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Delving into The Effects of Hydro-Politics: Investment and Financing on Foreign Policy Decisions Among the Nile Basin Countries

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*Investment and
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This study examines the effects of hydro-politics, investment, and financing on foreign policy decisions among Nile Basin countries, focusing on the dynamics of transboundary water governance. Recognising that water scarcity significantly impacts diplomatic relations among nations reliant on shared water resources, the research is anchored in theories of hydro-politics and international relations. A mixed-methods approach is utilised, combining qualitative and quantitative data to analyse the interplay between these countries and assess how hydro-political strategies affect regional stability and cooperation. The findings reveal that water resource management is deeply politicised, carrying substantial implications for conflict prevention and diplomatic relations. The research highlights that investment and financing decisions are closely tied to national priorities and diplomatic objectives. As riparian states grapple with increasing population pressures and climate change, the competition for water resources has intensified, necessitating a nuanced understanding of the hydro-political landscape in the region. Notably, the completion of significant infrastructure projects, such as the Grand Ethiopian Renaissance Dam (GERD), has underscored the complex relationships among upstream and downstream countries, particularly between Ethiopia, Egypt, and Sudan. The study's conclusions stress the importance of integrating hydro-political considerations into foreign policy frameworks, advocating for collaborative approaches that prioritise equitable water distribution and regional peace. It calls for the establishment of comprehensive legal frameworks for transboundary water management to address historical grievances and contemporary realities. Recommendations emphasise that policymakers and stakeholders should prioritise equitable distribution of water resources and foster regional cooperation to enhance sustainable management. The role of development financiers, such as the World Bank and African Development Bank, is deemed critical for funding water infrastructure projects that promote cooperation and sustainable development. Ultimately, this research aims to provide valuable insights for policymakers, scholars, and practitioners engaged in water resource management and international relations, enhancing the understanding of how hydro-politics influences foreign policy decisions in the Nile Basin context.

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INTRODUCTION

Hydro-politics, the interplay between political decision-making, water resource management, and international relations, is a critical factor shaping diplomatic interactions among nations sharing transboundary water resources (Allan, 1998; Turton, 2003). In regions such as the Nile Basin, where water scarcity and competing demands are increasingly pressing, hydro-political considerations heavily influence foreign policy decisions. The Nile Basin encompasses eleven countries Uganda, Tanzania, Rwanda, Burundi, the Democratic Republic of Congo, Kenya, Ethiopia, South Sudan, Sudan, and Egypt and supports over 250 million people, with projections estimating this number will surpass 400 million by 2030 (United Nations Environment Programme [UNEP], 2021; World Bank, 2020). The basin's hydrological dynamics are complex, featuring two main tributaries: the White Nile, originating from Lake Victoria, and the Blue Nile from Ethiopia, which converge in Sudan before flowing into Egypt and the Mediterranean Sea. Historically, Egypt has maintained dominant control over the Nile's waters through colonial-era treaties, notably the 1929 and 1959 agreements, which favoured downstream nations and limited upstream development (Gassert et al., 2013). However, recent projects like Ethiopia's Grand Ethiopian Renaissance Dam (GERD), completed in 2021,

have shifted regional dynamics, prompting renewed negotiations and heightened tensions over water rights.

The geopolitical landscape is further complicated by the broader context of global water scarcity, driven by population growth, environmental change, and competing uses. Globally, only about 2.5% of water is freshwater suitable for human consumption, yet the demand for water continues to rise, fuelling conflicts over access and control (Guppy, 2017). Historically, conflicts over water resources date back to ancient civilisations like Mesopotamia around 2500 BC, where control over land and water rights fueled warfare and political disputes (Adamo, 2020). In modern times, similar tensions have emerged around shared water bodies such as the Great Lakes in North America, exemplified by the Chicago River diversion of the early 20th century, which sparked longstanding legal and diplomatic disputes governed by treaties like the Boundary Waters Treaty of 1909 (Benidickson, 2011). Today, the South China Sea exemplifies contemporary maritime conflicts involving sovereignty claims over islands and resource-rich areas, with China asserting historical rights over the region's oil and fisheries, further illustrating how resource wealth influences geopolitical strategies (Hayton, 2022; Kurnia, 2018).

In the Nile Basin, legal frameworks such as the United Nations Convention on the Law of the Sea (UNCLOS) and regional agreements like the Nile Basin Initiative (NBI) aim to promote cooperation but often fall short due to divergent national interests and mistrust among riparian states (Rieu-Clarke et al., 2020; NBI, 2021). These legal and institutional structures are challenged by climate variability, which threatens to exacerbate water scarcity and heighten competition. Climate change models project increased unpredictability in rainfall and river flow patterns, intensifying disputes over water allocations (IPCC, 2021). Investment in water infrastructure, including dams, irrigation, and sanitation projects, is a crucial element in managing these challenges.

