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**The intricacies of regional cooperation and development in Southern Africa; case
study of the Lesotho Highlands Water Project**

(MASTER'S THESIS)

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Plagiarism Declaration

I Lla Thakholi declare that I have consulted the department policy on plagiarism and that this is my own work.

In Olomouc (date)

Signature.....

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R u l e s f o r e l a b o r a t i o n :

The goal of this thesis is to study the Lesotho Highlands Water Project, which has been hailed as a win-win situation for both Lesotho and South Africa. Water is exported from the Lesotho Highlands to the Gauteng Province (the industrial hub of South Africa), while Lesotho has become a hydro electricity producer. The thesis describes the relationship between these two countries which is characterised by corporation, while contrasting it to the greater context of the continent of Africa, where conflict instead of corporation is routine when it comes to resources. The thesis will highlight the terms of agreement which were instrumental in achieving this collaborative corporation, and interrogate the "win-win" rhetoric by applying the project to transboundary water politics.

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ABSTRACT

The world is increasingly facing water shortages therefore, it has become more important to investigate how states are mitigating dwindling resources by engaging in collaborative efforts with other states. The Lesotho Highlands Water Project (LHWP) was chosen in the 1950s as a mitigation project for South Africa's water problem (Matlosa, 2015). This project has been described as a "win-win" project because it personifies the benefits of bilateral agreements in the development of an international river" (Haas et al., 2010: 26). The individual political context of both these countries have been very instrumental in shaping the project and their "diplomatic" relationship, hence the need to use the theoretical lenses of international relations of realism and complex interdependence to analyse the project. The theory of complex interdependence explains the complexities of cross border politics and why cooperation has become more favourable than conflict, as opposed to realists who still main the state-centric view of transboundary politics. LHWP involves collaboration of water between two states, integrated water resource management will be the lens used to analyse the agreement, including the implications it had for all stakeholders.

Keywords: Lesotho Highlands Water Project, win-win, mutually beneficial, collaboration, Realism, Complex Interdependence, Integrated Water Resource Management.

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LIST OF ABBREVIATIONS

ANC- African National Congress

BDF- Botswana Defence Force

CRM- Conflict Resolution Mechanism

CET- Common External Tariff

DWA- Department of Water Affairs

EBRD- European Bank for Reconstruction and Development

EIA- Environmental Impact Assessments

EU- European Union

IBRD- International Bank for Reconstruction and Development

ILA- International Law Association

IR- International Relations

IWRM- Integrated Water Resource Management

JPTC- Joint Permanent Technical Commission

LDF- Lesotho Defence Force

LEC- Lesotho Electricity Company

LHWC- Lesotho Highlands Water Commission

LHWP- Lesotho Highlands Water Project

LHDA- Lesotho Highlands Development Authority

MNC- Multinational Corporation

NBI- Nile Basin Initiative

ORASECOM- Orange- Senqu River Commission

OVTS- Orange Vaal Transfer Scheme

RBO- River Basin Organization

RDP- Rural Development Plan

RIS- Reservoir Induced Seismicity

RSF- Revenue-Sharing Formula

SANDF- South African National Defence Force

SADC- Southern African Development Community

SIA- Social Impact Assessment

TCTA- Trans Caledon Tunnel Authority

TRBM- Transboundary River Basin Management

TWB- Transboundary Water Basin

UNESCO- United Nations Education, Scientific and Cultural Organisation

UNESCO (IHP)- United Nations Education, Scientific and Cultural Organisation
(International Hydrological Programme)

UNWC- United Nations Water Course Convention

WB- World Bank

WCD- World Commission of Dams

CHAPTER 1

RESEARCH PROBLEM

1.1 RESEARCH QUESTION

The LHWP has been acclaimed as a success story for the transboundary cooperation rhetoric. Does this project epitomize a “win-win” situation for all the stakeholders involved?

1.2 INTRODUCTION

Climate change coupled with the growing population have increased the demand for water drastically and this demand is bound to get more critical in the future. Currently, there are more than 1 billion people who do not have access to safe drinking water in the world and it estimated that in 2025, 60% of the population will be without water (Thopil & Pouris, 2016). The situation is so critical that it needs immediate attention, in order for us to avoid this calamity which we are fast approaching. In light of this, this research paper will review the Lesotho highlands Water Project (LHWP) which is a project that was undertaken to mitigate South Africa’s growing water shortages. In the engineering community, the LHWP stands as one of the most marvelled engineering projects, that illustrate how far we have come as a human race, in our ability to alter nature to such a degree in order to ensure our own survival. It has also been described as the “most comprehensive water resource planning investigation in the history of Southern Africa” (DWA, 1989: 3). The LHWP is a 30-year water transfer project, which has been lauded as a pinnacle for regional cooperation. It is considered to “serve as a model of mutually beneficial development through demonstrating the benefits of bilateral government cooperation in the development of an international river” (Haas et al., 2010: 12). The quote below is an extract from former South African President Nelson Mandela at the LHWP inauguration of Phase 1A on the 22 January 1998:

“History has bound Lesotho and South Africa so closely that we are even more than neighbours, friends and allies. Our joint presence here today confirms that those who shared the trenches of struggle are today working together as free nations to realise the possibilities of freedom...”

The resounding success of the Lesotho Highlands Water Project testifies to the powerful spirit of co-operation that is growing as Africa lifts itself through its own efforts, with the strong support of the international community”

The quote illustrates the discourse that has come to personify the LHWP project, that of “win-win” situation. Win-win in relation to the LHWP ultimately claims that this project has been equally beneficial to both countries (Gupta & van der Zaag, 2008). This paper will interrogate whether this project has in fact been equally favourable for all the stakeholders involved. The win-win rhetoric is closely connected to the cooperation versus conflict trope, which is associated with shared resources between states. Following this logic, Garfinkle & Elisha (1995) state that there are people who view the water problem as either a zero-sum game or a win-win situation. Hence the notion that there are only two solutions to the water problem, either conflict or cooperation. Lesotho and South Africa took over three decades to come to an agreement, which was marred by political mistrust and lack of consensus between these two countries. It can be largely attributed to both their political situations and the tension in diplomatic relations between the regimes that held power in that time. Hence this trade agreement became an important tool in the game of politics. This goes to show how interrelated political and economic issues are and why it is important to use a multidiscipline approach in the analysis of the treaty.

The research paper will analyse the LHWP, through politicized lenses because it is impossible to delve into this topic without dealing with the politics that shaped both the local contexts and policies, but also how these politics played out on the international realm. The interplay between water and politics which took place for three decades renders it impossible to separate the water and the politics. This phenomenon is what is described as hydro-political complexes by Sneddon & Fox (2006), which are brought about by disproportional balances of power, scarcity, and sovereignty issues. The discipline of international relations is an important lens which can be utilized to analyse

this trade agreement because the decisions made by individual states are not taken in a vacuum but they are interconnected with the domain of transnational politics. National states have to constantly juggle their national needs, while they also have to navigate the realm of the international community and maintain the sovereignty at the same time. Therefore, the analyse will be conducted through the theoretical framework of neo-realism theory and complex interdependence theory, as well as Integrated Water Resource Management (IWRM) to achieve a multidisciplinary view. Due to the fact that this project has been revered as a mutually beneficial one, this research paper will analyse how this project had benefited the countries and who has benefited, which will be achieved by delving into the political, social, and environmental impacts that have resulted because of this project.

International rules and conventions for managing transboundary water basins have been instrumental in addressing the conduct of riparian states. However, historically the focus on international waters was only for navigational purpose and the scope of functions of transboundary waters has since broadened to include non-navigation uses, which transcend borders (Helsinki rules, 1966). It was a response to the growing tensions between states about transboundary water basins and there was also a growing need to avoid further tensions and adopt a multipurpose use of water. In a world where nature and the ecosystem do not respect geographical borders, it was imperative for states to adapt their behaviour and engage in cooperative agreements that are also not bound by national borders. Transboundary Water Basins (TWB) are rivers which are usually shared by two or more riparian states and Kahl (2011: 3), defines riparian states as states that have “a land bank adjacent to a natural watercourse or body of water”. LHWP is an interbasin transfers scheme with was intended to transfer water from the TWB of Senqu River in Lesotho to the Vaal River Basin in South Africa (Gupta & van der Zaag, 2008) The topic of transboundary water basin, in relation to developing countries is interconnected to issues of development, poverty reduction and sustainability and it has been dominated by law, engineering and economics, which has limited our scope of understanding the complexities of transboundary corporation (Sneddon & Fox, 2006). It is also important to make mention of the international conventions because they frame the international norms and standards which are acceptable in international politics, and this research paper will focus specifically on those that are related to LHWP. This paper will further analyse

the bilateral agreement between these two countries and the donors, which made the project possible.

1.3 AIMS AND OBJECTIVES

The main aims and objectives of this study are as follows:

- To highlight the historical events and milestones that facilitated this corporation.
- To gain understanding on how Lesotho and South Africa approached transboundary cooperation.
- To analyse the Lesotho Highlands Water Project's terms of agreement from the beginning.
- To examine the political, economic, and social impacts of the project in relation to the win-win trope.
- To investigate whether the project has been beneficial to all the stakeholders.

1.4 STRUCTURE OF THE THESIS

Chapter one: The first chapter will introduce the research problem and the topic of that the research will be about, as well as the aim and objectives which it seeks to fulfil. There will be an explanation and justification for engaging in this research paper. There will be a description of the methodology, which will include the data collection process and the theoretical analysis method that has been selected for the research.

Chapter two: It will provide a brief history about Lesotho and South Africa in order to contextualize these countries in relation to each other. This chapter introduces the case study of the Lesotho Highlands Water Project, and I will also unpack the literature that has been written in relation to the project and the literature related to the relevant treaties and agreements of the project, in order to understand the terms that were negotiated. This chapter will further discuss the organisational structure of the project and the funding of the project.

Chapter three: This chapter will look into related international conventions and rules to

analyse the kinds of international norms are present because they do influence decisions made by individual states in bilateral and multilateral agreements. This chapter will also discuss the theory that will be used to analyse this case. It will discuss the project. It will begin with integrated water resource management and then proceed to discuss the two international relations theories and how they are applicable to the project.

