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Ethiopia's Emerging Counter-Hydro Hegemonic Influence: Changing the Tides of the Blue Nile Waters for an "equitable" Basin-Wide System (Cooperation and Integration)

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Dedication

I would like to dedicate all my efforts in this Research paper to my beautiful mother – Elfresh Mekonen. Her sacrifice and wisdom – I have carried it with me till this milestone. Thank you mother! I would also like to extend my respect and admiration to those that paved the way for me. I have lived a life of comfort and shortcomings yet many opened up to me to help me so that I can shine at their expense. This milestone is yours as much as mine. To my young sister – Chiara Alemu, you are an inspiration and I admire all your accomplishments. Your tenacity and courage coupled with the beautiful smile you give to everyone is priceless.

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“I think it will be important to have discussions that are open and that look at how we can have a win-win solution in a new context not in the context of the colonial powers but in the context of Pan-Africanism and African Renaissance.”

Nkosazana Dlamini Zuma, Chairwoman of AUC, 2013

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Abbreviation and Acronyms

AfDB	African Development Bank
BWT	Boundary Waters Treaty
CFA	Cooperative Framework Agreement
CIDA	Canadian International Development Agency
CSTS	Cross Sectional Time Series
DV	Dependent Variable
GDP	Gross Domestic Product
GERD	Grand Ethiopian Renaissance Dam
GSPIA	Graduate School of Public and International Affairs
ILC	International Law Commission
IR	International Relations
IV	Independent Variable
MWE	Ministry of Water and Energy (Ethiopia)
MWP	Master Water Plan
NBI	Nile Basin Initiative
NGO	Non-Governmental Organizations
NOK	Norwegian Kroner
OECD	Organization for Economic Co-operation and Development
TECCONILE	Technical Cooperation Committee for the Promotion of the Development of the Nile
UNDP	United Nations Development Programme
WB	World Bank
WRMP	Water Resources Management Policy

Ethiopia's Emerging Counter-Hydro Hegemonic Influence: Changing the Tides of the Blue Nile Waters for an "equitable" Basin-Wide System (Cooperation and Integration)

Abstract

Recent years have seen the emergence of new hydro-political relations among eleven riparian states in the Nile River basin, challenging the highly contested and imbalanced water-sharing arrangements that resulted from the historical-colonial-legal settlement between Egypt, Sudan, and Britain. Lead by Ethiopia, all upstream riparian states are today mobilizing behind a more "equitable" paradigm to challenge Egypt's unilateral hydro-hegemony. The aim of this research paper is to identify the key driving forces behind Ethiopia's emerging counter-hegemonic influence against Egypt's hydro-hegemonic management that controls access to the Blue Nile water resources. The paper first discusses how Ethiopia continues to challenge the status-quo and changes old bellicose geo-political rhetoric of fear and mistrust by employing various counter-hydro hegemonic strategies.¹ Applying the theoretical, historical, legal, political, and statistical methods, the research demonstrates that Ethiopia has appeared as the main shareholder of the Nile, and has been relatively successful in achieving on-going negotiations and cooperation for domestic interest and basin-wide "benefit-sharing." The paper concludes that this could potentially advance long-term socio-economic and political stability in the Horn of Africa, and thus help towards eradicating enduring poverty.

Key Words: Asymmetric, Blue Nile, "Benefit Sharing," Change, Cooperation, Conflict, "Counter-Hydro-hegemony," Economic, Egypt, Equitable, Ethiopia, Hydro-dam, "Hydro-hegemony," Integration, International, watercourse laws, Influence, Management, Multilateral, Nile River, Regional, "Soft Power," Security, Sudan, Sustainable, "Water Scarcity"

¹ Ana Elisa Cascao, "Ethiopia – Challenges to Egyptian Hegemony in the Nile Basin," *Water Policy* 10 Supplement 2 (2008): 13, Accessed May 5, 2013, doi: 10.2166/wp.2008.206.

1- Introduction

1.1. The Purpose of the Study

The objective of this study is to expand on the knowledge of current debates between Egypt, Ethiopia, and Sudan on the issues of water security, and equitable, sustainable usage and management of the Nile River waters. It examines the reasons behind Ethiopia's bold approach in challenging the asymmetric power relations and looks into Egypt's unilateral approach to the usage of the Nile waters. The study also evaluates the role of new factors within and outside Ethiopia, considering the Nile Water System for universal water resource development and management (water being a public good at the local, regional and international system levels).

1.2. The Scope

The scope of the study is to investigate Ethiopia's emerging influence in the Nile Basin and the country's use of various counter-hydro hegemonic strategies vis-à-vis Egypt and Sudan. It also evaluates the success of these strategies, in terms of changing Egypt's hydro-hegemonic towards a more cooperative arrangement. Moreover, this paper seeks to find out why the adopted strategies are important that have been used are important to the highly contested and suggested multilateral "water-sharing" arrangements for "benefit-sharing". Halla Qadami defines benefit sharing as moving from the allocation of physical quantity of water to the economic, social, and political, and environmental values it brings to all riparian states.²

1.3. Statement of the Research Question

Water has always been a highly contentious issue in regional and international affairs, because of its importance for political and socio-economic stability of nations. Without access to water, the maximization and protection of human and economic development is difficult, if not

² Halla Qaddumi, "Practical approaches to transboundary water benefit sharing," Working Paper 292 (2008): 1-19 London: Overseas Development Institute.

impossible. The management of this scarce resource in equitable and sustainable terms is currently an important debate within the Nile Basin-wide region, addressing the issues of poverty, population growth, soil erosion, environmental degradation and climate change. The Nile River waters are highly important to the evolving conflict between eleven riparian states: Kenya, Sudan, South Sudan, Burundi, Eritrea (observer status), Republic of Congo, Rwanda, Uganda, Tanzania, Ethiopia and Egypt.

Egypt and Sudan, perceived as hydro-hegemony, continue to exhibit a growing concern over Ethiopia's move to divert some of the waters of the Blue Nile River for the purpose of hydroelectricity. This means that both countries' favorable colonial-legal agreements, signed between Egypt, Sudan, and Britain in the allocation of the Nile Waters, could be in jeopardy.³ Especially, Egypt's principal life sustenance depends on the Nile River⁴, and one of Egypt's geographical challenges is the inhabitable desert and nearly zero rain fall. Daniel Kandie stresses that, "the Nile then drains into Egypt—a country where there is practically no rain, and where 86% of the land is classified as very arid, and the rest as arid."⁵ Water, for Egypt and for other riparian states, is thus often part of discourses and practices of "securitization"⁶ and "militarization" guided by fear, mistrust and "zero-sum" politics. Paradoxically, however, what is an issue of national "security"⁷ and life and death for Egypt, it also so for all other riparian states. Okbazghi Yohannes places the recently growing concerns into perspective by arguing that "now all Nile

³ Ana Cascao, "Power Relations, Conflict, and Cooperation in the Eastern Nile River Basin," in *The Burden of Resources – Oil and Water in the Gulf and the Nile Basin*, ed. Sharif S. Elmusa, (American University in Cairo Press, 2011), 28.

⁴ Hamdy A. Hassan and Ahmad Al Rasheedy, "The Nile River and Egyptian Foreign-policy Interests," in *Cooperative Diplomacy, Regional Stability and National Interests: The Nile River and Riparian States*, ed. Korwa G. Adar and Nicasius A. Check, (Africa Institute of South Africa, 2011), 131.

⁵ Daniel Kandie, "Egypt and the Hydro-Politics of the Blue Nile River," Michigan State University Press (1999), 142, accessed June 5th, 2013

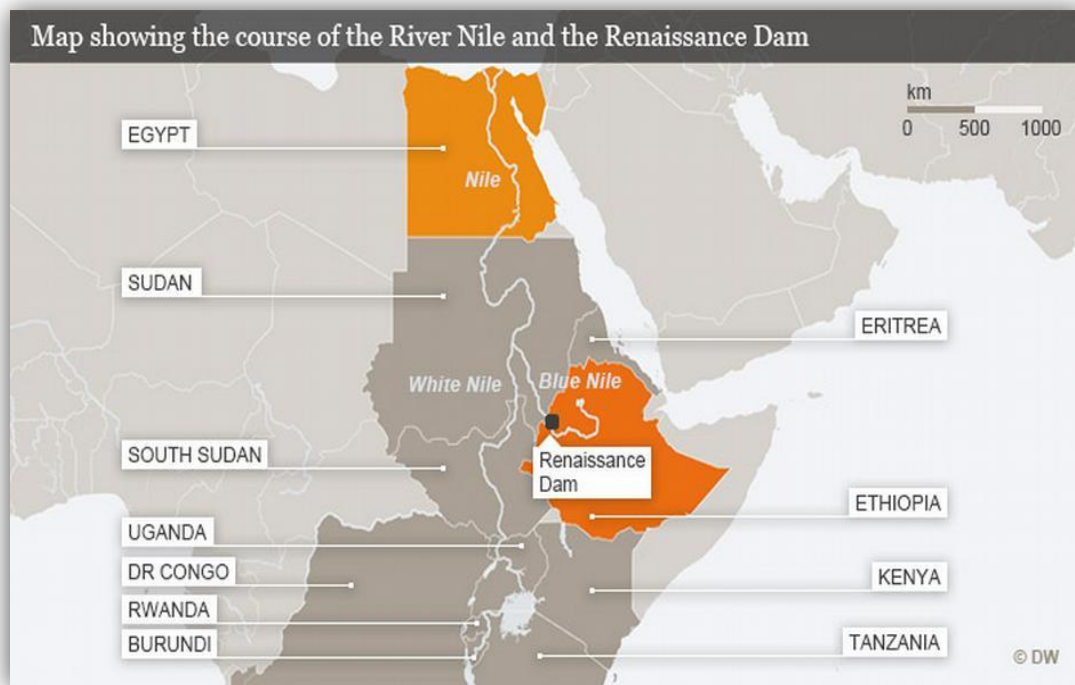
⁶ Rita Abrahamsen defines securitization following the Copenhagen School as a "political choice, a decision to conceptualize an issue in a particular ways...by an "us against them" distinction and a logic of existential-threat". Rita Abrahamsen, "Blair's Africa: The Politics of securitization and Fear", *Alternatives: Global, Local, and Political* (2005):60

⁷ Barry Buzan et.al. define 'security' "is about survival...the invocation of security has been the key to legitimizing the use of force, but more generally it has opened the way for the state to mobilize..." in *Security: A new framework for Analysis*, Barry Buzan, Ole Wæver, and Jaap de Wilde (London: Lynne Rienner Publishers, 1998), 21

countries define water resources in terms of national security, hence the elevation of water resources to the status of high politics.”⁸

As recently as June 2013, several Egyptian politicians expressed the familiar political rhetoric of a “zero-sum” game to destabilize Ethiopia and the region through various political-military-intelligence maneuvers.⁹ Others, including the President of Egypt Mohamed Morsi and Freedom and Justice Party Chairman Saad Al-Katatni, vowed to first use diplomatic avenues and second rely on the international law to protect Egypt’s water security.¹⁰ All the bellicose speeches were directed at the Grand Ethiopian Renaissance Dam (GERD) construction over the Blue Nile River in north-west of Ethiopia (see map 1 below).

Map 1: The Grand Ethiopian Renaissance Dam (GERD) – As a source of growing conflict



Source: Deutsche Welle (DW), 2013¹¹

⁸ Okbazghi Yohannes, “Hydro-politics in the Nile basin: in search of theory beyond realism and neo-liberalism,” (Journal of Eastern African Studies, 2009): 78, accessed June 10th, 2013, DOI: 10.1080/17531050802682788.

⁹ “Egypt President politicians plotting against Ethiopia's dam English subtitle”, You Tube, Published on Jun 5, 2013, accessed on June 8th, 2013, http://www.youtube.com/watch?v=b_mpjU2qIdc

¹⁰ “Egypt President politicians plotting”,

¹¹ “Egypt and Ethiopia Argue Over Dam Project,” Deutsch Welle, accessed June 15th, 2013, <http://www.dw.de/egypt-and-ethiopia-argue-over-dam-project/a-16880722>.

This research focuses on the existing debates of “water security in the Nile River Basin” and the paradigm shifts of long-term sustainable, manageable and equitable water-sharing arrangements within Ethiopia and within all the riparian states. Ideally, this would mean the emergence of regional economic cooperation and integration. I have chosen this topic to draw attention to the fundamental changes taking place within Africa, and more specifically within Ethiopia. Moreover, the topic could not be more timely appropriate, since the issue (as of 2013) has reached a critical moment of trans-boundary relations on access to the Nile Waters.¹² Some of the key changes seen in the last decade are the constant increase of population and economic growth in all riparian states, particularly in Ethiopia.

In recent years, Ethiopia has come out strong against the asymmetric power relations governing access and utilization of the Blue Nile waters within its own territory. Ethiopia’s unilateral action for hydraulic development on the Blue Nile River is supported by the Berlin¹³, Helsinki¹⁴ and International Law Commission (ILC)¹⁵ rules on “equitable” and “no-harm” water usage.¹⁶ The Nile waters, thus, are not only about “rights” to access and utilization, but it is also about managing the scarce resource equitably and sustainably with all riparian states involved.

¹² Tadesse Kassa Woldetsadik, *International Watercourses Law in the Nile River Basin: Three states at a Crossroads*, (London: Routledge, 2013): xv.

¹³ The ILC In 2004 adopted the Berlin Rules replacing the Helsinki rules. However, the Helsinki Rules become the foundation of all rules thereafter. The major difference between the two are: it is applicable to national and international waters, included the ‘no harm’ clause on top of ‘reasonable and equitable usage’ rule, and the Berlin Rules obliges each basin state to manage the waters of an international drainage basin in an equitable and reasonable manner.” Not just the right to use the waters, in SALMAN M. A. SALMAN, “The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law.” *Water Resources Development*, The World Bank, Washington DC (2007): 629, accessed June 18th, 2013, DOI: 10.1080/07900620701488562.

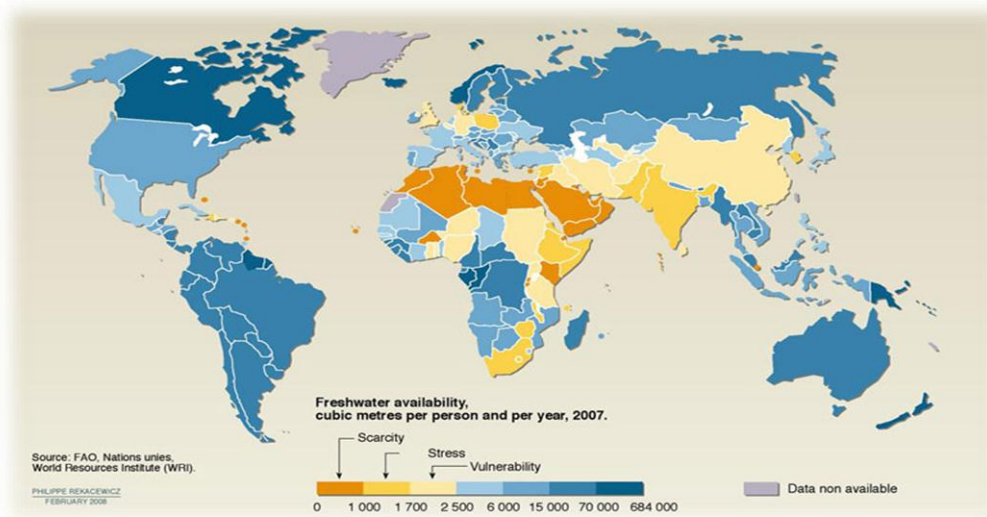
¹⁴ Experts from the International Law Association provided the first comprehensive definition of international drainage known as the ‘Helsinki Rules on the Uses of the Waters of International Rivers’. The Helsinki Rules established the principle of “reasonable and equitable utilization” of the waters of an international drainage basin among the riparian states as the basic principle of international water law.” in SALMAN M. A. SALMAN, “The Helsinki Rules.” 630-636.

¹⁵ “The ILA is larger and its membership is open to all international lawyers through recommendations. Both institutions adopt resolutions and rules which aim at codifying international law as it exists. However, it should be clarified that those resolutions and rules do not have a formal standing, and are not legally binding per se.” in SALMAN, “The Helsinki Rules.” 628.

¹⁶ Tesfaye Tafesse, “Ethiopia’s position on the Nile water agreements,” in *Cooperative Diplomacy, Regional Stability and National Interests: The Nile River and Riparian States*, ed. Korwa G. Adar and Nicasius A. Check (Africa Institute of South Africa, 2011), 78.

Ethiopia is building the momentum to create a sense of urgency of the issue of unequal water usage distribution and management against Egypt and Sudan, using unilateral, bilateral and multilateral strategies. As Egypt continues to stress its dependence on the Nile, it is considered a matter of national security for Egypt not to accept a genuine basin-wide cooperative legal framework.¹⁷ Contrary to this old and static view, Ethiopia has proceeded unilaterally to utilize some of the Blue Nile waters for domestic and regional-wide electricity production. One of the many reasons for Ethiopia’s initial move is that many of Ethiopian rivers, the Abbay (Blue Nile), Baro-Akobo (Sobat) and Tekeze (Atbara) rivers together contribute 86% of the waters flowing into the main Nile River.¹⁸ In addition, water scarcity¹⁹, stress, and vulnerability are one of Ethiopia’s key concerns given its economic development goals and high population growth, (see map 2 below).

Map 2: Water Scarcity in Africa²⁰



Sources: UNDE Water Scarcity, 2007

¹⁷ C.A. Mumma Martinon, PhD, “Nile Basin Initiative: A possibility of Turning Conflicts into Opportunities,” in *Shared Waters, Shared Opportunities: Hydropolitics in East Africa*, ed. Bernard Calas & C.A. Mumma Martinon, (French Institute for Research in Africa (IFRA), 2010), 55.

¹⁸ Yacob, Arsano, “Institutional Development and Water Management in the Ethiopian Nile Basin,” in *The River Nile in the Post-Colonial age*, ed. Terje Tvedt, (I. B. Tauris & Co. Ltd, 2010): 161.

¹⁹ “Water scarcity is either the lack of enough water (quantity) or lack of access to safe water (quality)”. Found in the Water Project .org, what is Water Scarcity, 2013, accessed June 15, 2013, http://thewaterproject.org/water_scarcity.php?gclid=CPiEg47Y3rcCFa9aMgodfBwAOQ.

²⁰ UNDE Water Scarcity, 2007, accessed June 5th, 2013, <http://www.un.org/waterforlifedecade/scarcity.shtml>

The main differences between Egypt's hegemonic water management policy and Ethiopia's more cooperative policy focused on poverty reduction can be summarised as follows (since poverty and a lack of water are linked²¹):

- Ethiopia has enacted a national water resources management policy in 1999 for the first time in its history, following a modern approach to water usage based on the “equitable”, “sustainable” and “efficient” measures.²² Egypt's National water policy of 1975 has not yet been updated according to the current hydropolitical and environmental shift, which seeks to demand a cooperative action.²³ This is against the milieu of many experts' call for immediate action to the profound social consequence of freshwater scarcity and violence.²⁴
- Echoing the new contemporary national policy, Ethiopia is challenging Egypt's hydro-hegemony via the Nile Basin Initiative (NBI) framework as a basis for creating mutually acceptable outcomes.