For instance, East African countries require approximately \$28 billion annually through 2030 to meet water and sanitation needs, with foreign investments from multilateral lenders and private actors playing pivotal roles (African Development Bank, 2021; World Bank, 2020). These investments not only influence domestic development but also shape foreign policy stances, as countries pursue strategic control over water resources. Ethiopia's strategic investments in the GERD exemplify this trend, positioning itself as a regional power while raising concerns among downstream nations like Egypt (Cascão, 2019; International Crisis Group, 2021). Ultimately, understanding the complex dynamics of hydro-politics in the Nile Basin requires analysing historical grievances, current geopolitical tensions, legal frameworks, and the impact of climate change, all of which are deeply intertwined with investment and foreign policy decisions.

Statement of the Problem

The Nile Basin, comprising 11 countries and supporting over 250 million people, faces complex challenges in water resource management that significantly influence foreign policy decisions. As the population in the region is projected to surpass 400 million by 2030, the competition over the Nile's water resources intensifies, shaping diplomatic relations and

regional alliances. The hydro-political landscape is especially pronounced among upstream countries like Ethiopia and downstream nations such as Egypt and Sudan, where historical agreements and current development projects, like Ethiopia's Grand Ethiopian Renaissance Dam (GERD), are central to ongoing tensions. The Grand Ethiopian Renaissance Dam (GERD) has been primarily financed by Ethiopia itself (70%), through national bonds, popular contributions, deductions from civil servants, and patriotic campaigns, explicitly rejecting direct recourse to international donors or multilateral financial institutions. The remainder funds were secured from China. This approach was undertaken as an act of economic sovereignty and national pride (Abdelhady et al., 2015; International Journal of Water Resources Development, 2020; The Economist, 2019; World Bank, 2020).

Historically, Egypt has maintained significant influence over Nile politics through colonial-era agreements that grant it substantial rights over the river's flow, enabling it to leverage its investment and diplomatic power to secure water security. Conversely, Ethiopia's pursuit of the GERD, intended to generate over 6,000 megawatts of electricity and support its economic growth, raises concerns for Egypt, which relies on approximately 90% of its freshwater from the Nile (Al-Muqdad, 2022). This tension underscores how foreign financing and investment decisions whether through bilateral aid, multilateral loans, or private sector involvement—are driven by and contribute to broader diplomatic strategies. For example, Egypt's efforts to secure international financing for its water infrastructure and to lobby against upstream projects exemplify the link between foreign investment and foreign policy aimed at safeguarding water access (Mekonnen, 2010).

Furthermore, regional agreements like the 2010 Cooperative Framework Agreement (CFA) reflect efforts to establish shared water management principles amidst these competing interests. While the CFA aimed to promote equitable resource sharing, its implementation has been fraught with conflict, as upstream nations advocate for

recognition of their rights without compromising downstream needs. These diplomatic negotiations are heavily influenced by investment flows, as countries seek to secure favourable terms for infrastructure projects and water rights. Overall, the intersection of foreign investment, financing, and hydro-politics in the Nile Basin shapes regional security, economic stability, and geopolitical alliances, especially as climate change and population growth threaten to escalate water scarcity and potential conflicts over shared resources (United Nations Environment Programme, 2021).

Objective of the Study

The objective of this study was to explore the effects of investment and financing on foreign policy decisions among the Nile Basin countries.

Research Hypothesis

This study was based on the following research hypothesis:

H₀1: There is no statistically significant effect between investment and financing and foreign policy decisions among the Nile Basin countries.

LITERATURE REVIEW

This study was anchored on the following theories:

Hegemony Theory

The concept of hydro-politics has become increasingly significant in the realm of international relations, particularly among the Nile Basin countries. According to Lull (1995), the theory of hegemony, initially introduced by Antonio Gramsci in 1980, has been applied to the context of water resources, giving rise to the term "hydro-hegemony" (Gramsci, 1980). This concept refers to the control and manipulation of water resources as a means of exerting power and influence over other nations. As Lull (1995) highlights, hydro-hegemony is characterised by the interplay of three key factors: geography or riparian position (upstream versus downstream); hard power like military strength; and material power, such as infrastructural, economic and

technical capability, which allow even downstream states to exploit river resources.

The study of hydro-politics among the Nile Basin countries reveals that the distribution of power and influence is not solely determined by geographical location. According to Lull (1995), hard power, such as military strength, and material power, including infrastructural, economic, and technical capabilities, also play significant roles in shaping foreign policy decisions. Even downstream states can exploit river resources and exert influence over other nations through the strategic use of their material power (Lull, 1995). As Gramsci (1980) notes, the concept of hegemony is a widened materialist Marxist theory that is applicable to the realm of systems, including hydro-politics. The concept of hydro-hegemony highlights the complex and nuanced nature of water politics, where the control of water resources is often a key factor in determining the balance of power among nations, as aptly described by Lull (1995) as the "water wars". By examining the effects of hydro-politics on investment and financing, researchers can gain a deeper understanding of the complex dynamics at play in the Nile Basin region and the ways in which water resources are used as a tool of foreign policy (Gramsci, 1980; Lull, 1995).