Chapter four: This chapter will analyse the social and environment impacts that have been the results of the project. It will investigate how the project has contributed both positively and negatively to the communities and the environment affected, in order to understand whether this project has really been a win-win for all stakeholders. This analysis will be done in conjunction with IWRM principles.

1.5 JUSTIFYING MY RESEARCH

The LHWP is the 1st one of its kind in Southern Africa, where a project of this magnitude has been undertaken by two nation states and it involved complex logistical and financial cooperation between these two countries. When government officials and dam authorities discuss this cooperation, it is always covered in a blanket of optimism and packaged as a mutually beneficial project which has managed to save South Africa and assist in the development of Lesotho. This topic is particularly personal for me because I was exposed to this project from young age, because my father has worked on all the LHWPs to date. I also happen to have grown up in both Lesotho and South Africa and it always astonished me how these two countries, so similar yet so different in many other ways were able to co-exist, and how they were able to foster this agreement in light of the very obvious power dynamics that existed between them. The complete dependence of Lesotho on South Africa was also one part of the power dynamics I found intriguing, and another reason that triggered my interest in this study, was that African minerals and metal resources are usually associated with conflict and plundering, so it was important for me to investigate how cooperation was achieved without using coercion in this particular case.

As a result of the above-mentioned reasons, I was interested in studying the transboundary water cooperation between Lesotho and South Africa and of particular interest from the

project was the need to find out whether this project has indeed been mutually beneficial for both these countries. It was then important to break down the concept of mutually beneficial which is often-quoted and alludes to the economic benefits resulting from the actual water transfer and water sale. The project affected communities, their social and cultural practice, as well the environment that was altered as a result. Therefore, when the all-inclusive rhetoric is discussed it is imperative to engage all the stakeholders involved to investigate whether they all benefited.

Given that this case study of the LHWP has been dominated by other disciplines such as engineering and economics, I found that it was important to approach this study from an international relations and IWRM point of view. Hence for the analysis of this project I used two international relations theories to analyse the political climate that facilitated the project, as well as IWRM because it deals with the best practices for transboundary resources, which include social and environmental ramifications. The aim of this paper was not to discredit what has already been written about transboundary water basins but to add to the topic using a different approach. It is important to use a multi-disciplinary approach in order to fully capture the complexity of transboundary cooperation in relation to resource management. This is reiterated by Blatter & Ingram (2001) who states that a singular approach to transboundary cooperation, will ultimately lead to an overly reduced understanding of the topic. Based on these reasons, I decided to use two contesting international relations theories, to highlight the cooperation that took place on a transnational level, between sovereign states. Neo-realism and complex interdependence theories, when used together in this research paper provided a comprehensive analysis of the cooperation because the aim was not to compare them to each other. I was able to find common ground between them because where one fell short of explaining the project, the other one was able to do so, hence they provided a complete analysis of transboundary cooperation in relation to LHWP. Integrated Water Resource Management (IWRM) on the other hand mainly focuses on how riparian states manage their shared water basins and what their best practices for collaborative management are, hence it was important to incorporate it in the case study that involves transboundary resource management. Therefore, the aim was to investigate this particular case of the LHWP and analyse how Lesotho and South Africa came to this cooperation.

1.6 DATA COLLECTION AND SOURCES

The case study of the Lesotho Highlands Water Project will be the focus of my analysing however, there was no physical data collected as I did not undertake any field work. The research paper will therefore, be based solely on secondary literature that already exists which is related to this topic. There have been extensive studies done on this project, from the relevant departments, the Lesotho Highlands Development Authority, The Trans-Caledon Tunnel Authority, academic papers, departmental reports, international institutions such as the World Bank and data achieves of the United Nations. Therefore, data was readily available however, the challenge was that most of the documentation was divided into many different disciplines, therefore I had to collect it to incorporate it to fit into my research question. Therefore, the paper will completely be reliant on secondary data and literature that I had collected from relevant sources and sites that are related to this topic.

In this paper, I will analyse a case study of the Lesotho Highland Water Project (LHWP) which was born as one of the water mitigation projects for South Africa's water shortage. Although the LHWP was recognised as a possible solution in the 1950s, it took over 30 years for the Lesotho and the South African governments to come to an agreement (European Investment Bank, 2002). To start the research paper, it was important to provide a contextualize picture, hence I have sources some historical texts and material that discuss the histories of both these countries and the history of the project. It was important to engage with historical material because it explains how this project came to be, and answers to this collaboration lie in the countries past events and their diplomatic relationship as well.

This research is focused on analysing the LHWP as a case study therefore, I will make use of material that has been written in relation to this project in the form of journals, books, treaty agreements, government statements and interviews. I will then incorporate this material into the case study material. This research paper requires an incorporation of treaties and agreement documents, material that deals with the theories, therefore it is mainly made of secondary data. The Lesotho Highlands Water Authority (LHWA) and the Trans-Caledon Tunnel Authority (TCTA) of South Africa are the two organisations that are responsible for operating and implementing the LHWP in their respective

countries. Therefore, I found useful documentation related to the individual administration processes and documentation related to the project from both their databases. The treaties and agreement documents I sourced from the World Bank websites because they were the major funders of this project so they have numerous documents relating to the project descriptions, implementation reports, funding material and treaties. This is the same case with other funders such as the European Investment Bank and the African Union.

International conventions such as that of the UN Convention of Watercourses and the Helsinki rules, are available on the UN website and there are also extensive articles that have written in relation to these conventions. There are many international rules and conventions that have been signed and agreed upon by states throughout history, however I could not use all so I decided to pick a few that are related to the LHWP. These conventions are necessary for the research topic because they frame the types of rules of engagement that exist for transboundary water basins. Regional rules and conventions that I used for this paper include the Southern African Development Commission (SADC) and the Orange-Senqu River Commission, which provide guidelines for regional cooperation. These documents were sourced from their relevant databases and achieves. I had made contact with the ministry of trade in Lesotho to them to forward me agreements they had in their archives, but I received no response. However, this did not jeopardize my research due to the fact that the World Bank archives had a comprehensive collection of material that I found to be very useful for my research and I realised that I did not require any interview material from the officials for my inquiry. I did however receive a lot of material from a specialist of conservation from the Ministry of Forestry and Land Reclamation of Lesotho. This material was particularly of importance for the environmental assessment section.

I made use of the Panos London Illuminating Voices interviews which are available on their website in order to include as part of consequences resulting from the dam construction, as part of my inquiry for social implications. I decided to incorporate extracts from the interviews conducted because they provide a 1st hand account of events, and they are not depended on someone else's secondary analysis. According to Holstein and Gubrium (2002; 142) interviews are a two-way meaning making process, where

knowledge being created in the space of the interview as the interactions progresses. Therefore, during the interview process, the participants are able to recreate their own meanings of their lives based on what they are relaying to the interviewer. The reason that I have decided to use this method was due to the fact that one of my research limitations was that I was unable to travel to the locations of the dam affected people, therefore my research has been heavily dependent on secondary material and interviews conducted by other credible sources.

Panos was a London based media and communications NGO which operated from 1987-2013, with the aim of giving people from developing countries a platform to tell their stories. Although the London Branch is no longer operational, there are six other branches around the world that are still functioning. The London website is still available as it has been kept open to function as an achieve platform of their work, which is accessible to the public. In light of this, the NGO conducted a series of interviews with dam affected people of Malika-like during the Phase 1 part of the project, hence I have decided to delve into their achieves for my research. The 1st round of interviews were conducted in 1997 prior to the resettlement and the 2nd round of interviews were conducted 2000-2001 (Akindele and Senyane, 2004). The aim of conducting two sets of interviews was to deduce how the lives of the people that had been relocated had changed since they were moved to their new locations as a result of the dam construction. But also, to investigate how the host communities were reacting to the new arrivals. These interviews were conducted in collaboration with a Lesotho based NGO Transformation Resource Centre (TRC) and they also had a complication of interviews in their book, so used I also incorporated their material into analysis.

1.7 THEORETICAL FRAMEWORK ANALYSIS

The function of theory is that it “plugs itself into data and they end up constituting each other and this is a constant process of arranging organising and fitting together these two” (Jackson and Mazzei, 2012; 5). In the analysis of my research, I will make use of my selected theoretical frameworks to analyse the case study of LHWP. In the words of Jackson and Mazzei (2012) I will “plug in” my research question into other theories in

order to analyse the data collected. Theory functions to simplify data by analysing it through the principles that have been tested and proven to be credible. The theoretical frameworks function as a pillar which the research is based on and it further grounds the research in the concepts and the ideology. Theory functions to explain past events and in other cases to predict the future. Theory is also important because it seeks to explain reality and in so doing, reality and theory become mutually exclusive (Sakano, 1976). Although it can be argued that political reality does not always follow a certain set of rules, especially in the social sciences, (Burchill et al., 2005) posits that the analysis of reality is informed by theory.

The lenses which this paper will gaze through are Integrated Water Resource Management (IWRM) and the realm of two international relations theories of neo-realism and complex interdependence theories. The research aims to investigate water resource management between two states therefore, I have decided to make use of the study of international relations theories, because international relations theories explain the behaviours of countries based on their foreign policies which are largely driven by their respective interests and most importantly how they interact with other states. The paper deals with an inter-disciplinary approach because the case study of the LHWP touched on interconnected themes and topics of how states engage with each other in the realm of transnational politics, in relation to resource management. It requires a multi-faceted theoretical approach hence, I have decided to use Integrated Water Resource Management in conjunction with international relations theories. The agreement that made this treaty possible will be analysed through the conflict versus cooperation rhetoric which has been widely used in relation to this project; where realism explains the conflict and complex interdependence explains the cooperation

1.7.1 Integrated water resource management

Integrated Water Resource Management (IWRM) was first used in 1977 at a UN Conference in Mar del Plata (Ganoulis et al., 2011). This is a water management policy that was agreed on in 1992 in the Dublin Statement on Water and Sustainable Development (Mosert, 2006). It is defined as “a process which promotes coordinated development and management of water, land and related resources to maximise the resultant economic and social welfare in an equitable manner without compromising the

sustainability of vital ecosystems (Ganoulis et al., 2011:19). According to Gupta & van der Zaag (2008: 28), IWRM is a “more holistic approach to water management which attempts to balance environmental, social and economic considerations in decision making”. It is a cross-sectional approach aimed at promoting coordinated development and management of resources” (Chikozho, 2014: 74. This is point that is reiterated by Graefe (2011) who is of the view that governance on this level should be depoliticized, and concentrate more on organization and coordination efforts. It promotes integrated cooperation between various stakeholders, which is aimed at maximising the results. This integration surpasses the state-to-state corporation as there are numerous other stakeholders that involved in the programme.

