Moreover, the impasse over the GERD has a negative impact on the peace and security of the Nile basin and Horn region (Idris, 2023).

Sudan had been a strong ally of Egypt on Nile water issues. The strong hydro-political alliance between Egypt and Sudan (1959-1985), however, started to crack in the post-1985 period where Sudan's water demand and the need to revise the 1959 agreement became a forefront agenda (Swain, 2011). The division reached a climax in 1995 with the assassination attempt of Egyptian president in Addis Ababa and Sudan went to the extent of threatening Egypt for blocking and diverting the flow of the Nile water. Moreover, during al-Bashir's time, there were strong relations between Ethiopia's and Sudan's rulers where the former's rulers were facilitating talks between the latter's government and South Sudanese rebels. Furthermore, the 2011 creation of South Sudan, which denied Sudan's 80% of oil and natural resources, forced Sudan to work with Ethiopia and reconsider its policies over the GERD and Nile waters in terms of energy, natural resources, security and regional alliances (Beyene, 2023a; Abebe, 2023). Besides, it made competition with Egypt over the Halayeb triangle more acute than before. In 2010, Egypt and Sudan decided to withdraw their membership from NBI, but Sudan rejoined NBI in 2012 and had shown more willingness to cooperate with Ethiopia (Attia and Saleh, 2021). In March 2012, Sudan officially announced its support for the GERD's construction and acknowledged that Sudan's security and economy depended more on its relations with Ethiopia than with Egypt (Beyene, 2023b). Furthermore, following the removal of the Muslim Brotherhood (MB) from power in 2013 (Attia, and Saleh, 2021), which former Sudanese president Omar al-Bashir supported, Sudan strengthens its support and alliance with Ethiopia, mainly over the GERD. In 2016-2017, the alliance between Ethiopia and Sudan created a bilateral free-trading zone and in April 2017 Sudan expressed that there was "no limit to the relationship between Sudan and Ethiopia, politically, economically,

commercially, culturally, socially, and in security". Thus, until Bashir was removal from power in 2019, Sudan was not working against the GERD's construction (Idris, 2023).

In the post-2019 era, however, Sudan's stance on the GERD and its relations with Ethiopia changed. In this period, Sudan used the rising tensions over the GERD as an instrument to deflect national tensions and re-aligning with Egypt. Furthermore, the al-Fashaga region dispute brought Sudan to look for Egyptian military support and signed a military cooperation and training agreement in early 2021 (Attia and Saleh, 2021). In this regard, Sudan's government has been using both the boundary and the GERD disputes for domestic mobilization and sources of legitimacy or for diverting public attention, or geopolitical alliance formation. Sudan's 750-km long Red Sea coastline is attracting many foreign interests and competitions and the USA, China, Russia, UAE, Turkey, Qatar, Egypt, and Saudi Arabia are trying to control Sudan's ports. The USA and Russia are openly competing with one another, and are putting pressure on different parts of Sudan's transitional government. Al-Bashir (who ruled Sudan from 1989 to 2019) made a historic visit to Moscow in 2018 and gave Russia permission to build a military base in the Red Sea region. However, the USA Africa Command put pressure on the post-2019 regime of Sudan and froze the agreement in 2021. This external intervention and competition has exacerbated the conflict in Sudan, mainly between civilians and the army on one hand and Sudan's two most powerful army forces - the Sudanese Armed Forces (SAF), and the Rapid Support Forces (RSF), on the other hand.

Blame game is a challenge for the GERD negotiations. Ethiopia has accused Sudan and Egypt of providing such support for various insurgent groups in Ethiopia. Both Sudan and Ethiopia have accused each other of encroachment over the al-Fashqa region and both alleged each other that each sold arms to rebel groups (Attia and Saleh, 2021). Ethiopia has directly accused Egypt of supporting both TPLF and Gumuz rebels against the federal government. In this regard, Egypt showed an interest to enter into arms deal with Ethiopia's opposition groups in May-June 2013, when Ethiopia temporarily diverted the course of the Nile River for GERD's construction. In addition, since 2011, Egypt has strengthened its water diplomacy with White Nile riparian and Horn countries by signing joint economic, security and defense cooperation agreements and forming alliances (Sudan, South Sudan, DRC, Kenya, Uganda, and Djibouti) to deter Ethiopia from building

the GERD. Egypt and Sudan are also strengthening ties on different fronts, and in May 2021 conducted a joint military drill called "Guardians of the Nile". Egypt and Sudan signed a military pact on 2 March 2021 where Egypt is ready to meet Sudan's request in all fields. Egypt also used the COP27 conference, on climate mitigation and adaptation agenda of 2023, as a means to get diplomatic support for its position over the GERD. Ethiopia and Egypt have both attempted to counter each other's growing cooperation with Sudan using military cooperation. Ethiopia signed an agreement with Sudan to establish a joint military force for border security in January 2014. Egypt later signed an agreement with Sudan in March 2014 to strengthen Sudan's military capacity (Akamo, 2022).