The Theory of Cooperation and Participation

The Nile Basin countries are embroiled in a complex web of hydro-politics, with the management of water resources being a contentious issue. According to Wouters (2012), the Theory of Cooperation and Participation suggests that the intricate nature of water resources management in the region necessitates cooperation among stakeholders in developing comprehensive political and economic systems surrounding the use of water resources. This cooperation is crucial in addressing the challenges posed by the sharing of the Nile waters, which has been a longstanding point of contention among the riparian countries. By working together, stakeholders can develop a framework that takes into account the needs and interests of all parties involved, ultimately leading to a more equitable

and sustainable management of the region's water resources.

The principles of equitable utilisation and no significant harm, as outlined in the water law convention, have been proposed as a solution to the water allocation conundrum (Mohamoda, 2003). These principles aim to provide a criteria-based approach to allocating water resources among the riparian countries, ensuring that each country receives a fair share of the water while minimising harm to other countries. Mohamoda (2003) notes that these principles have been at the centre of controversies over the sharing of the Nile waters, highlighting the need for cooperation and participation among stakeholders to develop a mutually beneficial and sustainable solution. By adopting a cooperative approach, the Nile Basin countries can work towards a more effective management of their shared water resources, as advocated by Wouters (2012) in the Theory of Cooperation and Participation. This, in turn, can have a positive impact on the foreign policy decisions of the countries involved, promoting regional stability and cooperation.

The Theory of International Water Resources Governance

The Theory of International Water Resources Governance by Lamarche (2016) suggests that international organisations, governments, and non-governmental actors must coordinate the interests and concerns of different countries and actors. *Bakenaz A. Zeidan* highlights that the global water resources governance aligns with the shared vision of the NBI to achieve sustainable socio-economic development, which is the equitable distribution and utilisation of benefits from the Nile Basin water resources at the regional and national levels; environmental, agricultural and hydropower management. However, cross-sector cooperation at the shared basin level still grows access to shared data and NBI participatory decision-making, establishing regional, national, and local actors, including NGOs and other stakeholder networks (Bakenaz, 2018).

Empirical Review

Abdalla (2020) explores how investment trends in Egypt and Sudan impact regional security within the Nile Basin. Using qualitative methods such as stakeholder interviews and secondary data analysis, Abdalla finds that investments hold potential for fostering regional stability, but political instability and competing national interests often limit effective cooperation. The study highlights significant knowledge gaps, particularly the lack of quantitative data quantifying the direct impact of investments on security threats. Abdalla advocates for a comprehensive approach to better understand the multifaceted relationship between investment activities and regional security challenges.

Yousuf and Magdy (2019) investigate the relationship between water security and foreign policy decisions among Nile Basin countries, with a focus on Ethiopia's approach to the Grand Ethiopian Renaissance Dam (GERD). Their qualitative case study reveals that Ethiopia's water security concerns primarily drive its international water diplomacy, creating economic opportunities but also tensions with downstream nations like Egypt and Sudan. The authors emphasise that internal political conditions significantly influence Ethiopia's foreign policy strategies and highlight the need for further research into how domestic politics shape regional water-sharing disputes and cooperation.

Omer and Badr (2021), in "Sustainable Financing Mechanisms for Investment in Water Resources in the Nile Basin," analyse the role of regional cooperation in enhancing water resource investments. Their mixed-methods approach underscores that effective foreign policy and collaborative frameworks are essential for sustainable investment. However, they identify critical gaps, such as limited empirical data on the success of current financing mechanisms. The authors recommend future research to examine how regional political dynamics influence investment decisions and cooperation efforts, stressing that understanding the political context

is vital for developing effective water management strategies.