However, this new political and legal development has not been welcomed by Egypt and Sudan. They both greatly benefit from the 1959 bilateral legal agreements that give them 55.5 bcm (billion cubic meters) of water for Egypt and 18.5 bcm for Sudan, while Ethiopia receives zero.²⁵ Ana Cascao places the latter in perspectives by questioning further the old way of doing business: “Does the legal and technical control of the downstream countries over the Nile waters that both Egypt and Sudan exerting also mean consistent political control over the waters?”²⁶ Keeping such an important question in mind, the main argument of this research is that *Ethiopia, as the primary shareholder of the Nile River Basin, continues to influence and challenge the hydro-*

²¹ “Poverty in Africa Begins with A Lack of Clean water”, The Water Project, 2013, Accessed June 8th, 2013, <http://thewaterproject.org/poverty.asp>

²² Yacob, Arsano, Institutional Development, 162.

²³ NBI Country Profile – Egypt's Policy, NBI, 2010, accessed on June 10th, 2013,

http://www.nilebasin.org/newsite/index.php?option=com_content&view=category&layout=blog&id=35&Itemid=67&lang=en

²⁴ Thomas F. Homer-Dixon, Environment, Scarcity, and Violence, (Princeton University Press, 1999): 66.

²⁵ Cascao, Power Relations, Conflict, and Coopertion, 28.

²⁶ Ibid,

hegemonic order of Egypt and Sudan through various counter-hegemonic strategies for domestic and regional-wide economic development interest, cooperation and integration.

Based on the above introductory statements, this research sets out to answer the following three key questions:

- **First**, what factors explain Ethiopia's move to challenge the status-quo over the Nile Waters which Egypt has been exerting since the colonial era? This paper assesses the relevant legal, economic, demographic and environmental factors.
- **Second**, how is Ethiopia pursuing the idea of cooperation for equitable and sustainable usage and management of the Blue Nile waters? This question is analysed using both qualitative (Ana Elisa Cascao's theoretical insights) and quantitative methods (Jenny R. Kehl's statistical regression), which reinforce one another in supporting the main argument of the research.
- **Third**, why is Ethiopia's counter-hegemonic influence over a complex and highly contested asymmetric hydro-political relations important for Ethiopia, Egypt, Sudan, and all other riparian states?

1.4. A Brief Geographical Snapshot of the Blue Nile River

Figure 1: The Blue Nile (Tis Issat) Falls, Ethiopia²⁷



Source: Nile Basin Initiative, 2012

The Blue Nile (in Amharic the Abbay River) originates in Ethiopia's northwestern plateau.²⁸ Its waters come from various small and medium sized rivers within Ethiopia including Lake Tana and the rivers Dabus, Didessa, Fincha, Guder, Muger, Jamma, Wolaka, Bashilo, Birr,

²⁷ Nile Basin Initiative (NBI), State of the River Nile Basin, 2012, Entebbe, Uganda.

²⁸ Yacob Arsano, Ethiopia and the Nile: Dilemmas of National and Regional Hydropolitics, (Zurich, Swiss Federal Institute of Technology, 2007), 82, accessed May 20th, 2013, the book is available in pdf format at http://archiv.css.ethz.ch/publications/Ethiopia_and_the_Nile.pdf

Beles, Dinder and Rahad. Lake Tana, with its heart shaped form (see figure 1 above),²⁹ is the main tributary of the Blue Nile River that flows into Sudan and then into Egypt. The Blue Nile provides a vital source of freshwaters to Sudan and Egypt.³⁰ It raises 1,850 above sea level and proceeds roughly for 992km to the Ethio-Sudanese Border³¹ before meeting the White Nile in Khartoum, Sudan. Egypt's annual water consumption depends on 86% of waters the Blue Nile produces, the rest coming from the White Nile.³² Consequently, the Blue Nile River is highly important to Egypt, Sudan and Ethiopia but also faces major contemporary issues of climate change, environmental degradation and high variability of rainfall.

1.5. The Nile River Basin

Map 3: The Nile River Basin Watershed and its 11 Countries at a Crossroads



Source: Stratfor, 2012³³

²⁹ Arsano, Ethiopia and the Nile, 82.

³⁰ D. CONWAY, "A water balance model of the Upper Blue Nile in Ethiopia," *Hydrological Sciences Journal* (2009): 267, accessed June 18th, 2013, <http://dx.doi.org/10.1080/02626669709492024>

³¹ Woldetsadik, *International Watercourses Law*, 29.30.

³² Kandie, "Egypt and the Hydro-Politics", 141.

³³ Stratfor.com, *The Geopolitical Impact of the Nile*, Accessed July 8th, 2013, <http://www.stratfor.com/video/geopolitical-impact-nile>

The River Nile is one of the longest rivers in the world.³⁴ It flows for 6'600 km, traversing more than 30 degrees of latitude.³⁵ According to Simon Mason, "The Nile Basin covers an area of 3.1 million km², of which 1% is urban, 2% are covered by forest, 3% by wetlands, 3% by open water, 4% by shrub, 5% by irrigated cropland, 10% by cropland, 30% by desert/semi-desert and 42% by grassland"³⁶ (see appendix 2). Within the Nile basin area approximately 160 million people depend on the River for their livelihoods.³⁷ It also provides life sustenance to human needs and to socio-economic activities for almost 500 million peoples (as of 2012 census) across the eleven riparian states.³⁸ It flows from the south (upstream states) to the north (downstream states) for 6,825 kilometres.³⁹ Within all the riparian states, the Nile River faces present-day threats such as constant droughts, water pollution from land-use activities,⁴⁰ and population growth. This means that the Nile waters are "international" and they require the immediate attention of sustainable and manageable multilateral water sharing arrangements.

1.6. Methodology

This research adopts an interdisciplinary approach, drawing on various historical, legal, theoretical and empirical methods. The study draws on a range of secondary sources, including but not limited to governmental and non-governmental reports, articles, graphs, maps, and numerical data and policy papers.

Considering a theoretical framework of hydro hegemony, this paper looks at Ethiopia's counter-hydro hegemony strategies in influencing Egypt's unilateral position. The pursuit of a

³⁴ Martinon, "Nile Basin Initiative: A possibility of," 53.

³⁵ Simon A. Mason, "From Conflict to Cooperation in the Nile Basin" (PhD diss, SWISS FEDERAL INSTITUTE OF TECHNOLOGY, ETH ZURICH, 2004), 1.

³⁶ Mason, "From Conflict." 1.

³⁷ Patricia Kameri-Mbote, "Navigating Peace: Water, Conflict, and Cooperation: Lessons From the Nile River Basin." Woodrow Wilson, International Center for Scholars (2007), 1.

³⁸ "The Nile River", 2010, Nile Basin Initiative (NBI), accessed June 10th, 2013, http://www.nilebasin.org/newsite/index.php?option=com_content&view=category&layout=blog&id=36&Itemid=75&lang=en

³⁹ Martinon, PhD, "Nile Basin Initiative"

⁴⁰ Kameri-Mbote, "Navigating Peace." 1.

vision of negotiation and cooperation as opposed to conflict will be addressed using historical, theoretical and statistical analyses as a comparative research methodology.

To assess the empirical data, I use Jenny R. Kehl's Cross Sectional Time Series (CSTS) regression (which tests statistical correlations) to show and examine the strategies employed to promote negotiations and cooperation or conflict from both upstream states (Ethiopia, seen as a weaker riparian) and downstream states (Egypt, seen as a strong riparian).⁴¹ Kehl used substantive examples from the Nile Basin to illustrate the quantitative analysis alongside with qualitative-comparative understanding of soft and hard power to show what encourages cooperation and conflict.⁴² Cooperation and conflict are dependent variables.⁴³ Most of the variables measure change to indicate type of leverages.⁴⁴ The measurement of variables is followed by an interval data, which is necessary for this type of regression analysis.⁴⁵ Kehl's statistical data is a relevant source to defend the working thesis of this research. It shows what types of counter-hegemonic strategies are statistically significant in altering the status-quo.

1.7. The Limitation

Although, it is true that all riparian states, including Egypt and Sudan face critical water scarcity, development and management issues,⁴⁶ this research paper, however, focuses primarily on Ethiopia's quest for economic and social development. The reason is that Ethiopia faces greater challenges of soil-erosion, deforestation, and extreme famine, in spite of the contribution of more than 86% of the total of Nile Waters.⁴⁷ Another limitation of the study is that due to space restrictions, it does not consider the environmental impact and human costs posed by hydro-dams, particularly on the Omo River Valley and on the Blue Nile River.

⁴¹ Jenny R. Kehl, "Hydropolitical Complexes and Asymmetrical Power: Conflict, Cooperation, and Governance of International River Systems", *American Sociological Association*, Volume XVII, Number 1, (2011): 223.

⁴² Kehl, "Hydropolitical Complexes and Asymmetrical Power", 224-225

⁴³ *Ibid*,

⁴⁴ *Ibid*, 226.

⁴⁵ *Ibid*,

⁴⁶ Debay Tadesse, "The Regional Dimensions of Ethiopia's Economic and Social Development with Special Reference to the Nile River", (PhD diss, Howard University, 2007): 32.

⁴⁷ Tadesse, "The Regional Dimensions." 32.

1.9. Research Approach

First, I present a theoretical framework based on a combination of hydro-hegemony and counter-hegemony theory. The reason behind this choice is that both theories can be linked. They reinforce one another to better understand and explain the current asymmetric power relations and the hydropolitical debates over the access and usage of the Blue Nile River waters.

Second, I briefly cover the historical-colonial-legal significance of the Nile Basin in order to understand existing debates on water-sharing arrangements among the eleven riparian states. Third, I outline and discuss the factors of Ethiopia's counter-hegemonic influence. I focus on Ethiopian economic growth (GDP indicators), poverty reduction strategic policies and legal norms, population growth, including political system change.

Fourth, the paper turns to how Ethiopia is able to continue to influence the status-quo using some statistical consideration. John Waterbury argues that "Ethiopia wants a new deal that would negate the status quo. It seeks collective action among the riparians to challenge the status quo and to thwart Egypt. The public good Ethiopia seeks to provide is a new "equitable" basin-wide regime."⁴⁸ This is discussed further using Jenny R. Kehl's statistical regression. It proves that counter-hegemonic strategies such as "soft power" and "economic power" taken by weak or strong riparian states correlate with an increase of cooperation and negotiation as opposed to conflict.

Finally, the importance of Ethiopia's counter-hegemonic influence is addressed. Securing the Blue Nile waters is a necessary (but not sufficient) solution for Ethiopia to reduce its never-ending cycle of poverty and to increase its economic potential. Finding an urgent long-term solution to a pervasive issue of poverty in the Horn of Africa could have a positive spillover effect to all other riparian states in that Ethiopia's challenges of food insecurity, population

⁴⁸ John Waterbury, *The Nile Basin: National Determinants of Collective Action*, (Yale University Press, 2002): 33.

growth, access to clean water and extreme poverty are also problems in all upstream and downstream riparian states.

2. Puzzles and Theoretical Understandings: Hydro-hegemony (Egypt and Sudan) and Counter Hydro-Hegemony (Ethiopia)

What explains Ethiopia's bold approach (since 1991) to unilateral hydro-dam building and to the highly cooperative dialogues employed in challenging Egypt's hydro-hegemonic position over the Nile Waters? The change is puzzling. Most theories in International Relations (IR), from neo-realism (whereby states are seen as homogenous actors) to neo-liberal institutionalism (whereby states are understood in relation to institutions)⁴⁹ explain conflicts and power relations from a single perspective of weak versus strong. Yet, such a casual theoretical analysis cannot sufficiently account for the counter-hegemonic influence of Ethiopia in the Nile River basin.

Therefore, following the existing debates, the paper considers the theoretical framework of "hydro-hegemony"⁵⁰ by Mark Zeitoun and Jeroen Warner and "counter-Hegemony",⁵¹ conceptually and systematically developed by Ana Elisa Cascao. Both have strikingly captured Gramscian theory of "hegemony" and "counter-hegemony" both of which entail having legitimacy, consent, ideas and knowledge.⁵² Coming from a Gramscian logic, Cascao argues that holding hydro-hegemonic power over others is about demonstrating leadership, but not employing coercive measures.⁵³ The importance of an approach to leadership focused on finding equitable solutions rather than one focused on containing the problem is the main argument proposed in this research.

⁴⁹ Jutta Brunnee and Stephen J. Toope, "The Nile Basin Regime: A Role For Law?", *Water Resources Perspectives: Evaluation, Management and Policy*, 117 (2003): 95, Accessed May 5th, 2013

⁵⁰ Mark Zeitoun and Jeroen Warner, "Hydro-Hegemony – a framework for analysis of trans-boundary water conflicts", *Water Policy* 8, (2006): 443, accessed December 12, 2012, doi: 10.2166/wp.2006.054.

⁵¹ Cascao, "Ethiopia – Challenges to Egyptian hegemony," 16.

⁵² *Ibid*, 14.

⁵³ *Ibid*, 14-15.

2.1. Hegemony

Before we proceed to explaining Egypt's hegemonic position and Ethiopia's counter-hegemonic position, it is important to briefly explain the concept of "hegemony." The concept of "hegemony" was first developed by Antonio Gramsci in a prison cell in fascist Italy, although he was unable to systematically elaborate the concept further due to his failing health.⁵⁴ Both hegemony and counter-hegemony theoretical concepts, thus, are influenced by Gramscian theory, and as well as by neo-Gramscian views (which are related to critical IR studies).⁵⁵ But what is "hegemony"? While there is a clear difference between "egemonia" (hegemony) and "dominante" (dominant), far too often the two are used interchangeably.⁵⁶

According to Gramsci, hegemony is a "political power that flows from intellectual and moral leadership, authority or consensus as distinguished from armed force."⁵⁷ Gramsci added to the definition of hegemony by stating that the political power obtained subsequently become the dominant hegemony by authority rather than by coercion.⁵⁸ Hegemony involves legitimacy and some form of understanding what would result from consent.⁵⁹ However, whether Egypt will consent to new forms of legal and political legitimacy is yet to be seen.

Following Gramscian logic, hegemony is a process of achieving consent through newly proposed ideas that is understood as a sign of leadership rather than dominance.⁶⁰ Ideas and knowledge are powerful instruments that impact power relations in highly contested international basins.⁶¹ As argued by Cascao "the production of knowledge is directly related to successful

⁵⁴ Thomas R. Bates, "Gramsci and The Theory of Hegemony", *Journal of the History of Ideas*, Vol. 36, No. 2 (1975): 351.

⁵⁵ Cascao, "Ethiopia – Challenges to Egyptian", 14.

⁵⁶ Warner, "Contested Hydrohegemony", 272.

⁵⁷ Cascao, "Ethiopia – Challenges to Egyptian", 14.

⁵⁸ Antonio Gramsci, "Selection from the Prison Notebooks", (London: Lawrence & Wishart, 1971), 212, Edited and translated by Quentin Hoare and Geoffrey Nowell Smith.

⁵⁹ Cascao, "Ethiopia – Challenges to Egyptian", 15

⁶⁰ *Ibid*,

⁶¹ *Ibid*,

pursuance of material interest.”⁶²For instance, the Grand Ethiopian Renaissance Dam is a material interest that was envisioned by the late Prime Minister Meles Zenawi and was also highly accepted by the multitudes. Regarding the latter development, Gramsci could say that the “Renaissance” is not only a political invocation but is also a necessary step forward for national progress to bring the peoples together⁶³ domestically and regionally. Consequently, Gramsci argued that “...one should not count only on the material force which hegemony is understood gives in order to exercise an effective leadership.”⁶⁴ Instead, the cultural and social norms, as well as the ideas brought about by intellectuals are forms of hegemony.⁶⁵ Hegemony is understood here as the demonstration of effective leadership on the issue. This is also true for “organic intellectuals” (the working class peoples) where they can develop their own cultural intelligentsia to play a political role that is focused on the Party.⁶⁶ When a new common cultural bloc is formed between the traditional intellectuals and organic intellectuals the process of hegemony can be managed and maintained by the intellectuals (the powerful) as a whole.⁶⁷ Robert W. Cox argues that “the intellectuals perform the function of developing and sustaining the mental images, technologies and organizations which bind them together into a common identity or ideas.”⁶⁸

We can understand the above analysis in the following way that Meles Zenawi can be seen as the intellectual/political figure who managed to engage his fellow citizens (the masses) and the Ethiopian People Revolutionary Democratic Front (EPRDF) Party of the domestic and regional economic interests of the GERD. Zenawi’s function as a visionary is still widely praised

⁶²Cascao, “Ethiopia – Challenges to Egyptian”, 15

⁶³ Gramsci, “Selection from the Prison Notebooks”, 314.

⁶⁴ibid, 215.

⁶⁵ Rita Abrahamsen clarified the theoretical aspects of hegemony between the material term used by Marx and the ideas and cultural norms and values described by Gramsci as seen as “hegemony”. This is her interpretation following Gramsci’s hegemony, June 24, 2013.

⁶⁶ Gramsci, “Selection from the Prison Notebooks”, 132

⁶⁷ Robert W. Cox, “Gramsci, Hegemony and International Relations: An Essay in Method,” SAGE, *Journal of International Studies*, (1983): 168, , Accessed June 14, 2013, DOI: 10.1177/03058298830120020701

⁶⁸ Cox, “Gramsci, Hegemony,” 168.

as hegemonic (dominant, but not coercive) by many Ethiopians and as well as by members of other riparian states. Thus, as Gramsci argued, the idea of having a common purpose behind a common issue is hegemonic, but the implementation of the idea by force is not.⁶⁹ Gramsci may also consider the emerging of new hydropolitical relations in the Nile basin under Meles Zenawi and its revolutionary party, the EPRDF, to be “the Modern Prince.” The Modern Prince is, according to Gramsci, “the myth-prince cannot be a real person, a concrete individual. It can only be an organism, a complex element of society in which a collective will, which has already been recognised and has to some extent asserted itself in action, begins to take concrete form.”⁷⁰ For Gramsci, the Modern Prince must have the collective or the political will to operate and be effective. Zenawi’s revolutionary party have managed to maintain the political will as a collective political entity that has been able to govern for more than two decades by exerting national priorities, such as the question of the Nile waters. However, critics of Zenawi are well aware of how this single political party has managed to govern this long with an iron fist.⁷¹ It may have been done through his leadership or coercive measures, or both. Despite skepticism, the legal, political, economic, and environmental questions and vision left behind by Zenawi over the Nile waters continue as stepping stones for further hydropolitical relations in the Nile basin.

2.2. Hydro-Hegemony (Egypt and Sudan)

The growing water conflict between upstream (Ethiopia) and downstream (Egypt and Sudan) riparian states calls for a deeper understanding of the asymmetric power relations in the Nile River Basin.⁷² The theoretical framework of hydro-hegemony provides the analysis for power exertion in international watercourses by highlighting the role of the state. Even though

⁶⁹ Gramsci, “Selection from the Prison Notebooks”, 323

⁷⁰ Ibid, 323

⁷¹ Lovise Aalena and Kjetil Tronvoll, “The End of Democracy? Curtailing Political and Civil Rights in Ethiopia,” *Review of African Political Economy*, Volume 36, Issue 120 (2009): 193-207, accessed May 21st, 2013

⁷² Zeitoun and Warner, “Hydro-Hegemony”, 435.

the term is still loosely used, hydro-hegemony still captures the growing hydropolitical tensions at most international river basins,⁷³ especially in the Nile Basin. Egypt and Sudan are the hegemon (by authority or by dominance). Particularly, Egypt has been referred to as the most hegemonic downstream riparian state in the Nile basin. The question then is: Why and how?