There have been many negotiations over the GERD, but all of them reached deadlock (Seid and Embiale, 2021). The first move was the establishment of the International Panel of Experts (IPoE) in 2012, which was the first milestone in the negotiation process, consisting of ten members (two from each country and four international experts). IPoE was tasked to build confidence among the three countries and to study the negative impacts of GERD and identify ways to mitigate them (Arsano, 2023). The IPoE released a 59-page report in 2013 and made public in 2014. The IPoE report outlines that water security, safety of the dam, and quality of water are the three main concerns of Egypt and Sudan over GERD. The IPoE calculated that there would be a maximum of 6% reduction in AHD's hydropower generation, while the water flow reduction to Egypt would be less than 3% (IPoE, 2013). The IPoE assured that the GERD will not cause significant harm to Egypt and Sudan's water security but it could benefit all riparian and neighboring countries. It also affirmed that the safety of the dam is highly guaranteed as the contractor building the dam is a world-class company that has "designed and constructed over 200 large dams around the globe and the construction of GERD complies with the standards of the International Commission on Large Dams (IPoE, 2013). Accordingly, the IPoE recommended that Ethiopia speed up the clearing of vegetation to reduce sedimentation and methane gas, to control the water quality, in the river and to conduct two more studies. Ethiopia and Sudan accepted the IPoE studies while Egypt rejected it initially. After President Abdel Fattah al-Sisi came to power in 2013, however, Egypt changed its rejection of IPoE's study and in 2014 during an AU summit in Malabo (Equatorial Guinea) Egypt agreed to resume technical negotiations and respect IPoE recommendations. As a result, in August

2014, the irrigation ministers of the three countries agreed to constitute a Tripartite National Committee (TNC), made up of twelve expert members (four from each country), and tasked with selecting international consultants to conduct the IPoE-recommended additional studies. However, due to disagreements over the criteria for selecting the consultancy firm, the TNC failed.

The Declaration of Principles (DoP) was signed by the three parties in 2015 which capitalized on implementing the IPoE studies, peacefully resolving the conflict, recognizing the equitable water rights and securities of all parties, and causing no significant harm to anyone. However, the DoP came to an end because it was politicized and interpreted differently (Yemane, 2021). Egypt sees the DoP as a binding agreement that binds all the three states together. In this regard, Egypt, in its 2020 letter to the UNSC, argued that Ethiopia's unilateral filling of the GERD is a breach of the DoP. In contrast, for Ethiopia, the DoP is not a binding treaty but a framework for cooperation. Although the DoP is a major breakthrough in the geopolitics of ENB (Salman, 2016), the signing of the DoP and further demand for binding agreement over the GERD discourages a basin-wide collective action arrangement such as the CFA. The National Independent Research Scientific Group (NIRSG), a nine-party mechanism (three from each country), was established in 2018 and was trusted with selecting international consultancy groups to conduct IPoE recommended studies over GERD. But once again the three parties failed to agree on baseline scenarios for the studies, where the two downstream countries insisted on historic and current water rights and uses as baseline but Ethiopia insisted on establishing an equitable baseline to carry out the recommended studies (Gedion, 2023; Abebe, 2023).

The GERD's deadlocks are not limited to its filling and annual operation but also stems from the desire to control the water governance processes, functions and outcomes (Idris, 2023). Since April 2011, GERD has become a centre of geopolitical competition and contradictory positions by the three parties: historical water rights by Sudan and Egypt and equitable water rights by Ethiopia. Besides, Egypt and Sudan considered the GERD as an existential threat, whereas Ethiopia treated it as a critical part of its development, sovereignty, security, natural rights and survival (Abebe, 2023). In addition, Sudan and Egypt want the issue to be settled by UNSC or by the involvement of four actors (UN, USA, EU and AU) while Ethiopia prefers for the trilateral negotiations or the AU observation (Idris, 2023). They have also disagreed on the nature and the scope of the agreement