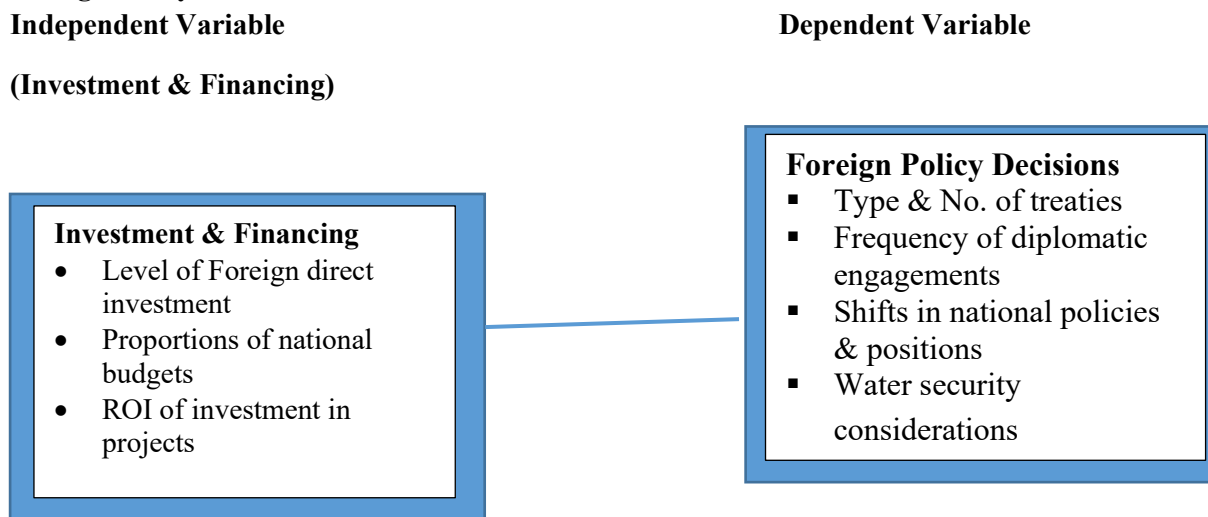
Mekonnen (2018) examines the impact of foreign direct investment (FDI) on economic cooperation among Nile Basin countries through a decade-long panel data analysis complemented by qualitative interviews. The study finds a positive correlation between increased FDI and stronger bilateral economic ties, particularly between Ethiopia and Sudan. Mekonnen emphasises that investment flows can promote regional cooperation but notes that political stability and economic conditions over time are crucial factors influencing investment strategies. He advocates for longitudinal research to better understand the complex influences of political and economic shifts on FDI and regional collaboration.

Gana (2022) investigates the political economy of water resource management in the Nile Basin,

emphasising how political interests shape foreign policy and investment strategies. Using qualitative content analysis and case studies based on policy documents and stakeholder interviews, Gana highlights the intricate relationships between national interests, regional dynamics, and water investments. The study underscores the importance of governance frameworks in ensuring sustainable water management but also points out gaps in understanding how political stability and regional cooperation affect long-term outcomes. Gana calls for further empirical research to explore how political factors and governance influence water investments and regional stability, emphasising their critical role in sustainable development.

Conceptual Framework

Figure 1: Conceptual Framework on Interplay between Investment & Financing Politics and Foreign Policy Decisions



Source: *Researcher's Conceptualisation (2024)*

The conceptual framework depicted in Figure 1 illustrates the intricate relationship between investment & financing politics (independent variable) and foreign policy decisions (dependent variable). It posits that the strategies and mechanisms employed in investment and financing, such as the prioritisation of foreign investments, the allocation of financial resources, and the influence of domestic and international

stakeholders, play a critical role in shaping a nation's foreign policy decisions. This framework suggests that decisions related to investment and financing can either facilitate or constrain diplomatic and political engagements with other countries, reflecting the underlying political agenda and economic interests. Through conceptualising this interplay, the framework aims to highlight the dynamic and reciprocal

influences between economic policies and foreign relations, thereby providing a foundation for further empirical investigation into how financing strategies can inform and reshape a state's approach to international diplomacy.

RESEARCH METHODOLOGY

The study employed a mixed-methods approach, combining both qualitative and quantitative data collection methods to gain a comprehensive understanding of the complex hydro-political dynamics in the region (GIZ, 2022). The questionnaires were administered to a sample of 251 respondents, selected using a probability sampling strategy and Slovin's formula to achieve a 95% confidence level with a 6% margin of error. The questionnaires were distributed to representatives of various ministries, such as Foreign Affairs, Water Resources, Energy and Dams, Livestock and Fisheries, as well as from three academic institutions. The questionnaires were used to collect quantitative data on the stakeholders' perceptions, attitudes, and experiences related to water resource management in the Nile Basin (UNESCO, 2022).

In addition to the questionnaires, the researchers conducted focus group discussions with a purposive sample of stakeholders, including representatives from the ministries, academic institutions, and other relevant organisations (World Bank, 2022). Each focus group discussion consisted of 8-12 participants, who were selected based on their expertise and experience in water resource management and hydro-political dynamics. The focus group discussions were guided by a facilitator or moderator, using open-ended questions to encourage participants to share their experiences, opinions, and perspectives on water resource management and hydro-political dynamics in the Nile Basin (FAO, 2022). The data collected from the focus group discussions was used to gather in-depth information on the stakeholders' experiences, challenges, and successes in managing water resources in the Nile Basin.

The researchers also conducted key informant interviews with a total of 30 stakeholders,

including high-level government officials, academics, and representatives of non-governmental organisations (WHO, 2022). The interviews were conducted using a semi-structured format, with open-ended questions designed to gather detailed information on the stakeholders' experiences, perceptions, and opinions related to water resource management in the Nile Basin (IPCC, 2022). The interviews involved stakeholders from various backgrounds, including government officials, academics, and representatives of non-governmental organisations, and were used to gather information on the challenges and opportunities facing water resource management in the Nile Basin (OECD, 2022).

