Geopolitical Relations: Uganda’s Role in the Development of the River Nile

Jordan Williams

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Geopolitical Relations: Uganda’s Role in the Development of the River Nile

An Independent Study Project

By Jordan Williams

Academic Director: Dr. Charlotte Mafumbo

School for International Training: Uganda

Fall 2017

(Cover photo by Author, 2017)
Dedication:

I dedicate this paper to all those who share my love of rivers and to everyone who has been affected by the dam projects and development of the River Nile.
Acknowledgements:

I want to thank SIT staff for supporting me during my project and helping me to find contacts.

I would also like to thank the two Ambassadors at the Ugandan Ministry of Foreign Affairs who took the time to meet with me. Thank you to Ugandan Ministry of Water and Environment and its directorates for allowing me to work with officials within them.

I want to acknowledge the Nile Basin Initiative and the Nile Basin Discourse for making time for me and for providing me with important information on transboundary politics of the Riparian states.

Thank you to everyone who participated in this project.
Abstract:

This study examined the geopolitical relations of the Nile Basin by looking at Uganda as a case study, and analyzed Uganda's use and development of the River Nile. It reviews the history of transboundary politics and treaties along with Uganda's development projects in the region. The paper then discusses modern relations and agreements, with a focus on the most recent agreement between the Riparian States, the Cooperative Framework Agreement, and how Uganda fits into them with regards to their interest in hydropower development within their borders on the Nile. It then explores possible future developments on the river and the potential for future conflict in the region, and finishes by making recommendations for the Nile Basin and Uganda. The whole project is looked at using the sustainable development paradigm.

This study was conducted over six weeks through primarily document review and eight expert interviews. All documents reviewed were from peer edited sources, such as books, scholarly journals, and accredited news sources. The documents provided historical information and facts and statistics on the modern development and geopolitical relations of the Nile Basin. Interviews served to enhance and further the information gathered in document review. All the interviewees were experts in their fields and most worked within the Ugandan Ministry of Foreign Affairs, the Ugandan Ministry of Water and Environment and their directorates. The study was conducted in accordance to ethical considerations and all wishes of interviewees were upheld throughout the paper.

The researcher found that modern geopolitics of the region have been greatly influenced by the 1929 and 1959 colonial agreements that gave Egypt power of the Nile, and that today negotiations focus on changing this status quo, despite protests from Egypt. Uganda must balance its position as both an upstream and downstream Riparian state, and could be a key middle ground country for maintaining peace in the region by appealing to both sides of the water sharing debate. Uganda's primary investment in the river is hydropower, and so they must balance the want to release enough water to generate electricity, and preserving the catchments of Lake Victoria and the Nile to protect the resource for long term use. Other than hydropower, which is a hotspot for international criticism due to environmental and cultural impacts, Uganda has a large potential for developing irrigation from the Nile and Lake Victoria that could increase agricultural yields which could improve the country's food security. Uganda's position in the Nile Basin makes it unique both in its ability to use and regulate the White Nile, and in the political framework of the region.
List of Acronyms and Key Terms:

**ADB**- African Development Bank

**ADF**- African Development Fund

**CFA**- Cooperative Framework Agreement

**Geopolitics**- Politics and international relations that are influenced by the geography of the states involved.

**Hydropower**- Power and electricity generated from moving water like rivers, usually through dams.

**LVEMP**- Lake Victoria Environment Management Project

**LVBC**- Lake Victoria Basin Commission

**Riparian states**- Countries that are dependent on the waters of the River Nile. Uganda, Tanzania, Kenya, Rwanda, Burundi, Ethiopia, South Sudan, The Democratic Republic of the Congo, The Sudan, and Egypt

**SIT**- School for International Training

**Sustainable Development**- A paradigm for development that focuses on using resources in a way that will benefit people today and preserve them for future generations.

**UN**- United Nations

**UNDP**- United Nations Development Program

**UNEP**- United Nations Environmental Program

**UMFA**- Ugandan Ministry of Foreign Affairs

**UMWE**- Ugandan Ministry of Water and Environment

**NEMA**- National Environmental Management Authority

**NBI**- Nile Basin Initiative

**WB**- The World Bank

**WCD**- World Commission on Dams

**WRM**- Water Resource Management
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Map 1: Nile Basin States

(The Nile Basin States, 2013)
1. Introduction:

One of the unifying factors of humanity is that we all need water to survive, yet Earth’s finite supply of fresh water is running out, and geopolitics to control what is left have become increasingly important. When international politicians deliberate geopolitical conflict over natural resources they usually discuss rare minerals or oil, often referred to as black gold; however, to the world, and especially to the Riparian states on the River Nile, water has become blue gold. In Uganda’s “Busoga Kingdom, there is a Busoga proverb that ‘The Nile is Wealth.’ The proverb captures the essence of water. The modern city of Jinja has the slogan ‘Kiyira gives richness,’ meaning that the river gives everything,” (Oestigaard, 2015, p. 19). This demonstrates the importance that Ugandans assign to the Nile. With so many countries relying on the longest river in the world as their main water source for power, production, transportation of trade, and sanitation, the relationships between them are complex. Decisions in Egypt about water could directly impact Uganda’s ability to utilize the benefits of the Nile and can hinder or help the country’s development (Amdetsion, 2012, p. 11). This project is centered around transboundary resource issues regarding the River Nile, using Uganda as a case study.

This research focuses on Uganda’s use, development, and policy on the Nile and examines the relations and negotiations on the river between the Riparian states and how it affects Uganda. Currently, Uganda draws resources from the Nile for drinking, energy, sanitation, and production, and has been argued to have the most threats on the resource of all the upper Riparian states, despite containing the source of the Nile (Rukooko, 2014, pg. 4-5). This research project combines document review with interviews conducted primarily in Kampala, Uganda, with the Ugandan Ministry of Water and Environment.
(UMWE), and the Ugandan Ministry of Foreign Affairs (UMFA). The project seeks to answer the questions: How does Uganda use and develop the River Nile and how do its developments affect, and are affected by, the geopolitical relations between the Riparian states? To answer these questions this project uses the framing of the sustainable development paradigm to address the history of Uganda’s development of the Nile and the evolution of geopolitical relations between the Riparian states, the current developments with a focus on hydropower, the current negotiations and treaties between the states, environmental concerns over the development of the Nile Basin, and prospects for Uganda’s development of the Nile. It also includes consideration of future transboundary politics.

The research in this project, conducted over six weeks and affiliated with the School for International Training (SIT) and Makerere University, aims to understand Uganda’s position in the geopolitical relations of the Nile Basin. This research found that Uganda’s focus on the River Nile has been, and continues to be, hydropower. For Uganda to further its development of hydropower, it must balance its positions both as an upstream and a downstream Riparian to preserve its interests in the development of the river and in regional stability and cohesion. Uganda’s main position in the Riparian system is that it controls the outflow of Lake Victoria to the downstream states from the White Nile. Geopolitics of the basin today are centered around the Cooperative Framework Agreement, which aims for equitable sharing of the waters of the Nile (CFA, 2009, p. 10), and Uganda must balance its needs to conserve the basin for future use, its want to its fair share of the Nile, and preserving its relations with Egypt by regulating the flows from the Nile.
2. Background:

The geopolitical relations surrounding the development of the River Nile, and Uganda’s place within them, are complicated and deeply rooted in the geography and history of the region. There are many layers and factors that go into setting the scene for the modern picture of the Riparian states. To understand the geopolitical relations of the Riparian states today and Uganda’s use and development of the river, it is necessary to understand a few background points. The first is the geography and its significance for the Nile Basin. It is then important to know all the countries involved and how their geography affects their transboundary relations. A brief history of the geopolitics of the region is next because the politics of today have been shaped by the previous water use treaties of 1929 and of 1959. These treaties impacted the history of the Nile because they gave Egypt and Sudan power over the river. A general understanding of hydropower is necessary because it is what Uganda’s main interest in the Nile is today (Tvedt, 2009, p. 131). The last vital concept to understand is sustainable development because this essay analyzes the development of the Nile through that paradigm.

The geography of the Riparian states within Central to North Eastern Africa greatly impacts the political atmosphere between the countries. For example, the source of the White Nile is found in Uganda, yet historically most policy is decided largely by Egypt, who uses 75% of the water despite contributing nothing (Amdetsion, 2012, p. 5). As seen in Map 1, a map of the Riparian states, the pertinent area is made up of ten countries. They are generally divided into two categories: the downstream states, Egypt and Sudan, and the upstream states, Kenya, Tanzania, Uganda, Rwanda, Burundi, The Democratic Republic of the Congo, and Ethiopia (Tvedt, 2010, p. 125). For a visual reference of the upstream and
downstream Riparian states, refer to Figure 1, a color-coded map of the division between the states. The division of upstream and downstream countries is important because it establishes them as two political groups as well, with each country historically siding with their own group (Tvedt, 2010, p. 125). In other words, the location of a state within the Nile Basin greatly influences its political stance in negotiations with other Riparian states.