IWRM is an inclusive framework that also includes “the concepts of sustainability to the practices of water resource management” (Lant, 2004:27). Due to the fact that this project has been hailed as a mutually beneficial case, I analysed the practices of the dam authorities in relation to the communities and the environment, in order find out whether all the stakeholders benefited from it. Hence it was important to apply IWRM principles of inclusivity to the case study of LHWP. It therefore promotes water management as collaborated effort between states and doing so in a manner that will benefit present and future generations.

1.7.2 Neo-realism Theory

Classical Realism

Neo-realism is a newly formulated interpretation of the Classical Realism; therefore, it is important to examine the classical form in order to understate the new version. The Classical realism theory was born as a response and critic to the Utopian school of thought after the 1st World War. Classical realism was born out of the desire to find answers to the following questions (Burchill, 2005):

1. What were the causes of 1st World War and what factors made it possible for leaders to engage in it?
2. What lesson could be learned from the war and what preventative measures can be taken to ensure that it does not happen again?
3. How can international institutions be created, which would ensure international

order based upon agreed principles?

Realism was inspired by philosophers Thomas Hobbes and Niccolo Machiavelli. In Hobbes state of nature, humans are “driven by competition in an anarchic state, where life is short, brutish and nasty” (Waltz, 1979). While Machiavelli on the other hand reiterated that “all men a wicked and that they will always give vent to the malignity that is in their minds when opportunity offers” (Burchill, 2005: 32). The fathers of this discipline were Thucydides, Machiavelli, Von Clausewitz, E.H Carr and Hans Morgenthau who believed that the realm of international politics was consumed by the struggle of power and this was dangerous because it ultimately led to war and destruction (Burchill et al., 2005). Realists posit that the international political sphere is anarchic, and that every state is driven by their own individual interest. In this self-help sphere of international politics, states will engage in conflicts in order to secure their own security (Turner, 2009). According to the realist’s school, states act in a competitive manner because all the other states are acting this way (Blatter & Ingram, 2001). Therefore, in the competitive realm of cross-border politics, states are driven by self-interest and power which forces other states to act accordingly in order to ensure their own survival. This is “the *Realpolitik* of interstate competition and self-interest, where the strongest prevails” (Turner, 2009: 336). For Morgenthau, in this world if a state needs to achieve anything, it needs power to do so (Lebow & Risse-Kappen, 1996).

Neo-realism

Neo-realism stems from the classical approach and it is sometimes referred to as structural realism, because in later years there was heavy emphasis of having a structured hierarchical order in international politics (Burchill, 2005). It is an extension of the realism, based on the core principles they share. The school of thought emerged in the 1970s promoted by scholar Kenneth Waltz, who was of the view that “the international structure emerges from the interaction of states and then it constrains them from taking certain actions while propelling them toward others” (Waltz, 1979: 29). In international politics, there is anarchy where each state does at it pleases in order to attain or maintain power. This anarchy is a result of the gap that is left open in the absence of a super power to maintain order on the global scale, therefore states interact in a self-help sphere (Waltz, 2000). The anarchic state described by realists was referring to a time when there was no

central government on a national level to enforce the rule of law, which was later replicated to describe the (dis)order of international structure in the international arena (Blatter & Ingram, 2001).

Waltz (2000) states that even if we are able to identify structural hierarchies, we will be unable to predict how states will react because we will not have knowledge about their motives and interests. As such neo-realists strongly believe that states are driven by self-interests, whether it is wealth, resources, pride, ethical consideration or seeking to be glorified (Lebow & Risse-Kappen, 1996). This follows the assumption that even altruistic acts are driven by self-interest or some motive. Hence, it is imperative to identify a state's national interests in order to predict its future actions (Burchill, 2005). In relation to the LHWP, neo-realism will be applied to analyse the countries national interests and the power dynamics that exist between them.

1.7.3 Complex Interdependence Theory

This school of thought was born as a reaction and criticism to realism and the founders of it are Robert Keohane and Joseph Nye. They were critical of realism's view which saw the international community as preoccupied with the arms race, in order to reach a balance of power (Keohane & Nye, 2012). According to them realism was too states-centric and as such, it ignored to take into account the complexities of transnational politics. Complex interdependence theorists' emphasis is on "transnational relations of world politics and the importance of today's multidimensional economic, social and ecological interdependence" (Keohane & Nye, 2012: 727). Complex interdependence is defined as:

"a situation among a number of countries in which multiple channels of contact connect societies (that is, states do not monopolize these contacts); there is no hierarchy of issues; and military force is not used by governments towards one another".

(Keohane & Nye, 2012: 732)

According to complex interdependence theorists, the realm of international relations is governed by many interlinked actors who are not restricted by geographical national borders (Putman, 1988). There is a pluralism of state and non-state actors who all have

influence on national and international issues (Rosenau, 1974). Central to the issue of global interconnections, are the international institutions which function as facilitators of dialogue, work as gate keepers of international norms and provide platforms for cooperation. The importance of international institutions is highlighted by Evaghorou & Mertzaniadis (2012) who are of the view that ideas and practices are the institutions and not buildings. Robert Putman makes reference to a two-level game, which refers to a situation that occurs when negotiators find themselves negotiating on national and international levels simultaneously (Putman, 1988). In this situation, the negotiators will try and get the best deal on the international level, while on the national level the leader also has to deal with the citizens and convince them that the deal chosen is in their best interest. This is the complexity that is involved when leaders negotiate on both levels and they have to please the stakeholders on both levels.

In the last few decades, the scope of actors involved in politics has broadened, where nation states are not the sole actors in international relations anymore, this is where complex interdependence and neo-realism theory differ. Neo-realism fails to draw a conclusive picture of cross-border relations because it views the state as the only actor and it does not mention other actors such as multinational corporations, and international non-government organisations. Although some principles of the neo-realism are questionable, this school of thought still has relevance even in the contemporary world. State actors are still driven by their individual national interests when they negotiate with each other, and this is based on their need for survival that is inherent in the human psyche. The similarities that can be drawn from these two schools of thought are important for the analysis of this paper because they both interrogate how actors in the international arena negotiate with each other to fulfil their own interests. “Both doctrines view politics as a process of political and economic exchange” (Keohane & Nye, 2012: 728). They both agree that actors are driven by their individual self-interests but what they differ in is the means of achieving these goals. Hence it is imperative to note that “adding international organisations, non-governmental organizations and multinational corporations does not undermine the core ideas of realism” because states are merely socially constructed entities that provide a sense of community (Lebow & Risse-Kappen, 1996). While neo-realists allude to the use of military coercion, complex interdependence theorist emphasis the cooperative exchanges as a conducive method of achieving one’s

goals.

For the reasons mentioned above, it would not have been sufficient to rely on neo-realism only to apply into the case study of LHWP therefore, I decided to use complex interdependence too. I also could not use complex interdependence alone because it is contextualized by its criticism for realism, it was born as a counter analogy of realism principles. While these two international relations theories explain why states behave as they do in the realm of international relations, IWRM on the other hand discusses transboundary water management, which is what the LHWP is about.

1.8 LIMITATIONS

The biggest limitation of my research paper was my heavy reliance of secondary material. It is undeniable that secondary sources are helpful in that they provide the researcher with an idea of the types of research or material that have been written about the topic. However, the limitation which comes with this type of study is that I had absolutely no control over the material that I sourced. I did not have the privy of interviewing the relevant parties or going out into the field to collect the research myself. The only option I had was the selection of the material and to ensure that the material would be useful for my research. Therefore, I had to rely heavily on what other people had already written about the topic, on government reports and other material, in order to represent the topic as honestly as possible and, to be thorough and transparently. The other limitation that comes with the collecting secondary material is that you are not aware of the biases that other researchers and writers have, so this requires the researcher to spend a lot of time collecting as much information about the topic as possible in order to write a paper that is well rounded.

The other limitation that I have already mentioned above is the fact that I could not control the manner in which the data was collected for ethical reasons, particularly with the interviews, hence I could not account for ethical considerations that are usually present in interview situations.

Theoretical frameworks pose a limitation on what the researcher can deduct from the study. In light of this I have selected three theories in order to provide a holistic picture of the case study, however even these three theories that I have selected do not provide

the whole picture of the LHWP. It is impossible for theory to be able to interpret everything in the world, hence I am aware that my findings will be guided by the theoretical lenses which I have decided to analyse this case study from. Hence, I had made use of more or less theories, my findings would be different from what they are now.

Most of the data related to this case study, looks at it through either engineering, economic, political, environmental or social focal points. There was a gap in data that interrogated the LHWP through the theoretical lenses of international relations and IWRM. Texts that did delve into international relations theories, were broadly investigating international relations in relation to transboundary river basins and not particularly the LHWP. Therefore, I had to draw from different disciplines and create a document that was related to my topic and this was challenging.

The LHWP was 1st proposed in the 1950's (Mwangi, 2007), hence the documents that date back to this time are not readily available from the relevant ministries documents. Although there is a lot of information relating to the LHWP post 1986, documents from both countries relating to information prior to the treaty agreement, are difficult to access and there was lack of corporation from the ministries. When I tried to make contact with Department of Water Affairs (DWA) of South Africa, I received no reply and this was also the case with the Ministry of Trade and Industry in Lesotho. Their documents are not available in soft copies because many of them were not computerized, it would have required that I was physically in Maseru and Pretoria to gain access to their archives. Due to the fact that I faced constraints of travelling to South Africa and Lesotho. I had to rely on what other scholars have already written in relation to the history dating back to the 1950.

The South African DWA was changed to the Department of Water Affairs and Forestry (DWAF) after the Apartheid era and it changed back to DWA after a decade. Initially it was confusing to figure out which department was being referred to in the documents I was reading, because depending on the publication date of the document, the department bore a different name.