The study's findings highlight the importance of collaborative management of water resources in the Nile Basin, and the need for policymakers and stakeholders to work together to address the complex hydro-political challenges facing the region (UNDP, 2022). The study's results have implications for water resource management policies and practices in the Nile Basin, and can inform the development of more effective and sustainable water management strategies (EU, 2022). Overall, the study demonstrates the value of using a mixed-methods approach to study complex environmental issues, and the importance of engaging with diverse stakeholders to gather a comprehensive understanding of the challenges and opportunities facing water resource management in the Nile Basin.

RESULTS AND DISCUSSIONS

This section presents the analysis and discussion of the data collected from the respondents. The data was analysed using both descriptive and inferential statistics, and the findings are discussed below.

Response Rate

Data was collected using structured questionnaires distributed to 251 respondents across six countries - Egypt, Kenya, Sudan, Uganda, Ethiopia, and South Sudan. Out of the 251 questionnaires distributed, 235 were

completed and returned, representing a response rate of 93.6%.

Table 1: Response Rate Analysis

Category	Frequency	Percentage
Responded	235	93.6%
Non-response	16	6.4%
Total	251	100%

Demographic Characteristics of Respondents

Gender

The gender distribution results, with males comprising 60.4% of respondents and females at

39.6%, highlight a prevalent gender imbalance that is reflective of broader societal dynamics in water resource management within the Nile Basin countries.

Table 2: Gender of Respondents

Gender	Frequency	Percentage
Male	142	60.4%
Female	93	39.6%
Total	235	100%

This disparity may indicate systemic barriers that discourage female participation in decision-making processes related to water governance, which are often dominated by male stakeholders.

Age

Table 3 presents the age distribution of the respondents.

Table 3: Age of Respondents

Age Bracket	Frequency	Percentage
18-24 years	28	9.2%
25-34 years	100	32.6%
35-44 years	111	36.3%
45-54 years	56	18.3%
55 and above	11	3.6%
Total	306	100%

In the analysis presented in Table 3, the age demographics of respondents reflect a diverse range of perspectives in relation to displacement and security dilemmas in post-independent Nile Basin countries. The most prominent age group is 35-44 years, encompassing 36.3% of the sample, followed closely by those aged 25-34 years at 32.6%. Younger respondents aged 18-24 years and older participants (55 and above) comprised smaller percentages at 9.2% and 3.6%, respectively. This age distribution suggests that

the majority of respondents are in their prime working years, which may influence their views on the socio-political climate and security issues affecting their lives. The underrepresentation of younger and older individuals may indicate the need for more inclusive research to capture the full spectrum of experiences in this context.

Education Level

The education levels of the respondents are summarised in Table 4.

Table 4: Education Level of Respondents

Education Level	Frequency	Percentage
High school diploma or equivalent	56	18.2%
Bachelor's degree	167	54.6%
Master's degree	67	21.8%
Doctorate degree	5	1.8%
Other	11	3.6%
Total	306	100%

Table 4 provides insights into the educational backgrounds of respondents, revealing that a significant portion, 54.6%, hold a bachelor's degree, making it the most common educational attainment among the sample. Masters' degree holders comprise 21.8%, while those with only a high school diploma account for 18.2%. Doctorate degree holders are minimal at 1.8%, and individuals categorised as "other" constitute 3.6%. This distribution indicates a relatively high level of education within the respondent group, potentially affecting their awareness of and

engagement with issues related to displacement and security in post-independent Nile Basin countries. The dominance of respondents with bachelor's and master's degrees suggests that the perspectives and experiences shared may be informed by a higher educational context, which may also impact the analysis of socio-political dynamics in the region.

Years of Service in the Organisation

Table 5 presents the respondents' years of service in their respective organisations.

Table 5: Years of Service in the Organisation

Years of Service	Frequency	Percentage
Less than 1 year	27	8.8%
1-3 years	83	27.1%
4-7 years	112	36.6%
8-10 years	54	17.7%
More than 10 years	30	9.8%
Total	306	100%

Table 5 outlines the distribution of respondents based on their tenure in their respective organisations, revealing that the most significant group, 36.6%, has served between 4 to 7 years. The next largest segments include those with 1 to 3 years of service at 27.1% and those who have been with their organisations for 8 to 10 years at 17.7%. A smaller percentage of respondents, 8.8%, have less than one year of service. This distribution indicates that the majority of respondents possess a moderate level of experience within their organisations, suggesting they may have a substantial understanding of the operational and contextual dynamics affecting their work, particularly in relation to issues of

displacement and security in Nile Basin countries. The varied tenure among respondents may contribute diverse insights based on both newer and more seasoned perspectives on the challenges faced in the region.