Historically, Egypt has exercised various hegemonic strategies to control the water resources of the Nile. One of them is through “resource capture.”⁷⁴ As defined by Thomas F. Homer-Dixon, resource capture is similar to rent-seeking behaviour, whereby some individuals or groups maximize their economic well-being by manipulating the rules of production.⁷⁵ The motivation behind resource capture can be greed (monopolistic profits) or fear of rising scarcity that may be produced in the near future.⁷⁶ One of Egypt’s contemporary (and historic) fears (as throughout history) is that the emerging capabilities of upstream states like Ethiopia to develop the source of the Nile River (Blue Nile) will subsequently reduce the regular amount of water flowing into Egypt. As outlined by Cascao, to date, there have been three historical hegemonic strategies used by Egypt to control the allocation of the Nile waters:

“the first phase was initiated by Muhammad Ali in the 19th century through an extensive expansion of irrigation infrastructure. The second phase was during the British colonial period, when several technological and political measures were pursued in order to launch a new hydraulic project intensifying Egyptian agricultural production. The third phase was the period of Arab nationalism, when Gamal Abdel-Naser initiated projects that culminated in the building of the Aswan High dam.”⁷⁷

The historical ideas and the knowledge that Egypt was able to construct around the Nile waters and then use for absolute unilateral Nile water resources development has led to contemporary complex and contested asymmetric power relations. Asymmetric power relations are a core

⁷³ Jeroen Warner, “Contested Hydrohegemony: Hydraulic Control and Security in Turkey”, *Water Alternatives*, (2008): 272.

⁷⁴ Cascao, “Ethiopia – Challenges to Egyptian”, 18.

⁷⁵ Homer-Dixon, “Environment, Scarcity,” 75.

⁷⁶ *Ibid*, 74.

⁷⁷ Cascao, “Ethiopia – Challenges to Egyptian”, 18.

component of the hydro-political relations in the Nile River Basin⁷⁸ due to the unequal (highly contested) development and distribution of water resources between upstream and downstream riparian states. Following Gramsci's logic, Egypt's historical moves can be considered as a sign of leadership (within Egypt) rather than dominance by coercion, which subsequently led to unequal political power relations over the access to the Nile waters (outside Egypt). Moreover, Egypt's historical hegemony on the Nile water usage includes that an understanding by Egypt of its own contemporary and future interests and objectives.⁷⁹

In turn, the technical, legal, and political knowledge used to mobilize Egypt's historical interests over the Nile waters turned into, as Zeitoun and Warner argued, "dominance defined as leadership buttressed by coercion,"⁸⁰ which will be discussed further in the historical significance section of the research. Such unilateral domination was highly supported by the colonial master, mainly Britain, and then further reinforced during the proxy war by opposing superpowers Russia and the US. For instance, the British favoured Egypt in the development of hydropower infrastructures while ignoring the needs of the upstream riparian states – most of which had been under British rule, except Ethiopia.⁸¹ From the legal point of view, Cascao posits that the 1959 Agreement (which guarantees the allocation of 55.5bcm per year to Egypt and 18.5 bcm per year to Sudan) reinforces the "natural and historical rights" to the Nile waters, which is the baseline for any possible negotiations with upstream states.⁸² This means that the colonial agreement is neither up nor can be further negotiated, because for Egypt the Nile waters have always been classified as a matter of "national security."⁸³ The invocation of potentially "national security" mobilizes and legitimizes all possible actions, even the use of force, to stop any claims that may

⁷⁸ Cascao, "Ethiopia – Challenges to Egyptian", 18.

⁷⁹ Stephen Gill and David Law, "Global hegemony and the Structural power of capital", in *Gramsci Historical Materialism and International Relations* ed. Stephen Gill (Cambridge: Cambridge University press, 1993), 131.

⁸⁰ Zeitoun and Warner, "Hydro-Hegemony", 438.

⁸¹ Cascao, "Ethiopia – Challenges to Egyptian", 18.

⁸² Ana Elisa Cascao, "Changing Power Relations in the Nile River Basin: Unilateralsim vs. Cooperation?", *Water Alternatives*, (2009): 245, accessed on May 28th, 2013, <http://agris.fao.org/agris-search/search/display.do?f=2013/AV/AV201201457001457.xml;AV20120145788>

⁸³ Buzan et. al. "Security: A new", 21.

jeopardize the status quo.⁸⁴ For instance, Egypt used “covert action” tactics in the past in support of various rebels within Ethiopia to weaken the political and hydraulic power of Ethiopia.⁸⁵

The support of colonial Britain for Egypt was motivated by economic and geo-political interest gains rather than by the security and stability of the Nile River basin.⁸⁶ At the end, the colonial-legal pact made between the two has only benefited both countries. This was also true during the Cold War, when the Western superpowers strengthened Egyptian hydro-hegemony by supporting a unilateral construction of the Aswan dam.⁸⁷ Currently, Egyptian hydro-hegemonic order continues to benefit through new but twisted kind of support vis-à-vis the growing geo-political conflicts in the Middle East, namely via military aid from the US. As of June 2013, while tensions over water between Egypt and Ethiopia are growing by the day, the US has secretly approved its annual military aid supply worth USD 1.3 billion to Egypt.⁸⁸ The reasons for such a move could be multi-layered. However, the continuous exertion of military, economic, and political power through external financial aid could be particularly detrimental to the overall human and economic security in one of the most fragile regions of Africa. The latter analysis will be statistically supported further in this paper that military aid influence does not sustain cooperation.

Consequently, Egypt is a hydro-hegemon in terms of the capabilities it holds in the technical, political, financial, economic, and military spheres of influence compared to Ethiopia. Such capabilities are constructed around the historical and colonial-legal rights discourses regarding usage of the Nile waters. Stefan Deconinck argues that both Egypt and Sudan appeal to

⁸⁴ Buzan et. al. “Security: A new’,” 21.

⁸⁵ Zeitoun and Warner, “Hydro-Hegemony”, 446.

⁸⁶ R.O. Collins, “History, hydro-politics, and the Nile: Nile control: myth or reality?”, in *The Nile: sharing a scarce resource, A historical and technical review of water management and of economic and legal issues*, ed. P.P. Howell and J.A. Allan (Cambridge: Cambridge University Press, 1994), 111.

⁸⁷ Cascao, “Ethiopia – Challenges to Egyptian”, 18.

⁸⁸ Anthony Chibarirwe, “America Secretly Approves \$1.3 Billion Worth of Military Aid to Egypt”, *The Trumpet.com*, June 10th, 2013, accessed June 14, 2013, <http://www.thetrumpet.com/article/10703.19.0.0/world/military/america-secretly-approves-13-billion-worth-of-military-aid-to-egypt>

their historical and legal rights (which were obtained under the British colonial rule) to expand their consumption of the Nile waters, while refusing to accept the needs of upstream riparian states.⁸⁹ However, this does not necessarily mean that upstream riparian states, such as Ethiopia, are powerless in the face of these hegemonic (by force) instruments.⁹⁰

2.3. Counter Hydro-Hegemony: The Case of Ethiopia

This section will provide a theoretical overview of how Ethiopia continues to challenge Egypt's hegemonic regime in the Nile basin. The concept of counter-hegemony entails struggle against the prevailing hegemony for the purpose of constructing an alternative.⁹¹ Ethiopia is challenging the unequal hydro-political configurations by boldly promoting a contemporary idea of equitable, sustainable usage and management of the Nile Waters. These new ideas and this new knowledge underpin the construction of a highly praised (nation-wide and basin-wide) and contested (by Egypt) mega hydroelectric dam on the Blue Nile River. Ethiopia's departure from the past is captured by Waterbury's assessment that, "Only Ethiopia can be said to have defected from the quasi-regime. By contrast, all riparians say they want a new regime, yet only Ethiopia has taken steps to promote a vision that contrasts with that of Egypt, the Sudan, and Uganda. The other six riparians have mainly a wait- and-see attitude."⁹² Thus, the goal of counter-hegemonic riparian states is to challenge and possibly change the status quo through contestation and the creation of the alternatives (see figure 2, counter-clockwise, in the diagram below).⁹³

⁸⁹ Stefan Deconinck, "Security as a threat to development: the geopolitics of water scarcity in the Nile River basin", Focus Paper, (2009): 5., accessed May 28th, 2013, http://www.waternet.be/middle_east/security_development_nile.pdf

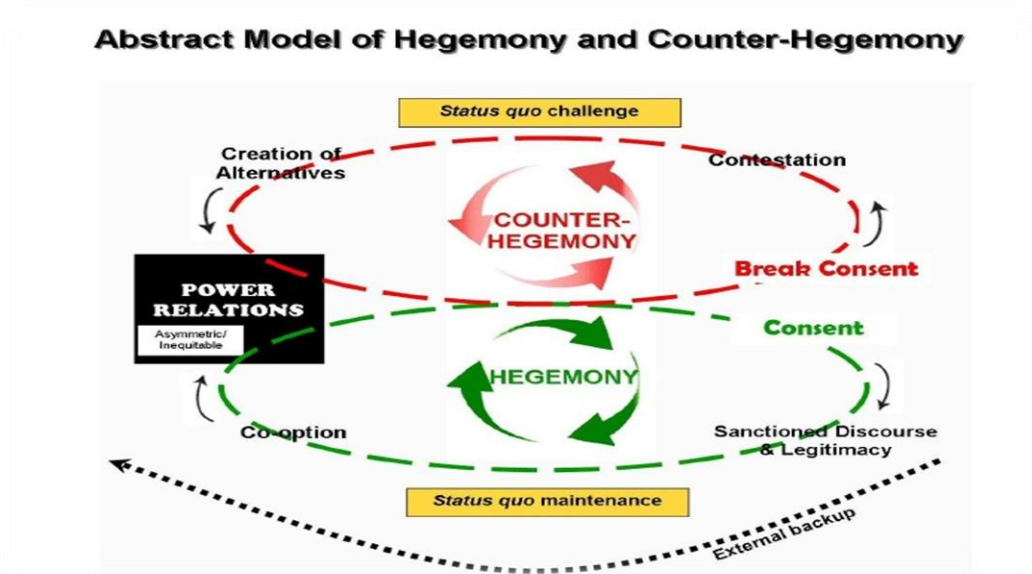
⁹⁰ Cascao, "Ethiopia – Challenges to Egyptian", 20.

⁹¹ John Baylis, Steve Smith and Patricia Owens, *The Globalization of World Politics, an introduction to international relations*, (Oxford: Oxford University Press, 2008), 150.

⁹² Waterbury, "The Nile Basin," 33.

⁹³ Cascao, "Ethiopia – Challenges to Egyptian", 16.

Figure 2: Cascao's Abstract Model of Hegemony and Counter-Hegemony⁹⁴



Source: Ana Elisa Cascao, 2008

Before 1991, Ethiopia faced a high level of instability within its internal politics and ethnic relations. Debay Tadesse argues that “Most upper riparian countries that were embroiled in endless conflicts and general instability were unable to give full attention to the development of their water resources.”⁹⁵ In addition, the international financial and technical support was not on the Ethiopians’ side, due to the geo-political and economic interests of the major world powers, including that of international donors. Thus, asymmetric power relations between Egypt and Ethiopia on the issue were inherently going to be unequal due to a scarcity of structural power.⁹⁶ Structural power is derived from military and economic power. However, currently, power relations have changed so as to facilitate a new form of hydropolitics in the Nile basin. Hydropolitical power relations have gone the following counter-strategies steps: “bargaining power” (a form of immaterial power – i.e., the ability to control and influence the status-quo by setting up the political base line for negotiations) and “ideational power” (the ability to construct

⁹⁴Cascao, “Ethiopia – Challenges to Egyptian”, 16.

⁹⁵ Tadesse, “The Regional Dimensions,” 69.

⁹⁶ Cascao, “Ethiopia – Challenges to Egyptian”, 20.

new influential ideas and knowledge while leading the discourse).⁹⁷ Egypt, in the past, has relied on both kinds of power to maintain the status quo.⁹⁸ Ethiopia has heavily relied on the ideational power (soft power⁹⁹) in order to counterbalance its relative lack of military and economic power vis-à-vis Egypt.¹⁰⁰ Some examples of the steps taken by Ethiopia are: the cooperative legal arguments (through the Nile Basin Initiative and CFA), knowledge and expertise (about the Blue Nile waters and the hydro-dam's basin-wide benefit), and the mobilization of international funding (Italy, China, France, Norway, Sweden, WB, AfDB).¹⁰¹ These ideational power strategies are not new to Ethiopia but are now better framed and used more actively than before. According to Yacob Arsano (expert in IR and on the Nile), "Ethiopia's active participation in the Nile Basin Initiative can be explained as a proactive measure to enhance the country's water development strategy,"¹⁰² to primarily mitigate poverty domestically and, subsequently, regionally.

The construction of knowledge and ideas regarding "benefit sharing" (i.e., flood and evaporation control, hydro-electricity)¹⁰³ or "shared control" discussed below (which is highly contested) are some of the steps taken to counter a unilateral hegemonic approach to hydro political relation in the Nile basin.¹⁰⁴ Ethiopian knowledge and expertise of the Nile waters usage were indeed very limited compared to that of Egypt. In the past, this has prevented Ethiopia from holding effective bargaining power.¹⁰⁵ Today, many Ethiopian experts are trained in the technical, environmental and hydrological profession and are thus able to challenge and counter Egypt's

⁹⁷ Cascao, "Changing Power Relations," 248.

⁹⁸ Ibid,

⁹⁹ Joseph S. Nye, Jr. defines 'soft power' as "The ability to shape the preference of others through the co-optive end of behaviour rather through threats or economic sanctions." Joseph S. Nye, *Soft Power*, (New York: Public Affairs, 2004), 5-7.

¹⁰⁰ Ibid,

¹⁰¹ Ibid,

¹⁰² Arsano, "Ethiopia and the Nile",

¹⁰³ David Grey and Claudia W. Sadoff, "Sink or Swim? Water Security for growth and development," *Water Policy* 9 (2007): 563, accessed June 10th, 2013, doi: 10.2166/wp.2007.021

¹⁰⁴ Cascao, "Ethiopia – Challenges to Egyptian", 21.

¹⁰⁵ Ibid, 25.

unilateral position.¹⁰⁶ For instance, from the economic point of view of “shared control,” the construction of a hydro-dam upstream would actually benefit not only Ethiopia, but also Egypt and Sudan (as downstream riparians). According to Dale Whittington, Xun Wu, and Claudia Sadoff, “as Nile water flows north towards the Mediterranean, much is lost from evaporation and seepage. For each cubic meter of water that leaves Lake Tana in Ethiopia, about 40% is lost (see figure 3 below) by the time it reaches the Mediterranean (assuming none is withdrawn for irrigation along the way).”¹⁰⁷ This means that the Nile River, as international water, has not fully been managed and utilized for economic values that could bring to all riparian states, including Egypt. The figure and table below suggest that optimal and sustainable usage of the Nile River, from its point of departure and destination, can be taken into consideration for further development projects that can have multiple usages, such as the GERD. This should also be understood from the social and human development perspective of saving the scarce resource in upstream and containing or capturing the rest in downstream, as part of a long term cooperative strategies (see figure 3 below)

Table 2: Potential Development Projects in the Nile River and Potential Shared Value¹⁰⁸

Project	Hydropower production (installed capacity in MW)	Water savings (in billion m ³)
Blue Nile		
Blue Nile storage projects (Lake Tana, Karodobi Dam, Mabil Dam, Mendaia Dam and Border Dam)	5700 MW	4
White and main Nile		
Wetland projects (Jonglei I and II, Machar Marshes and Ghazal projects)	–	11
Demolition of Jebel Aulia dam	–	3
White Nile reservoirs (Lake Albert and Lake Kyoga)	–	–
White Nile hydropower stations (Owen Falls Dam, Bujagali, Kalangala, Kamdini, Ayago South, Ayago North and Murchison Falls)	2300 MW	–

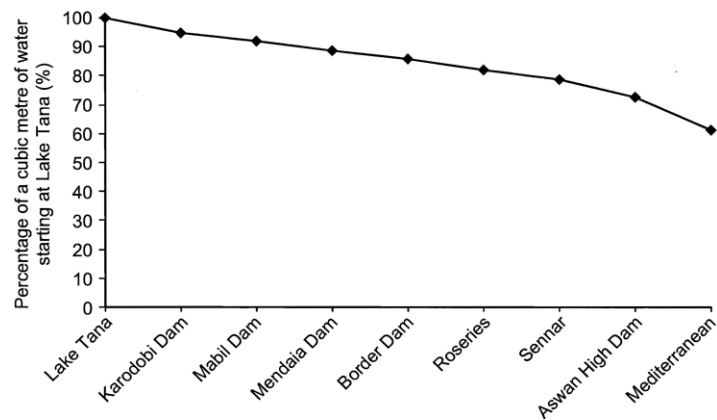
Source: D. Whittington et al. / *Water Policy* 7 (2005) 227-25

¹⁰⁶ Cascao, “Ethiopia – Challenges to Egyptian”, 21.

¹⁰⁷ Dale Whittington, Xun Wu and Claudia Sadoff, “Water resources management in the Nile basin: the economic value of cooperation”, *Water Policy* 7 (2005): 227-252, p. 231.

¹⁰⁸ Whittington, Wu and Sadoff, “Water resources management in the Nile basin”, 232.

Figure 3: Evaluation and Seepage Loses: the Blue and Main Nile¹⁰⁹



Source: D. Whittington et al. / *Water Policy* 7 (2005) 227-25

Therefore, (as long as no inefficient ideas are also included) the potential for shared value and shared control of the Nile waters outweighs the old traditions of managing the Nile water resources¹¹⁰ (see table 2 above). The essence here should also be about shifting from calling only for water sharing arrangements to sharing the benefits derived from the optimal and sustainable usage and management of the Nile waters.¹¹¹ This has also been praised by other riparian states in a cooperative manner under the Nile Basin Initiative (NBI).¹¹² Since the 2011 uprising, Egyptian leaders have showed interest in cooperating with Ethiopia and all other riparian states.¹¹³ This is a much needed progress than military threats and mistrust from a distance. However, the terms and conditions of Egypt's interest in further cooperation and negotiation still have not been clearly stated. In addition, the construction and consolidation of knowledge is followed by collecting, interpreting, and disseminating valuable information.¹¹⁴ Specifically, the dissemination of knowledge is a highly important part of the process of cooperative agreements

¹⁰⁹ Whittington, Wu and Sadoff, "Water resources management in the Nile basin", 232.

¹¹⁰ Ibid, 232.

¹¹¹ Claudia W. Sadoff, Dale Whittington, and David Grey, *Africa's International Rivers: An economic Perspectives*, (Washington, D.C.: The World Bank, 2002), 57.

¹¹² Cascao, "Ethiopia – Challenges to Egyptian", 21.

¹¹³ Kidane Kiros Bitsue, "The Nile From mistrust," 1.

¹¹⁴ Cascao, "Ethiopia – Challenges to Egyptian", 25

that can be used as “institutionalized knowledge.”¹¹⁵ The construction of new knowledge and ideas surrounding the sharing of the economic benefits of the Nile River is one of Ethiopia’s critical counter-hegemonic positions.