1.9 ETHICAL CONSIDERATIONS

Due to the fact that I have not conducted any of the interviews myself, I could only

investigate how the Panos team and the Transformation Resource Centre (TRC) had conducted their research and they state that they had full consensus from the interviewees. Their interviews with the communities were conducted in the Sesotho language, the official language of Lesotho and then translated into English by professionals (Panos, 2002). What the Panos and TRC teams make mention of, is the fact that while they tried to capture the true emotions and meanings of the interviewees, they are aware of the fact that some of these meanings could have been lost in translation (Akindele and Senyane, 2004). However, there was no mention of other ethical considerations such as consent forms, or putting the lives of people that had agreed to the interviews in danger, seeing that the interviews were conducted both before and after the relocations using the true identities of the interviewees.

For all the sources that I have gathered for this research, the ethical consideration of credibility had to be met. However, unlike scientific and mathematical studies where analysis requires calculation to be verifiable, cases studies are verified in different ways. I was cognizant of the fact that credibility of secondary resources is achieved when “content that is inherent in the text, should be the property of the source of the text and it should emerge from the process of a researcher’s analysing a text relative to a particular context” (Krippendorff 2004: 37). It was imperative for me to do academic justice to the sources I had used and to the research I was about to embark on.

CHAPTER 2

CASE STUDY - THE LESOTHO HIGHLANDS WATER PROJECT

2.1 INTRODUCTION

The Lesotho Highlands Water Project is a joint water basin management scheme between Lesotho and South Africa, which was created in order to transfer water from the highlands of landlocked Lesotho, to the drought stricken province of Gauteng in neighbouring South Africa. South Africa lies at the most southern point of Africa as the name states, with a population of 52 million and it has one of the strongest economies on the continent. While Lesotho is a small land locked country of close to 2 million people, that is completely surrounded by South Africa as illustrated in Figure 1. Lesotho's economy as compared to its neighbouring counterpart is much lower and its makeup is less diverse than that of South Africa. The geography of Lesotho is divided into four zones, the highlands, the foothills, the lowlands and the Senqu valley (Taele et. al, 2012). The highlands or mountainous region makes up to 60% of the whole country's terrain and they are home to some of the most important wetlands in the region and the hold reservoirs of the LHWP. The main objective of the project is to transfer water from the Orange River Basin to the Vaal River Basin in South Africa through a complex, integrated system of tunnels, which use gravity (Turton & Henwood, 2002). As a result of the collaboration, Lesotho would be able to generate its own hydropower and benefit from the revenues received from the water sales (World Bank, 1999).

Figure 1: Map of Southern Africa



(Country Reports, 2017)

2.1.1 History of Lesotho and South Africa

In order to fully contextualize the geographical location of Lesotho in relation to South Africa, one has to consider the geographical borders of Africa as a continent and evaluate how these borders came into existence. The formation of the Basotho nation is a result of ethnic wars between the tribes that settled in Southern Africa and the also a result of the arrival of Dutch settler colony and the British Cape colonies (Mofuoa, 2015). During the 19th century Moshoeshe I, the founder of the Basotho nation, provided refuge to people fleeing from tribal wars in the region and as a result many stayed to adopt the Basotho cultural practices and the nation grew (South Africa History, 2011). When the Afrikaners (European settlers, who had begun to identify as Boers) moved from the Cape Colony to avoid the British rule, they moved further inland and some of them settled on land that belonged to the Basotho nation (Treiman, 2005). In the mid-1880s, Moshoeshe then engaged in battles with the Boers, who had captured most of Lesotho's low-lying areas, an area that now forms part of the Free State Province in South Africa. Fearing that the Afrikaners would seize more of his land, he called on the British High Commissioner of the Cape, Sir Philip Wodehouse for protection and as a result Lesotho was annexed as a British protectorate in 1868 and named Basutoland (The Commonwealth, 2016). Lesotho had averted the Afrikaner threat because it was now a protectorate. Therefore, unlike other

African countries that were created during the Berlin Conference of 1884. Lesotho was already a British protectorate before the Berlin Conference of 1880-1914, when European countries divided African countries up among themselves and invaded the continent, which was how many of the African countries gained their borders (Craven, 2015).

South African prior to the Dutch and British invasion was home to many fragmented tribes, many of whom were nomadic and not defined by borders (Mofuoa, 2015). From the late 19th century the British colony and Boer colonies began race segregation laws, which prohibited the movements of Black, Coloured and Indian people. One such act was the Native Land Act of 1913, which prohibited the Black, Indian and Coloured communities from owning land (Treiman, 2005). Apartheid was only adopted later in 1948-1991 as a racial discrimination national law, but it was already preceded by other racially motivated segregation laws (Crush, 2014). Apartheid was an institutional segregation system, which was designed in order to benefit the minority white population, it was based on oppression, racism, segregation which politically and economically excluded Black, Indian, and Coloured communities (Mhlauli et al., 2015).

2.1.2 History of Lesotho Highlands Water Project

The Gauteng province is home to the executive capital of South Africa, Pretoria and its biggest city Johannesburg which generate 60% of the country's GDP and it is the region that is most in need of water (European Investment Bank, 2002). The Gauteng region is 400kms from the capital of Lesotho Maseru and it only has 8% of water runoff (World Bank, 1999). The shortages were getting more intense day-by-day and the South African government was running out of affordable options to send the much need water to the region, hence the LHWP was the most viable option selected to ease the provinces' critical problem. In order to contextualize the water shortage problems of the capital of South Africa, it is necessary to discuss how the country got to where it was.

This province has been the financial hub of South Africa since the gold rush of 1886, when the Witwatersrand Goldfields were discovered. The Witwatersrand area is the place where gold was first discovered in South Africa and it forms part of what is now known as the Gauteng Province (UNESCO, 1974). Gauteng is a literal translation of "place of gold" in Sesotho language, one of the 11 official languages of South Africa. As a result

of the gold rush, there was rapid industrialisation and migrant workers flocked to Gauteng from rural areas and from other neighbouring countries, such as Swaziland, Lesotho, and Mozambique. Initially the migrant workers were prohibited from bringing their families to the city but later it became difficult to monitor all of them (Crush, 2014). The Native Land Act of 1913, which resulted in the dispossessions of land from 85% of the country's land, resulted in a sharp incline of urban population (Mhlauli, 2015). The apartheid government had not anticipated the influx of people that would flood the Gauteng province and as such there was lack of proper infrastructure in the townships where most city arrivals found themselves in. The combination of industrialization and urban migration put a severe toll on the water resource of the area (Turton & Henwood, 2002). Gauteng's water woes are exemplary of metropolitan cities, where there is high usage of water, growing population of political or economic centers (Gupta & van der Zaag, 2008).

The LHWP was initially proposed by the British High Commissioner of Lesotho, in the 1950s as a solution for water shortages in Gauteng (Mwangi, 2007). After Lesotho gained independence in 1966, the newly elected government soon began feasibility studies in 1967, for a project that would transfer water to South Africa through tunnels and generate hydroelectricity for Lesotho (European Investment Bank, 2002). However, the treaty was only signed in October 1986, between the apartheid government of South Africa and the military leaders of Lesotho, even though the demand for water in South Africa was at a critical level. The delay could be attributed to a few factors that were both politically motivated and also their inability to reach consensus. The Apartheid government and the independent Lesotho government had great mistrust for each other; Lesotho openly criticised the Apartheid regime and harboured anti-apartheid leaders who had fled South Africa. For the South African government they did not want to "risk Lesotho holding South Africa ransom by threatening to blow up dams or poison streams" (Mirumachi, 2015: 85). In the 1960s South Africa's water troubles continued to escalate as the country experienced severe droughts, and as a result the Department of Water Affairs (DWA) of South Africa entered into negotiations with the Lesotho government and they came to an agreement in 1968 (International Water Power, 2016). However, these two countries could not agree on the royalties that Lesotho would receive from the water sales, which halted the negotiations again in 1972 (Haas, et al., 2010).

Being completely surrounded by South Africa and being openly critical of the Apartheid regime, Lesotho was at the frontline of the Apartheid regime's repressive tactics that were channelled to obliterate resistance from neighbouring countries (Hitchcock, 2015). The South African government continuously accused the Lesotho government of providing sanctuary for the anti-apartheid leaders, while Lesotho accused South Africa of supporting anti-governmental organisations in the country (Mirumachi, 2015). Hence diplomatic relations between these two countries were at their lowest when the South African apartheid regime invaded Lesotho to carry out attacks and assassinations on anti-Apartheid leaders who were seeking refuge in Lesotho (Mofuoa, 2015). The apartheid regime also used one of its strongest weapons against landlocked Lesotho in 1976, when it closed the Transkei- Lesotho border as the relations between these countries weakened further (Matlosa, 1999).

When these negotiations came to a gridlock, the DWA was tasked with finding alternative means of ensuring that the country does not run dry. One option that they came up with was to transfer water from the Orange River to the Vaal River, through the Orange Vaal Transfer Scheme (OVTS), however this was too costly as compared to the LHWP (Haas, et al., 2010). The OVTS would require pumping water from the Orange River to the Vaal River using electricity, while the LHWP uses the force of gravity to transfer water to the Vaal River. Following this conclusion, three more feasibility studies were carried out in 1978, 1983 and 1986 which specified the necessary requirement for the engineering, the legal framework, the institutional make up and a set of timelines to be followed (World Bank, 1999). In 1986, there was a military coup d'état in Lesotho which overthrew the government of Premier Chief Leabua (Matlosa, 1999). The legitimacy of the Lesotho government of 1986 has however come into question because it was believed that this coup had been founded by the Apartheid government in order to speed up the negotiation process which had been halted since the rule of the Premier Chief Leabua Jonathan. It also appeared suspicious because right after the coup, the agreement was signed with the new government (Wentworth, 2012). In the late 1980s and early 1990s there was mounting political pressure in both Lesotho and South Africa on their governments to practice the international rule of law, which placed both these countries at a cross roads (Mwangi, 2007). In Lesotho, a military junta came into power in 1986 but it lacked legitimacy and popularity in the country so it was forced to relinquish power in 1993 to

allow the country to hold democratic elections (Mothibe, 1994). In South Africa, the Apartheid regime was under pressure from the international community to let democracy reign and allow all citizens to participate and have rights in the country.