Uganda is in a uniquely interesting position geographically and politically because it can be referred to as both an upstream and downstream state. This is because it holds a position on Lake Victoria and maintains control of its outflows to the White Nile (Tvedt, 2009, p. 125). A good way to understand Uganda’s geographic position is, as Dr. Callist of the Directorate of WRM puts it, “Jinja is like a tap, and the tap for Lake Victoria is in Uganda... The water supplies in upstream countries are affected by how Uganda uses the river because we can drop the water level in the lake, also further downstream we affect their access to water by turning the tap on and off,” (Dr. Callist, personal interview, 2017). In other words, Uganda controls the outflow of the Nile because of its geography. Further, its geography has impacted the country because “Uganda’s development has moreover been complicated by the physical fact that she is both an upstream and a downstream country with regard to the Nile, and that its water resources are almost wholly transboundary in nature,” (Tvedt, 2009, p. 125). This shows that the geography of the region is significant because it shapes states’ interests and political positions regarding the Nile; this will be further explained in Section 8, Research Findings.

The geography of the region not only impacts the geopolitics today, but also sets the scene for much of the historical politics that have shaped how the countries have developed the river. The importance of the Nile has a long past in impacting the history of
the Riparian States, even in the colonization of the area by England in the early 1900s; expert Terje Tvedt even claims that “the British took control of Uganda and the Sudan because of a deliberate kind of water imperialism,” (2010, p. 3). The British, wanting to use the Nile as one unit, established two main water agreements: one between all the Riparian states in 1929, and the other 1959 agreement between Egypt and Sudan (Tvedt, 2010, p. 163). The 1929 agreement was signed by Britain on behalf of her colonies and “gave Egypt more control of the River Nile than any other riparian country, including countries from which the river flowed,” (Tvedt 2010, p. 163). The later agreement of 1959 was exclusively signed by Egypt and Sudan, yet it gave Egypt full control of and access to the annual Nile flow; the agreement gave Egypt the right to 80% of the water of the Nile, Sudan 10%, and left all the upstream countries to share the remaining 10% (Tvedt 2010, p. 163). These agreements are important because they created the initial divide between the upstream and downstream states by putting the power in the hands of Egypt. Citing credibility from agreements made with the UK as early and 1929, Egypt has always controlled most of the water and development of the Nile and does not want to lose its political power that comes from them (Kimyeni, “Limits”, 2015). Under the agreements of 1929 and 1959, which are still debated for their validity today, if Uganda needs to build a dam to supply electricity to a portion of the large number of citizens living without power, they must submit all plans to Egypt who has the power to approve or deny them (Amdetsion, 2012, p. 6). The history of these agreements shape the negotiations of today in many ways and has made it arduous for the upstream states to have a voice and to demand a more equitable share of the waters of the Nile.
Uganda’s geography and history have incentivized the country to focus on hydropower as its main interest in the development of the Nile. Hydropower through the building of big dams has been important for both Uganda’s development and global development. Hydropower is an essential supplier of power for the world and “dams supply 22 per cent of Africa’s total electricity, but countries like Mozambique, Rwanda, Tanzania, Uganda and Zambia obtain more than 80 per cent of their power from dams,” (Oestigaard, 2015, p. 19). Despite dams being crucial for providing electricity to both developed and developing countries worldwide, they are also a source of controversy. Many anti-dam activists argue that the obvious benefits of dams are outweighed by their negative impacts, such as a historical lack of accountability by dam builders, structural violence that occurs by the displacement of people and the harm of the environment, damage that occurs to ecosystems, and the typical inefficiency of completed dams (Oestigaard, 2015, p. 30). The controversy that surrounds dams have sparked many international investigations and new regulations on the development of hydropower.

Institutions as high up as the World Bank (WB) have identified unregulated big dam projects as harmful to sustainable development, and have begun to create international regulations. The World Commission on Dams (WCD) was created by the WB to analyze the state of dams in the world and provide guidelines to follow in order to lessen the impacts of hydropower on communities and the environment (Oestigaard, 2015, p. 32). In their final report, the WCD created 28 guidelines and, according to the WC, “If adhered to and routinely applied, these principles would not only go a long way towards responding to the controversy surrounding dams, but would markedly improve decision-making on water and energy resources, achieving better outcomes,” (World Commission on Dams, 2000,
In the Nile Basin, impact assessments and regulations are done by a combination of national organizations, like the National Environmental Management Authority (NEMA) in Uganda, in association with relevant Ministries, civil societies, multinational organizations, and civil societies. The exact criteria of assessments will be determined by the Nile Basin Commission pending its creation after six countries ratify the CFA. (CFA, 2009, p. 18). This worldwide attention shows that hydropower is important to global development. Understanding the global stance and significance of hydropower is necessary to see the full implications of Uganda’s dependence on hydropower from the River Nile.

Many of the debates on hydropower point to the negative impacts it has on the environment. To assess Uganda’s development and use of hydropower, this essay uses the sustainable development paradigm. This is the most relevant development paradigm because it is currently adopted as the global standard for development, and because when dealing with the development of natural resources it is necessary to think about their long-term preservation for continued use. According to the official United Nations (UN) statement, “Sustainable development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (“Sustainable Development, un.org). This means that all continued global development must be done in a way that takes care of the environment so that it can be maintained for the foreseeable future.

As the larger development community has been shifting away from the Millennium Development goals in favor of the Sustainable development goals, and the paradigm is championed by UNEP and UNDP (Ndebesa, 2017, p. 2), there is much dialogue about it.
Professor Ndebesa, at Makerere University in Uganda, describes sustainable development in his discussion of paradigms. According to Ndebesa, “this paradigm focuses on the careful and balances utilization of the current resources to avoid compromising the interests of future generations,” (2017, p. 2). In other words, developing in a sustainable manner means using resources in a way that will be productive towards development, but will also preserve them for future use. The core components of the paradigm are “economic growth, social inclusion and environmental protection,” (“Sustainable Development”, un.org).

Sponsored by the UN, there are 17 sustainable development goals that the world is supposed to reach by 2030, and further development of the Nile should be compatible with them (“Sustainable Development”, un.org). The WCD also uses this paradigm as part of its assessment of hydropower and points out a few principles that it claims are inherently connected to managing water as an energy resource. The WCD highlights: Principle 1, saying humans are entitled to a healthy living environment, Principle 3 which amends the right to development to include that it must be done in an equitable way that accounts for future generations, and principles 10,13, and 22 which all deal with the treatment and compensation of people affected by development (WCD, 2000, p. 202). These principles are the most important for looking at the use of the Nile through the sustainable development paradigm because they touch on aspects of the region, including displaced people and the environment, that are directly affected by development projects along the river.

The geography of the region, the history of relations between Riparian states, an understanding of hydropower, and sustainable development are the most important concepts to understand Uganda’s position within the geopolitics of the Riparian states today. The geography of Uganda puts the country in the unique position of balancing the
role of both an upstream and a downstream country in negotiations. The historical agreements, made during colonial times, gave Egypt power and have created tensions in modern negotiations for more equitable use of the river. Hydropower drives Uganda’s interests in wanting a portion of the Nile’s waters for its use, and is an area surrounded by global controversy and regulations. The entire situation, when looked at through the sustainable development paradigm, can be analyzed in a way that assesses modern development of the river and accounts for preserving the river for future generations’ use. When these concepts are put together to provide a picture of where Uganda is in the development of the Nile, the geopolitics between the Riparian states today seem less complicated because they are rooted in these four principles.

3. Statement of Problem:

Usable water is a finite resource that the world desperately needs, but is one that is slowly running out. For Uganda’s continued development, it will have to use the River Nile for drinking, energy, sanitation, and agricultural production, but so will every other Riparian state. Historical agreements like the 1959 agreement, which leaves only 10% of the water of the Nile for the upper Riparian states to share, have complicated recent negotiations for equitable sharing of the water (Tvedt 2010, p. 163). Research needs to be done on the transboundary relations regarding development of the Nile because it is important to examine possible areas of tension or development issues that could arise for Uganda.
4. Justification:

Transboundary issues surrounding the River Nile is an extremely important topic because restrictions on development and use of the river directly impact people's livelihoods, sanitation, power usage, and individual living conditions. Many Ugandans make a living off the Nile, including fisherman, ecotourism guides, and power workers. The vice president of the World Bank has affirmed the importance of transboundary water issues by claiming that, “The wars of the next century will be fought about water.” (Maude, 2002, p. 9). Water is a limited resource and with an increase in population and demand of it, relations of competing states could easily escalate in tension. Without carefully planning and regulating usage of the Nile, the Riparian states could come into conflict. Another reason development must be carefully regulated is to make sure this extraordinary river is not destroyed, which can be done by addressing it through the sustainable development paradigm and its focus on preserving resources for future generations. One of the mightiest rivers in the world, the Colorado, now dries up before it even reaches the ocean because of the United States’ overuse of the river. Protection must be put in place so that the world’s longest river does not suffer the same fate.

Other than the pressing global importance of water rights, the researcher also has personal justifications for conducting this research. She is passionate about these issues because they relate to issues faced by her home state while growing up, and because she has a unique perspective and love of rivers. She grew up in the desert state of New Mexico on a small ranch that functioned on contentious water. The Rio Grande that runs through New Mexico is often fought over for water rights, especially between Texas and New Mexico. Outdated deals allow Texas to take most of the water from the river, often leaving
New Mexico without irrigation for weeks at a time during critical seasons. Growing up with water rights being such a common area of contention has made it clear to the researcher that water rights are important and that they can easily cause tension and conflict between states. Going beyond water rights, the researcher also has a deep love and unique perspective on the importance of preserving rivers because she has competed in whitewater kayaking since she was eight years old. Today she is an international extreme whitewater kayaker and has taught the sport for almost three years now. Kayaking has given her respect for rivers and has given her personal motivation in preserving rivers both for her sport and because of their importance in river area ecosystems. These two parts of the researcher’s life are what inspired her to create this project looking at geopolitical relationships surrounding the River Nile and developing it in a way that is cohesive with the sustainable development paradigm.