where Ethiopia prefers a nonbinding guideline on GERD, and signing the binding CFA for Nile water governance but the two downstream countries prefer a binding agreement over GERD and not signing the CFA. Besides, Ethiopia prefers water allocation that is based on CFA and the participation of all the 11 riparian states, but the two downstream countries pushed for trilateral water allocation (Akamo, 2022). In addition, blaming and accusing each other is a principal dynamic in the GERD's negotiation process. The downstream countries blame Ethiopia that it causes significant harm while Ethiopia blames the downstream countries that they struggle to maintain the monopolistic positions that undermine Ethiopia's water rights and sovereignty over the shared Nile waters. Egypt and Sudan are using the GERD to stabilize their domestic politics and call for a quartet negotiation to delay the filling of the dam and undermine Ethiopia's sovereign and natural right to use and control the shared Nile waters (Idris, 2023). The two downstream countries and their external geopolitical alliances have deliberately used coercive economic, political and military instruments for pushing Ethiopia into a binding agreement over its own dam (Yemane, 2021).

3.3. Geopolitical determinants: External powers

Due to its strategic location and route for global trade, dynamic population and multiple natural resources the Horn of Africa attracts the attention of external powers. It is located at the heart of very strategic routes from India to the Gulf of Aden, the Red Sea and the Mediterranean and is part of the Middle East regional politics where major regional actors (Turkey, UAE, Qatar, Saudi Arabia, Israel, Egypt and Iran) are competing in the region (Rondos, 2016). The region hosts one of the busiest international maritime trade routes, where a significant percentage of oil from the Gulf countries flows to global markets. Goods from Europe to the Gulf region and Asia also pass through the Bab al-Mandab strait. The economy of the region has also become bigger which also has gravitational power for external actors. In this regard, the total GDP of the region is approximately US\$188 billion and 89% of this comes from Sudan (\$95 billion) and Ethiopia (\$72 billion) (Gardner, 2019). Its population is also growing at an alarming rate in the world and pulls the external actors to be involved in it (Ighobor, 2013). Thus, the available natural resources, markets, and geostrategic significance made the Horn a centre for competition by countries of the region, regional (Egypt, Saudi Arabia, Turkey, UAE, Israel, Qatar, and Iran) and global (China, USA, and Russia) powers.

External powers are promoting their own respective national interests and influences to maximize their political and economic benefits on one hand and to prevent the increasing sphere of influence of other powers, on the other hand. This competition is causing instability in the region. These powers are also involved in many boundary conflicts and wars (between Djibouti, Eritrea, Ethiopia, Kenya, Somalia and Sudan) in the Horn region. For instance, the 1977 Ethio-Somalia war over the Ogaden region, the 1998 Ethio-Eritrea, and the 2020 Ethio-Sudan dispute over al-Fashqa are boundary related conflicts in the region where many external powers were involved in. These conflicts and wars aggravated the sale and spread of arms and weapons across the region which undermines the success of AU's Agenda 2063, "Silencing the guns". The political rivalry that exists between the Horn countries is also one of the basic contexts that create a fertile environment for external powers' involvement in the region (Johnson, 2019). In this competitive geopolitical setting, UAE, Saudi Arabia and Egypt are competing for regional influence against Turkey, Qatar, and Iran (Mansour and Ahmed, 2019). These powers have used political cooperation, economic incentives, and humanitarian and financial aid as tools in their dealings with the Horn countries. The motivations of these countries and their hidden aspirations have been sources of instability, insecurities and underdevelopment in the region. Thus, strengthening regional integration and reducing military tension has to be an important aspect of Africa's and global trade networks' security structure.

Turkey is one of the principal regional actors involved in the Horn region. It is one of the actors that have increasing presence, through cultural, economic and political means, in the region. While the Turkish Cooperation and Coordination Agency (TIKA) opened branches to deliver humanitarian and infrastructure aid to the Horn region, the Yunus Emre Cultural Centre aimed to present Turkish culture to the societies in the region. It has also economic reasons for its involvements: to diversify its markets in the Horn region. Besides, the rivalry between Turkey and the Gulf countries (UAE, Saudi Arabia, Egypt) over political leadership in the Middle East and the Horn region is also another driving force for its involvement in the Horn. Turkey opened a military base in Somalia. Since 2010, the UAE has been involved in Egypt, Libya, Yemen and the Horn of Africa. The Horn has strategic importance for the UAE in terms of economic benefits (investments in ports, markets), strategic significance and security (Melvin, 2019). By controlling the ports in the region, the UAE aims to

have a stake in the African market. In order to promote its national interests and become a strategic player in the Gulf of Aden and the Suez Canal passage, the UAE has established military bases in the region: Somaliland, Puntland, Yemen and Eritrea (The Economist, 2018).