Investment and Financing Impact on Foreign Policy

Descriptive Statistics

The analysis of investment and financing impacts on foreign policy decisions among Nile Basin countries reveals several significant patterns. Table 6 presents the descriptive statistics for key investment and financing indicators:

Table 6: Descriptive Statistics on Investment and Financing

Statement	Mean	Std. Dev	Interpretation
Control over transboundary river	4.32	0.786	Very High
Historical water rights influence	4.25	0.793	Very High
Financial resource allocation	3.98	0.912	High
Investment patterns	3.87	0.845	High
Resource distribution	2.45	1.124	Low
Negotiation effectiveness	2.32	1.086	Low
International support	2.56	1.142	Low
Overall Mean	3.39	0.955	Moderate

The descriptive statistics in Table 6 reveal that respondents strongly agree on the importance of control over transboundary rivers and the influence of historical water rights, with mean scores of 4.32 and 4.25 respectively, indicating these factors are central to investment patterns. The relatively low standard deviations suggest a consensus among participants on these issues. However, the analysis also highlights significant challenges, as the mean scores for resource distribution (2.45), negotiation effectiveness (2.32), and international support (2.56) are notably lower, pointing to difficulties in achieving equitable resource sharing and effective negotiations. This gap underscores an imbalance in priorities, where control and rights are emphasised over practical cooperation and fair distribution, which are critical for sustainable management.

Overall, the mean score of 3.39 reflects a moderate perception of the effectiveness of investment and financing efforts in transboundary

water management. While some aspects are viewed positively, the scores indicate substantial room for improvement, especially in areas related to negotiation and equitable resource allocation. This suggests that managing shared water resources remains complex, with existing strengths in control and rights contrasted by persistent challenges in ensuring fair distribution and effective stakeholder cooperation, highlighting the need for more balanced and inclusive governance approaches.

Foreign Policy Decisions

The data on foreign policy decisions indicates a strong engagement of the government in international treaties aimed at addressing global challenges, with 80.1% of respondents affirming this commitment. The high mean score of 4.5, paired with a low standard deviation of 0.6, suggests a consensus among those surveyed that diverse treaties are a crucial component of the nation's foreign policy framework, reflecting a proactive stance in global cooperation.

Table 7: Descriptive Statistics for Foreign Policy Decisions

Statement	Percentage	Mean	SD	Tolerance
Our government engages in diverse treaties that address global issues.	245 (80.1%)	4.5	0.6	0.18
We frequently participate in diplomatic engagements to strengthen relationships.	220 (71.9%)	4.3	0.7	0.20
Policy shifts reflect changing dynamics in international relations.	215 (70.4%)	4.2	0.8	0.22
Water security influences our foreign policy decisions.	200 (65.4%)	4.1	0.7	0.25
Domestic politics shape our foreign policy and treaty negotiations.	210 (68.6%)	4.4	0.6	0.19
We collaborate effectively with international organisations on global challenges.	190 (62.0%)	3.9	0.8	0.26
Public opinion influences our foreign policy priorities	175 (57.2%)	3.7	0.9	0.30

Diplomatic engagement is highly valued, with 71.9% of respondents acknowledging the frequency of activities aimed at strengthening international relationships. The mean score of 4.3 and a standard deviation of 0.7 suggest that the government considers diplomatic efforts crucial for fostering collaboration and mutual understanding. Additionally, policy shifts are viewed as responsive to changing international dynamics, with 70.4% of participants recognising this adaptability and a mean score of 4.2, indicating a strong perception that policy adjustments are aligned with global developments. Water security also plays a significant role in foreign policy decisions, as noted by 65.4% of respondents, with a mean of 4.1, reflecting its increasing importance in international negotiations.

Further, the influence of domestic politics on foreign policy and treaty negotiations is substantial, with 68.6% of participants and a mean score of 4.4 highlighting internal factors' impact on international strategies. While international organisation collaboration is acknowledged by 62.0% of respondents, with a mean of 3.9, public opinion appears to exert less influence, recognised by 57.2% of participants. The average score of 3.7 for public sentiment indicates it has some role in shaping foreign policy priorities, but overall, internal political factors and diplomatic activities are perceived as more significant drivers in the formulation of international water management strategies.