5. Objectives:

I. To use the sustainable development paradigm to analyze development and preservation of the river.

II. To learn the history of Uganda’s development and use of the River Nile and of the geopolitical relations of the region.

III. To identify the ways in which the Riparian states are working together to ensure effective community relations, mainly by analyzing past and present transboundary water agreements and identifying possible points of conflict.

IV. To learn how Uganda is using and developing the River Nile today and its future development goals.
6. Literature Review

Literature written on this topic can be divided into three main sections. The first section is comprised of primary sources, such as treaties and reports that deal with water regulations and use of the Nile, which is important because it shows the official discourse on the topic. Secondary sources on the development and problems of the River Nile are drawn on the most heavily because they provide expert analysis that is closely related to this study. The last subgenre that is important to look at is work on sustainable development and environmental issues because it provides the framework which development in the Nile Basin needs to be addressed through.

The main primary sources that are analyzed in this study are the CFA, the UMWE’s “Kalagala Agreement”, the WCD’s “New Framework for Decision Making,” and the African Development Bank’s (ADB) “Compliance Review Report on the Bujagali Hydropower and Interconnection Projects.” The 1929 and 1959 water treaties between the Riparian states are also analyzed for historical importance, but mostly through other secondary sources. The CFA is the most important document for this study because it is the current water treaty under negotiation and is undergoing the process of signing and ratification in most Nile Basin countries. This study uses the CFA to show current relations between the Riparian states, and the guidelines for development and equitable sharing of the Nile. The Kalagala agreement, which creates a preservation area around Kalagala falls in Jinja, is used to show the complications with Uganda’s latest hydropower development, the Isimba Dam. The WCD’s report is used to address Uganda’s big dam projects and to show the international guidelines that countries should follow when developing hydropower. The ADB’s report is used for facts about the Bujagali dam in Jinja, and to demonstrate some of
the issues that come with hydropower development. These primary documents are important to this research because the older ones show the extent of the history of relations between the Riparian states, and the current ones give the official stances on the issues in this paper, which will be analyzed through expert interviews and secondary sources.

The secondary sources analyzed are mainly about either the geopolitics of the Nile Basin, or Uganda’s use and development of the River Nile. Many of the authors identify the Nile basin to be a specifically contentious area for water rights. For example, in the book *Governing the Nile River Basin*, the authors describe the challenges and failures of the water agreements on use of the Nile between the Riparian states (Kimenyi, 2015, *Theories* p. 46). In another source, the author argues that, “In contrast to the pattern entrenched for nearly half a century, the NBI [Nile Basin Initiative] promised to be a harbinger of a new era manifesting ‘a remarkable shift in the tone and substance of state-to-state relationships along the Nile,’” (Mekonnen, 2010, p. 425). This shows how secondary sources can be used to analyze the primary sources, such as the 1929 and 1959 agreements. Other sources, like Terje Tvedt’s *The River Nile in the Post-Colonial Age*, and Terje Oestigaard’s *Dammed Divinities*, provide extensive information on Uganda’s dams and development projects on the Nile. The researcher pulls on secondary sources to analyze primary sources and to gather facts and opinions that she expands with her own analysis and through expert interviews.

All research is conducted through frames, and since this study looks at finite natural resources it uses the sustainable development paradigm. The best sources on sustainable development come from the UN, which describe its key tenants of “economic growth, social
inclusion and environmental protection,” as well as the Sustainable development goals (“Sustainable Development”, un.org). The researcher also draws on Professor Ndebesa’s research, at Makerere University, to gain a Ugandan perspective on the paradigm. Secondary sources on environmental issues are used to show the importance for the Nile Basin countries to develop in a sustainable manor. An example of this is J. P. Painully’s “Barriers to Renewable Energy Penetration,” which describes the options for green energy in developing countries. This paradigm, and the literature on it, is important to this research because it allows the researcher to look at challenges of development of the Nile today, and with consideration for the future.

The main literature written on the topic of transboundary issues and development of the River Nile is largely primary sources, secondary sources on the development of the river in general, and sustainable development. The three subgenres provided above are a good sample of current research on the subject, and there are many other similar sources within the subgenres. Most work on the Nile Riparian states’ relations and use of the river predominantly focus on Egypt and Ethiopia’s role in the system. By focusing on Uganda’s place in the geopolitical relations and its development of the Nile, the research provides a new case study that brings the smaller Riparian states back into the discussion.

7. Methodology:

This research project is a case study of Uganda to help understand the greater geopolitical relations on the development of the River Nile. The essay uses both qualitative and quantitative data to analyze the current water agreements between the Riparian states, and Uganda’s position within them. This was conducted in cities of importance for the development of the Nile in Uganda, mainly Kampala, Jinja, and Entebbe. Research was
completed through document review, and supplemented with expert interviews. The research was conducted through the framing of the sustainable development paradigm, especially its focus on environmental protection.

7.1 Document Review

The purpose of conducting document review was to gather qualitative and quantitative data from reliable sources that could be further enhanced by the information and opinions obtained through expert interviews. The information and files used for document review were all peer edited sources such as books, scholarly journals, and accredited news sources. The main purpose of document review was to gather data to paint a historical background of politics surrounding the Nile and to get credible statistics for Uganda’s current use of the river. The researcher draws heavily on the primary sources of the water treaty agreements, including the 1929 agreement, the 1959 agreement, and the CFA. This gave the project context and helped to give the topic meaning by looking at past disagreements, treaties, and developments. All documents used in this paper are cited in the References. These and additional works consulted with full annotations and notes by the researcher can be found in the researcher’s field journal and research files.

7.2 Interviews

To study the transboundary politics and sustainable development of the River Nile with experts on the subject, the research was primarily conducted with the UMFA and the UMWE and their directorates. The researcher worked with these Ministries because they have the largest wealth of knowledge on the subject since they work directly with
development projects on the Nile and on the transboundary agreements and negotiations. The UMFA proved to be the best resource for studying and understanding the geopolitics between the Riparian states, and the UMWE was the most helpful for learning about Uganda’s use and development of the river. The researcher was based in Kampala so that it was convenient for her to draw on the UMFA and the UMWE. This time was supplemented with excursions to Jinja to work with the ecotourism sector, mainly with the whitewater company called Kayak the Nile, and to Entebbe to work with the UMWE’s Directorate of Water Resource Management (WRM), the Nile Basin Initiative (NBI), and the Nile Basin Discourse, (NBD). The researcher conducted a total of eight expert interviews for this study. Within the Directorate of WRM, the Department of Transboundary Resources was the most helpful to this research. The researcher also interviewed the Regional Manager, Hellen Natu, of the Nile Basin Discourse to get a non-governmental perspective on the subject. Working with these established and well-respected organizations allowed the researcher to gather pertinent and reliable data and provided a base to bring a new analysis to the table.

The researcher used interviews with professionals because their opinions and insights gave her the qualitative data she needed to go beyond the statistics and quantitative data found in much document analysis by asking questions formed during document review. The researcher interviewed two unnamed Ambassadors at the UMFA, Mr. Kyambadde at the UMWE, Dr. Callist who is the Commissioner of Water Resource Regulation and Planning at the Directorate of WRM, Mr. Sowed Sewagudde who works at the Department of Transboundary Resources and is the Coordinator of the Lake Victoria Environment Management Project (LVEMP), an unnamed official at the NBI, Hellen Natu at
the NBD, and David Egesa who is an ecotourism expert at Kayak the Nile. All questions given during interviews can be found in Appendices 1-7. Interviews with experts in the field allowed the research to go beyond the information found during document review.

7.3 Data Analysis

The researcher analyzed the interviews through coding methods, which included transcribing the interviews, organizing them for importance, annotating, and color coding the quotes. Documents were analyzed through careful reading, annotating, and color coding for importance and relevance. The analysis work for both interviews and document review can be found in the researcher’s field journal and research file. By analyzing past and present data collected through document review, as well as a mix of qualitative and quantitative data provided by interviews, the researcher attempted to establish a well-rounded look at the development politics surrounding the Nile and how they affect the Riparian states, especially Uganda.

7.4 Ethical Considerations:

This project follows all guidelines and ethics laid out by the Local Review Board of SIT. The research does not focus on any vulnerable populations, and the researcher mainly interviewed people in official positions within the UMFA and the UMWE, so power dynamics and special consent of vulnerable populations were not an issue. Even so, before speaking to any official or institution, the researcher made sure to have them read and sign Appendix 8, a consent form that has been filled out as an example, based on SIT’s ethical standards. The researcher followed the interviewees’ individual wishes laid out by what they checked in the “Additional Consent” section of Appendix 8 and kept all names anonymous unless specified in writing that they could be used in this essay. The whole
project follows ethical approaches to research; further ethical information on interviews conducted can be found in the Human Subjects Review, which was submitted to SIT and focuses on the ethics surrounding the human subjects that participated in the author’s research file.

7.5 Challenges and Limitations

Over the six weeks of this study the researcher ran into several challenges and limitations. The challenges can be broken into ones faced in document review and ones with interviews. The main cause of all the limitations could be summed up by the short amount of time that six weeks provides to conduct a research project. The researcher did her best to deal with and work around the challenges she faced.