The Horn's stability and the triads' cooperation (between Ethiopia, Sudan and Egypt) are important for UAE's increasing political and economic influence in the region. Sudan and the UAE struck a \$6bn agreement to develop and operate a port on the Red Sea, construct airports, railways and roads that link the Nile to the Red Sea, a free trade zone and a large agricultural project to increase agricultural exports from Sudan to the Gulf region. Moreover, it has showed an interest to mediate the GERD's negotiations and after two years of interruption, in August and September, 2023, a UAE's led negotiations were held over GERD. In 2021, the UAE also showed an interest to mediate the border dispute between Ethiopia and Sudan over the al-Fashaga region. UAE has also motivation to cultivate rich agricultural land in the al-Fashaga region and to transform Sudan into a regional bread basket with trade routes operating through the Red Sea. The UAE has also provided Ethiopia with military assistance in its fight against the TPLF. Besides, its leadership has developed good relations with Djibouti and Somalia for a long time but since 2015, both countries (Somalia for erosion of territorial unity and Djibouti for port mismanagement) have distanced themselves from UAE (Pham, 2018).

China, the USA, Saudi Arabia, and Qatar have large-scale agricultural projects in the region (Attia, and Saleh, 2021). The Nile basin is a critical geopolitical basin and is found at the epicenter of the Horn and shared by 11 riparian states. The Nile River is a main source of water, energy and food for its riparian countries, mainly for Egypt, Ethiopia and Sudan. It has also been the source of social and political competition, tensions and conflict. The tensions over existing legal frameworks, water infrastructure, and different narratives have become part of the larger geopolitical playing field in the Horn of Africa. Constructive third-party involvement and support for negotiating an effective water governance arrangement is essential. With the right approach, it could be the key to resolving the water conflict in ENB. However, the Nile basin is a complex region where many actors engage for their geostrategic and geopolitical interests. This involvement has a long history. Colonial powers compete over the Nile water for geopolitical and geostrategic interests (Swain, 2011). During the cold war, the super powers involved in ENB where Soviet supported Egypt in the construction of the

AHD and the USA supported Ethiopia in studying the development potentials of the Blue Nile basin which resulted in 17 volumes of research publication. However, since 1979 the USA (peace treaty between Israel and Egypt) has shifted its alliance towards Egypt and the latter has secured billions of dollars every year from the former. In post-cold war era the Betterton Wood Institutions (WB, IMF) were involved in the Nile basin and contributed to the formation of NBI in 1999.

Russia has involved in the region to enhance multilateral cooperation. It has supported African solutions for Africa's problems and a non-interference policy. In July 2021, Egypt perceived Russia as biased towards Ethiopia but the mistrust did not escalate as Russia bolstered cooperation with the former. China has economic, ideological, and political and security interests in the region and launched the Belt and Road Initiative (BRI) in 2013. As a strategic element of its global Belt and Road Initiative, China continues its mass investment schemes (ports and military bases) in the Horn region. As part of China's ambitious initiative, Djibouti has received official BRI funds and other countries, too. China and Chinese investors were also involved as a financier for dam building in the upstream areas of the Nile basin (Cascão, 2009) which minimized the existing financial gaps and contributed to the new geopolitical dynamics in ENB. In the post al-Bashir era, Israel also has taken a keen interest in normalizing and building relations with Sudan's military leaders and signed the Abraham Accords in August 2020. In this regard, members of Israel's intelligence/security services have both visited and received members of Sudan's Rapid Support Forces. Amid popular demonstrations in Sudan, Israel has made Sudan's stability a top regional priority.