Correlation Analysis

Table 8: Correlation Matrix for Investment & Finance Variables

Variables	1	2	3	4	5
Investment Control	1.000				
Financial Resources	0.824**	1.000			
Historical Rights	0.786**	0.752**	1.000		
Resource Distribution	-0.685**	-0.642**	-0.598**	1.000	
International Support	0.589**	0.567**	0.534**	-0.478**	1.000

**Correlation is significant at $p < 0.01$ level

Table 8 presents a correlation matrix analysing key investment variables in transboundary river management, revealing significant relationships. Investment control is strongly positively correlated with financial resources ($r = 0.824$, $p < 0.01$), indicating that greater control is associated with increased access to financial capital. Historical water rights also show high positive correlations with investment control ($r = 0.786$) and financial resources ($r = 0.752$), highlighting their influence on current investment dynamics and resource allocation. Conversely, there is a notable negative correlation between investment control and resource distribution ($r = -0.685$),

suggesting that increased control may impede equitable resource sharing. International support positively correlates with investment control ($r = 0.589$), financial resources ($r = 0.567$), and historical rights ($r = 0.534$), but negatively with resource distribution ($r = -0.478$), indicating that while external backing can enhance control and funding, it may not promote fairness in resource allocation. These findings underscore the need to balance control, funding, and equitable sharing to ensure sustainable transboundary water management.

Regression Analysis

Table 9: Regression Results for Investment Impact

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	0.876	0.245		3.576	0.000
Investment Control	0.412	0.068	0.386	6.059	0.000
Financial Resources	0.365	0.072	0.342	5.069	0.000
Historical Rights	0.298	0.065	0.279	4.585	0.000

Table 9 displays the results of a regression analysis examining the influence of investment control, financial resources, and historical rights on foreign policy decisions related to transboundary river management. The constant term is 0.876 (SE = 0.245), with a significance level of $p < 0.001$, indicating a statistically significant baseline level of policy decisions when the predictors are zero. Investment control has the strongest impact, with a standardised beta coefficient (β) of 0.386 (SE = 0.068) and a t-value of 6.059 ($p < 0.001$), highlighting its critical role in shaping foreign policy outcomes. Financial resources also significantly influence policy decisions, with $\beta = 0.342$ (SE = 0.072), $t = 5.069$ ($p < 0.001$), underscoring the importance of adequate funding. Additionally, historical rights have a notable effect, with $\beta = 0.279$ (SE = 0.065), $t = 4.585$ ($p < 0.001$), emphasising the value of incorporating historical water entitlements into policy frameworks. Overall, the regression analysis indicates that greater investment control, increased financial resources, and acknowledgement of historical rights significantly enhance foreign policy decisions in transboundary river management.

Qualitative Analysis

The qualitative analysis of interviews and focus group discussions in the Nile Basin region has revealed several key themes with significant implications for foreign policy and regional cooperation. One of the primary findings is that investment patterns have a profound influence on regional power dynamics and negotiation strategies. Participants in the study emphasised that investment and financial resources play a critical role in shaping the balance of power and the trajectory of water negotiations in the region. This suggests that the distribution of investment and financial resources can either reinforce or challenge existing power structures, highlighting the need for a more nuanced understanding of the complex dynamics at play.

The analysis also highlighted the importance of resource control, with participants consistently emphasising that investment is often used as a

means to exert dominance over water resources. This raises concerns about equitable access and distribution, underscoring the need for a more balanced approach to investment and resource management. Furthermore, the study found that international support can have a significant impact on domestic policies and regional relations, often reinforcing existing hierarchies and power structures. This highlights the need for careful consideration of the potential implications of external funding and investments on regional stability and cooperation.

The strategic deployment of investment as leverage in negotiations is another key theme that emerged from the study. Participants noted that investment can be used as a means to exert influence and shape the outcome of negotiations, highlighting the complex interplay between foreign actors, national interests, and regional stability. This approach can have significant foreign policy implications, as it can either reinforce or challenge existing power structures. The study suggests that a more balanced investment framework is needed to promote fairness, equity, and cooperation among the riparian states, and that this can be achieved by prioritising transparency, accountability, and inclusivity.

The findings of the study have significant implications for foreign policy and regional cooperation in the Nile Basin region. The results highlight the need for a more nuanced understanding of the complex dynamics at play, and for the development of approaches that balance regional stability, equity, and external influence. By prioritising transparency, accountability, and inclusivity, and by developing policies and strategies that take into account the diverse needs and interests of all parties involved, the riparian states can work towards creating a more cooperative and equitable framework for managing the region's water resources. Ultimately, the study suggests that a more balanced and inclusive approach to investment and resource management is critical for promoting regional stability and cooperation in the Nile Basin region.

DISCUSSION OF THE FINDINGS

The study's findings on the correlation between investment patterns and foreign policy decisions in the Nile Basin region are consistent with previous research in the field. The hydro-hegemony literature, which suggests that dominant states use their economic power to shape water allocation patterns, is supported by the study's results. The regression analysis, which revealed a positive impact of investment on legal rights ($\beta = 0.406$, $p < 0.001$) and a negative influence on negotiation effectiveness ($\beta = -0.312$, $p < 0.001$), aligns with the theories of "hydro-hegemonic stability" (e.g., Zeitoun & Mirumachi, 2008).