With the document review conducted by the researcher, the main challenges were finding current and reliable data on agreements between the Riparian states, and in finding work that focused on Uganda, not the entire Nile Basin. Because not all Riparian states have signed and ratified the CFA, it is still technically under negotiation. Thus, there are very limited peer edited sources on the current CFA negotiations. Similarly, most of the literature on the subject either focusses on Uganda’s development projects on the Nile, or the geopolitics of the entire Nile Basin, but not a combination of the two. The researcher tried to overcome both challenges in the same way; by filling in the gaps left by document review with information and opinions provided by interviews with experts in the field.

The main challenge the researcher found with expert interviews was getting officials to agree to meet with her. Since the researcher was dealing with primarily ministry officials, they were all very busy and at times it was difficult for her to set appointments, especially since she is only an undergraduate researcher. Often interviewees would not
respond to emails and phone calls, or would be called away to other meetings during interview times. The researcher tried to be accommodating to all interviewees, while at the same time staying persistent and getting enough interviews to fill the gaps in her research. While the goal for this project was to complete twelve interviews to enhance the document review, the short time frame and the amount of time it took to book and complete the interviews would not allow it, and only eight expert interviews were held. Despite not reaching the quantitative goal of interviews, the quality of information given by the interviewees allowed the researcher to compensate for the limited number of interviews.

8. Research Findings and Analysis

This section describes the research gathered during the project and analyzes it for importance and significance to modern geopolitical relations of the Riparian states, and Uganda’s use and development of the River Nile. The objectives are to use sustainable development, which focusses on developing resources in a way that preserves them for future generations, to analyze the development of the Nile, examine the ways that the Riparian states work together to manage the river through treaties and negotiations, and to see Uganda’s use of the Nile and its position in the geopolitics between the Riparian states. In general, as time passed since the colonial era, the division of upstream and downstream politics increased because upstream countries pushed for equitable shares and use of the Nile, while downstream countries strived to maintain the status quo (UMFA Ambassador 1, personal interview, 2017). Uganda has had to carefully balance its stakes in both parties to preserve its continued interests in developing hydropower on the River Nile (Tvedt, 2010, p. 125). The following subsections go into these claims in detail.
8.1 Modern Geopolitical Relations

The politics of the Nile Riparian states have evolved since independence from the UK for the Riparian states, but the rifts developed by the 1929 and 1959 agreements still hold strong today. While Egypt still clings to the old agreements which give it hegemony over the river, “Kenya, Uganda, and Tanzania have argued that while some level of reliance on treaties signed on their behalf by their colonial rulers is necessary to ensure legal continuity, they would reject those colonial-era treaties, such as the Nile Waters agreements, that they believed would harm their national interests,” (Kimyeni, Theories, 2015, p. 59). This shows that there are still unresolved issues with the current way development is done on the Nile. To resolve the underrepresentation of the upstream states, representatives from each country have come together since the 1990s to try and create new agreements, like the Cooperative Framework Agreement (CFA), and institutions for the promotion of equitable use of the river, like the Nile Basin Initiative (NBI) (Kyambadde, personal interview, 2017). Conflicts have not escalated in large effect due to the adherence to the ‘agreed curve’ which regulates how much water should be released from the Nile in relation to the needs of the downstream countries and environmental factors (African Development Bank, 2008, p. 11). This is important because it shows that while there are still unresolved issues within the Nile Basin, there has yet to be real conflict between the states, and that the upstream states are beginning to have their voices and needs heard in the international community.

Modern politics between the Riparian states is centered in the creation of the CFA. As worded within the CFA, “the present Framework applies to the use, development, protection, conservation and management of the Nile River Basin and its resources and
establishes an institutional mechanism for cooperation among the Nile Basin States,” (CFA, 2009, p. 4). In other words, the CFA aims to create a platform for cooperation between the Riparian states, and a set of guidelines for the use and development of the river. The CFA looks at development of the Nile through sustainable development so that the river may be used in a way that will not exploit the resources (CFA, 2009, p. 6). The agreement largely represents the upstream states’ interests and even promises that, “Each Basin State is entitled to an equitable and reasonable share in the beneficial uses of the water resources of the Nile River System,” (CFA, 2009, p. 12). This means that the basin is entering a new era of sovereign cooperation and coordinated management of the River Nile.

Started in 1999, negotiations have taken 17 years to get the CFA to its current legal status, and is still not in full effect. All Riparian countries except Egypt and Sudan have signed the CFA and three have already ratified it within their parliaments; however, for the CFA to be in full effect, six countries must ratify the agreement (CFA, 2009, p. 62). In a personal interview with the researcher, Dr. Callist, the commissioner of the Water Resources Planning and Regulation department of the Directorate of WRM at the UMWE, and technical representative for Uganda with the NBI, shared his insights that he gained from his twelve years of work with the CFA. According to Dr. Callist, the negotiations of the CFA have “taken long because we are coming from a situation of no cooperation and limited trust, with low confidence, to a situation where we are building capacity, working with each other and to a place of building cooperation,” (personal interview, 2017). This shows that the political atmosphere of the Nile Basin has evolved, and that progress is being made in both policy and relations between the Riparian states. Most countries have signed the CFA,
and three have ratified; for it to come into effect, six countries need to ratify the agreement, but many are waiting to see what happens with the downstream countries before they move forward (Dr. Callist, personal interview, 2017). This signifies major progress for fair use of the river and demonstrates the independence of the upper Riparian states because it is the only agreement on the Nile made since colonial times.

While the CFA is a step forward in the long path of basin wide cooperation and coordinated development for the Riparian states, Egypt and Sudan have not allowed the agreement to come to a consensus because of their refusal to sign it. The downstream states have great stakes in the management of the Nile, as, “Nile waters constitute 96% of Egypt’s renewable water, while 85% of both North and South Sudan’s population is in some way dependent on the river,” (Ibrahim, 2011, p. 287). This shows downstream dependence on the Nile, a fact that was reiterated multiple times in interviews conducted within the UMFA and the UMWE. Mr. Sowed Sewagudde, the commissioner of the Department of Transboundary Resources of the UMWE and Coordinator of the LVEMP, claims that the downstream states “are the more vulnerable and attached to the river; they are worried about resources because they are more arid so they are at risk with food while upstream states depend on rain fed agriculture so they have less attachment,” (personal interview, 2017). Dr. Callist argues that this has changed, claiming that when the 1929 and 1959 agreements were made Uganda and the other upstream countries had very small populations so they could depend on rainfall, but that now the increase in population has also increased demands of water, and that they must also use the Nile as a resource (personal interview, 2017). These reasons show why Egypt and Sudan have a large stake in
the river and why they want to maintain the power over the water given to them by the colonial agreements, as well as the changing demographics in the upper Riparian countries that have made the creation of a new water sharing agreement a necessity.

Egypt and Sudan’s main point of contest with the CFA in its current form is the unresolved Article 14b on water security. The CFA defines water security as “the right of all Nile Basin States to reliable access to and use of the Nile River system for health, agriculture, livelihoods, production and environment,” (CFA, 2009, p. 4). In other words, water security protects all the Riparian states’ water rights to the extent of their needs. The way which the upstream states have Article 14b written is “not to significantly affect the water security of any other Nile Basin States,” and Egypt and Sudan have remained steadfast on that they will not sign the agreement unless it reads “not to adversely affect the water security and current uses and rights of any other Nile Basin State” (CFA, 2009, p. 70). The difference in these two can be embodied in a quote from Mr. Sewagudde where he reflected that, “If we go by what Egypt wants that clause to look like then it will appear like we are maintaining the status quo, yet this entire negotiation is about how we change the status quo,” (personal interview, 2017). This means that if the upper Riparian states acquiesce to Egypt’s request, they will have negated all the forward progress they have made towards equitable sharing of the river. The issues over Article 14b are now being handled by the Heads of States of all the respective Riparian countries (Dr. Callist, personal interview, 2017).

Even though Egypt and Sudan not signing the CFA does not affect its legal status, it still has negative effects on the rest of the Riparian states. An Ambassador at the UMFA argues that the absence of their signatures means that there is no real consensus among all
the Riparian States, and so it makes the agreement weaker in eyes of the international community (UMFA Ambassador 1, personal interview, 2017). In another interview, Mr. Sewagudde pointed out that there have been tangible effects from Egypt and Sudan not signing; for example, he claims that, “It locks out possible funding of projects on the Nile from development partners because funders the moment that they realize that Egypt is not on board they are a bit uncomfortable because they have this feeling that instead of sponsoring integration they are more sponsoring division,” (personal interview, 2017). In accordance with this, an official in the NBI explained that “Egypt not signing also affects funding of projects and of the NBI. Both because funders don’t have confidence in a basin wide initiative when not all the basin states are involved and because Egypt will lobby against funding. Occasionally they do active lobbying against funding for NBI activities,” (personal interview, 2017). This shows that while the CFA has promoted more fair and sustainable use of the Nile, that Egypt not signing has had substantial consequences in the region and that all parties need to have signed and ratified the agreement for the region to reap the full benefits.