In the post-Apartheid context, the migration patterns to the Gauteng province have not slowed down, even though the gold rush has long ended. People keep flocking into the province daily, coming from neighbouring countries and those coming from rural areas, now driven off their lands by climate change problems and some hoping to make a better life for themselves in the city (Treiman, 2005). The Africa National Congress (ANC) led government that took power in 1994, inherited 12 million people that still had no access to water (European Development Bank, 2002). Access to water and sanitation facilities are deeply entrenched in race and class biases. This colonial legacy still prevails and thrives in the contemporary society. The combination of rapid industrialization, migration and lack of infrastructure still plagues most urban cities in South Africa and the government is falling short of providing adequate infrastructure and meeting the needs of the people (Basson et al., 1997). The new government's "focus was to redress the inequalities of previous political dispensations" (Ashton et al., 2006). The government finds itself in a precarious situation because according to the South African Constitution (Act 108 of 1996) Section 27 "every person has the right to access of sufficient water" and "the state must take reasonable legislative and other reasonable measures within its available resources to achieve this progressive realisation of these rights". South Africa is also an exceptional case in that "it is the first country to adopt a national water law in which water is seen a tool in the transformation of society towards social and environmental justice" (Hedden, 2016).

It is estimated that South Africa will reach its land-based water limit between 2020-2030 and it is rated as one of the 20 most water-deficient countries (Haas, et al., 2010). The country uses most of its water for irrigation purposes; 65% of its water is used for a sector that accounts for 3% of its GDP (Thopil & Pouris, 2016). The GDP figure may appear to be relatively low, however what it fails to show are the number of people that are depended on the agriculture sector for survival, the number of jobs that this sector employs and most importantly the quantity of food that is produced to ensure national food security. The Table 1 below shows the water usage of 1996 and the predicted rates

in 2030 respectively. In (Figure 2) show what the current water usage of water, therefore when these figures are compared it indicates that the country is fast approaching the predicted figures shown in the (Table 1).

Table 1: Annual Volume of Water by sectors: 1996 and projected usage of 2030

Water use sector	Water demand				Overall increase
	1996		2030		
	(Mm ³ /year)	%	(Mm ³ /year)	%	%
Urban (domestic water use)	2 171	(10.8)	6 936	(22.8)	219.5
Mining, industrial and energy	1 598	(8.0)	3 380	(11.1)	111.5
Irrigation and afforestation	12 344	(61.6)	15 874	(52.2)	28.6
Environment*	3 932	(19.6)	4 225	(13.9)	7.5
TOTAL	20 045		30 415		51.7

(Turton & Henwood, 2002:189)

The issue of urban migration is a global problem which places stress on the governments' efforts to deliver adequate services for all the people, especially in developing countries; there are shortages of housing, electricity, and sanitary services (Ashton et al., 2006).). On top of this South Africa's fresh water supply resource are dwindling at an alarming rate and this is bound to only get worse in the future as illustrated in the table above. The aim of the South African Department of Water affairs has been to "ensure the availability and supply of water at national level, to facilitate equitable and sustainable social and economic development" (Muller, 2004).

2.2 PHASE 1 OF LHWP

Modern technology has allowed man to alter his surroundings to such great lengths that it has become possible to change courses of the river. In the modern-day world, water plumbing systems are able to connect river basins, where water can even be pumped from one basin to another (Graefe, 2011). Phase 1 (1986-2009) of the LHWP is one such plumbing system where water is stored at the Katse dam and Mohale dam reservoirs,

transferred from the Orange River Basin and pumped to the Vaal River Basin in South Africa through a complex, integrated system of tunnels (see Figure 2). The project has been divided into five phases because of the sheer magnitude of it, it would not be possible to carry it out at once (Haas et al., 2010). To undertake a project of this enormity, there needed to be complex collaborated efforts from all the relevant stakeholders involved and particularly the states to undertake integrated water resource management channels.

The construction of the project was divided into five phases; Phase 1A began in 1991-1998 with the construction of (Tilt et al., 2009):

- the Katse Dam a reservoir which is a 180 meter high, curvature arch dam,
- the Muela underground hydropower plant
- 55 meters high tail point Muela dam,
- Which also included the construction of an 82-km transfer tunnel.

Figure 2: Map illustrating the flow of Phase 1 and Phase 2 of LHWP



(Vaal Triangle, 2016)

This tunnel channels water from the highlands of Lesotho to the Ash River in the Free State province of South Africa (Meissner, 2016). Phase 1B on the other hand included the construction of the 145 meters Mohale rockfill, concrete face dam and Matsoku Dams which are connected to the Katse Dam reservoir, through 260km interconnected delivery tunnels (International Water Power, 2016). The LHWP will ultimately exports "70 cubic meters of water per second from the upper Orange- Senqu River in Lesotho to the upper Vaal region in South Africa (LHWP, 2013).

2.3 FUNDING

This section will discuss the role played by financial institution to facilitate the success of this. The entire project, including all the four phases is estimated to cost U\$7.5 billion (Rangeley et al., 1994). According to the WB rules, loans are taken out by countries where the developments will remain, however in the case of the LHWP the guarantees for the loans were taken on by South Africa because the water transfer part of the project on the

other hand is the remaining responsibility of South Africa (World Bank, 1999). While the hydropower station loan was taken by Lesotho and is the sole responsibility of Lesotho. The Lesotho Highlands Development Authority (LHDA) borrowed US \$ 110 million from the WB for Phase 1A, with the objectives of producing its own hydroelectricity in the process of exporting water to South Africa (World Bank, 1991). Most of the costs were raised by the South African water bonds (European Investment Bank, 2002). The Project is co-funded by a numerous agencies and institutions including “the World Bank’s IBRD, the African Development Bank, The European Investment Bank, the European Development Fund, the UN Development Programme, the Development Bank of Southern Africa and many others (Hitchcock, 2015). Private financial backers include Dresdener Bank, Kreditanstalt für Wiederaufbau (KfW) Bankengruppe, Credit Lyonnais, Hill Samuel and Banque Nationale de Paris (Wentworth, 2012) (see Table 2).

Table 2: Financial Structure of Phase 1A

Source	Appraisal Estimate	Actual Estimate
I. Donor Agencies		
IBRD	110.0	68.9
UNDP	0.3	1.9
AfDB	50.0	0.0
EU	57.0	54.9
EIB	20.0	20.0
CDC	36.1	5.3
Bilateral	117.8	52.5
	-----	-----
Subtotal	391.2	203.5
II. Export Credit	411.0	381.3
III. European Comm. Banks	67.0	78.1
IV. GOL Contribution	57.2	50.1
V. CMA Funding	1,488.4	1,927.8
	-----	-----
TOTAL FINANCING	2,414.8	2,640.8

(World Bank, 1999)

2.4 LHWP TREATY

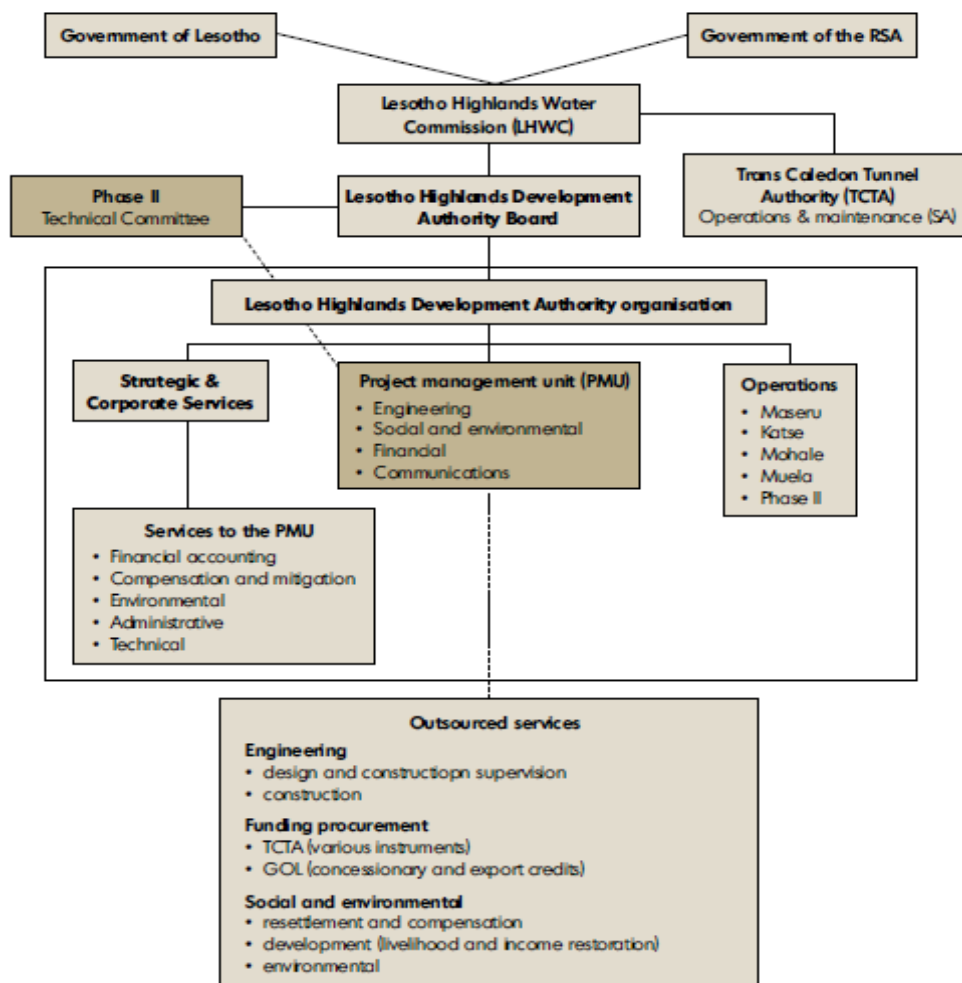
2.4.1 Agreement 1986

Water treaties and agreement are signed when negotiated settlement are reached between riparian states and when they agree to cooperate on a water sharing policy, in order to avoid conflicts between them (Kahl, 2011). Treaties outline principles that need to be followed and guide-lines that are established on legally binding foundations (Ganoulis et al., 2011). The treaty was signed between the Kingdom of Lesotho and the Republic of South Africa on the 24 October 1986, between Colonel Thaabe Letsie of Lesotho and Pik Botha of South Africa (LHWP, 2013). The treaty included agreements about the distribution of tasks; the operations, management, maintenance as well as issues of compensations and royalties (Treaty of Lesotho Highlands Water Project, 1986). The agreement deals with issues of river basin cooperation, protection of environment and ecosystems around the river basin, as well as the ensuring that there is a collaborative effort in mediating impacts on cultural and social environments (Orasecom, 2000). Two teams one from each country comprised of “legal experts, government officials, engineers and consultants drafted the agreement (LHWP, 2013). The LHWP involved multiple actors that represented these two countries; representatives from relevant ministers and departments assigned with the management of the water and financial institutions responsible for the funding. From the Lesotho side, the project falls under the Ministry of Natural Resources, while on the South African side it is undertaken by the Department of Water Affairs (DWA).