The most widely documented Ethiopian counter-hegemony strategies are the diplomatic and legal approaches following the cooperative agenda. The diplomatic approaches can be divided into reactive diplomacy and active diplomacy.¹¹⁶ Cascao argues that “international diplomacy had been one of the key elements of Ethiopia’s counter-hegemony strategies.”¹¹⁷ This is also true historically. Since 1878, King Menelik and his wife, Taytu, have waged a savvy international diplomacy and public opinion campaign throughout Europe against any colonial attempts.¹¹⁸ Furthermore, some examples of Ethiopia’s reactive diplomatic strategies include switching sides during the Cold War against Egypt’s hydro- imperialist position and sending letters of protest to the international community against the Egyptian New Valley Project.¹¹⁹

Most importantly, starting in 1991, Ethiopia shifted from the use of reactive to active strategies. According to Cascao, “since the 1990s, Ethiopia began pro-active diplomatic strategies at both bilateral and regional levels.”¹²⁰ For example, in 1991, Ethiopia and Sudan signed a bilateral agreement over the use of the Blue Nile waters alongside a diplomatic, cultural, and social pact.¹²¹ Specifically, both nations signed a document to work together for sustainable and equitable usage of the Nile waters, and to share water flow information on the Blue Nile and Atbara Rivers.¹²² Recently, both Ethiopia and Sudan are working jointly towards the financing of hydroelectricity power supply in both countries. Sudan’s growing bilateral moves with Ethiopia

¹¹⁵ Cascao, “Ethiopia – Challenges to Egyptian”, 25

¹¹⁶ Ibid, 21.

¹¹⁷ Ibid,

¹¹⁸ Raymond Jones, *The Battle of Adwa: African Victory in the Age of Empire*, (London: Harvard University Press, 2011), 2.

¹¹⁹ Cascao, “Ethiopia – Challenges to Egyptian”, 22

¹²⁰ Ibid,

¹²¹ David H. Shinn, *Ethiopia and Sudan: Conflict and Cooperation in the Nile Valley*, in *Narrating the Nile*, ed. Israel Gershoni and Meir Hatina (Boulder, Colorado: Lynne Rienner Publishers, 2008), 203

¹²² Shinn, “Ethiopia and Sudan: Conflict and Cooperation,” 219.

can be understood as seeking of greater benefits out of the Nile River system. David H. Shin sums the reasons behind increasing of bilateral cooperation between Ethiopia and Sudan: both countries challenge the unequal water allocation agreement of 1959, Egypt's relentless irrigation schemes will require greater amount of water in the near future, higher storage of water is more possible at higher elevation in Ethiopia than in Sudan for future use, dams in Ethiopia reduce flooding and minimizing silting in Sudan, and the delivery of higher amount of hydroelectric power is more likely to be realized in Ethiopia than in Sudan or Egypt.¹²³

Ethiopia also joined the NBI in 2001 as part of its cooperative agenda strategy. One of the many reasons behind such a counter-hegemony strategy is that any legally acceptable cooperative arrangements based on the "equitable" and "sustainable" usage of the Nile water resources could nullify the 1959 bilateral agreement signed between Egypt and Sudan.¹²⁴ In addition, Ethiopia's strategy of joining the NBI was meant to both Egypt and Sudan that the onus is now on them to join the club. Ethiopia's move is also to acquire possible investment opportunities for hydraulic projects in Ethiopia, since the NBI is heavily supported financially by the World Bank and United Nations Development Programme (UNDP).¹²⁵

Ethiopia's growing counter-strategy regarding the mobilization of international funding, especially from China (as a new external player in the economic development of Ethiopia). The Ethiopian diaspora also cannot be ignored, as the mobilization of its diaspora across the globe has been essential in terms of not only funding Ethiopia's mega dams, but also publicizing the Ethiopian case to the international community. For Ethiopia, the role of the diaspora has been a new counter-hegemonic strategy. The reason behind this new approach to mobilize funding is the continuous Egyptian hegemonic strategy of "blocking funds" from international donors (from

¹²³ Shin, *Ethiopia and Sudan*, 219.

¹²⁴ Martinon, PhD, "Nile Basin Initiative, 53.

¹²⁵ Cascao, "Ethiopia – Challenges to Egyptian", 23.

WB, UN agencies and African Development Bank).¹²⁶ The Tana-Beles hydroelectric power plant on Lake Tana and the construction of the new hydroelectric Renaissance Dam on the Blue Nile are one of the many examples of domestic funding schemes.¹²⁷ The fact is that huge domestically supported hydraulic projects on the Blue Nile will significantly increase Ethiopian bargaining power vis-à-vis Egypt and, at some point, Egypt will most probably be compelled to take the multilateral (or bilateral with Ethiopia) route via the NBI negotiation process.¹²⁸

To further counter Egyptian hegemony, Ethiopia managed to fund its small and medium sized water-related projects bilaterally with Italy, Norway, France and Japan.¹²⁹ For instance, Norway offered \$5 million in financial support for the Baro-Akobo hydroelectric power station in southern Ethiopia.¹³⁰ The World Bank has also stepped in to finance major hydraulic structures for water storage, hydropower, and irrigation more than ever before.¹³¹ However, the World Bank still continues to refuse to provide financial support for the major hydropower projects on the Blue Nile due to its sensitive nature to Egypt.¹³² Despite the many challenges, Ethiopia has come out strong in challenging and influencing Egyptian hydro-hegemonic order since 1991 through various counter-hegemonic strategies, one of which being “cooperation.” The idea of “cooperation,” which is praised by most upstream riparian states including Sudan (surprisingly), continues to reduce the existing negative effects of the asymmetric power relations in the Nile Basin.¹³³ The challenge now, practically, is how to shift Egypt’s position into the cooperative basin-wide benefit sharing arrangements.

¹²⁶ Cascao, “Ethiopia – Challenges to Egyptian”, 23.

¹²⁷ Kidane Kiros Bitsue, “The Nile From mistrust and sabre rattling to rapprochement,” Institute for Security Studies PAPER 238 (2012): 8.

¹²⁸ Bitsue, “The Nile From mistrust,” 8.

¹²⁹ Cascao, “Ethiopia – Challenges to Egyptian”, 24.

¹³⁰ Okbazghi Yohannes, *Water Resources and Inter-Riparian Relationships in the Nile Basin: the search for an Integrative discourse*, (Albany: State University of New York Press, 2008), 86.

¹³¹ Richard N. Tutwiler, *Nile Basin Water Management: National Strategies and prospects for Cooperation*, in *The Burden of Resources – Oil and Water in the gulf and the Nile Basin*, Sharif S. Elmusa, ed. (American University in Cairo Press, 2011), 28.

¹³² Cascao, “Ethiopia – Challenges to Egyptian”, 24.

¹³³ Zeitoun and Warner, “Hydro-Hegemony”, 439.

4. Historical Significance: Cleaning up the Remnants of a Colonial-Legal Legacy?

Before European imperialists set foot in the Nile basin region, the Nile waters to Egypt were considered as a natural gift. Herodotus called Egypt “gift of the Nile,”¹³⁴ and Egypt and the Nile became intimately attached since then. Of course, Herodotus did not know the source of the Nile and how many other peoples depended on the Nile waters. Such a stravanza¹³⁵ claim without proper knowledge of the issue is still fixed in the minds of many Egyptians today. This means also that the Nile Waters are viewed as a static, natural event that will be there forever. Egypt has, however, long been totally dependent on the Nile waters because of its arid climate and its resulting need to access fresh waters.¹³⁶

While Egypt’s geographical challenges regarding access to fresh water resources have always been present, the arrival of European colonists into the region made the challenge even more complex. Especially, the arrival of colonial rivalry between Britain, France and Italy was important. The British emerged strong from the colonial scramble for the Nile and it became British imperial policy to defend, control and manage the Nile waters.¹³⁷ For instance, Britain signed several treaties with various states of the Nile basin to protect its interests, particularly in Egypt, for the purpose of agricultural and cotton production,¹³⁸ which was then shipped to England. It is from this backdrop that Egypt’s historical and legal right was born, not out of the hydropolitical interests of the basin-wide region.

Furthermore, Egypt and Britain strengthened their colonial-legal ties by signing the 1929 legal framework that would give Egypt veto power in all aspects of the Nile waters, including

¹³⁴ Yohannes, *Water Resources and Inter-Riparian*, 33.

¹³⁵ An Italian term for “extravagant” or “unreasonable”

¹³⁶ *Ibid*, 33.

¹³⁷ Robert O. Collins, *The waters of the Nile*, (Princeton: Oxford University Press, 1990), 65.

¹³⁸ Kaveh Madani, David Rheinheimer, Laila Elimam and Christina Connell-Buck4, “A Game Theory Approach to Understanding the Nile River Basin Conflict.” Accessed June 18th, 2013, http://www.tvrl.lth.se/fileadmin/tvrl/files/lb_day/97-114_Festskr.pdf

access and usage.¹³⁹ Colonial Britain signed the agreement not out of an altruistic agenda but as part of its own global imperialistic expansion, from which Egypt also benefited. Terje Tvedt confirms the benefits that Egypt received by stating that, “On 7 May 1929, Lord Lioyd, in a letter to the Egyptian Government, emphasised that Britain committed itself to guaranteeing Egypt its future water supply...”¹⁴⁰ Expectedly, the colonial agreement between Egypt and Britain did not sit well for Sudan, which was at that point still regarded as part of Egypt and possibly to be crowned as a British colony.¹⁴¹ In 1959, Sudan managed to generate a new legal agreement with Egypt after obtaining independence in 1956.¹⁴² The agreement was intended for the construction of the High Aswan Dam, which Egypt and Sudan had to ratify in order to build the dam.¹⁴³ The 1959 agreement between the two countries was also intended to renegotiate existing water allocations set out under the 1929 agreement.¹⁴⁴ However, the agreement still did not include upstream riparian states (Ethiopia). Cascao affirms such development by stating that, “The 1959 agreement reinforced downstreamer claims of ‘natural and historical rights’ to the Nile waters...and became the backbone of the hydropolitical dilemma in the Nile basin today.”¹⁴⁵

¹³⁹ Brunnee et. al, “The Nile Basin Regime,” 98.

¹⁴⁰ Terje Tvedt, *The River Nile in the Age of the British: Political Ecology and the Quest for Economic Power*, (I.B. Tauris & Co Ltd, 2004): 141.

¹⁴¹ Tvedt, “The River Nile in the Age.” 290.

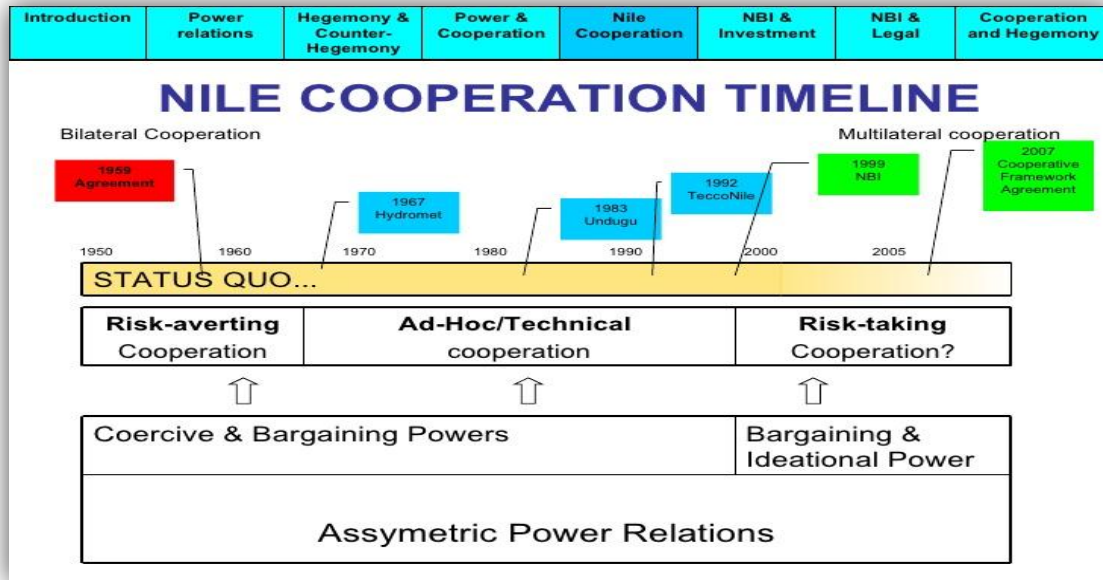
¹⁴² Ibid,

¹⁴³ J. Anthony Allan, “The Nile Basin: Evolving Approaches to Nile Waters Management.” Occasional Paper 20, SOAS, University of London, (1999), 2. Accessed may 10th, 2013, <http://www.soas.ac.uk/water/publications/papers/file38363.pdf>

¹⁴⁴ Cascao, “Changing Power Relations,” 245.

¹⁴⁵ Ibid,

Figure 4: Nile Cooperation (formal and informal) Timeline.



Source: Ana Elisa Cascao, 2007¹⁴⁶

Moving from the historical-colonial-legal context, the Nile River experienced three informal cooperative initiatives: the Hydromet (1967), the Undugu (1983), and the Tecconile (1992) (the latter supported by the Canadian International Development Agency (CIDA)).¹⁴⁷ What makes these first cooperative developments important compared to those of the past is that all three were born out of the Nile basin region. The primary purpose of these basin-wide initiatives was to discuss, conduct annual meetings, and share technical knowledge ¹⁴⁸(see figure 4 above). However, the final product of these initiatives was not successful since they did not include all riparian states and they avoided the legal question by focusing more on the technical issues.¹⁴⁹ Consequently, Ethiopia rejected the three initiatives due to a lack of legal and political

¹⁴⁶ Ana Elisa Cascao, Unravelling Current hydropolitical Cooperation in the Nile Basin, Slideshare online, accessed June 22, 2013, <http://www.slideshare.net/ana.cascao/cascao-arava-hydropolitical-cooperation-nile-basin-presentation>

¹⁴⁷ Cascao, "Changing Power." 246.

¹⁴⁸ Dereje Zeleke Mekonnen, "The Nile Basin Cooperative Framework Agreement negotiations and the Adoption of a 'water security' Paradigm: Flight into Obscurity or a Logical Cul-de-sac?." *The European Journal of International Law*, (2010), 426. Accessed June 10, 2013, doi: 10.1093/ejil/chq027

¹⁴⁹ Cascao, "Changing Power." 246

considerations.¹⁵⁰ For Ethiopia, for any negotiations or co-operative efforts to be meaningful, the 1959 agreement must be abolished and new water sharing arrangements must be put in place.¹⁵¹

Despite the above shortcomings, the idea of a legal and political groundwork started to take shape towards a multilateral cooperative process. In 1999, ten riparian states established the Nile Basin Initiative (NBI). The objectives of the NBI are:

“to achieve sustainable socio-economic development through equitable utilization of, and benefit from, the common Nile Basin Water resources'. The shared belief is that countries can achieve better outcomes for all the peoples of the Basin through cooperation rather than competition. At the heart of this challenge is the imperative to eradicate poverty.”¹⁵²

The NBI is a transitional institutional mechanism that is leading the negotiations towards the creation of a permanent legal agreement called the Cooperative Framework Agreement (CFA).¹⁵³ In 2007, a draft of CFA was submitted to each riparian state for ratification.¹⁵⁴ Once this cooperative legal framework is established, the NBI will become a permanent institution that fully oversees all the legal, technical, political, and financial aspects of the Nile River basin.¹⁵⁵ This is an important achievement that comes along way from the historical-colonial-legal context that prevented possible Nile basin discussions. However, the multilateral institution faces several challenges; one of which is the adoption of the necessary legal framework to manage the scarce resource in equitable and sustainable ways. The sticking point seems to be the re-adaption of “water security” into the CFA. The upstream riparian states (e.g., Ethiopia) want to keep Article 14 (b) which states “*not to cause significant harm to the water security of any other Nile basin state,*” without any modifications, while Egypt and Sudan (downstreamers) want the clause to be altered to read “*not to adversely affect the water security of current users and the rights of any*

¹⁵⁰ Mekonnen, “The Nile Basin.” 426-427.

¹⁵¹ Martinon, PhD, “Nile Basin Initiative, 53.

¹⁵² Nile Basin Initiative (NBI), About the NBI, 2010, accessed June 10th, 2013, http://www.nilebasin.org/newsite/index.php?option=com_content&view=category&layout=blog&id=34&Itemid=74&lang=en

¹⁵³ Cascao, “Changing Power.” 246

¹⁵⁴ Ibid, 247.

¹⁵⁵ Ibid,

*other Nile basin country.*¹⁵⁶ Such a legal dilemma is linked to the international watercourse laws (from Helsinki (the most influential) and Berlin Rules (made the issue even more complicated) to the subsequent UN Convention of 1997) that the relationship between “equitable and reasonable” and “no-harm” has not yet been dealt with. Subsequently, the ambiguity and the controversy over the regulation and management of international rivers remain a customary rule rather than a binding one. From this legal background that the idea of “water security” or “securitization” seems a major problem for the achievement of multilateral allocation and management of the Nile waters because of the “us” vs. “them” dichotomy. This was as true in the past as it is today. However, what the NBI has accomplished thus far cannot be ignored despite all the various political stalemates¹⁵⁷ in achieving of legal ratification that is binding by all. The NBI is still a process. It will continue to showcase the importance of a multilateral equitable and sustainable solution until an agreement is reached. Most importantly, Ethiopia has been the most influential riparian state as a result of using its bargaining and ideational power in imposing multilateral legal negotiations as the basis for going forward.¹⁵⁸

3. From Theory to Statistical Regression: What Influences Cooperation As Opposed to Conflict in the Nile River Basin?

This section provides a statistical regression analysis of what types of strategic influence can bring about cooperation as opposed to conflict in the Nile basin. The aim here is to understand in quantitative terms what does and does not work to generate mutually acceptable negotiations in the highly contested water sharing arrangements between upstream and downstream states. Moreover, it is also to see statistically which counter-hegemonic strategies are more successful in bringing about negotiation and cooperation. As previously discussed, the main goal for non-hegemonic riparian states such as Ethiopia is to challenge the status-quo,

¹⁵⁶ Tafesse, “Ethiopia’s position.” 76-77.

¹⁵⁷ Dereje Zeleke Mekonnen, “From Tenuous Legal Arguments to Securitization and Benefit sharing: Hegemonic Obstinacy – The Stumbling Block Against Resolution of the Nile Waters Question.” Institute of Federalism & Legal Studies, ECSC (2010), 245. accessed June 18th, 2013, www.ajol.info/index.php/mlr/article/download/63088/50956

¹⁵⁸ Cascao, “Changing Power.” 256.

contest hegemonic legitimacy, and build strong/creative forms of resistance¹⁵⁹ using various strategic maneuvers. Jenny R. Kehl's Cross Sectional Time Series (CSTS) regression tests statistical correlations,¹⁶⁰ but not causation. Kehl used substantive examples from the Nile Basin to illustrate a quantitative analysis alongside a qualitative comparative understanding of "soft-power" and "economic-power" to show what encourages cooperation and conflict.¹⁶¹ According to Kehl, "soft power" is the ability to use some elements of political and ideational power,¹⁶² both of which can be associated with the cooperation behaviour; in contrast, hard power is associated with command (or militaristic) behaviour.¹⁶³ Economic power, however, is referred to as sticky power as it includes consumption, market size, market access, production, and trade and aid practices.¹⁶⁴ Since most of these variables co-vary, Kehl selected trade and aid as the most often negotiated variables in the context of water agreements,¹⁶⁵ as this facilitates the generation of a statistical regression.