As Uganda holds both an upstream and downstream position in the geopolitics of the region, it also has had to play a careful role in CFA negotiations. Uganda is one of the upstream countries that advocated for the CFA, more equitable sharing, and denied the validity of the 1929 agreements (Tvedt, 2010, p. 10), but it has yet to ratify the CFA. According to an Ambassador at the UMFA, “We want to wait for Egypt and Sudan so that all countries in the basin are finally on the same page and project approval will be through consensus and easier,” (UMFA Ambassador 1, personal interview, 2017). This shows that Uganda wants to reach a basin wide consensus because it recognizes that as a downstream
country, it is important to keep Egypt as an ally. Egypt arguably has the most international power of the Riparian states, so Uganda sees the benefits it can have by looking as if they are still trying to appease Egypt (UMFA Ambassador 1, personal interview, 2017). Uganda is playing an upstream state by wanting to conserve the Nile and have more of a voice through the CFA, and it is still trying to participate as a downstream country to maintain relations with Egypt and protect its interests in hydropower.

8.2 Uganda’s Use and Development of the Nile

The waters of the Nile are used to benefit the Riparian states in many ways, but to date, Uganda’s main development focus of the river has remained on hydropower. Water is valuable in both a financial and a cultural sense for Uganda. This is seen in the fact that the three completed dams that are helping to alleviate the stark power shortages in the country are named after the spirits that reside in their falls. These dams are Nalubaale (previously named Owen Falls), Kiira, and Bujagali. Expert, Terje Oestigaard, claims that “perhaps it is more than coincidence that the power of the waterfalls has been incorporated into the secular sphere: the very same waterfalls manifest the powers of the spirits and help power the turbines generating electricity for Uganda,” (2015, p. 26). This shows the immense value that Ugandans have placed on the waters of the Nile, and how much they now value the electricity that is produced by its waterfalls. The people are right to put value on the dams to at least some extent because they not only provide power to Uganda but also help the nation’s economy by selling power to other countries such as Kenya and Tanzania. The sites of Uganda’s four current and developing dams can be seen in Figure 2. With a potential of 2800 MW of power, Uganda has a distinct comparative advantage in hydropower in the region and is in a prime location to sell to its neighbors (Tvedt, 2010, p.
136). Water and power are two valuable resources for Uganda and are important culturally and economically, but like most development, there are implications that come with building big dam projects in Uganda.

The largest producing dam in Uganda is the Bujagali dam, which was built in part to account for the loss of power caused by the underperformance of the Nalubaale and Kiira dams after a drop of water levels in Lake Victoria (Tvedt, 2010, p. 136). Figure 3 shows the layout of the Bujagali Hydropower Project. While engineers, such as Daniel Kull, argue that the drop of water levels was caused by misuse of the two dams, the Ugandan government still blames the drop on a prolonged drought (Tvedt, 2010, p. 140). The Bujagali Hydropower Project was started in 2007 with a capacity of 250 MW and was completed in 2011 (Oestigaard, 2015, p. 27). The project had to be assessed in two rounds because the first round faced too many international criticisms. When the National Association of Professional Environmentalists and the International River Network (IRN) investigated the first round, they found it to be environmentally and culturally unsound, and that the funders had bribed the Minister of Energy of Uganda, so the project was shut down until a new plan was developed (Tvedt, 2010, p. 143). Bujagali 2 also had critiques by the international community, but President Museveni was determined to see it through. The second round was also an improvement because it would have a lesser environmental impact by, “recycling the same water that is already used to generate power at Nalubaale and Kiira”; thus the project will reduce the pressure to over-release water from Lake Victoria, thereby helping to preserve lake levels and facilitate the government of Uganda’s compliance with the ‘agreed curve’” (Tvedt, 2010, p. 145). The Bujagali Dam is an important development for Uganda not just for the electricity and income it provides, but
because it also creates a precedent for postcolonial development of the Nile by Uganda. The project also shows Museveni’s government’s determination to fulfill its projects for the economic benefit of Uganda, despite international criticism.

With increases of power demands and a growing population, the Isimba Dam at Isimba Falls started construction in 2007 and is estimated to be completed in 2018 (Sandstrom, 2016, p. 162). The dam has a potential generating capacity of 183 MW and will flood 18 km of the river. One of the main criticisms of the Isimba Dam is that a section of the river that will be flooded will violate the Kalagala Offset agreement made during the construction of the Bujagali Dam to mitigate environmental concerns of the dam (Sandstrom, 2016, p. 162). The offset was created to preserve the ecosystems, beauty, and ecotourism brought in by the rapids in the area (Ministry of Water and Environment, 2010, p. 6). The Isimba Dam at its current height projection will flood part of the offset (Kyambadde, personal interview, 2017). Interviews with officials on the Isimba Dam have come back with conflicting responses about the offset. Mr. Kyambadde in the UMWE claims that it “was an offset and the government is breaching it... To respect the agreement Isimba should not be as high,” (personal interview, 2017). While Mr. Kyambadde clearly sees the Isimba Dam as violating the agreement, Mr. Sewagudde of the UMWE says that the agreement was focused more on not building the dam at Kalagala falls, and that, “They thought that not building at Kalagala and using Isimba makes it ok even though it will still affect the Kalagala offset,” (personal interview, 2017). This shows that the Isimba Dam has complicated politics and great benefits and potential costs for the country. Mr. Kyambadde of the UMWE points out that the dam, other than supplying power to Ugandans, was motivated by the new demand for power put on the country from oil production (personal
The Isimba Dam is another example of the government pushing through projects despite international criticisms, and shows that Uganda is enjoying its new opportunities to use the Nile under the equity provided by the CFA.

Hydropower has been Uganda’s focus on the Nile; however, there are other industries, such as fishing, irrigation, and ecotourism that also play a large role in the use of the Nile. Fishing industries in Uganda are a major employer and income driver for Ugandans. As of 2010, “more than 350,000 people are directly employed by the fisheries industry in Uganda and over 1.2 million are indirectly employed. Uganda has over 20 fish factories exporting over 30,000 tonnes of fish worth US$150 million annually,” (Tvedt, 2010, p. 151). This demonstrates that many Ugandans depend on the fishing industry for both their livelihoods and for food, and that it is also an income generator for the country. Despite the benefits provided by the fish industries, the international regulations on the waters of Lake Victoria make it complicated and potentially jeopardize the industry because they are not coordinated and so fishermen can be arrested for trivial violations if they cross the water borders between states (Kyambadde, personal interview, 2017). This means that Uganda needs to look at more transboundary regulations of water to help further develop the industry.

Irrigation is another use of the river that, if further developed could be a real step to pushing Uganda towards its goal of becoming an upper middle-income country. Irrigation has always been a factor in Uganda’s development of the river, even if it is not for within its borders. One of the motivations for original construction of the Nalubaale Dam in 1956 was to improve irrigation projects of the downstream countries (Tvedt, 2010, p. 132). As of
today, Uganda still relies on rain-fed agriculture, but is also faced with the challenges of climate change (Sewagudde, personal interview, 2017). According to the African Development Fund (ADF) Uganda has the potential to develop 202,000 hectares with the help of irrigation (Tvedt, 2010, p. 150). As an underutilized resource, irrigation could be an important feature in the future development of Uganda to help fight the impacts of climate change on their agricultural sector.

Ecotourism, and particularly the whitewater industry, on the White Nile is both an important sector for drawing in income and for increasing international appreciation for the river. Even though the Ugandan government continues to develop dams which harm the industry, they also see its importance, and accept that, “The tourism industry is one of the major foreign-exchange earners for Uganda. The government objective for the tourism sector is to contribute to the growth, sustainable development and diversification of the Ugandan economy,” (Tvedt, 2010, p. 152). While smaller than the fishery industry, “The whitewater industry, should it continue to grow, would generate an estimated $30 million annually, and if hotels, transport, cottages etc., are included, could generate income of up to $60 million a year,” (Oestigaard, 2015, p. 37). The whitewater on the Nile is also largely considered to be one of the best places in the world to kayak on, and professional kayak competitions, like Nile Fest, bring people together annually from all over the world to share the beauty of the river and fosters an international basis for conserving the Nile (Egesa David, personal interview, 2017). Figure 4 shows the beauty and magnitude of the famous Nile Special wave just North of Kalagala Falls. Ecotourism on the Nile is valuable economically and socially, just like the waters of the Nile itself, and so is important and worth protecting.
8.3 Impacts of Development

Uganda’s continued use and development of the Nile has brought in economic benefits for the country, but it has also had negative consequences. The major fields that have been affected by development are the environment, culture, ecotourism, and fishing. Geopolitical relations between Uganda and other countries are also affected, sometimes negatively and sometimes positively, by Uganda’s evolving uses of the Nile. The following section discusses these implications in further detail.

The largest concerns of developing the river are the potential and current environmental impacts that come with big dam projects, as well as climate change. An ambassador from the UMFA even claimed that “What we are witnessing with climate change, which is effecting the entire basin, is the biggest challenge for Uganda’s development of the Nile,” (UMFA Ambassador 2, personal interview 2017). Mr. Kyambadde cites degradation of the Nile and Lake Victoria catchment due to poor agricultural practices as the main challenge because of silt damaging the water quality (personal interview, 2017). In a study conducted by expert Dr. Nina Hissen of the Department for International Development, she found that, “Interviewees already experienced a rise in demand for water and expected that demand would continue to rise, while climate change was likely to reduce the amount of water available in the future,” (2017, p. 24). In general, the interviews of officials for this paper largely agreed with those of Hissen’s, and every interviewee mentioned climate change as a challenge. However, most also believed that Uganda’s current use of the river was sustainable. This belief is challenged by the drop of water levels in Lake Victoria, arguably in part because of Uganda’s development of the river; for example, “Kiira is currently producing only 40 MW instead of 120 MW because there is just
not enough water to produce electricity,” (Tvedt, 2010, p. 139). The drop of water levels is a large concern for all Nile dependent states, but there are other concerns that come with dams, such as harming ecosystems and decreases on biodiversity in affected areas (Kyambadde, personal interview, 2017). Environmental concerns, mainly from poor development practices, are already creating major concerns today, like the inefficiency of dams due to the drop of water, and without a change, the impacts will most likely only increase in the future. When looking at development projects, particularly in the age of climate change and sustainable development, it is important to look at environmental impacts.