The GERD is located in a resource-rich area (and experiencing a rise in oil, gas, and mineral exploration) that attracts external powers' competition over those resources (Attia and Saleh, 2021). In addition, external powers are competing for balance of power in the Red Sea and the Horn region, which is also another challenge for the GERD's negotiations (Abebe, 2023). Increasing presence of external actors intensifies interregional alliances and rivalries. In this regard, the USA, EU, and AL officially supported Egypt's and Sudan's positions over GERD, for their own geopolitical interests (Matthews and Vlado, 2023). In supporting Egypt and Sudan, the Arab League passed several resolutions that blamed Ethiopia as violator of the 2015 Declaration of Principles (DoP) and warned that unilateral filling and operation of GERD was not only a security threat to Egypt and Sudan but also a security threat to the entire Arab world (Matthews and Vlado,

2023). Ethiopia slammed the resolution as 'partial and blind support' to Egypt. Ethiopia has also strengthened its commercial and military ties with China, UAE, Turkey and Israel. Although Egypt and Israel have mutual concern (Iran's growing influence in the Arab world, and the rise of Islamic extremism in Egypt's Sinai Peninsula), like the relation with China, the improvement of relations between Ethiopia and Israel has been suspiciously seen by Egypt.

The World Bank (WB) was also involved in the GERD negotiations. It has been actively engaging in promoting cooperation by providing financial, expertise and knowledge support. It first became involved in the negotiations in the Nile waters in the late 1990s. In 1999, the WB creates NBI to develop mechanisms and strategies for effective water governance, conflict resolution, facilitation of dialogues and consensus building in the Basin. WB also supported the creation of the Nile Basin Development Challenge (NBDC) in 2005 and the Nile Basin Development Fund (NBDF) in 2013 to support the equitable and sustainable governance of the Nile waters. It has also financed the development of a basin-wide hydrological monitoring network, and water resources management plan. In 2019 and 2020, WB used high-level diplomacy, technical expertise, financial incentives, and facilitation of working groups to build trust and mediate the conflict over GERD. However, the efforts of the WB have not been successful to end the impasse over both the CFA and GERD. Its efforts have been challenged by the lack of a formal mechanism of dispute resolution, the political tensions between the three parties, the lack of a comprehensive basin-wide water resources management plan and financial constraints (Zeitoun, Mirumachi et al. 2020; Badea, 2020). In addition, its efforts gave less attention to capacity building and conflict resolution mechanisms but much has been targeted towards infrastructure projects (Zeitoun et al., 2020).

The European Union (EU) has also been involved in water conflict resolution in ENB since the early 2000s (Lakew et al., 2020). In 2006, the European Commission adopted a framework for cooperation that aimed to promote cooperation in the governance of the Nile waters. It has provided financial and technical assistance to the three countries in the development of the CFA. As technical support, it had also established a Nile Basin Technical Committee (NBTC) in 2007 (Lakew et al., 2020). By initiating a dialogue through the establishment of the NBTC, the EU has also encouraged the three states to reach an agreement over the governance of the Nile waters. In 2020, the EU launched a three-years program: the Nile Basin Water Security and Cooperation (NBWSC)

program to help strengthen and promote cooperation, sustainable development, water security, food security and climate resilience in the riparian countries. The European Parliament presented an indepth analysis on climate change-induced security threats which highlighted that Egypt will not be affected by the GERD unless there is a prolonged drought. European states have also participated through private actors. For example, two French consulting groups agreed upon by Egypt, Ethiopia and Sudan to study GERD's impact in 2016. Germany's Voith signed an agreement to supply Ethiopia with 13 of the 16 turbines Ethiopia needs; and Salini, an Italian firm, was the main (civil) contractor in charge of GERD's construction.

However, the EU's role in the negotiations has been limited. First, it is not a direct participant in the negotiations and second, it does not have the authority to impose any solution on the three countries. Besides, the EU has been unable to fully address the underlying causes of the conflict: unequal access to water resources, political and economic inequality, and the lack of shared understanding of the Nile basin's hydrological and environmental issues. In this regard, the EU has not done much to correct water sharing and use inequities in ENB. Second, the EU's spokesperson, on 8 July 2021, rejected and blamed Ethiopia's unilateral action concerning the second-year filling of GERD. Furthermore, Egypt and Sudan called the EU to be part of the GERD's negotiation process but Ethiopia rejected it.