Cooperation and conflict are dependent variables (DV).¹⁶⁶ The independent variables (IV) Kehl has put forward represent some of the conceptual categories of power examined above. Scarcity of power (be it soft or hard power) in asymmetric hydropolitical relations is a critical issue for upstream states. Some of the independent variables used by Kehl are as follows: military mobilization, control of headwaters, trade and aid (economic power), political accountability, technology transfer, external power, economic inequality, ethnic conflict, and dependence on shared water.¹⁶⁷ Most of the variables measure *change* to indicate type of leverages used by upstream and downstream riparian states to increase the level of cooperation

¹⁵⁹ Cascao, "Ethiopia – Challenges to Egyptian," 20.

¹⁶⁰ Kehl, "Hydropolitical Complexes," 223.

¹⁶¹ Ibid,

¹⁶² Ibid, 225.

¹⁶³ Nye, Joseph S. Jr., "Soft Power: The Means to." 7.

¹⁶⁴ Jenny R. Kehl, "Hydropolitical Complexes," 224.

¹⁶⁵ Ibid, 225.

¹⁶⁶ Ibid,

¹⁶⁷ Ibid, 224.

or conflict¹⁶⁸ (See appendix 3 for more variable specification). The measurement of the variables is followed by an interval data, which is necessary for this type of regression analysis.¹⁶⁹ Statistical data used by Kehl is relevant to defend the working thesis of this research paper. It will quantitatively show how Ethiopia's counter-hegemonic strategies currently influence (primarily based on "ideational power" and bargaining power") to guide the status-quo towards cooperation rather than conflict.

Table 1: The Effects of Specific Types of Leverages (Influences) on Cooperation versus Conflict in the Nile River Basin

TABLE : The Effects of Specific Types of Leverage on Cooperation versus Conflict in Hydropolitical Complexes								
Regressor:	Type of Leverage Used by Weakest Riparian				Type of Leverage Used by Strongest Riparian			
	EQ1:	Outcome	EQ2:	Sustained	EQ3:	Outcome	EQ4:	Sustained
Geographic	0.81*	Conflict			0.68*	Conflict		
Military	0.27*	Qualified Negotiation	0.09	No	0.43*	Qualified Negotiation	0.02	No
Political	0.04				0.19*	Qualified Negotiation	0.01	No
Economic	0.11*	Negotiation	0.01	Yes	0.17*	Negotiation	0.09	Yes
Technological	0.08*	Negotiation	0.01	Yes	0.09*	Negotiation	0.01	Yes
External	0.73*	Negotiation	0.28*	Yes	0.01			
Incentive	0.39*	Negotiation	0.07*	Yes	0.33*	Negotiation	0.01	No
Constraint	0.07				0.09			
Economic Inequality	0.19*	Qualified Negotiation	0.09	No	0.08*	Qualified Negotiation	0.01	No
Ethnic Conflict	0.22*	Conflict			0.21*	Conflict		
Basin Dependence	0.40*	Conflict			0.23*	Conflict		
Number	102		31		102		18	
R-Square	0.57		0.38		0.49		0.21	

Source: Jenny R. Kehl, PhD, 2011¹⁷⁰

¹⁶⁸ Jenny R. Kehl, "Hydropolitical Complexes," 224.

¹⁶⁹ Ibid, 226.

¹⁷⁰ Kehl, "Hydropolitical Complexes," 227.

Central tendency and dispersion for $x \sim N(0, 1)$: minimum -1.12, mean 0.17, maximum 1.41

* Statistically significant at the 0.05 level, two-tailed test.

** Statistically significant at the 0.01 level, two-tailed test.

3.1 Test Equations¹⁷¹

Equation One (EQ1): How do the types of leverage used by the weakest riparian affect the outcome of cooperation versus conflict?

EQ1: cooperative, negotiated settlement versus conflict = $b_1 + b_2(\text{geographic}) + b_3(\text{military}) + b_4(\text{political}) + b_5(\text{economic}) + b_6(\text{technological}) + b_7(\text{external}) + b_8(\text{incentive}) + b_9(\text{constraint}) + b_{10}(\text{inequality}) + b_{11}(\text{ethnic}) + b_{12}(\text{dependence}) + e$

Equation Two (EQ2): If a cooperative, negotiated settlement is achieved, is it sustained?

EQ2: cooperative, negotiated settlement = $b_1 + b_2(\text{military}) + b_3(\text{economic}) + b_4(\text{technological}) + b_5(\text{external}) + b_6(\text{incentive}) + b_7(\text{inequality})$ at $t+1 + e$

Equation Three (EQ3): How do the types of leverage used by the strongest riparian affect the outcome of cooperation versus conflict?

EQ3: cooperative, negotiated settlement versus conflict = $b_1 + b_2(\text{geographic}) + b_3(\text{military}) + b_4(\text{political}) + b_5(\text{economic}) + b_6(\text{technological}) + b_7(\text{external}) + b_8(\text{incentive}) + b_9(\text{constraint}) + b_{10}(\text{inequality}) + b_{11}(\text{ethnic}) + b_{12}(\text{dependence}) + e$

Equation Four (EQ4): If a cooperative, negotiated settlement is achieved, is it sustained?

EQ4: cooperative, negotiated settlement = $b_1 + b_2(\text{military}) + b_3(\text{political}) + b_4(\text{economic}) + b_5(\text{technological}) + b_6(\text{incentive}) + b_7(\text{inequality})$ at $t+1 + e$

3.2. Statistical Regression Explanation

Before offering a deeper analysis of Kehl's statistical regression result, it is necessary to define a few statistical terminologies (see table 1 above). Kehl ran statistical regression for both upstream (weaker) and downstream (stronger) riparian states to determine which leverages (IV) affect the outcome of cooperation or conflict (DV) (see test equation 1 and 3 above). Equation 2 and 4 indicate the sustainability of the cooperation or negotiation achieved overtime between upstream and downstream states. However, this research paper primarily focuses on the upstream riparian states part of the statistical regression since the focus is on Ethiopia's counter-hegemonic influence. The correlation can produce an increase or decrease in cooperation or

¹⁷¹ Ibid, 228.

conflict, but it does not tell us the direction of causality (e.g., whether an increase of X promoted cooperation or the cooperation Y facilitated an increase of X).¹⁷² Under the title “Type of Leverage Used by Weakest Riparian,” for equations 1 and 2 there are 102 and 31 cases entered/recorded. The size of the recorded numbers may be too small or too big depending on what is being studied. The fact that is important not to omit here is that under each reported cases we can observe the R-square. The R-square tells us how much variation can be observed in Kehl’s multivariate regression. The higher the number of cases, the higher the R-square, depending on what is being studied (see the regression table 1). The R-square for 102 cases entered has R-square 0.57, which means that the regression model explains more than one and a half of the variation in whether riparian states will seek cooperation or conflict. This indicates that Kehl has not explained about 43% of what is occurring with regards to cooperation or conflict. There could be other factors that have not yet been considered in the regression. However, since 43% is lower than 57%, we can roughly suggest that Kehl has accounted for most of the possible factors in the regression to minimize the variation and maximize the result.

3.3. Economic Leverage

Upstream riparian states such as Ethiopia face a lack of structural barriers to change the status-quo and to endorse the idea of sustainable, optimal usage and management of the Nile water resources. However, upstream riparian states (e.g., Ethiopia) are not powerless; they do exert various strategic capabilities to influence hydro-hegemons (e.g., Egypt). One of the strategies that can be recognized as taken for influencing Egypt is “economic leverage.” Kehl posits that “weak riparians use economic leverage to achieve negotiated settlements on water-sharing policies.”¹⁷³ The reasons behind this approach, Kehl argues, is that the market access to energy resources is highly desired, as it can serve as an incentive to negotiate and cooperate¹⁷⁴

¹⁷² Kehl, “Hydropolitical Complexes,” 226.

¹⁷³ Ibid, 229.

¹⁷⁴ Ibid, 229-230.

over the usage and management of the Nile waters. Recently, Ethiopia is pushing for greater access to the hydroelectricity market across the Horn of Africa. This means that the importance of the market incentives from the perspective of a cost and benefit analysis through which cooperating to gain access in the highly needed energy market outweighs engaging in conflict.¹⁷⁵ For instance, Ethiopia is currently in the process of becoming a major hydro-electricity exporter in Africa. Some of the reasons behind this move are not only to boost the Ethiopian economy through direct access to energy (as a non-oil producing economy) but also to respond to the need for electricity in the Nile basin region. According to the former US Ambassador to Ethiopia, David Shinn, “Ethiopia is the only country in the region that has the water to make a huge contribution to increased availability of electricity. It could solve all of Ethiopia’s power needs, sell power at a profit to neighbours, help control periodic flooding in Sudan and contribute significantly to regional economic integration.”¹⁷⁶ Thus, access to highly valued markets such as the energy market is of interest to all neighbouring countries in the Nile basin, especially if it drives their energy costs down.

For instance, Egypt’s main goal is to unilaterally maintain the value of the Nile waters for its own specific usage rather for basin-wide multiple usages. Egypt’s action is referred as “user values” approach against “system values” approach.¹⁷⁷ What is the difference between the two in the context of what Ethiopia’s counter-hegemonic position would like to achieve? Claudia W. Sadoff et al. define “user values” as “the value that can be derived from a single, specific use of water...or for a specific purpose in a specific place and manner.”¹⁷⁸ The “system values”, however, is an aggregate value of water that can be generated as it moves through the river

¹⁷⁵ Kehl, “Hydropolitical Complexes,” 230.

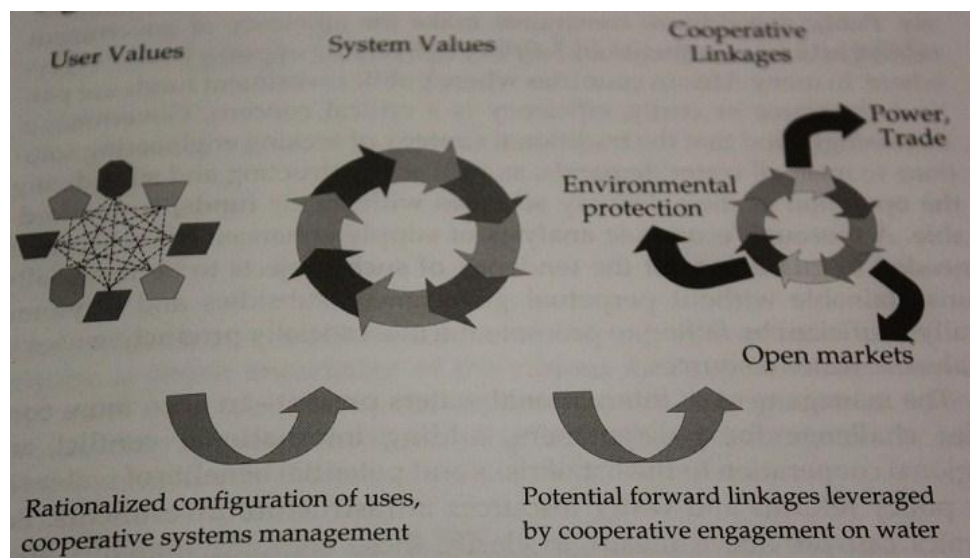
¹⁷⁶ David Shinn, “Egypt must drop its objection to Ethiopian dam”, Addis Ababa Online, June 17th, 2013, accessed June 18th, 2013, <http://addisababaonline.com/david-shinn-egypt-must-drop-its-objection-to-ethiopian-dam/>

¹⁷⁷ Sadoff, et al. “Africa’s International Rivers” 27.

¹⁷⁸ Ibid, 27.

system for multiple usage before it is lost in evaporation or/and into a salty sea water.¹⁷⁹ The “system values” call for the maximization of economic value of water from the starting to the end point of the River that can be made possible through the multilateral cooperative approach (see figure 4 below).

Figure: 4. User Values, System Values, and Cooperative Linkages



Source: Claudia W. Sadof et al. (Africa’s International Rivers: An Economic Perspective), 2002.¹⁸⁰

When the economic value of water has been defined and measured for basin-wide system usage, all riparian states can gain not only from the economic benefits point of view but also from the environmental, market access, trade, and hydraulic prospective (as seen in figure 4 above). This is what Ethiopia’s counter hegemonic influence is calling for, and almost all riparian states have already agreed and ratified the CFA. This paper has already shown many evidences that the cooperative engagement towards market access for power, trade and environmental protection through the NBI and various bilateral and multilateral agreements is already underway. Thus, the “system values” approach leads particularly to the management of the river in a cooperative

¹⁷⁹ Sadoff, et al. “Africa’s International Rivers” 27.

¹⁸⁰ Ibid,

manner because all the riparian states involved depend on the value the River carries as a system rather than a single country tries to manage the scarce resource (which is unrealistic given the pressing issues of today and tomorrow).

Consequently, the regression for “economic leverage” at 0.11* shows a statistically significant outcome at the level of $P < 0.05$, which means that there is a 5% chance of obtaining such a result purely by coincidence.¹⁸¹ The outcome of cooperation is also sustained for at least a year (at 0.01).¹⁸² This may not be much, considering the sensitivity of the matter, but at least it is an influential factor to consider for a cooperative regime. In addition, even for Egypt the outcome of cooperation is statistical significant at 0.17* and is sustained at 0.09 (for nine years). If Egypt decides to use its economic leverage, it is more likely to influence negotiation and to strengthen economic cooperation or integration between upstream and downstream states. However, as we have seen in the theoretical analysis section, Egypt has not yet used such leverage for cooperative engagement (see also the regression table 1 above).

3.4. Technology Transfer

The transfer and usage of technology is also statistically significant for the exertion of influence on cooperation as opposed to conflict by both downstream and upstream riparian states. The statistical outcome is consistent with Ethiopia’s quest for hydroelectricity production using various external technological supports. China is the biggest financier of Ethiopia’s hydro dams, especially for electricity related projects. For instance, China’s engagement with Ethiopia in providing technological support in the area of hydroelectricity, mobile communication and road construction sector amounts to over \$3 billion.¹⁸³ Moreover, Ethiopia currently relies on Italian technological-engineering knowhow to build the highly contested (by Egypt) hydroelectricity dam on the Blue Nile River (the Great Ethiopian Renaissance Dam (GERD)). However, despite

¹⁸¹ Darren Schreiber, nd. “Reading a Regression Table”, nd.

¹⁸² Kehl, “Hydropolitical Complexes,” 229.

¹⁸³ Vivien Foster et al., *Building Bridges: China’s Growing Role as Infrastructure Financier for Sub-Saharan Africa*, (Washington, DC, The World Bank, 2009), 27.

the statistical significance of using “technological leverages,” Ethiopia may not yet have achieved the full cooperation of Egypt on the contested dam, although its influence on the negotiation process continues to grow. As of June 2013, both parties were holding meetings in their respective capital cities to seek mutual interests on the development of the dam.¹⁸⁴ Thus, access to technology tied with active diplomatic strategies (as discussed in the theoretical section) continues to be an influential variable to contest and change the old and static hegemonic practices towards a win-win solution.

3.5. External Influence

Since 1991, with the downfall of the Communist regime, Ethiopia began to develop much better relations with the outside world to seek greater external supports for its cause. The regression table shows “external influence” as statistically very significant at 0.73* and it can also be sustained at least for 28 years (at 0.28*). This is not a surprise since it is highly consistent with Ethiopia’s counter-hegemony strategies discussed previously. One of Ethiopia’s strengths is the mobilization of the international community; its diaspora; non-governmental organizations (NGO); international financial institutions; and foreign governments, such as China. The external support Ethiopia receives from China in various sectors of the economy, including in hydro-electricity development, is highly, and especially, influential on negotiations and cooperation with Egypt. Currently, both Ethiopia and Egypt are under diplomatic pressure to seek a mutually acceptable negotiation and cooperation over the construction of the GERD on the Blue Nile River.

For some China’s involvement in the economic development of Africa is worrisome (e.g., the US) but for others it represents bargaining power that many African states, especially Ethiopia, are able to use in order to finding an immediate solutions for self-reliance. On June 18th,

¹⁸⁴ Ethiopia: Egyptian-Ethiopian Dialogue Continues, allAfrica, Published 25 June 2013, accessed June 26th, 2013, <http://allafrica.com/stories/201306251110.html>

2013, the Egyptian Foreign Minister stated while visiting Ethiopia that “we agreed that we will start immediately on consultations at both the technical level... and the political level,” while the Ethiopian counterpart clarified their intentions as “we have two options, either to swim or sink together. I think Ethiopia chooses, and so does Egypt, to swim together.”¹⁸⁵ Thus, the statistical regression reinforces the theoretical insight given on “external support” and the diplomatic efforts shown by Ethiopia to incite cooperation as opposed to conflict as previously discussed. The negotiation under external influence is sustained as both sides continue to dialogue and seek mutual benefits.

3.6. Geographical, Military and Basin Dependency

The “geographic positions” of the source of the Nile and “basin dependency” are statistically significant in promoting conflict (see the red color highlighted in the regression table 1). Kehl affirms her findings by stating that “...when Ethiopia asserts its geographic advantage, Egypt responds with conflict rather than promoting cooperation.”¹⁸⁶ Following the recent growing tension, if Ethiopia uses its geographic position to the Blue Nile River as the only factor for negotiation, Egypt could clearly respond with military and other forms of attacks in the aim of protecting the source of the Nile at any cost. For instance, most of Egypt’s past and present leaders have stated very clearly that going to war over the source of the Nile waters is a possibility. Their fear and bellicose rhetoric is somewhat understandable knowing the fact that controlling or diverting the geographical location of the source of the Nile (the Blue Nile) will mean cutting of Egypt’s life line for human and economic development. It would be a morally and fundamentally unacceptable move for Ethiopia to act upon what would ultimately be firing the first bullet. Instead, Ethiopia continues to emphasize the usage of the Blue Nile waters for the purpose of hydroelectric production and further sustainable management which Egypt could also

¹⁸⁵ “Egypt and Ethiopia agree to bridge dam divide”, Aljazeera, published June 18th, 2013, accessed June 18th, 2013, <http://www.aljazeera.com/news/africa/2013/06/2013618103142505614.html>

¹⁸⁶ Kehl, “Hydropolitical Complexes,” 229.

benefit in the long run. One of the key proposals coming from Ethiopia is to build the dam upstream to provide long-term water storage capacity that can be shared through the regulation of the Nile River waters.¹⁸⁷

Furthermore, a high-level of dependency on the Nile basin is more likely to increase conflict, which is highly consistent with the recent growing tensions over equitable and sustainable usage of the Nile waters between Ethiopia and Egypt. Population increase and the need for socio-economic development are more likely to heighten the already growing demand for the Nile waters.¹⁸⁸ Both Egypt and Ethiopia depend on the Nile Waters; without the promotion of sustainable and efficient water management, their dependency could trigger further conflict. The demand for waters is a non-static event as the populations and need for economic development in both countries increase.