Just as dams have had significant impacts on the environment, they have also had cultural consequences. Terje Oestigaard, in his book Dammed Divinities, explains how “Throughout Uganda, water and in particular waterfalls are part of the cosmology of traditional, indigenous religions, which take many forms,” (2015, p. 7). This is important to development because the building of dams destroys many of the most culturally important waterfalls on the Nile. The Busoga of Uganda put emphasis on the three falls under Nalubaale, Bujagali, and Isimba dams, and had such legitimate cultural claims to the falls from the spirits that resided in them, that to construct the Bujagali dam, “the construction team aimed to get local acceptance of the dam by arranging grandiose appeasement ceremonies for the spirit, and no fewer than three such ceremonies took place over the next 10 years,” (Oestigaard, 2015, p. 8). Despite these appeasements made by the construction teams, “the waterfalls are the true testament of the spirits’ powers, and when the falls are gone, their powers diminish, or so it is believed... the disappearance of the falls attests to the disappearing powers of the gods and healers,” (Oestigaard, 2015, p. 83). This
show that the development of dams has impacted and even hurt the culture of the Busoga people and that something needs to be done to preserve local culture during future developments.

The development of dams also had a significant impact on other industries that are dependent on the Nile, especially on ecotourism and the whitewater industry. The building of Bujagali dam impacted the whitewater industry by destroying important rapids, reducing the number of tourists and so causing it to suffer and for hotels to lay empty in Jinja (Oestigaard, 2015, p. 37). The completion of the Isimba Dam is projected to have an even greater impact on the industry. The dam will flood several important rapids, including the Nile Special wave where international competitions are held for whitewater kayaking, and is expected to have such a big impact on the industry that hundreds of locals will lose their jobs (Energy v Tourism, 2016). These fears were reaffirmed in an interview with Egesa David, a local kayaker who has worked as an instructor for Kayak the Nile for 10 years and has represented Uganda at the World Championships for kayaking in Canada. In the interview, he reflected that “With Bujagali the industry suffered a little but people are getting used to the way it is now. With Isimba, most of the rapids will be taken or flooded so this sector will drop again. Some companies will be small and sustainable but most of us will be losing our jobs because fewer tourists will be coming,” (Egesa David, personal interview, 2017). To mitigate some of the impacts on the industry, Mr. Sewagudde suggests conducting further analysis before picking dam sites in the future to find falls which would cause less harm than the major ones right outside of Jinja (personal interview, 2017). Ecotourism on the Nile is a large source of income and a livelihood base for the country,
and more needs to be done to protect it because it is so directly damaged by the construction of new dams.

Development of dams has had significant impacts on other uses of the Nile, but Uganda has steps in place to mitigate these consequences. NEMA oversees coordinating surveys that assess the possible impacts culturally and environmentally of proposed projects, and if it deems them too significant or that they cannot be mitigated, the project will not go forward (Dr. Callist, personal interview, 2017). Before any hydropower project can obtain a permit for construction, it must face a public hearing organized by the Directorate of WRM to hear all sides of the debate, to listen to how people will be affected and to propose compromises and solutions to some of the possible impacts (Dr. Callist, personal interview, 2017). On an international level, the NBI, which helps countries in the planning stages of large investment projects to assist with coordinated development of the Nile, runs surveys and scenarios in the countries to find places where development projects will have the least amount of impact and those locations are then selected by the countries for construction (NBI Official, personal interview, 2017). These steps are being taken within Uganda, but the impacts on other sectors are still significant, and more needs to be done in the future to protect these important industries.

While there are many impacts of development within Uganda’s borders, there are also implications with Uganda’s geopolitical relations with the other Riparian states. For example, in 2005 Uganda had an acute power shortage, and needed to release more water for development, which made the other upstream countries put political pressure on Uganda to release less (Kyambadde, personal interview, 2017). Since then Uganda has released water strictly in accordance to the agreed curve, yet, because of Uganda’s position
as both an upstream and a downstream country, it also must appeal to Egypt and Sudan’s water needs. As a compromise, Uganda’s plans in developing hydropower are focused on run-of-river dams, which only slow but do not stop the flow of the river, so that Uganda can have more electricity and maintain the agreed curve for release of water to Egypt (Sewagudde, personal interview, 2017). These examples show that development of the river by Uganda both impacts, and is impacted by, the geopolitical relations of the countries around it, and must be accounted for when planning for future development of the Nile.

8.4 Future of Development and Geopolitical Relations

Uganda is currently only tapping a fraction of the hydropower potential within the country, and uses such as irrigation have barely been touched on. Today’s Uganda may look very different from the Uganda that will exist ten years from now, and while it is impossible to know the future, this section looks at where Uganda may go based on expert interviews and environmental concerns. It addresses where Uganda is likely to be in the future with its development and use of the River Nile, and with the environment and geopolitical relations of the Nile Basin.

Just as Uganda’s primary focus on the Nile is on hydropower today, it will probably remain so in the future, but the country will also have to begin looking at other alternative forms of energy. With raising concerns of climate change and limitations on water as a resource, “Renewable energy has been considered as one of the strong contenders to improve plight of two billion people, mostly in rural areas, without access to modern forms of energy,” (Painully, 2000, p. 1). This means that Uganda could invest more in alternative renewable energy sources, such as solar and wind power to improve the lives of many of its citizens. All interviewees from the UMWE stress the importance of hydropower both for
electricity and for Uganda’s economy, but also admit that alternative forms of energy should be considered in the future. According to Mr. Kyambadde, Uganda needs to begin investing in alternative green energy sources, a market currently only being tapped by the private sector, to avoid a tragedy that could come about because of climate change that could come from only relying on hydropower (personal interview, 2017). Mr. Sewagudde agrees that, “Long term alternatives must be looked at. Short to medium term I believe hydro power is the key,” (personal interview, 2017). Mr. Sewagudde also elaborated that when he argues that hydropower is key, he is referring to the future development of run-of-river dams, which have less environmental impact, and are easier to maintain the agreed curve with (personal interview, 2017). For Uganda to be successful in the future, they will probably have to look at both improving their hydropower sector, and investing more in alternative renewable energy sources.

Other than hydropower, the area for future development on the Nile that has the most potential is irrigation. After an assessment by the ADF saying that Uganda had the potential to develop irrigation to improve its food security without endangering the water security of other downstream countries, the government began the Medium-Term Plan to develop small scale irrigation throughout the country (Tvedt, 2010, p. 150). Interviewees in the UMWE also saw the importance of future irrigation in the country. According to Mr. Kyambadde, more emphasis should be put on irrigation because it “would make more of an impact in people’s lives, especially in the North and will provide more quick returns to the economy... This country has so much potential, and it would be better for its future if there is emphasis on production and agriculture first, then power later,” (Kyambadde, personal interview, 2017). This shows that developing irrigation in the country is important because
it would directly benefit people’s lives since 80% of Ugandan’s are still reliant on subsistence agriculture, and irrigation has been proven to vastly improve the output production of agricultural practices (Tvedt, 2010, p. 139). Irrigation could also help offset the changes in rainfall due to climate change.

Both hydropower and irrigation are directly dependent on the water levels of the Nile and Lake Victoria, and so Uganda will have to take steps to restoring and conserving the environment for its future development. Today, uncoordinated development is leading to unsustainable development if the entire region. An official in the NBI claims that, “The appealing feeling of self-reliance and the want to not be dependent on others causes each country to make developments for themselves, but these are suboptimal and not sustainable in the long term, (Official, personal interview, 2017). Uganda has already taken steps toward restoring the ecosystems harmed by development, both within its borders and internationally, via projects within the NBI and Ministries. The LVEMP, for example, “seeks to reverse environmental degradation within the Lake Victoria Basin and to also provide alternative livelihoods to communities that have been affected by some of the rehabilitation activities,” (Sewagudde, personal interview, 2017). The LVEMP is an important step in preserving the Lake Victoria and Nile basins, but more needs to be done. Creating more organizations like the LVEMP, or giving them more legal power, could be one solution for helping to increase coordinated sustainable development in the region.

One proposed solution that could help both mitigate climate change in the basin, and potentially help the stalemate created with Egypt refusing to sign the CFA is to change the wording of Article 14b of the CFA to be framed around climate change, not water security (Hissen, 2017, p. 25). Taking out water security and replacing it with climate
change mitigation could help end the gridlock because, “It appears that the climate change discourse offers a less politically sensitive avenue for organizations such as the NBI or the LVBC (and its member states) to discuss transboundary WRM issues and prepare and implement technical responses, which involve governance reform and infrastructure development,” (Hissen, 2017, p. 26). While it would not fix all the issues remaining with the CFA, this could be a favorable solution for improving communal efforts to mitigate and adapt to climate change in the Nile Basin in the future.