The countries each have separate parastatal bodies; Lesotho Highlands Development Authority (LHDA) and the Trans-Caledon Tunnel Authority (TCTA), a South African organ (TCTA, 2015). The LHDA and TCTA are responsible for implementing tasks set out by the LHWC, in their respective countries (Rangeley et al., 1994). The World Bank (WB) through its financial institution, the International Bank for Reconstruction and Development (IBRD) were tasked with assisting these countries to create a River Basin Organisation (RBO) which would facilitate the transboundary river management tasks (World Bank, 1991). The assistance from the WB can either come in the form of technical, financial, legal assistance or it can entail preparing the relevant policy papers (Rangeley et al., 1994). A joint body which is tasked with administering the project, the Joint Permanent Technical Commission (JPTC) was created in 1986 (Treaty of Lesotho

Highlands Water Project, 1986). This was a recommendation of the RBO to create a tripartite plan (see Figure 3). According the World Bank (1999), in Sub-Saharan African Africa RBOs are aimed at bringing about real development rather than meeting political aspirations only. Hence the LHWP fulfilled these requirements because South Africa could meet its water needs, while Lesotho was set to receive royalties that would be used for the development of the country.

Figure 3: LHWP Organisational Structure



(Wentworth, 2012:6)

The Joint Permanent Technical Commission (JPTC) was created in 1986 to oversee the project on behalf of the South African government and Lesotho (Muller, 2004). The joint commission's role was to ensure that the treaty agreements are followed by both the LHWA and the TCTA and to mediate in cases where disputes erupted between the two

countries (Treaty of the Lesotho Highlands Water Project, 1986). The LHDA is responsible for management of the Project within the borders of Lesotho, “the maintenance of dams, tunnels, relocations, resettlements, compensations and supply of water to resettled villages (Tilt et al., 2009). The JPTC was later changed to the Lesotho Highlands Water Commission (LHWC) after Protocol VI was signed in 1999 (International Water Power, 2016).

2.4.2 Protocol V and Protocol VI

A tax dispute arose regarding the 1986 treaty Article 10(3) when these two countries could not come to an agreement about which country needed to carry “the tax changeable in Lesotho”, but after much deliberation Lesotho agreed to a compromise to decrease the tax (Wentworth, 2012: 5). As a result, Protocol V was signed in 1996.

In 1999 Protocol VI was signed as a supplementary document, when the newly elected democratic government of South Africa argued that the treaty of 1986 which was signed by the Apartheid government was not inclusive of the whole society, hence there needed to be a new amendment that would take the needs of black South Africans into consideration (Wentworth, 2012). Protocol VI gave the Lesotho Highlands Water Commission (LHWC) full responsibility of the project and it was shift towards a more policy orientated focus (Haas et al., 2010). LHWC is made up of three delegates from each country and it is responsibility for advising the “LHDA on design, technical acceptability, tender procedures and cash flow forecast” (UNDP, 2008). Protocol VI removed some of the functions of the LHDA and TCTA and added some in an effort to compliment the already existing functions. In the treaty of 1986, Article 9(14) stated that any matters referring solely to the generation of hydroelectricity in Lesotho or only to the water delivery in South Africa will not require the consultation of the JPTC (Treaty of the Lesotho Highlands Water Project, 1986). This article was removed and replace with Article 5 (29-33) which give the LHWC the authority to engage with the relevant ministries, to sit in on meetings relating to the project in individual countries and to chair the right to chair some sub-committee meetings (Protocol VI, 1999). According Article 3 and 4 of the Protocol VI, the Chief Executive of LHDA and TCTA respectively, have the right to make decisions without consulting the LHWC in cases of emergencies (Protocol VI, 1999).

2.5 OUTCOMES

It was agreed that South Africa would be responsible for the construction costs, including the operation and maintenance cost that are associated with the transfer of the water, while Lesotho would be responsible for any additional improvements (Food and Agriculture Organisation, 2017). In the following, the benefits that these countries gained from the project will be discussed.

Water Transfer- After 30 years of failed negotiations and multiple feasibility studies, South Africa would receive the much-needed water transferred to South Africa. Not only does the water keep the economic hub of Gauteng Province afloat, it also helps to “cool Eskom power stations in Mpumalanga province, supplies gold mines in the Free State Province with water, as well as diamond and platinum mines in the North-West Province” (International Water Power, 2016). The water transferred from LHWP agreement does not only quench the provinces, but it did so at a lower cost than all the other options that the government was investigating (Matlosa, 1999). According to the European Investment Bank (2002), South Africa’s citizens were saved \$30 million per year from this agreement. As it has already been mentioned above that the LHWA will be responsible for all operations within the borders of Lesotho, hence it is responsible for the delivery of water from the reservoirs to the border of Lesotho and South Africa. Subsequently Article 7(2) of the Treaty of Lesotho Highlands Water Projects (1986) states that if the water delivered to South Africa is less than the agreed nominal annual delivery, then the shortfall needs to be covered in the following six months. This is a “Drought response provision” that ensures that there is no shortfall in the water delivered to South Africa (Kistin & Ashton, 2008). The TCTA will also be responsible for the “convergence system situated within the Lesotho territory” hence it will require special permission and exemptions from the Lesotho government to conduct its operations thoroughly (Treaty of Lesotho Highlands Water Project, 1986). While LHWA has to ensure that the water is transferred from all the respective reservoirs, in terms of releasing the water, the TCTA is financially responsible for the operation and maintenance of the water transfer.

Royalties- For Lesotho, it possessed a “natural capital” which it had in access (Flint, 2004). In return for water transferred to South Africa, it was agreed that the country would receive fixed and variable royalties: fixed royalties would be “calculated on a comparison with a domestic water transfer project in South Africa, while the variable royalties are based on each cubic metre transferred (Food and Agriculture Organisation, 2017). The maximum water transferred to South Africa from Phase 1 can reach 70 cubic meters per second and Lesotho would receive up to \$55 million annually, depending to the water levels and how much water is transferred (Tilt et al., 2009). According to Article 7(27) of the Treaty of Lesotho Highlands Water Project (1986), all the royalties received from South Africa and the sales of hydroelectricity are subjected to be audited by independent external auditors annually. Part of the royalties are channelled into “development-orientated programmes” which were created for this purpose (Wentworth, 2012: 3). The other part of the royalties would be poured into a revenue fund (European Investment Bank, 2002). These development-orientated programmes have been criticised because there is no clear statement from the Lesotho government to explain how it planned to use the money and to explain how it has actually been used. Another criticism in relation to these projects is the lack of transparency of the selection process and use of funds, and there is evidence of government officials interfering with the processes (Haas et al., 2010). According to Mashinini (2010) the Lesotho government tends to cite free primary education and pension schemes for the elderly but these programmes are also funded by different donors.

Economy- For local Basotho, the project came with economic opportunities during the construction period. 88% of the workforce were Basotho nationals and the total number was about 7000 jobs created, Basotho companies were also subcontracted for some jobs which generated a lot of income in the country (Hitchcock, 2015). The GDP of Lesotho increased by more than 10% during the dam construction years, which was largely due to the large volumes of imports of construction material, but this did not last in the post-dam construction years and it started to decrease from 1998/1999 by 1.1% (IMF, 1999).

For Lesotho, a landlocked country which is entirely dependent on South Africa as the only trade corridor for all its imports and export, the project diversified its revenues. The country’s income revenues have largely been dependent on South Africa, which include

remittances of migrate workers working in South Africa and SACU revenues, which lacks diversity and places it in a precarious position (see Table 3). In 2009 remittances accounted for 24.8 % of Lesotho’s GDP and Lesotho was among the top 10 remittance recipients in the world (The World Bank, 2011). SACU is the oldest customs union in the world, dating back to 1889 between South Africa, Lesotho, Botswana, Namibia and Swaziland (SACU, 2013). In the 2002, the agreement was revised to include a Common External Tariff (CET) for goods traded from the rest of the world and a Revenue-Sharing Formula (RSF) (SACU, 2013). The CET received from non-member is collected in a “shared pool, run by South Africa and the revenues are shared among all the states” (Tafirenyika, 2011). The LHWP has therefore come as a much-needed solution to diversify the country’s income revenues composition (Wentworth, 2012). The royalties from the water sale would account for “4% of GDP and 10% of the Lesotho’s government revenues” (European Investment Bank, 2002).

Table 3: SACU Contribution to Total Revenue (outturn in R billion)

	2010/11*				2011/12*			
	Total Revenue	SACU Revenue	% TR	% of GDP	Total Revenue	SACU Revenue	% TR	% of GDP
Botswana	34.65	5.66	16.3	4.5	40.39	8.95	22.2	6.5
Lesotho	8.67	2.15	24.9	16.1	9.62	2.75	28.6	14.9
Namibia	23.38	5.15	22.0	7.1	29.92	7.14	23.9	7.7
Swaziland	6.95	1.97	28.4	10.0	7.27	2.88	39.6	10.0
South Africa	758.4	23.39	3.1	0.88	837.00	23.61	2.8	0.80

(SACU, 2013)

Hydroelectricity- Many projects in transboundary river basins in Africa have encapsulated a multipurpose approach of river management and development; such as hydropower or development of irrigation projects (Rangeley et al., 1994). The positive linkage that was added as part of the negotiation process was the hydro power station in Muela, which would enable Lesotho to generate its own electricity in the process and ease its dependency on South Africa power utility company, Eskom, in addition to the royalties that it (Lesotho) would receive from the sale of water (Flint, 2004). Lesotho’s electricity has three sources; there are small generation facilities with the capabilities of 5 MW, while some of it is exported from the South African electricity utility Eskom, and since 1998 the Muela hydropower station has been able to generate 72 MW of hydroelectricity

to the country (Thamae et al., 2015).