One of Egypt's structural power (the military) correlates with *qualified negotiated settlements*¹⁸⁹ (see table 1). This means that any form of military influence such as the mobilization of military or even threats to one another, advances negotiations.¹⁹⁰ Kehl asserts that on-going military threats can bring both sides to the negotiating table because military threats or even the use of force are not regarded lightly.¹⁹¹ For instance, the Ethiopian Government summoned Egypt's Ambassador to Ethiopia to clarify the Egyptian Government position following the military and other threats exposed during live TV is a recent case in point. Subsequently, negotiations under military influence are not sustainable, as the statistical regression shows. This suggests that dispute settlements will be difficult to maintain because the basis of negotiation between the two parties is set as non-equals and under military power. It will certainly serve to cool things down while burying the burning issue under the rug for the time

¹⁸⁷ Cascao, "Ethiopia – Challenges to Egyptian", 22.

¹⁸⁸ Kehl, "Hydropolitical Complexes," 231.

¹⁸⁹ Ibid, 229..

¹⁹⁰ Ibid,

¹⁹¹ Ibid,

being. For example, the Israeli-Palestinian conflict (e.g., conflict on water and land), the conflict over Iran's nuclear ambitions, the conflict over natural resources in the South China Sea, the conflict between Morocco and Western Sahara (colonial-historical in nature), and conflicts between Sudan and south Sudan are cases in point. Moreover, both Ethiopia and Egypt have not taken such a route for the purpose of finding basin-wide negotiations and cooperation thus far. Thus, the "militarization" and "securitization" of conflicts is *not* sustainable in the long run, as has been proved theoretically and statistically.

3.7. Ethnic Conflict

As discussed previously, before the 1990s, major ethnic conflicts were widespread in Ethiopia and that have been an obstacle to confront Egypt's hegemonic manoeuvres. The statistical regression finds ethnic conflict statistically significant in increasing conflict rather than cooperation. The result confirms the theoretical analysis discussed previously regarding how Egypt indirectly influenced Ethiopia's ethnic relations before 1991. The statistical outcome is also proven by Ethiopia's past internal ethnic divisions; conflict; and civil war, which lasted for more than 30 years. During this time, Egypt used the opportunity at hand to galvanize rebels within Ethiopia in order to maintain its veto power over the Nile waters and prevent any water developments.¹⁹² This was meant to weaken the state's political capability of influencing the status-quo, from which Egypt benefited greatly for centuries. Kehl puts it well by arguing that ethnic conflict disrupts negotiations and distracts the attention of riparian states.¹⁹³

Kehl's statistical regression also proves the main argument offered in this research paper that Ethiopia continues to influence the process of negotiation and cooperation thanks to the various variables regressed above; ethnic conflict, however, is not one of them. Consequently, this paper is able to identify key factors of what does and does not work in confronting the reality

¹⁹² Tadesse, "the regional dimensions," 69.

¹⁹³ Kehl, "Hydropolitical Complexes," 231.

of the matter of cooperation versus conflict in the Nile River Basin. Furthermore, since 1991 Ethiopia has gained counter-hegemonic momentum to influence and severely alter the asymmetric hydropolitical configuration of Egypt. For instance, as a result of the several scientific and legal studies conducted over the use of the Blue Nile River waters coupled with the political message sent to Egypt, Ethiopia is increasingly drawing the line regarding what is and is not acceptable to reach a win-win solution.¹⁹⁴ This is also thanks to geo-political changes that are taking place (e.g., Egypt's internal political troubles, the independence of South Sudan, Somalia's on-going instability) and the popping up of new players, such as China coming into the Nile basin region. There is a further question to be asked based on the above findings: Is China's non-militaristic and non-political interference approach in regards to the economic development of Africa also a challenge to the US rhetoric of "democratic values" and militaristic hegemony in Africa?

5. Several Factors of Ethiopia's On-going Counter-Hegemonic Influence

This section discusses several of Ethiopia's on-going counter-hegemonic influence vis-à-vis Egypt's hydro-hegemonic order. It will consider the political, demographic, legal (on a national, regional and international levels), and economic factors for Ethiopia's counter-hegemonic engagement.

5.1. Political Change

Since 1991 Ethiopia has experienced dramatic political system change. The change brought about "ethnic federalism" to seek an immediate solution for Ethiopia's past major ethnic conflicts. The political system of "ethnic federalism" provides a decentralized version of governance to each ethnic group within Ethiopia through which they manage their own cultural, linguistic, economic and political affairs, while the federal state handles foreign affairs and national security matters (e.g., the conflict over the Blue Nile waters). Prior to 1991 Ethiopia had

¹⁹⁴ Cascao, "Changing Power." 256.

experienced longer ethnic conflicts, weaker institutions, a lack of priority and strategy for water policy, civil wars, economic hardships, and political impasses¹⁹⁵ followed by a major event of famine that killed millions of people.

Today the story is relatively different. Despite the shortcomings of upholding democratic/liberal values of strong institutions and individual liberties, Ethiopia has shown relative political stability. One of the many examples of such stability is the arrival to power of Meles Zenawi, who instilled a market-oriented and state controlled (on the major macro-level of economic policies) economy.¹⁹⁶ The new political system under Zenawi has led to the implementation of national water policies. In early 1991, Ethiopia started to work on its Master Water Plan (MWP) with the support of international consultants from France, Netherland, Sweden and Norway.¹⁹⁷ This means that better relations with the outside world have motivated Ethiopia to foresee major hydro-electricity potential throughout the country, including on the Blue Nile River. According to the Ethiopian Ministry of Water and Energy (MWE), the Government of Norway provided 40 million Norwegian Kroner (NOK) towards the study of a Karadobi multi-purpose hydropower generator dam on the Blue Nile River.¹⁹⁸ The main objective and primary anticipated outcome of the project is to promote regional economic development and regional cooperation in the power sector by increasing transmission networks between Ethiopia, Sudan, and Egypt.¹⁹⁹ Moreover in 1999, Ethiopia developed Water Resources Management Policy (WRMP) that follows equitable, optimal and sustainable legal principles.²⁰⁰ The study of potential economic development projects in Ethiopia has opened the door to the

¹⁹⁵ Cascao, "Changing Power." 254.

¹⁹⁶ Ibid,

¹⁹⁷ Robert Collins, *Managing the Water of the Nile: Basis for Cooperation?* In *Narrating the Nile: Politics, Cultures, Identities*, ed. Israel Gershoni and Meir Hatina (London: Lynne Rienner Publisher, 2008), 183-184.

¹⁹⁸ "BARO AND KARADOBI HYDROPOWER PROJECTS," Ministry of Water and Energy, Web site last updated Nov.04, 2010, accessed June 19th, 2013, <http://www.mowr.gov.et/index.php?pagenum=4.3>

¹⁹⁹ "BARO AND KARADOBI HYDROPOWER PROJECTS,"

²⁰⁰ Eva Ludi, Bethel Terefe, Roger Calow and Gulilat Birhane, *Ethiopia's water resources, policies and institutions*, in *Achieving Water Security: Lessons from research in water supply, sanitation and hygiene in Ethiopia*, ed. Roger Calow, Eva Ludi and Josephine Tucker, (Warwickshire: Practical Action Publishing, 2013): 31.

Nile waters question within Ethiopia and with Egypt and Sudan.²⁰¹ Consequently, Ethiopia's economic ambitions have focused on a unilateral and multilateral hydro-electricity generation projects on the Blue Nile River,²⁰² the biggest and most contested of which being the GERD (see Figure 5 below). Thus, without a relatively stable political system as a necessary condition to stability, Ethiopia would not be able to influence Egypt's coercive hegemonic practices.

Figure 5: The Grand Ethiopian Renaissance Dam, formerly known as the Grand Millennium Dam, on the Blue Nile in 2011.



Source: Grand Millennium Dam, 2011²⁰³

5.2. The Increase of Population

Since 1991, the Ethiopian population has doubled and it is expected to continue to grow as the most populated nation in Africa after Nigeria (see table 2 below). Population growth is the main factor contributing to increases in demand for water resources. J.A. Allan argues that, “all countries of the basin have rapidly rising population and some have problems, periodically extreme, in feeding burgeoning numbers.”²⁰⁴ This is not a unique development for Ethiopia; it is

²⁰¹ Ludi et. al. “Ethiopia’s water resources, policies,” 31.

²⁰² Cascao, “Changing Power,” 254.

²⁰³ Grand Millennium Dam, expression of Ethiopia's commitment to the benefit of all the countries of the Nile Basin, accessed June 22, 2013, <http://grandmillenniumdam.net/egypt-delegation-to-visit-ethiopia-over-renaissance-dam/>

²⁰⁴ J.A. Allan, *Evolving water demands and national development options*, in *The Nile Sharing a scarce resource: An historical and technical review of water management and of economic and legal issues*, ed. P.P. Howell and J.A. Allan (Cambridge: Cambridge University Press, 1994): 302.

also affecting Egypt and the rest of the riparian countries. The problem of the rising population coupled with the unequal, inefficient, and unsustainable usage of the Nile waters make the crux of the matter even more complex for the entire Nile basin region (see table 2 below). As the table below suggests, in 2012 Ethiopia will maintain its number one position in population growth, while the entire Nile basin region will soon reach the 500 million mark. Ethiopia's population size will grow to 141 million by 2025, while Egypt's will grow to almost 96 million.²⁰⁵ Thus, Ethiopia's influence over the status-quo and attempt to drive the conversation and seek a cooperative solution could not be more appropriate.

Table 2: Population indicators in the Nile Basin

Country	Total Area(GIS)	Area in the Nile Basin	% of Total Basin Area	% of Total Country Area	*Country Population 2012	Population in the Nile Basin 2012	Percentage of Country's Population Living in the Nile Basin 2012
Burundi	28,062	13,860	0.44	49.39	8,749,387	5,147,477	58.80%
DR Congo	2,401,941	21,796	0.69	0.91	69,575,394	2,643,865	3.80%
Egypt	996,960	302,452	9.52	30.34	83,958,369	80,377,080	95.70%
Eritrea	121,722	25,697	0.81	21.11	5,580,862	2,096,985	37.60%
Ethiopia	1,144,035	365,318	11.5	31.93	86,538,534	34,862,524	40.30%
Kenya	593,116	51,363	1.62	8.66	42,749,418	16,962,930	39.70%
Rwanda	24,550	20,625	0.65	84.01	11,271,786	9,310,974	82.60%
South Sudan	635,150	620,626	19.54	97.71	9,614,498	9,516,014	99.00%
Sudan	1,864,049	1,396,230	43.95	74.9	36,107,585	31,538,569	87.30%
Tanzania	933,566	118,507	3.73	12.69	47,656,367	10,244,308	21.50%
Uganda	241,248	240,067	7.56	99.51	35,620,977	35,418,768	99.40%
Total	8,984,399	3,176,541	100	35.36	437,423,177		

Source: Nile Basin Initiative (NBI), 2013²⁰⁶

²⁰⁵ Ibrahim Elmur, The Changing Hydraulics of Conflict and Cooperation in the Nile Basin: The Demise of Egyptian-Sudanese Bilateralism, in *The Burden of Resources: Oil and Water in the Gulf and the Nile Basin*, edited by Sharif S. Elmusa. Cairo: American University Press, 2011.

²⁰⁶ "Key NBI Country Statistics", Nile Basin Initiative, accessed June 8th, 2013, http://www.nilebasin.org/newsite/index.php?option=com_content&view=article&id=135%3Akey-facts-about-the-nile-basin&catid=75%3Astats&Itemid=68&lang=en

5.3. The Legal Dilemma

Another influential factor that drove Ethiopia to challenge Egypt's veto power on the Nile waters is the unfair legal norms dominated by Egypt. Historically, Ethiopia has been heavily influenced and disadvantaged by the external legal agreements, which were never inclusive of all Nile River Basin riparian states. In particular, the 1929 and 1959 agreements between Egypt, Britain, and Sudan are the best examples of exclusive legal norms. Ethiopia's new water policies discussed earlier are considered national legal norms created according to the contemporary needs pertaining to water politics and security. Yacob Arsano posits that "the new policy and legislative measures are evidence of a contemporary approach to promote national efforts towards the goals of 'efficient,' 'equitable' and 'optimal' utilization of water resources."²⁰⁷ Some may argue that the legal norms suggested thus far in the context of the Nile Basin have been an unworkable process to achieve a multilateral legal agreement.²⁰⁸ Today, however, the Nile basin continues to be influenced by new legal agreements to promote cooperation between the parties involved.²⁰⁹ For instance, in the 1990s Ethiopia, for the first time, joined the NBI as a multilateral cooperative institution.²¹⁰ Since then, Ethiopia used the "equitable" and "no-harm" legal terms as a driving force to influence and possibly change the status-quo. In 2007, Ethiopia's proactive political-diplomatic mission became clear when it managed to secure six equatorial Nile riparian states' votes for the draft of the CFA which endorsed the principle of "equitable utilization."²¹¹ This was an unprecedented move that led to regional wide cooperation to the benefit of all riparian states. To take the matter further, as of June 13th, 2013, the Ethiopian parliament unanimously ratified the new Nile River Cooperative Framework Agreement

²⁰⁷ Arsano, "Institutional Development," 162.

²⁰⁸ Brunnee and Toope, "The Nile Basin Regime," 93.

²⁰⁹ Ibid,

²¹⁰ Cascao, "Changing Power." 255.

²¹¹ Ibid,

following Rwanda, Tanzania, Uganda, Kenya, and Burundi.²¹² The ratification occurred in the middle of the growing conflict between Egypt and Ethiopia. This signals Ethiopia's determination to seek equal footing in water sharing arrangements while sending a cooperative message to downstream states. For instance, one of Ethiopia's main bargaining powers used in changing the colonial-legal norm is the fact that 85% of the Nile waters flow originates in Ethiopia.²¹³ Without changing the legal paradigm of the past, it would be nearly impossible to change the status-quo that exists today. As a result, the past colonial-legal arrangements have contributed greatly to Ethiopia's on-going challenge in regards to a new multilateral-legal regime in the Nile basin.

5.4. The Economic Factor

The steady growth of the Ethiopian economy requires greater water sharing arrangements. Greater ambition to generate a vast economic activity (e.g., irrigation, trade, electricity) means greater need of water inputs. Every year, Ethiopia's GDP is showing steadiness compared to that of oil producing economies, such as Sudan and Nigeria (see figure 6 below). There are two main driving forces behind Ethiopia's economic development growth. According to Harry Verhoeven, the late Meles Zenawi's bold vision to transform Ethiopia from an international object of pity into a regional power through economic growth and a masterful foreign policy has been central to Ethiopia's steady GDP growth.²¹⁴ Moreover, despite Egypt's static approach to regional political and economic transformation, China's growing financial and technical support to both Ethiopia and Sudan helped to implement multiple hydro-dam projects, which have transformed the regional political-economy.²¹⁵ Contemporary Ethiopia's growing economy compared to that

²¹² "Ethiopia ratifies River Nile treaty amid Egypt tension", BBC News, Accessed June 18th, 2013, file:///C:/Users/User/Desktop/BBC%20News%20%20Ethiopia%20ratifies%20River%20Nile%20treaty%20amid%20Egypt%20tension.htm

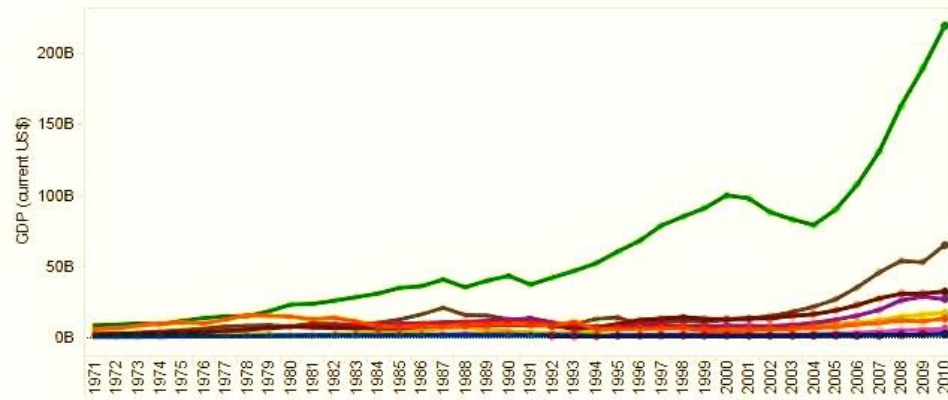
²¹³ Cascao, "Changing Power." 256.

²¹⁴ Harry Verhoeven, Opinion Why a 'water war' over the Nile River won't happen, Aljazeera, (2013), Accessed June 12th, 2013, <http://www.aljazeera.com/indepth/opinion/2013/06/2013612105849332912.html>

²¹⁵ Verhoeven, Opinion Why a 'water war', Aljazeera,

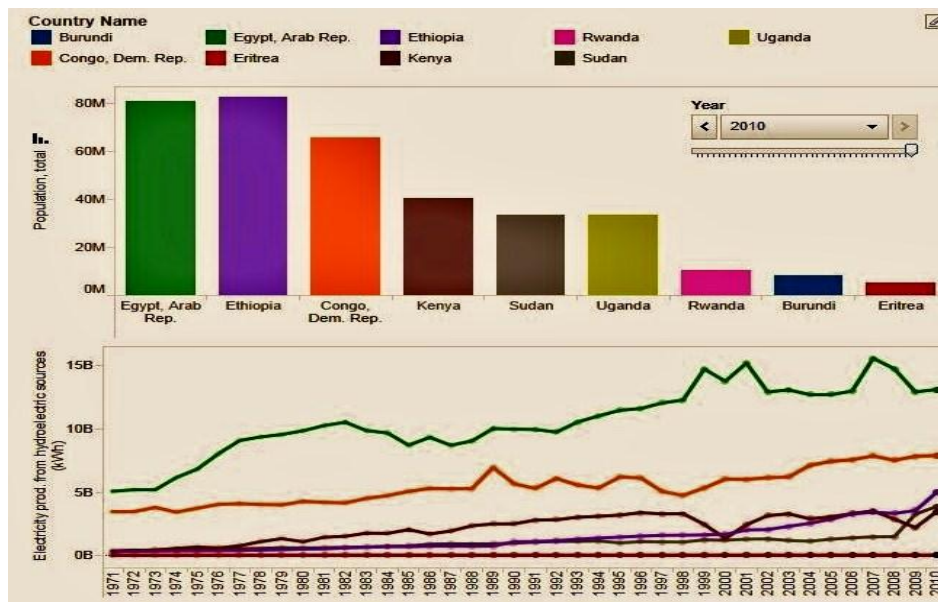
prior to 1991 will continue to put pressure on the need for more water resources. Without access to the much-needed water resources available within Ethiopia in equitable and sustainable terms, it is more unlikely that the country's political elites will achieve their economic development agenda.

Figure 6: Ethiopia's GDP, 1991- 2010



Source: The World Bank (World Development Indicators)²¹⁶

Figure 7: Ethiopia's growing population and hydro-electricity production, 1991-2010



Source: The World Bank (World Development Indicators)²¹⁷

²¹⁶ Nile Basin Country's (GDP, Population and Hydroelectric power production 2010), Timelineethiopia.com, accessed June 16th, 2013, <http://www.timelineethiopia.com/1/post/2013/06/nile-basin-countrys-gdp-population-andhydroelectric-power-production.html>

²¹⁷ Ibid,

All the above factors have been the key ingredients of Ethiopia's blunt approach to influencing and changing the status-quo concerning the demand for water resources, to meet human need and/or for economic development. The question remains as to whether the achievement of equitable and sustainable water sharing agreements will translate into a sustainable human and political development in Ethiopia and across the Nile basin region.