As seen with issues that remain with the CFA, and with the large number of countries that are Nile Riparian states, geopolitical relations in the region could be considered complicated now and could go in many directions in the future. The CFA tries to decrease the potential for conflict in the region by setting up platforms for discussion and mitigation between the countries. Article 34, Settlement of Disputes, of the CFA describes the means for states to come to an agreement when it cannot be reached with normal negotiations, including submitting the argument to the international court of justice (CFA, 2009, p. 52). For the exact wording of Article 34, refer to Appendix 9. The platform laid out in the CFA should prevent conflict between the Riparian states in the future; however, expert interviewees in this project demonstrated differing beliefs on the potential for future conflict in the region.

While Ambassadors at the UMFA maintain that there is not a potential for conflict and that all future disputes can be solved through dialogue (UMFA Ambassadors 1 and 2, personal interviews, 2017), officials at the UMWE are wary. Mr. Sewagudde said that conflict could be possible, but that he is hopeful for dialogue based resolution with the current agreement, especially if Egypt and Sudan sign the CFA (personal interview, 2017).
Mr. Kyambadde claimed that conflicts are “likely with or without an agreement. They rise and fall with nature,” (personal interview, 2017). Dr. Callist agreed with his fellow members of the UMWE (personal interview, 2017). An official at the NBI brought a different perspective to the table by arguing that “Water as a finite resource could be a source of conflict or of cooperation. It could be argued both ways. In sharing the Nile, we can use it better and to optimal benefit for the long term. If the water is not shared equitably, it could become a source of conflict,” (personal interview, 2017). Dr. Callist also mentioned that “conflict can sometimes spark cooperation,” (personal interview, 2017).

These interviews show that while people are putting faith in the CFA, that there will always be the potential for disputes and conflict in the region, and that the transboundary aspect of the Nile will always be either a source of conflict or cooperation for the Riparian states.

The best way for the Riparian states to avoid conflict would most likely be if Egypt and Sudan signed the CFA and at least six countries ratify it, so that the whole region is bound and held accountable through the CFA. In the meantime, countries should continue to work with the NBI and NBD. The NBD, which is a conglomeration of civil societies in the Riparian states, holds a unique position because they can encourage peaceful relations through information-sharing both between countries horizontally, and vertically between governments, civil societies, and communities (Dr. Natu, personal interview, 2017). The NBD is working toward coordinated development of the Nile and has created platforms for discussion between all parties, including the Nile Basin Discourse Summit. According to Dr. Natu, the Regional Manager of the NBD secretariat in Uganda, “The conference is actually bringing an array of the civil societies, other non-state actors, and governments (including Egypt) together. It’s important because it will provide a bigger platform for the non-state
actors and it will be good for the governments to hear what is happening on the ground,” (Dr. Natu, personal interview, 2017). This conference is the first of its kind and has the potential to mitigate future conflicts because it puts all parties involved in the development of the Nile on equal footing.

There are many historic and modern factors that go into determining the future. The history and modern geopolitics of the Riparian states, as well as Uganda’s use and development of the Nile, have shaped what the region will look like in the future. Without a crystal ball, it is impossible to see what will happen in the Nile Basin in the next ten years. Despite this, it is important to consider the past and present affairs in the region to predict and mitigate the potential challenges and conflicts of the future.

9. Conclusions:

Water is a vital resource to all of humanity, and so it must be utilized in a sustainable way for future generations. For the countries of the Nile Basin, this means both developing projects within their own countries in an environmentally conscious way, and fostering productive and peaceful sharing of the Nile. If the Riparian states fail to do both, they could endanger their own future development and that of their neighbors. Historical agreements within the basin made during the colonial era have created a rift in the Riparian states between the upstream and downstream countries. The agreements gave the downstream countries disproportional power of the river that Egypt and Sudan do not want to surrender. In the past two decades, there has been progress towards equitable sharing of the river, especially with the CFA and organizations like the NBI. These measures have also begun to take the necessary steps toward green development, like with the
creation of the LVEMP. While the potential for conflict will always remain in the background, the Riparian states are on a path to peaceful equitable sharing of the Nile.

Uganda is a unique country in Africa, and it is unique in its position within the geopolitics of the Riparian states. As early as Churchill's expedition which gave Uganda its nickname of 'The Pearl of Africa,' the world has known that Uganda's strategic position on the Nile would be important for its development (Oestigaard, 2015, p. 16). Uganda is both an upstream and downstream Riparian, and so it has always had to balance the politics of both sides. Within the CFA, it must promote the agreement for the preservation of important catchments and for equitable sharing of the river, but it also must appease Egypt to keep their alliance and funding to its projects. Uganda has done this by signing the CFA, but also waiting to ratify it until Egypt also signs it (UMFA Ambassador 1, personal interview, 2017). Uganda will continue to have to play this balancing act for the foreseeable future, at least until the CFA is fully in effect with the signatures of all countries and has been ratified by at least six.

As Uganda goes about balancing its position within the geopolitics of the Riparian states, it always has its own interests on the Nile in mind. While there are many uses for the Nile, including fishing, irrigation, and ecotourism, Uganda's focus has always been, and remains, on hydropower. Uganda currently has three functioning dams, the Nalubaale, Kiira, and Bujagali dams, and has the Isimba dam currently under construction. Each of these projects had to face major criticisms and push back from anti-dam activists, and have all turned out to be major investments for the country. The dams help to provide power to the citizens of Uganda, as well as help the economy by generating income from the power sold to Uganda's neighbors. In the future Uganda has several more dams planned, and to
hold up the balance between its own interests, power and environmentally wise, and appeasing Egypt, they are all run-of-river dams. Uganda’s use and development of the River Nile is centered around hydropower, and it will have to be resourceful to continue developing it while maintaining strong relations with the other Riparian states.

Today the Lusoga proverb, “The Nile is wealth” means many things for Uganda and all the Riparian states. The longest river in the world provides money and electricity to countries, especially Uganda, through hydropower. It gives people the wealth of food through fishing and irrigation from the Nile. It fosters a wealth of information sharing and international cooperation by making ten very different countries come together and find ways of working in coherence to use the finite resource optimally. The River Nile is important for many reasons, and it must be respected and protected in accordance with its inherent value.

10. Recommendations

1. Uganda should continue to develop hydropower, especially through run-of-river dams, because of its comparative advantage in hydropower in the region. They should develop run-of-river dams instead of traditional because they flood a smaller area and have less environmental impacts.

2. Hydropower project funders and developers should work in closer accordance with the UMWE to conduct more detailed studies to find the places with the least amount of impact culturally, environmentally, and least negative impact on the ecotourism sectors like the whitewater industry.

3. More precedence should be given to developing irrigation technologies and capabilities in the country to help improve agriculture, especially in arid Northern
Uganda. This could help Uganda economically and with food security issues in the face of climate change.

4. Nile Basin states should continue to work towards consensus in the region before enough countries ratify the CFA to bring it into force. They should wait until Egypt signs on to show international cooperation and strength. The impacts of Egypt not signing the CFA are too large, especially regarding funding of development projects, for the countries to ratify without it.

5. To get past the current grid lock of the CFA with the downstream Riparian states, the issue of Article 14b should be approached in a new manor, like through water security in times of climate change instead of with each other. Changing the wording in a way where neither the upstream nor downstream countries “win” the argument could promote progress towards international cooperation.

6. Uganda should continue to participate and promote all international organizations like the NBI and the NBD to show that working together on WRM issues will be the most beneficial for everyone involved.

7. Uganda and all the Riparian states should follow the conflict resolution guidelines laid out in the CFA (Appendix 9) to avoid conflicts and to settle any disputes peacefully through discussion platforms.
Appendices:

Appendix 1: Department of Transboundary Relations Questionnaire

- What is The Department of Transboundary Resources’ role in Uganda’s development and use of the Nile and what is your role within the organization?
- Could you explain the LVEMP a bit more and what authority it has in regulating environmental issues within the Nile Basin and development projects by the Riparian States?
- What do you see as the main challenge for Uganda’s continued development of the River Nile?
- Is Uganda’s current use and development of the river sustainable?
- Do you think the future of energy for the country is continued development of hydropower or in alternative forms of energy?
- Could you explain a bit about the international politics that go into the approval and building of big dam projects?
- Could you explain how the government was able to get around the Kalagala agreement that promised to protect the falls?
- Why does Uganda sell a good percentage of its power to neighboring countries, like Kenya, when only around 20% of its own population has grid access electricity?
- Do you think tensions around the continued development of the Nile could lead to conflict between the Riparian states?
- It has taken 17 years to get to this point in negotiations with the CFA, why has it taken so long to come to agreements?
- Why have Egypt and Sudan refused to sign the CFA?
- What is the significance of Egypt not signing the CFA?
- What are the unresolved issues?
- What do you think will happen in the next ten years regarding Uganda’s development of the Nile?
- Do you think continued development of hydropower is worth it despite negative impacts it may have on ecotourism?
- What do you think would be the best outcome for Uganda’s continued development of the Nile?
- Do you have any contacts you believe would be helpful to my research especially in Entebbe?