The USA has also been involved in water conflict resolution in ENB since 2016 when it attempted to create a unified legal framework to settle the water conflict. In 2017, the USA attempted to negotiate an international agreement on the management of the Blue Nile, and in 2018 it provided financial aid to Sudan and Ethiopia to help improve their water infrastructure and encourage dialogue between them. Ethiopia had crossed the diplomatic red line by accepting the USA and WB intervention over the GERD issues, of course as observers, in November 2019 (Yemane, 2021). Both parties were unilaterally invited by Egypt to get involved in the GERD's negotiations as observers, knowing the fact that these are the actors that provide huge aid and loan for Ethiopia and have strong geopolitical partnership with Egypt. For about four months (from 6 November 2019 to 28 February 2020) the three parties had conducted about 12 (7 at DC, 2 at Addis Ababa, 2 at Khartoum, and 1 at Cairo) rounds of intensive discussions but ended unsuccessfully (Helal and Hesham, 2023). The failure was associated with the USA's bias and economic and diplomatic

sanctions against Ethiopia (Woldemaryam, 2020). In this regard, in September 2020, the USA made decisions to cut 100 million US dollars in aid due to Ethiopia's first filling of the GERD. Besides, Trump also claimed, in October 2020, that Egypt could "blow up" the GERD. The draft agreement prepared by the USA and the WB claimed that the dam's filling should be done after concluding a binding agreement which contradicted both the DoP's and Ethiopia's sovereignty and natural rights over GERD. Consequently, Ethiopia had shifted its position towards 'African solutions for African problems'.

The AU has adopted an African solution for African problems and has been involved in the water conflict since the early 2000s. In 2007, the AU convened a meeting with representatives from Ethiopia, Sudan and Egypt where they had agreed to cooperate on the equitable utilization, and the need to reach an agreement on a framework for equitably sharing the Nile waters. After Egypt brought the dam issue to the UNSC, and Ethiopia proceeded with the first filling, an AU-led round of negotiations was launched in 2020. In June 2020, after the UNSC held closed meeting over GERD, the AU requested to host the negotiation process. The AU convened two meetings (on 26 June and 2-13 July 2020) to resolve the impasse over GERD (Turhan, 2021). The first meeting was the Extraordinary Bureau of the Assembly of Heads of State and Government which was held on 26 June 2020. Second, the AU experts held meetings in July 2020, and presented their report on the outstanding issues of GERD. But the report was ignored by Egypt and Ethiopia but accepted by Sudan. Third, the AU-led negotiations resumed in August 2020, but Ethiopia now requested that a more beneficial water-sharing deal be a condition before reaching an agreement on the filling and operation of the GERD but was rejected by both Sudan and Egypt. The AU had used constructive dialogue, mediation, and facilitation (2007, 2011 and 2020) to facilitate the CFA, and the GERD's trilateral negotiation processes. It also provided technical expertise, funding, guidance and advice to have an agreed upon governance framework for the Nile waters. However, the AU approach was not successful to end the impasse over GERD. This is because of the insistence and preference of Egypt and Sudan to outside actors (USA, EU, UN, and AU; requested for quartet actors on 2 March 2021) and brought the issue to the UNSC in 2021, and Ethiopia rejected this request and proceeded with the second-year filling. The continued attachment and preference to actors outside Africa prevents Egypt and Sudan from being able to fully accept African solutions to African problems.

Besides, the AU does not have a strong and effective water governance arrangement at continental levels. Therefore, to realize African solutions for African problems, the AU needs to elaborate and adopt a continental water governance declaration and other arrangements. Generally, the external powers' motivations and instruments have been undermining the negotiation processes and outcomes over GERD and the stability and security of the Horn region.

4. Conclusions

The paper delves into the geopolitics of the Grand Ethiopian Renaissance Dam (GERD) and its security implications for the Horn of Africa, emphasizing the significance of the Eastern Nile Basin (ENB) water as a shared resource among riparian states. It highlights how the domestic politics, development, national identity, culture, and foreign relations of Ethiopia, Sudan and Egypt are intertwined with the ENB waters. The deadlock surrounding GERD's negotiations is influenced by differing narratives regarding the Nile's water use, control, ownership and the dam's construction being viewed as a symbol of nationalism for Ethiopia or a water security threat for Egypt and Sudan. Besides, domestic poor water governance arrangements and practices on one hand, and instability and support for insurgent groups on the other hand further complicate the negotiation processes and outcomes. Furthermore, geopolitical driven external powers (like USA, UAE, Saudi Arabia, Turkey, Iran, Russia, and China) interventions are causing deadlocks and exacerbating tensions over GERD and impacting the Horn of Africa's regional security, stability and peace. The impasse is linked to geopolitical tensions, contradictory positions and competition for dominance among external powers. Resolving this deadlock requires building mutual trust, toning down securitization and addressing equitable development and security interests of all parties to avoid exacerbating the water crisis and regional instability.

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