This power station is situated in the foothills of Lesotho, which lies at a lower latitude level than the dam reservoir. Therefore, when the water is transferred to South Africa, from the Katse storage dam through the convergence tunnel the speed caused by the pull of gravity, creates enough force to generate electricity as the water passes through the Muela station. The electricity supply is controlled and distributed by the state-owned enterprise, Lesotho Electricity Company (LEC) and the Lesotho Highlands Development Authority (LHDA) (Taele et al., 2012). 95 % of the electricity produced at the Muela hydropower station is mainly sold to LEC, which is then distributed within the country and the rest is sold to South Africa (World Bank, 1999). The amount of electricity that the power station produces, depends on the demand of water that South Africa has, hence there are variations of electricity production depending on South Africa's water demand. While the average electricity produced is 72 MW, it can reach 83 MW when the demand is high. If the demand for water is low however, then the electricity production also decreases and in such cases LEC has to buy more electricity from the South African power utility Eskom, in order to meet the national demand (International Water Power, 2016). This illustrates the interdependencies that exist in the region and the forms of collaborative efforts undertaken by these two countries.

The electricity produced at this hydropower station is however, still not sufficient for the whole country, meaning that Lesotho is still reliant on electricity that is produced in South Africa and Mozambique (Taele et al., 2012). This places Lesotho in a peculiar quagmire because Eskom, the South African power utility, has been facing a strain from its local electricity demand in the recent years, which lead to electricity black outs. In 2008, South Africa rolled out a series of load shedding programmes across the country; following a scheduled timetable there were power outages in certain areas around the country to ease the demand on electricity. As a result, Lesotho was also hit by these power cuts, when LEC was under pressure from Eskom to ration electricity across the country (Lesotho Electricity and Water Authority, 2008). This had detrimental effects of business and investment opportunities in the country and likewise affected electricity supply in Lesotho. Not all Basotho are benefiting from this project either, in 2011, only 22% of the country's households were connected to the country's electricity grid, while the rest of

the population still relied on traditional forms of energy (Thamae & Pottinger, 2006). Most of the rural communities use wood, shrubs, and animal dung as sources of energy (Mashinini, 2010) Hence the electrification problem that faces Lesotho is therefore complex and one that needs an immediate solution for the country to experience greater economic growth and development.

2.6 CONTROVERSIES

The project has not been without some scandals, in 1986, South Africa was hit by sanctions by its most important trading partners; United States, European Commission and Japan imposed economic sanctions that prohibited investments and the sale of some of South Africa metals, textiles and agricultural products (Barnes, 1990). The OPEC countries also imposed an oil embargo on the country, while Germany and Britain imposed non-binding sanctions only (Levy, 1999). In the same year, the treaty agreement was finally signed between the military government of Lesotho and the apartheid regime of South Africa. The South African financial adviser then set up a London based account that would send money to Lesotho as a way of disguising funds coming from a sanctioned country (Wentworth, 2012). The World Bank was later implicated in these transactions and blasted for supporting this project even though they had knowledge of the origins of the funds.

As already mentioned, the legitimacy of both the military junta of Lesotho and apartheid government of South African which signed the treaty in 1986 was also called into question (Matlosa, 1999). From the Lesotho side the scepticism was based on the undemocratic nature in which the military forged a coup, ultimately overthrowing the democratically elected government. while on the South African side, the non-inclusive nature of the apartheid government which was not intending on providing water to the whole population was facing heavy criticism from the international community and it was gradually losing power. As a result of this cooperation between two undemocratic governments, disputes of the original treaty agreements arose in later years, which ultimately led to the supplementary Protocol VI being signed in 1999 (Protocol VI, 1999).

In 1999, the LHWP was hit by a corruption scandal which involved the LHDA chief executive, Canadian company Acres, German company Lahmeyer, French company Spie Batignolles and South African individual Du Plooy (Hitchcock, 2015). There was a total number of ten companies and two consortia, as well as the director general of LHWA, who received over US\$ 2 million of bribes from the companies that were implicated in the corruption scandal (Pottinger, 1999). The WB proceeded to debar Acres International from receiving any contracts for three years and all the other companies received fines (Milverton, 2004). Two years later it also debarred Lahmeyer International for up to seven years from World Bank and in 2008 the European Bank of Reconstruction and Development (EBRD) also barred Lahmeyer until it implemented sound anti-corruption mechanisms (Haas et al., 2010). Following this corruption scandal, there was greater care taken by the financial institutions and funders in setting up of anti-corruption policies, as well as amendments on the tendering processes (World Bank, 1999).

The WB has also been criticised for how it handles displaced people's issues and by not ensuring that states and dam authorities enforce "good practices" (World Commission of Dams, 2000). The World Bank has an operational manual, which calls for dam authorities to carry out environmental assessment programmes that have not included the voices of dam-affected communities (McCartney, 2007). This was evident in the case of Phase 1A, when dam authorities only started with social and environmental assessment programmes midway through the construction period. While non-governmental organisations and community members advocate for thorough consultation processes and complete participation of the community, the WB is of the view that consultation are sufficient without consent (Hitchcock, 2015).

Phase 2 of the project will involve the construction of the 145m Polihali dam wall, and it was scheduled for completion in 2018 however, the construction has not even started as the project has been plagued by one delay after another. According to the Minister of Water Affairs of South Africa, Nomvula Makonyane, there is a need for the country to undergo radical economic transformation, by ensuring that 20% of the contract is awarded to a "black empowerment partner" (Timse & Ntaote, 2016). The Ministers has also cited Lesotho's recent political unrest as one of the reasons why the project had come to a gridlock. However, these delays seem to signal to what has been referred to as "the state

capture of resources”, where the Minister of Water Affairs was colluding with a company of her choice to give them contracts. The minister has also dismissed qualified professions from the LHWC without any reasons to replace them with her preferred candidates (Muller, 2016). At this rate, it appears as though the dam will be completed in 2025 and in that time when political interference keeps delaying the project, South Africa’s water demand will be at its most critical demand (Timse & Ntaote, 2016).

2.7 CONCLUSION

The relationship between these two countries was fostered by the individual national politics of each of them, which started when Lesotho was still a protectorate of Britain. It is important to note how different the histories of these countries are, despite their geographical contexts in relation to each other. Although the project had a turbulent start, these countries managed to come to an agreement that they were satisfied with, despite all the challenges. These two countries were able to overcome their differences and come to an agreement that has been celebrated a success story for what regional cooperation agreements should embody. The chapter introduced the case study of the Lesotho Highlands Water Project’s history in order to illustrate how strenuous the road to the 1986 treaty agreement had been. The chapter also dealt with the funding programme of the project, the structure of organisation of the LHWP, the treaty of 1986 as well as the agreed upon incentives that both countries received from the agreement and finally the controversies that have clouded the project in scandals. The function of this chapter was to introduce the case study of this research paper therefore, the following chapter will analyse the case study through the selected theoretical frameworks.

CHAPTER 3

ANALYSIS

3.1 INTRODUCTION

History has already shown that water management between states can be a complicated and strenuous task to undertake however, De Bruyne & Fischhendler (2013) state that international agreements are currently the most effective mechanisms for states to manage shared water basins. The chapter will start by briefly discussing the international conventions that exist on a global and regional level. It is imperative that these agreements are discussed because they provide the framework of good practices of Transboundary Basin River Management (TRBM), of the world's the 276 international Transboundary Water Basins (TWB) (Drieschova et al., 2008). There are many more water conventions and rules that have been agreed upon, however the four mentioned below were selected for their relevance in relation to the LHWP. The bilateral agreement between Lesotho and South Africa is navigated around these existing frameworks.

What is important to note is that most of the frameworks discussed below were ratified post 1986, after the LHWP treaty had been finalised, however more phases of the project still need to be negotiated, hence it will be important for these two countries to be cognisant of the transboundary water rules which exist in the international community. On the global scale, the Helsinki Rules of 1966 and UNESCO has pioneered the water resources management platform; the Helsinki Rules guided by the International Law Association and UNESCO with its International Hydrological Programme (IHP) in 1975 (Ganoulis et al., 2011). The United Nations Water Convention came much later but it has also provided an important window on the issue of transboundary water management. On the regional level the SADC watercourse protocol and the Orange-Senqu River Commission are instrumental transboundary water courses. The UN Convention, the SADC water protocol and the Oresecom are but a few examples of internationally and regionally revered TWB agreements. They all speak to the need of having states cooperate with each other because we live in a globalizing world, where natural resources are not restricted by national borders hence there is a great need for cooperation between states. In this chapter IWRM will be applied to the LHWP because it specifically focuses in the management of transboundary water courses but it also incorporates the social and ecological considerations into the study. This chapter will also interrogate the decisions and events that have led to Lesotho and South Africa adopting this treaty and cooperation, through the international relations lenses of realism theories and complex interdependence theories.

3.1.1 Helsinki Rules

The Helsinki rules were created by the International Law Association (ILA) in 1966 to unify international water laws (International Water Law Project, 2016). Up until then, there were no international conventions or international water laws dealing specifically with shared water basin, hence the Helsinki rules are revolutionary and they filled the gap of management of transboundary water basins (Helsinki rules, 1966). They are heavily rooted in international law and they make reference to this in many of their articles, as they were created by the ILA. In order to facilitate cooperation between states, Article IV rejects the notion that states have an unconditional right to use flowing rivers in any way they please (International Water Law Project, 2016). This is in accordance with IWRM because they are both aware of the complexities encompassed by the transboundary water basins, due to the fact that there are numerous riparian states, both upstream and downstream that depend on the water sources. Therefore, in a case where the water basin flows to more states, there needs to be a proportional allocation of the resources, where the upstream state does not disadvantage the downstream states by misusing the water basin. The rules incorporated the need for states to also take economic and social needs of all those that maybe affect into mind and to avoid harm at any cost (Helsinki rules, 1966) The principles set out by the Helsinki Rules have become accepted internationally and they are widely used in negotiation processes between riparian states. Even though the Helsinki rules are much revered, Turton & Henwood (2002) further state that some people merely view the ILA as a private NGO which created some recommendations for transboundary cooperation but not binding guidelines because it lacks official accreditation.