6. The Importance of Ethiopian Counter-hegemonic Influence in the Nile Basin

So what? Why is Ethiopia's counter-hegemonic influence important? The importance of Ethiopia's emerging influence in the Nile basin could be valuable to addressing global issues (poverty, climate change, water scarcity, and disease) and to finding meaningful and sustainable negotiations to highly contested conflicts. Certainly, Ethiopia's on-going influence on Egypt is driven by its own domestic interests connected to the many problems it faces (e.g., population growth, water scarcity, environmental degradation, soil erosions, rain fall variability, extreme poverty, climate change). However, the route of engagement Ethiopia took to achieve its national and basin-wide interest agenda is an important part of global interconnectedness.

The issue of water scarcity, usage, and management requires immediate multilateral attention because water is a public good at the local, national, regional, and global levels. A lack of proper usage and management of scarce fresh water could lead to human suffering or even death, not only for Egypt but also for all nation-states within the Nile basin and beyond. Consequently, the route taken by multilateral cooperative legal agreements to various ideational and bargaining power strategies is imperative to addressing this highly contested issue. The fallacy that "Egypt is the Nile and the Nile is Egypt"²¹⁸ that has dictated the conversation for centuries does not recognize the highly intertwined issues of the contemporary geo-political context. Cascao logically confirms that "the Nile is not just Egypt: the Nile is an international

²¹⁸ Cascao, "Ethiopia – Challenges to Egyptian", 19.

basin shared by ten riparian states.”²¹⁹ Conflicts will continue to arise due to the global economic, political, and environmental interconnectedness, which is driven by high levels of competition and growing technological advances. There are many examples of conflicts that result from the combination of high demands for resources and high levels of competition in the global economy. But then the question is how are we going to address these various highly contested conflicts?

The basis for Ethiopia’s counter-hegemonic influence is multilateral negotiations and cooperation by following the construction of new ideas and knowledge surrounding the existing issues of the Nile waters. The idea of equitable, sustainable, and optimal usage and management of the scarce resource is what Ethiopia is pressing on to achieve basin-wide benefits. Sustainability is achieved when the social, economic and environmental forces co-exist. One cannot be separated from the other. The only way to achieve this is through comprehensive multilateral legal arrangements, not through “militarization” and “securitization” (e.g., military threats, terrors, political-military-intelligence sabotage) to destabilize nation-states into a deeper crisis. Not surprisingly, some western and non-western media, scholars, and experts recently focused on the growing conflict between Egypt and Ethiopia through the lens of a “war-making” analysis rather than seeking possible alternative solutions. For instance, Aljazeera went viral with a framing of the conflict as “Death on the Nile”²²⁰ and Forbes suggested a deeper military analysis of “How Egypt Might Try To Stop Ethiopia's Dam Project.”²²¹

When an issue affects many states, such as in the case of trans-boundary watercourse conflicts, a political negotiation that leads to the ratification of legal norms is necessary. The norms must not only bring the equitable terms but also the management aspects of water resources such that wider benefits can be accessed in the near future. For instance, from the

²¹⁹ Cascao, “Ethiopia – Challenges to Egyptian”, 19.

²²⁰ Death on the Nile: As Ethiopia diverts the river to build a dam, we examine the impact on water supply for Egypt's growing population, Aljazeera, 2013, Accessed on June 13th, 2013, <http://www.aljazeera.com/programmes/insidestory/2013/05/201353081623734349.html>

²²¹ How Egypt Might Try To Stop Ethiopia's Dam Project, Forbes, 2013, Accessed June 13, 2013, http://www.forbes.com/fdc/welcome_mjx.shtml

context of water conflicts between Canada and the US, the Boundary Waters Treaty (BWT) signed in 1909 governs the quantity and quality of the Great Lakes–St. Lawrence River Basin.²²² Such a necessary legal norm is a stepping stone for all other acts and agreements thereafter to manage, regulate, and protect the fresh water, not only between Canada and the US, but also between and among provinces and states.²²³ This means that the Great Lakes-St. Lawrence River basin is a local, national and regional concern that it must be handled cooperatively and multilaterally.

The influential route taken by Ethiopia has been (and will probably continue to be) a long process that takes into account the political, diplomatic, legal, social, environmental, and political considerations. Seeking a shortcut through the means of “business-as-usual” or “zero-sum” game to achieve the end could ultimately be disastrous and costly. Kofi Annan recently argued that, “for years, we have seen that natural resources have been the cause and at times a driver of internal or regional conflicts in Africa. The starting point is for all countries to develop national strategies that set up the terms under which their natural resources will be developed, including fiscal policies, contractual arrangements and tax regimes.”²²⁴ Ethiopia’s national strategy coupled with cooperative legal agenda to become major hydro-electricity exporter to neighbouring countries is a sign of a wider regional development, from which Ethiopia will also benefit. For instance, electricity interconnections with Sudan and Djibouti are set to soon be complete, and investments are already obtained to link Kenya with Ethiopia’s hydropower plant.²²⁵ The Nile basin region suffers from a chronic lack of access to an energy supply. Without access to energy, basic human and economic development is less likely to be achieved. The

²²² “Water issues: Managing the Great Lakes,” Parliament of Canada, 2008, accessed June 28th, 2013, http://www.parl.gc.ca/content/lop/researchpublications/prb0834_16-e.htm

²²³ “Water issues: Managing the Great Lakes,”

²²⁴ Kofi Annan attributes Africa’s underdevelopment to conflicts, Premium Times, Published: June 20, 2013, accessed June 20th, 2013, <http://premiumtimesng.com/news/foreign/139192-kofi-annan-attributes-africas-underdevelopment-to-conflicts.html>.

²²⁵ Richard N. Tutwiler, “Nile Basin Water Management: National strategies and prospects for cooperation,” in *The Burden of Resources: Oil and Water in the Gulf and the Nile basin*, ed. Sharif S. Elmusa (Cairo: American University Press, 2011), 97.

access and usage of the Blue Nile waters is important to the overall and stable regional economic and political development. However, the waters have not been fully utilized for many decades because of a lack of political and legal willpower.

The construction of the GERD on the Blue Nile River could be demonstrated as important as a result of the benefits it brings to the basin-wide region, including to Egypt, as previously discussed. Of course, for any benefits gained, there is the environmental and human cost associated with the dam. Robert O. Collins argues that Ethiopia is in a natural geographic location to regulate and manage the Nile waters flow and that constructing dams in the Ethiopian highlands would increase Egypt's annual water supply.²²⁶ However, Okbazghi argues that, "the Egyptian hydrographic orientation is troubling because, despite the looming water crisis, policy makers and hydrologists continue to think within the box."²²⁷ Consequently, the value of Blue Nile waters extends beyond accessing a limited quantity of water. Both Egypt and Sudan's concerns over climate change, evaporation, floods, and environmental degradation could be minimized if the Nile waters are managed efficiently and cooperatively among all the eleven riparian states. However, both downstream states, especially Egypt, are concerned with their historical rights that guaranteed them volumetric cubic of waters. Quantity does not always translate into quality, the latter of which could be obtained through sustained and regulated practices. One of the many values of generating hydropower in upstream riparian states is the positive externalities that downstream states might enjoy from drought and flood mitigation and the reduction of siltation.²²⁸ The economic loss from drought, floods, and siltation is a major concern, especially to Egypt. So then what prevents Egypt from negotiating a win-a-win outcome in managing the scarce resource? Or, is it geo-political rivalry with Ethiopia?

²²⁶ Robert O. Collins, *The Waters of the Nile*, (Princeton: Oxford University Press, 1990), 24.

²²⁷ Yohannes, "Hydro-politics in the Nile basin," 42.

²²⁸ Claudia W. Sadoff, Dale Whittington, and David Grey, *Africa's International Rivers: An Economic Perspective*, (Washington DC: The World Bank, 2002), 20.

Despite the recognition of their social and environmental costs, dams have also built strong social and economic relations between and among nations. For instance, dams can provide water storage management systems that allow riparian states to strike a balance between the natural flow of the water and water demand (which it is likely to increase in the future).²²⁹ Because the natural flow of any river is not guaranteed due to natural threats such as climate change. The initiative Ethiopia has taken to constructing new ideas and knowledge about the economic and environmental values of water and its scarcity to society in general could be important.²³⁰ Without knowing the multiple values of water and its scarcity, it will be impossible to strike a common agreement. The economic value, thus, must provide a distributive and benefit-sharing outcome at various levels of the socio-economic and environmental well-being of all riparian states involved. The importance of multilateral negotiations and cooperation can be useful to see how much costs and benefits can be shared among and between riparian states.

Furthermore, the idea of basin-wide “benefit-sharing” through the much needed hydro-electricity production is important. The only obstacle in achieving it would be the political impasse concerned primarily with national self-aggrandizement. There is much evidence showing regional cooperation and integration in the hydropower production sector that are already in progress between Sudan, Ethiopia, Kenya, South-Sudan, and Djibouti. Ethiopia’s ongoing influence on the status-quo is intended to boost the country’s regional comparative advantage to generate more than 45,000 megawatts of electricity.²³¹ This in return helps to boost the Ethiopian economy through exports. Currently, 95% of Ethiopians depend on biomass for

²²⁹ Ramesh Bhatia, R.P.S. Malik, Rita Cestti and Monica Scatista, *Indirect Economic impacts of Dams: Case Studies from India, Egypt and Brazil*, (Washington, D.C.: The World Bank), 25.

²³⁰ John Anthony Allan, “Integrated Water Resources Management is more a Political than a Technical Challenge,” in *Water Resources Perspectives: Evaluation, Management and Policy*, ed. A.S. Alsharhan and W.W. Wood, (Amsterdam: Elsevier B.V., 2003): 10.

²³¹ Harry Verhoeven, “Black Gold for Blue Gold? Sudan’s Oil, Ethiopia’s water and regional Integration,” Chatham House, briefing Paper, (2011), 3, Accessed June 10th, 2013, http://www.chathamhouse.org/sites/default/files/19482_0611bp_verhoeven.pdf

their energy use, while only 1% of the population has access to electricity.²³² Most importantly, the use of hydro-electricity will substantially decrease the amount of trees cut for cooking and the usage of petroleum for public transportation.²³³ Presently, Ethiopia is constructing nearly 2,400 km of national electric railways and 34 km of light rail in Addis Ababa as part of a five-year “Growth and Transformation” effort that ends in 2015.²³⁴ This is the direct impact of hydropower production within Ethiopia, but the indirect impact will also be seen at the regional level. The construction of the Ethiopia-Djibouti Electric Power Interconnection (EDEPI) completed in 2008 and Ethiopia-Kenya Electricity Highway Project (EKEHP) started in 2012, both funded by the Africa development Bank (AfDB), are two examples of infrastructure development that will increase regional economic integration.²³⁵ Recently, Sudan came out strongly in support of the GERD construction by emphasising the importance of mutual and regional-wide benefits the dam will bring.²³⁶ Thus, water can be used as a source of catalyst for regional cooperation and integration through a win-win solution rather than a zero-sum game.²³⁷

Lastly, Ethiopia’s on-going counter-hegemonic influence will potentially reverse the pre-colonial-legal agreements that have created more divisions and difficulties between the riparian states. It may not be achieved quickly, but Ethiopia’s counter-hegemonic strategies have thus far taken important steps towards demonstrating the legal and political obligations of finding solutions to the highly complex and contested conflict. Thus, the issue of water scarcity, pollution, climate change, extreme poverty, and access to clean water are all interlinked and

²³² Verhoeven, “Black Gold for Blue Gold?” 5.

²³³ *Ibid*,

²³⁴ E.G.Woldegebriel, “Ethiopia hopes to reap benefits from eco-friendly rail projects,” Thomson Reuters Foundation - Published 23 Apr 2013, accessed June 10th, 2013, <http://www.trust.org/item/20130423142157-cofa6/>

²³⁵ African Development Bank (AfDB) Group, “AfDB and Ethiopia Partnering for Inclusive Growth”, published in (2013), 17-19, accessed June 18th, 2013, <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/AfDB%20and%20Ethiopia%20-%20Partnering%20for%20Inclusive%20Growth.pdf>

²³⁶ “Al-Bashir: Sudan supports construction of the Grand Ethiopian Renaissance Dam”, Grand Millennium Dam, Published March, 2012, accessed June 25th, 2013, <http://grandmillenniumdam.net/al-bashir-sudan-supports-construction-of-the-grand-ethiopian-renaissance-dam/>

²³⁷ Verhoeven, “Black Gold for Blue Gold?”, 12.

require multilateral efforts to finding solutions. It is within the above mentioned contexts and analysis that the importance of Ethiopia's counter-hegemonic influence should be viewed and understood. As these contexts demonstrate that the influence is pivotal for the self-reliance of Ethiopia and/or other upstream riparian states towards the eradication of extreme poverty.

7. Conclusion

This paper has shown that new hydropolitical relations in the Nile River basin have emerged between and among the elven riparian states. The asymmetric hydropolitical relations Egypt maintained for centuries, thanks to historical-colonial-legal settlement with Britain and Sudan are no longer dominant positions. The highly contested and imbalanced water-sharing arrangements signed in 1929 and 1959 are primary reasons for all upstream riparian states, more particularly Ethiopia, to question and alter the status-quo. Consequently, Ethiopia has been the most influential riparian state towards the access, usage, and management of the Nile waters.

Recently, Ethiopia has developed various counter-hegemonic strategies to influence Egypt's hegemonic nature which is based on coercion and bellicose rhetoric of fear and mistrust. In spite of Egypt's approach, Ethiopia's challenge of the status-quo revolves around the idea of "equitable" and "sustainable" basin-wide "benefit-sharing" arrangements. The strategies of "bargaining power" and "ideational power" taken within the context of "Soft Power" are the primary tools used to face the reality of water scarcity. This demonstrates Ethiopia's counter-hegemonic position that implies consent not force to find a new and immediate cooperative legal framework that is guided by the ratification of CFA.

Consequently, Ethiopia had already unilaterally built the highly contested Grand Ethiopian Renaissance Dam (GERD) on the Blue Nile River. Ethiopia justified the move through smart diplomatic pressures and the galvanization of the international community including its diaspora. The immediate action taken on building the GERD is also meant to seek the subsequent full legal, economic and political cooperation for basin-wide benefits. The construction of the

GERD is also a sign of growing competition on the scarce resource which calls for an immediate equitable and sustainable water management schemes. Based on the historical, theoretical, legal, and statistical findings shown in this paper, Ethiopia continues to influence Egypt's hydro-hegemonic status. This means that the unilateral approach Egypt has thus far taken or wishes to maintain in the management of the Nile River waters is seen as outdated and unsustainable to the pressing national and regional issues that all riparian states are currently facing. The latter development is supported by all riparian states except Egypt and Sudan. Surprisingly, however, recently even Sudan (as a downstream state) has come out strongly in defending Ethiopia's position since the benefits of the dam goes beyond Ethiopia's economic interests. This shows that Sudan seems receptive to Ethiopia's new position, potentially making regional cooperation and integration a reality.

While negotiation is a continuous process, this paper has shown what type of variables could influence negotiations and cooperation as opposed to conflict. The type of independent variables considered and analysed using Kehl's statistical regression have demonstrated Ethiopia's counter-hegemonic influence using various "Soft Power" strategies. In addition to the theoretical explanation of hegemony and counter-hegemony, we thus know what works and what does not in order to achieve a mutually acceptable and beneficial water resource arrangement in the Nile River basin and beyond. This could potentially be very important to advancing long-term socio-economic and political stability in one of the most fragile regions of Africa. The route of engagement Ethiopia has taken is a necessary step to the highly interconnected global political-economy. Ethiopia's strong position of pursuing multilateral cooperative legal and political processes are important signals for tackling the highly contested local, national, regional and global conflicts without the "militarization" and "securitization" of conflicts. Now, it is a matter of time to see whether Egypt could realize that there is more to gain cooperatively rather than swimming or sinking alone.

Bibliography

Aalena, Lovise and Kjetil Tronvoll, "The End of Democracy? Curtailing Political and Civil Rights in Ethiopia," *Review of African Political Economy*, Volume 36, Issue 120 (2009): 193-207, accessed May 21st, 2013.

Abrahamsen, Rita, "Blair's Africa: The Politics of securitization and Fear," *Alternatives* 30 (2005): 55-80, Accessed November 7, 2012.

African Development Bank (AfDB) Group, "AfDB and Ethiopia Partnering for Inclusive Growth", published in 2013, Accessed June 18th, 2013, <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/AfDB%20and%20Ethiopia%20-%20Partnering%20for%20Inclusive%20Growth.pdf>.

allAfrica, "Ethiopia: Egyptian-Ethiopian Dialogue Continues," Published 25 June 2013, Accessed June 26th, 2013, <http://allafrica.com/stories/201306251110.html>.

Aljazeera, "Egypt and Ethiopia agree to bridge dam divide," published June 18th, 2013, Accessed June 18th, 2013, <http://www.aljazeera.com/news/africa/2013/06/2013618103142505614.html>.

Aljazeera, "Death on the Nile: As Ethiopia diverts the river to build a dam, we examine the impact on water supply for Egypt's growing population," Accessed on June 13th, 2013, <http://www.aljazeera.com/programmes/insidestory/2013/05/201353081623734349.html>.

Allan, J.A. *Evolving water demands and national development options*, in *The Nile Sharing a scarce resource: An historical and technical review of water management and of economic and legal issues*, edited by P.P. Howell and J.A. Allan. Cambridge: Cambridge University Press, 1994.

Allan, John Anthony. *Integrated Water Resources Management is more a Political than a Technical Challenge*," in *Water Resources Perspectives: Evaluation, Management and Policy*. Edited by Alsharhan, A.S. and Wood, W.W. Amsterdam: Elsevier B.V., 2003.

Allan, J. Anthony, "The Nile Basin: Evolving Approaches to Nile Waters Management." Occasional Paper 20, SOAS, University of London, (1999). Accessed may 10th, 2013, <http://www.soas.ac.uk/water/publications/papers/file38363.pdf>.

Arsano, Yacob, *Ethiopia and the Nile: Dilemmas of National and Regional Hydropolitics*, Zurich, Swiss Federal Institute of Technology, 2007.

Arsano, Yacob, "Institutional Development and Water Management in the Ethiopian Nile Basin," in *The River Nile in the Post-Colonial age*, ed. Tvedt, Terje. I. B. Tauris & Co. Ltd, 2010.

Bates R., Thomas, "Gramsci and The Theory of Hegemony." *Journal of the History of Ideas*, Vol. 36, No. 2, 1975.

Baylis, John, Smith, Steve and Owens, Patricia, *The Globalization of World Politics, an introduction to international relations*. Oxford: Oxford University Press, 2008.