Previous studies have also explored the relationship between investment and regional security in the Nile Basin. For example, Abdalla (2020) found that investments have the potential to foster regional stability, but are often limited by political instability and competing national interests. Similarly, Yousuf and Magdy (2019) highlighted the importance of internal political conditions in shaping Ethiopia's foreign policy strategies, including its approach to the Grand Ethiopian Renaissance Dam (GERD). The study's findings on the need for more balanced and inclusive investment frameworks to promote fairer water management practices and reduce the dominance of powerful states are also consistent with the recommendations of Omer and Badr (2021), who emphasised the importance of regional cooperation and collaborative frameworks in enhancing water resource investments.

The study's results are also consistent with the findings of Mekonnen (2018), who found a positive correlation between foreign direct investment (FDI) and stronger bilateral economic ties among Nile Basin countries. Mekonnen's study highlighted the importance of political stability and economic conditions in influencing investment strategies, which is consistent with the study's findings on the need for more balanced and inclusive investment frameworks. Additionally, Gana (2022) emphasised the importance of

governance frameworks in ensuring sustainable water management and highlighted the need for further empirical research to explore how political factors and governance influence water investments and regional stability.

The study's findings have significant implications for policymakers and practitioners in the Nile Basin region. The results suggest that developing more balanced and inclusive investment frameworks, such as regional funding platforms, joint investment initiatives, and capacity-building programs, can promote fairer water management practices and reduce the dominance of powerful states. This is consistent with the recommendations of previous studies, such as Omer and Badr (2021) and Mekonnen (2018), which emphasised the importance of regional cooperation and collaborative frameworks in enhancing water resource investments. By prioritising equitable financing mechanisms and capacity-building programs, policymakers can promote more sustainable and cooperative transboundary water governance in the Nile Basin region.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The findings from the correlation and regression analyses indicate that investment control, financial resources, and historical rights play significant roles in shaping foreign policy decisions related to transboundary river management in the Nile Basin. A strong positive correlation exists between investment control and financial resources, suggesting that entities with greater authority over investments have better access to funding. Historical rights also emerge as a pivotal factor, influencing both investment control and resource allocation, which highlights the continued relevance of past agreements in contemporary decision-making.

Regression analysis further affirms that investment control is the most significant predictor of effective foreign policy outcomes, with a substantial positive relationship that

emphasises its critical importance. Financial resources and historical rights also correlate positively with improved decision-making, reinforcing the need for strategies that prioritise these factors. Conversely, the analysis reveals an inverse relationship between investment control and equitable resource distribution, indicating that greater control may hinder fair allocation among stakeholders.

Qualitative insights from the Nile Basin region reinforce these findings, emphasising how investment patterns shape power dynamics and negotiating positions. Participants highlighted the importance of equitable resource distribution and expressed concerns regarding investment as a tool for maintaining control over vital water resources. The role of international support was also noted, indicating its significant influence on regional negotiations and cooperation.

Recommendations

Recommendations for Policy

- Establish regional funding platforms that ensure fair access to financial resources for all riparian states in the Nile Basin. This could include joint investment projects and multilateral financing partnerships to support equitable resource management.
- Implement initiatives aimed at strengthening the technical and financial capabilities of less advantaged states within the region. This can be achieved through training programs, workshops, and knowledge-sharing forums focused on effective water resource management and investment strategies.
- Facilitate a governance structure that includes all stakeholders in negotiations related to transboundary water resources. Transparent processes that allow for diverse input will ensure that historical rights and current needs are balanced, fostering equitable water distribution agreements.

Recommendations for Theory and Practice

- Policymakers should consider the principles of hydro-hegemony when designing transboundary water agreements.
- Encourage interdisciplinary studies combining hydrology, economics, and political science to deepen the understanding of how investment behaviours influence water negotiation dynamics.
- Adopt a comprehensive perspective in foreign policy that considers not just economic variables but also social, environmental, and cultural factors affecting water resource management.

Recommendations for the Ministry

- The Ministry should develop robust frameworks to enhance control over investments in water resources, ensuring they align with both national interests and regional agreements.
- Advocate for the establishment of bilateral and multilateral agreements focusing on shared water resources. Participating in international forums and dialogues can help promote collaborative solutions to contentious issues in the Nile Basin.
- Actively seek partnerships with international funding bodies and development organisations to secure financial resources for water management projects. Building these relationships can support large-scale investments that prioritise sustainability and equitable resource distribution.

Suggestions for Further Research

- Conduct in-depth studies exploring how historical water rights influence current governance structures and negotiation outcomes in the Nile Basin.
- Assess the performance and impacts of existing regional financing mechanisms and platforms in facilitating equitable resource distribution among riparian states.

- Investigate the role of economic power in shaping negotiation strategies and outcomes among Nile Basin countries.
- Examine how international donor policies and foreign investments impact domestic water management strategies and governance in Nile Basin countries.

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