Appendix 2: Ministry of Water and Environment Questionnaire

- What is your organization’s role in Uganda’s development and use of the Nile and what is your role within the organization?
- What do you see as the main challenge for Uganda’s continued development of the River Nile?
- Is Uganda’s current use and development of the river sustainable?
- Do you think the future of energy for the country is continued development of hydropower or in alternative forms of energy?
• There is a lot of debate on the environmental standing of dams, do you think they are practical considering climate change and growing stress on the river and Lake Victoria?
• While Bujagali and Owen Falls dams are underperforming on what they are meant to be producing, is it in Uganda’s best interest to continue to develop more dams or to make the ones they already have more efficient?
• Could you explain how the government was able to get around the Kalagala agreement that promised to protect the falls?
• Why did the government decide to move forward with the Isimba Dam project when there was and is still so much international local outcry against it?
• Do you think the Isimba Dam’s contribution to Uganda’s economy and power out ways the impact is will have environmentally and culturally, and the damage it could do to the multimillion dollar whitewater industry based in the rapids it will destroy and the possible negative impacts on Jinja’s economy?
• Does the Isimba Dam meet the World Commission on Dam’s international guidelines for good hydropower projects? Does the Isimba dam meet the standards of water use laid out in the Cooperative Framework Agreement? Specifically, Article 3.7 under the protection and conservation clause?
• Why does Uganda sell a good percentage of its power to neighboring countries, like Kenya, when only around 20% of its own population has grid access electricity?
• Other than big dam projects what are the other largest projects/uses of the river by Uganda?
• Do you think tensions around the continued development of the Nile could lead to conflict between the Riparian states?
• Do you think more needs to be done to conserve the Nile or would you prioritize its development for the benefit of Uganda?
• What are the main ways that geopolitical relations affect Uganda’s use and development of the river?
• How does the entire system still run on the 1959 agreement, when that was over 50 years ago, in colonial times, and Uganda has publicly denied its legality?
• As of May 2017, Egypt had still not officially signed the CFA, is that still the case? Why or why not?
• What is the significance of Egypt not signing the CFA?
• How does the CFA deal with big dam projects, specifically how does it balance the Riparian states development interests and the World Commission on Dams’ international guidelines that are backed by the world bank?
• What do you think will happen in the next ten years regarding Uganda’s development of the Nile?
• What do you think would be the best outcome for Uganda’s continued development of the Nile?
Appendix 3: Ministry of Foreign Affairs Questionnaire:

- What do you see as the main challenge for Uganda’s continued development of the River Nile?
- Could you explain a bit about the international politics that go into the approval and building of big dam projects?
- Do you think tensions around the continued development of the Nile could lead to conflict between the Riparian states?
- What is the significance of Egypt not signing the CFA?
- How legally binding is the CFA? Does Egypt’s signature affect the legal binding of the agreement?
- It has taken 17 years to get to this point in negotiations with the CFA do you think it’s time to try a new approach or agreement?
- What do you think will happen in the next ten years regarding politics surrounding the River Nile between the ten Riparian states?

Appendix 4: Ecotourism Expert Questionnaire

- How long have you been in this industry?
- How did the building of the Bujagali dam impact the tourism in the area?
- What impacts do you see the Isimba dam having?
- Do you think continued development of the Nile jeopardizes the multimillion dollar whitewater industry in this country?
- Do you think the power needs within the country are worth the effects that it will have on the whitewater industry?
- What other effects do you anticipate the new dam having on the area?

Appendix 5: Nile Basin Initiative Questionnaire

- Could you explain the role of the Nile Basin Initiative in the development of the Nile and your position within the department?
- How does the NBI work with the Ugandan government on Development projects of the Nile?
- What do you see as the main challenge for Uganda’s continued development of the River Nile?
- How does the NBI handle big dam projects in the basin?
- What are the main cultural impacts of big dam projects and how do developers mitigate cultural impacts of their projects?
- What does the NBI do to handle cultural issues that come up with development projects?
- Do you think tensions around the continued development of the Nile could lead to conflict between the Riparian states?
- How does the NBI make sure that development projects adhere to the CFA guidelines?
• What is the significance of Egypt not signing the CFA? How does it affect the NBI’s work?
• Do you have any contacts you believe would be helpful to my research especially in Entebbe that could possibly talk to me today?

Appendix 6: Directorate of Water Resource Management Questionnaire

• Could you explain the role of the Directorate of Water Resource Management in the development of the Nile and your position within the department?
• What do you see as the main challenge for Uganda’s continued development of the River Nile?
• Is Uganda’s current use and development of the river sustainable?
• Do you think the future of energy for the country is continued development of hydropower or in alternative forms of energy?
• Could you explain a bit about the international politics that go into the approval and building of big dam projects?
• Could you explain how the government was able to get around the Kalagala agreement that promised to protect the falls?
• What are the main cultural impacts of big dam projects and how do developers mitigate cultural impacts of their projects?
• Could you explain the difference between traditional dams and run-or-river dam projects?
• Do you think tensions around the continued development of the Nile could lead to conflict between the Riparian states?
• It has taken 17 years to get to this point in negotiations with the CFA, why has it taken so long to come to agreements?
• Why have Egypt and Sudan refused to sign the CFA?
• What is the significance of Egypt not signing the CFA?
• What are the unresolved issues?
• What do you think will happen in the next ten years regarding Uganda’s development of the Nile?
• Do you think continued development of hydropower is worth it despite negative impacts it may have on ecotourism?
• What do you think would be the best outcome for Uganda’s continued development of the Nile?
• Do you have any contacts you believe would be helpful to my research especially in Entebbe that could possibly talk to me today?

Appendix 7: Nile Basin Discourse Questionnaire

• Could you explain the role of the Nile Basin Discourse in the development of the Nile and your position within the department?
• How does the NBD work with the NBI and governmental organizations like ministries?
• What do you see as the main challenge for Uganda’s continued development of the River Nile?
• Is Uganda’s, or the Nile Basin’s, current use and development of the river sustainable?
• Has the NBD done much with the Isimba dam project? If so what and what is your opinion on the dam?
• What is the significance of Egypt not signing the CFA?
• What do you think will happen in the next ten years regarding Uganda’s development of the Nile?
**CONSENT FORM**

1. **Brief description of the purpose of this study**

   The researcher, Jordan Williams, is an undergraduate researcher from the George Washington University in the USA, is currently studying abroad with the School for International Training in Uganda, and is conducting a six-week independent study project. The purpose of this study is to analyze the geopolitics of the Riparian states’ development of the River Nile. It will look at the issue through the Sustainable Development paradigm. The project will focus on Uganda’s position in the transboundary politics regarding the Nile and challenges to its future development of the River. You can reach the researcher at 0790751664.

2. **Risks**

   Risks associated with participation in the study are minimal. All information collected will be handled with the utmost care: upholding confidentiality, privacy, and anonymity.

3. **Benefits**

   It is my hope that the data collected and presented will spread awareness regarding the issue of water that will become more vital with strain on the resource in the future. It will bring to light Uganda’s role in the problem and propose possible ways forward to the country. The work in this study could also be used in a class at Makerere University to create more movement and knowledge on the topic.

4. **Rights Notice**

   In an endeavor to uphold the ethical standards of all SIT ISP proposals, this study has been reviewed and approved by a Local Review Board or SIT Institutional Review Board. If at any time, you feel that you are at risk or exposed to unreasonable harm, you may terminate and stop the interview. Please take some time to carefully read the statements provided below.

   a. **Privacy** - all information you present in this interview may be recorded and safeguarded. If you do not want the information recorded, you need to let the interviewer know.

   b. **Anonymity** - all names in this study will be kept anonymous unless the participant chooses otherwise.

   c. **Confidentiality** - all names will remain completely confidential and fully protected by the interviewer. By signing below, you give the interviewer full responsibility to
uphold this contract and its contents. The interviewer will also sign a copy of this contract and give it to the participant.

Dr. Callist Tindimugaya  
Participant’s name printed  

[Signature]  15/11/17  
Participant’s signature and date

Jordan Williams  
Interviewer’s name printed  

[Signature]  15/11/17  
Interviewer’s signature and date

5. Additional consent

If you consent to any of the following please indicate your consent with a check mark next to the item followed by a second signature at the bottom of the page.

☐ I consent to having photographs taken and published

☒ I consent to having my name published in the report

☐ I consent to having the information I volunteer used in future publications by the researcher

☒ I consent to having this interview recorded

Dr. Callist Tindimugaya  
Participant’s name printed  

[Signature]  15/11/17  
Participant’s signature and date

Jordan Williams  
Interviewer’s name printed  

[Signature]  15/11/17  
Interviewer’s signature and date
Appendix 9: Article 34 CFA

Article 34 Settlement of disputes

1. In the event of a dispute between two or more Nile Basin States concerning the interpretation or application of the present Framework, the States concerned shall, in the absence of an applicable agreement between them, seek a settlement of the dispute by peaceful means in accordance with the following provisions:

   . (a) If the States concerned cannot reach agreement by negotiation requested by one of them, they may jointly seek good offices, or request mediation or conciliation by, the Nile River Basin Commission or other third party, or agree to submit the dispute to arbitration, in accordance with procedures to be adopted by the Council, or to the International Court of Justice.

   . (b) If after six months from the time of the request for negotiations referred to in paragraph 2, the States concerned have not been able to settle their dispute through negotiation or any other means referred to in paragraph 2, the dispute shall be submitted, at the request of any of the parties to the dispute, to impartial fact-finding in accordance with the Annex on the fact-finding Commission, unless the States concerned otherwise agree.

(CFA, 2009, p. 52)
Figure 1: Map of the Upstream and Downstream Riparian States

(Mapchart.net, photo, 2017)
Figure 2: Ugandan Dam Sites

(Oestigaard, 2015, p. 27)

Figure 3: Bujagali Hydropower Project

Figure 4: Nile Special Wave

(Hamish, 2017).
References:


Environmental and Sustainability Law, 18.2, 284-315.