- BBC News, "Ethiopia ratifies River Nile treaty amid Egypt tension," Accessed June 18th, 2013, <file:///C:/Users/User/Desktop/BBC%20News%20%20Ethiopia%20ratifies%20River%20Nile%20treaty%20amid%20Egypt%20tension.htm>.
- Bhatia, Ramesh, Malik, R.P.S., Cestti, Rita and Monica Scatasta. Indirect Economic impacts of Dams: Case Studies from India, Egypt and Brazil. Washington, D.C.: The World Bank.
- Brunnee, Jutta and J. Toope, Stephen, "The Nile Basin Regime: A Role For Law?", *Water Resources Perspectives: Evaluation, Management and Policy*, 117 (2003): 93-117. Accessed May 5th, 2013, [http://dx.doi.org/10.1016/S0167-5648\(03\)80010-2](http://dx.doi.org/10.1016/S0167-5648(03)80010-2).
- Buzan, Barry, Ole Waever, and Jaap de Wilde, *Security: A new framework for Analysis*. London: Lynne Rienner Publishers, 1998.
- Cascao, Ana Elisa, "Ethiopia – Challenges to Egyptian Hegemony in the Nile Basin," *Water Policy* 10 Supplement 2 (2008): 13-28, Accessed May 5, 2013, doi: 10.2166/wp.2008.206.
- Cascao, Ana Elisa, "Power Relations, Conflict, and Coopertion in the Eastern Nile River Basin," in *The Burden of Resources – Oil and Water in the gulf and the Nile Basin*, edited by Sharif S. Elmusa, American University in Cairo Press, 2011.
- Cascao, Ana Elisa, "Changing Power Relations in the Nile River Basin: Unilateralsim vs. Cooperation?", *Water Alternatives*, (2009). Accessed on May 28th, 2013, <http://agris.fao.org/agris->.
- Cascao, Ana Elisa "Unravelling Current hydropolitical Cooperation in the Nile Basin," Slideshare online, Accessed June 22, 2013, <http://www.slideshare.net/ana.cascao/cascao-arava-hydropolitical-cooperation-nile-basin-presentation>.
- Chibarirwe, Anthony, "America Secretly Approves \$1.3 Billion Worth of Military Aid to Egypt", *The Trumpet.com*, June 10th, 2013. Accessed June 14, 2013, <http://www.thetrumpet.com/article/10703.19.0.0/world/military/america-secretly-approves-13-billion-worth-of-military-aid-to-egypt>.
- CIDA – Canadian International Development Agency. "Ethiopia – Thematic Focus," Accessed on June 8th, 2013, <http://www.acdi-cida.gc.ca/ethiopia#a2>.
- Collins, R.O. "History, hydropolitics, and the Nile: Nile control: myth or reality?" in *The Nile: sharing a scarce resource, A historical and technical review of water management and of economic and legal issues*, edied by P.P. Howell and J.A. Allan, Cambridge: Cambridge Univversity Press, 1994.
- Collins, Robert O. *The waters of the Nile*. Princeton: Oxford University Press, 1990.
- Collins, Robert. *Managing the Water of the Nile: Basis for Cooperation?* In *Narrating the Nile: Politics, Cultures, Identities*, edited by Israel Gershoni and Meir Hatina. London: Lynne Rienner Publisher, 2008.

- Conway, D, "A water balance model of the Upper Blue Nile in Ethiopia," *Hydrological Sciences Journal* (2009), Accessed June 18th, 2013, <http://dx.doi.org/10.1080/02626669709492024>.
- Cox, Robert W. "Gramsci, Hegemony and International Relations: An Essay in Method," SAGE, *Journal of International Studies*, (1983), accessed June 14, 2013, DOI: 10.1177/03058298830120020701
- Deconinck, Stefan, "Security as a threat to development: the geopolitics of water scarcity in the Nile River basin", Focus Paper, (2009). Accessed May 28th, 2013, http://www.waternet.be/middle_east/security_development_nile.pdf.
- Deutsch Welle, "Egypt and Ethiopia Argue Over Dam Project," accessed June 15th, 2013, <http://www.dw.de/egypt-and-ethiopia-argue-over-dam-project/a-16880722>.
- Elmur, Ibrahim. *The Changing Hydraulics of Conflict and Cooperation in the Nile Basin: The Demise of Egyptian-Sudanese Bilateralism*, in *The Burden of Resources: Oil and Water in the Gulf and the Nile Basin*, edited by Sharif S. Elmusa. Cairo: American University Press, 2011.
- Forbes, How Egypt Might Try To Stop Ethiopia's Dam Project, *Forbes*, 2013, Accessed June 13, 2013, How Egypt Might Try To Stop Ethiopia's Dam Project, *Forbes*, 2013, Accessed June 13, 2013, http://www.forbes.com/fdc/welcome_mjx.shtml.
- Foster, Vivien et al. *Building Bridges: China's Growing Role as Infrastructure Financier for Sub-Saharan Africa*. Washington, DC, The World Bank, 2009.
- Gill, Stephen and Law, David "Global hegemony and the Structural power of capital." in *Gramsci Historical Materialism and International Relations*, edited by Stephen Gill, Cambridge: Cambridge University press, 1993.
- Gramsci, Antonio, *Selection from the Prison Notebooks*. London: Lawrence & Wishart, 1971. Edited and translated by Quentin Hoare and Geoffrey Nowell Smith
- Grand Millennium Dam, "Al-Bashir: Sudan supports construction of the Grand Ethiopian Renaissance Dam", Published March, 2012, Accessed June 25th, 2013, <http://grandmillenniumdam.net/al-bashir-sudan-supports-construction-of-the-grand-ethiopian-renaissance-dam/>.
- Grand Millennium Dam, "expression of Ethiopia's commitment to the benefit of all the countries of the Nile Basin," Accessed June 22, 2013, <http://grandmillenniumdam.net/egypt-delegation-to-visit-ethiopia-over-renaissance-dam/>
- Grey, David and W. Sadoff, Claudia, "Sink or Swim? Water Security for growth and development," *Water Policy* 9 (2007). Accessed June 10th, 2013, doi: 10.2166/wp.2007.021.
- Hassan, Hamdy A. and Al Rasheedy, Ahmad "The Nile River and Egyptian Foreign-policy Interests," in *Cooperative Diplomacy, Regional Stability and National Interests: The Nile River and Riparian States*, ed. Adar, Korwa G. and Check, Nicasius A, Africa Institute of South Africa, 2011.

- Homer-Dixon, Thomas F. *Environment, Scarcity, and Violence*. Princeton University Press, 1999.
- Jones, Raymond. *The Battle of Adwa: African Victory in the Age of Empire*. London: Harvard University Press, 2011.
- Kameri-Mbote, Patricia, “Navigating Peace: Water, Conflict, and Cooperation: Lessons From the Nile River Basin.” Woodrow Wilson, International Center for Scholars, 2007
- Kandie, Daniel, “Egypt and the Hydro-Politics of the Blue Nile River,” Michigan State University Press (1999), accessed June 5th, 2013, DOI: 10.1353/nas.2002.0002.
- Kehl, Jenny R., “Hydropolitical Complexes and Asymmetrical Power: Conflict, Cooperation, and Governance of International River Systems”, *American Sociological Association*, Volume XVII, Number 1, (2011): 218-235.
- Kiros Bitsie, Kidane ,“The Nile From mistrust and sabre rattling to rapprochement,” *Institute for Security Studies Paper 238* (2012).
- Ludi, Eva, Terefe, Bethel, Calow, Roger and Gulilat Birhane, “ethiopia’s water resources, policies and institutions,” in *Achieving Water Security: Lessons from research in water supply, sanitation and hygiene in Ethiopia*, edited by Calow, Roger, Ludi, Eva and Tucker, Josephine. Warwickshire: Practical Action Publishing, 2013.
- Madani, Kaveh, Rheinheimer, David, Elimam, Laila and Christina Connell-Buck, “A Game Theory Approach to Understanding the Nile River Basin Conflict.” Accessed June 18th, 2013, http://www.tvrl.lth.se/fileadmin/tvrl/files/lb_day/97-114_Festskr.pdf.
- Malone, Barry. “Ethiopian PM warns Egypt off Nile war.” Reuters, November 23, 2010, accessed June 16th 2013, <http://www.reuters.com/article/2010/11/23/us-ethiopia-egypt-meles-idUSTRE6AM5V820101123>.
- Martinon, C.A. Mumma, PhD, “Nile Basin Initiative: A possibility of Turning Conflicts into Opportunities,” in *Shared Waters, Shared Opportunities: Hydropolitics in East Africa*, ed. Calas, Bernard & Martinon, C.A. Mumma. French Institute for Research in Africa (IFRA), 2010.
- Mason, Simon A. , “From Conflict to Cooperation in the Nile Basin.” PhD diss., SWISS FEDERAL INSTITUTE OF TECHNOLOGY, ETH ZURICH, 2004.
- Ministry of Water and Energy (MWE), “Baro and Karadobi hydropower projects,” Ministry of Water and Energy, Web site last updated Nov.04, 2010, Accessed June 19th, 2013, <http://www.mowr.gov.et/index.php?pagenum=4.3>.

Nile Basin Initiative (NBI), 2010, “NBI Country Profile – Egypt’s Policy,” Accessed on June 10th, 2013,
http://www.nilebasin.org/newsite/index.php?option=com_content&view=category&layout=blog&id=35&Itemid=67&lang=en.

Nile Basin Initiative (NBI), About the NBI, 2010, Accessed June 10th, 2013,
http://www.nilebasin.org/newsite/index.php?option=com_content&view=category&layout=blog&id=34&Itemid=74&lang=en.

Nile Basin Initiative (NBI), Key NBI Country Statistics,” Accessed June 8th, 2013,
http://www.nilebasin.org/newsite/index.php?option=com_content&view=article&id=135%3Akey-facts-about-the-nile-basin&catid=75%3Astats&Itemid=68&lang=en.

Nile Basin Initiative (NBI), “The Nile River”, 2010. Accessed June 10th, 2013,
http://www.nilebasin.org/newsite/index.php?option=com_content&view=category&layout=blog&id=36&Itemid=75&lang=en

No Water No Life, Nile River Basin, Accessed June 18th, 2013, <http://nowater-nolife.org/watersheds/nile/map.html>.

Nye, Joseph S. *Soft Power*. New York: Public Affairs, 2004.

OECD, “Ethiopia – Aid Statistics, Recipient Aid at a Glance,” 2013, Accessed on June 5th, 2013,
<http://www.oecd.org/countries/ethiopia/recipientcharts.htm>.

Premium Times, “Kofi Annan attributes Africa’s underdevelopment to conflicts,” Published: June 20, 2013, accessed June 20th, 2013, <http://premiumtimesng.com/news/foreign/139192-kofi-annan-attributes-africas-underdevelopment-to-conflicts.html>.

Qaddumi, Halla, “Practical approaches to transboundary water benefit sharing,” Working Paper 292 (2008) 1-19.

Sadoff, Claudia W. Whittington, Dale and Grey, David. *Africa’s International Rivers: An Economic Perspective*. Washington DC: The World Bank, 2002.

Salman, Salman M. A, “The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law,” *Water Resources Development*, The World Bank, Washington DC, (2007): 625-640, Accessed June 18th, 2013, DOI: 10.1080/07900620701488562.

Schreiber, Darren, n.d. “Reading a Regression Table”, Taken from statistics class in 2012.

Shinn, David, “Egypt must drop its objection to Ethiopian dam”, Addis Ababa Online, June 17th, 2013. Accessed June 18th, 2013, <http://addisababaonline.com/david-shinn-egypt-must-drop-its-objection-to-ethiopian-dam/>.

Shinn, David H. *Ethiopia and Sudan: Conflict and Cooperation in the Nile Valley*, in *Narrating the Nile: Politics, Cultures and Identities*, edited by Israel Gershoni and Meir Hatina. Boulder, Colorado: Lynne Rienner Publishers, 2008.

- Tadesse, Debay, "The Regional Dimensions of Ethiopia's Economic and Social Development with Special Reference to the Nile River." PhD diss., Howard University, 2007.
- Tafesse, Tesfaye, "Ethiopia's position on the Nile water agreements," in Cooperative Diplomacy, Regional Stability and National Interests: The Nile River and Riparian States, ed. Adar, Korwa G. and Check, Nicasius A. Africa Institute of South Africa, 2011.
- Timelineethiopia.com, "Nile Basin Country's (GDP, Population and Hydroelectric power production 2010)," Accessed June 16th, 2013, <http://www.timelineethiopia.com/1/post/2013/06/nile-basin-countrys-gdp-population-andhydroelectric-power-production.html>.
- The Water Project.org, what is Water Scarcity, 2013, Accessed June 15, 2013, http://thewaterproject.org/water_scarcity.php?gclid=CPIEg47Y3rcCFa9aMgodfBwAOQ.
- The Water Project. org, "Poverty in Africa Begins with A Lack of Clean water", 2013, Accessed June 8th, 2013. <http://thewaterproject.org/poverty.asp>.
- Tutwiler, Richard N. Nile Basin Water Management: National Strategies and prospects for Cooperation, in The Burden of Resources – Oil and Water in the gulf and the Nile Basin, edited by Sharif S. Elmusa. American University in Cairo Press, 2011.
- Tvedt, Terje. The River Nile in the Age of the British: Political Ecology and the Quest for Economic Power. I.B. Tauris & Co Ltd, 2004.
- UNDE, Water Scarcity, 2007. Accessed June 5th, 2013, <http://www.un.org/waterforlifedecade/scarcity.shtml>.
- Verhoeven, Harry, "Black Gold for Blue Gold? Sudan's Oil, Ethiopia's water and regional Integration," Chatham House, briefing Paper, (2011), Accessed June 10th, 2013, http://www.chathamhouse.org/sites/default/files/19482_0611bp_verhoeven.pdf.
- Verhoeven, Harry, "Opinion Why a 'water war' over the Nile River won't happen," Aljazeera, (2013), Accessed June 12th, 2013, <http://www.aljazeera.com/indepth/opinion/2013/06/2013612105849332912.html>.
- Warner, Jeroen, "Contested Hydrohegemony: Hydraulic Control and Security in Turkey." Water Alternatives, (2008): 271-288.
- Waterbury, John, The Nile Basin: National Determinants of Collective Action. Yale University Press, 2002.
- Whittington, Dale, Wu, Xun , and Sadoff, Claudia, "Water resources management in the Nile basin: the economic value of cooperation", Water Policy 7 (2005): 227-252.
- Woldegebriel, E.G., "Ethiopia hopes to reap benefits from eco-friendly rail projects," Thomson

Reuters Foundation - Published 23 Apr 2013, Accessed June 10th, 2013,
<http://www.trust.org/item/20130423142157-cofa6/>.

Woldetsadik, Tadesse Kassa, *International Watercourses Law in the Nile River Basin: Three states at a Crossroads*, London: Routledge, 2013.

Yohannes, Okbazghi, "Hydro-politics in the Nile basin: in search of theory beyond realism and neo-liberalism," *Journal of Eastern African Studies*, (2009): 74-93. Accessed June 10th, 2013, DOI: 10.1080/17531050802682788.

Yohannes, Okbazghi. *Water Resources and Inter-Riparian Relationships in the Nile Basin: the search for an Integrative discourse*. Albany: State University of New York Press, 2008.

You Tube, "Egypt President politicians plotting against Ethiopia's dam English subtitle," Published on Jun 5, 2013, Accessed on June 8th, 2013,
http://www.youtube.com/watch?v=b_mpjU2qIdc.

You Tube. "Global Ethics Forum: A Conversation with Dambisa Moyo," Published on Jan 9, 2013, Accessed on June 12th, 2013, <http://www.youtube.com/watch?v=A740Sd27DU8>.

Zeitoun, Mark and Warner, Jeroen, "Hydro-Hegemony – a framework for analysis of trans-boundary water conflicts," *Water Policy* 8, (2006): 453-460. Accessed December 12, 2012, doi: 10.2166/wp.2006.054.

Zelege Mekonnen, Dereje, "The Nile Basin Cooperative Framework Agreement negotiations and the Adoption of a 'water security' Paradigm: Flight into Obscurity or a Logical Cul-de-sac?." *The European Journal of International Law*, (2010). Accessed June 10, 2013, doi: 10.1093/ejil/chq027.

Zelege Mekonnen, Dereje, "From Tenuous Legal Arguments to Securitization and Benefit sharing: Hegemonic Obstinacy – The Stumbling Block Against Resolution of the Nile Waters Question." *Institute of Federalism & Legal Studies, ECSC* (2010). Accessed June 18th, 2013, www.ajol.info/index.php/mlr/article/download/63088/50956.

Appendixes

Appendix 2: Key Statistical Facts on the Nile Basin

Basin Area	3,173 X 10 ³ Km ²
Location	-4 ⁰ S to 31 ⁰ N and 24 ⁰ E to 40 ⁰ E
Riparian States	Burundi, DR Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Tanzania, South Sudan, Sudan and Uganda
Main Tributaries	Victoria Nile/Albert Nile, Bahr El Jabel, White Nile, Baro Pibor-Sobat, Blue Nile, Atbara, Bahr El Ghazal,
River Length	6,850 Km
Estimated Navigable Length	4,149 Km
Major Lakes with in the Basin	Lake Victoria, Lake Tana, Lake Kyoga, Lake Albert
Population (Total in all the Nile Countries)*	437Million
% Population with-in the Nile Basin*	54% (238 Million)
Temperature	Night Minimum -10 ⁰ c and daily Maximum in June 47 ⁰ c
Precipitation	Max Annual 2,060 mm/yr in Uganda
Mean Annual flow (Discharge) (Km³/yr) at Aswan	Min Annual 0 mm/yr in Egypt 84 X 10 ⁹ m ³
Discharge/Unit area	28 X 10 ³ m ³ /Km ²
Main Consumptive Water use	Agriculture

Source: The Nile Basin Initiative, 2010²³⁸

Appendix 3: Variable Specification

Category	Indicator	Variable	Measure	Data Source
Hard Power	Military	Level of military mobilization	Change in troop levels on the border of riparian states	Correlates of War
Hard Power	Geographic	Control of headwaters	Proximity to headwaters	UNESCO: UN-Water
Sticky Power	Economic	Total trade plus aid from a riparian state	Total trade plus aid from riparian state, as percent of GDP	World Bank, Bilateral Trade and Aid
Soft Power	Political	Political accountability	Change in level of democratic accountability	Governance Indicators, World Bank
Soft Power	Ideational diffusion	Technology transfer	Change in amount of technological capacity	World Bank
External Power	Involvement of a third party	Total trade plus aid from an external actor	Change in the level of total trade plus aid from external source	World Bank
Incentive	Perceived positive character of leverage	Incentive	Dummy variable, 1 = incentive, 0 = no incentive	Inter-coder reliability over 98%
Constraint	Perceived negative character of leverage	Constraint	Dummy variable, 1 = constraint, 0 = no constraint	Inter-coder reliability over 98%
Contextual	Economic inequality	Economic inequality between riparians	Economic disparity in GDP pc between riparians	UNDP
Contextual	Ethnic conflict	Ethnic conflict	Change in the number of ethnic events reporting human injuries	Correlates of War
Contextual	Dependence on shared river	Dependence on shared river	River water extraction as percent of total water use	UNESCO: UN-Water

Source: Jenny R. Kehl, PhD, 2011²³⁹

²³⁸ “Key statistical facts on the Nile Basin”, Nile Basin Initiative, accessed June 8th, 2013, http://www.nilebasin.org/newsite/index.php?option=com_content&view=article&id=135%3Akey-facts-about-the-nile-basin&catid=75%3Astats&Itemid=68&lang=en

²³⁹ Kehl, “Hydropolitical Complexes,” 235.