3.1.2 United Nations Watercourse Convention

The United Nations Convention on Law of Non-Navigational Uses of International Watercourses was adopted in 1997 with the aim of preventing conflicts in international water basins and to promote sustainable development (WWF, 2016). The Convention was created in relation to the use of international waters, for other purposes than navigation, but for measures of protection, preservation and management” related to shared

watercourses (UN Convention, 2014: 3). Navigable waters are those that have “a certain depth and width adequate to permit passage of a vessel” (Helsinki Rules, 1966). This convention is created as a “framework agreement for bilateral and multilateral agreements related to the use, management and preservation of transboundary water resources (International Water Law Project, 2016). The convention only came into force in 2014, because it did not have the minimum number of ratifications from states that are required for a convention to become law. In May 2014, Vietnam became the 35th country to ratify the convention, which led to it being adopted (UN Watercourse Convention, 2016). To date, only four of the Orange-Senqu River Commission (Orasecom) states have ratified the convention namely; Namibia and South Africa (UNDP, 2008).

3.1.3 Southern African Development Community

The Southern African Development Community (SADC) is a regional organization, which was created in 1992 and replaced the Southern African Co-ordination Conference (SADCC). SADC has 15 member states and 21 TRBs as illustrated in (Figure 4) The goal of it is to “bring member states together with the common goal of regional integration on the basis of balance, equity and mutual benefit for all the peoples of the region” (UNDP, 2011: 240). The Protocol on Shared Watercourses Systems in the Southern African Development Community Region was created in 1995, which encourages “information sharing and environmental heedfulness” (SADC, 2000). The protocol was later revised and adopted in 2000 to update it to the ratified international water law adopted by the UN (WWF, 2011). The original protocol highlighted the need to harmonise national interests and development, as well as meeting sustainable development goals, while the revised protocol included the environmental aspect of water usage (UNDP, 2008). This is consistent with the IWRM which advocates for an inclusive cooperation between all the stakeholders involved.

Figure 4: Map of SADC Member States



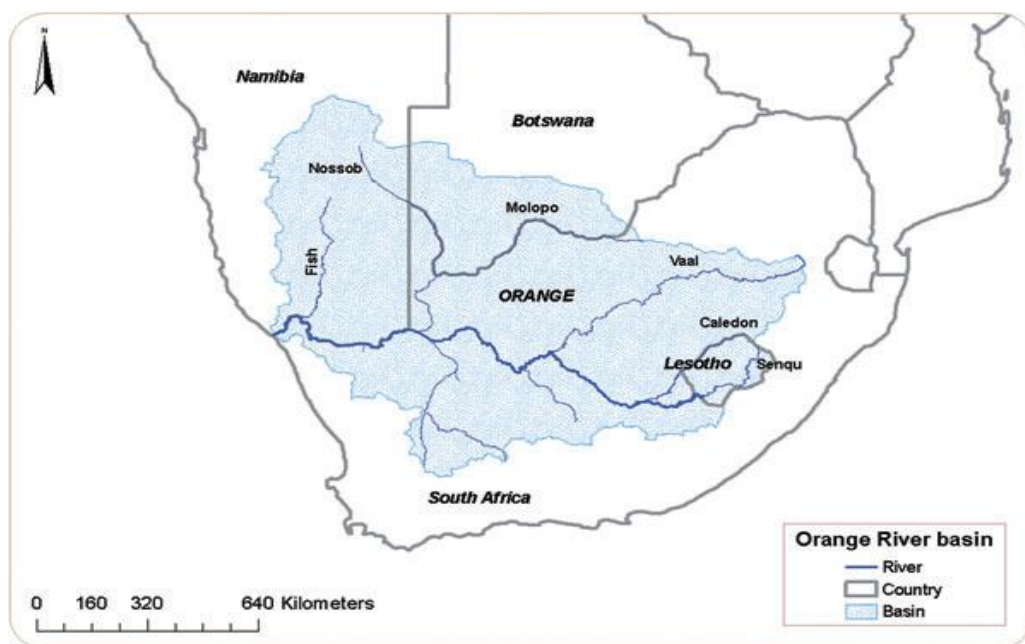
(Murimachi, 2015)

3.1.4 Orange-Senqu River Basin Commission

The Orange-Senqu River Basin is a Transboundary Water Basins (TWB), shared by four riparian states Lesotho, South Africa, Botswana and Namibia and these countries are dependent on it for a variety of reasons; agriculture, energy, tourism (see Figure 5) (Orasecom, 2000). Each country has representation on the task team and Bisaro et al. (2010: 643) state that it is set up on the basis of IWRM principles and thus prioritises stakeholder participation”. In 2000, these countries signed an agreement that founded the Orange- Senqu River Commission (Orasecom). Of all the four Orange-Senqu riparian states, South Africa’s water usage is the highest at 95%, while Lesotho has the lowest national demand, with less than 6% of its water being consumed domestically (World Bank, 1999). This commission refers back to the pre-existing rules and conventions of

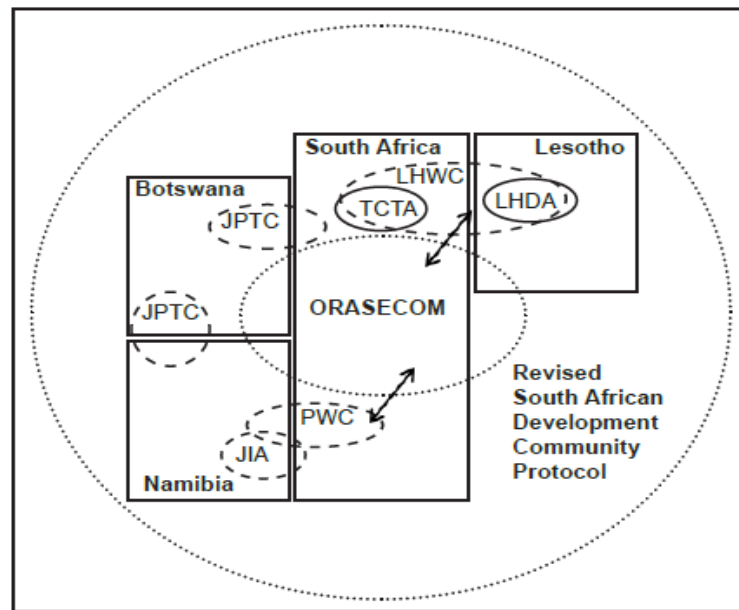
the Helsinki Rules, the UN Convention and the SADC protocol (UNDP, 2008). It was a mechanism drafted to ensure that states engage in good practices of the IWRM in relation to the shared Orange-Senqu River Basin. The Orasecom guidelines, do not affect the LHWP because the commission was created after the treaty between Lesotho and South Africa was signed, however it will influence future allocations (Kistin & Ashton, 2008). This is despite the fact that the LHWP has had an impact on the downstream of the Orange river, because water is diverted to the Vaal River. There are 24 dams built along the 2300km of the Orange- Senqu River Basin (Manatunge et al., 1993). There are currently four agreements related to the Orange-Senqu Basin; the 1986 LHWP, the 1992 Vooilsdrift and Noordoewer, the 1992 Permanent Water Commission and the 2000 agreement of ORASECOM (see Figure 6).

Figure 5: Land Cover of the Orange- Senqu Basin



(Mirumachi & Van Wyk, 2010:29)

Figure 6: International water agreements in the Orange-Senqu Basin



(Kistin-Keller, 2012:43)

3.2 INTEGRATED WATER RESOURCE MANAGEMENT

Flowing rivers create a problem for states regarding ownership because all the countries where the river flows subsequently have ownership of the water resources and they also have the same water rights, according to international law. This claim is not always unambiguous hence this brings to fore the contested water rights. In their paper, Ansink & Weikard (2009) claim that there are 250 transboundary water basins in the world and they have the potential to be sources of conflicts. If the upstream state claims absolute rights to the water, this falls under the legal principle of “absolute territorial sovereignty”, conversely if the downstream state bares claim to the water this is the principle of “absolute territorial integrity”(Dinar, 2006: 414). Hence, if the states do not reach an agreement, it could result in conflicts or water wars. Integrated Water Resource Management (IWRM) tries to deal with these contested water rights by encouraging states to engage each other instead of competing with each other. IWRM is defined as “a process which promotes coordinated development and management of water, land and related resources to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (Ganoulis et al., 2011:19).

According to Gupta & van der Zaag (2008: 28), IWRM is a “more holistic approach to water management which attempts to balance environmental, social and economic considerations in decision making”. It is an all-encompassing framework which promotes economic development, while taking into account the needs of affected communities and ensuring that there is respect for the ecosystem as well. As such the Orange- Senqu River Commission (Orasecom) encourages cooperation between the four states, using IWRM mechanisms such as information sharing and decision making which is decentralized (Bisaro et al., 2010).

In the context of the LHWP, which is both an interbasin water transfer and also a IWRM, it is important to note that at the core of this interbasin water transfer lies the principles and rules that govern IWRM. Although government rhetoric states that interbasin transfers are meant to be mutually beneficial where all the involved states benefit, this is a point that is disputed by Gupta & van der Zaag (2008) who are of the view that interbasin water transfers exist mainly to meet the needs of economic hubs. In the context of the LHWP, the main objective of this project was for South Africa’s DWA to ease the water shortage in the Gauteng province. However usually when this project is referred to, it is covered by the blanket phrase of mutually beneficial endeavour. The win-win trope has mainly been focused on the water transfer to South Africa, where Lesotho receives royalties in return and is able to generate its own hydroelectricity. What this point alludes to is the commodification of water, where the “management of it is performed on economic aspects only” without taking the other uses of it into account (Lamoree & van Steenberg, 2006: 104). In this section I will apply the LHWP agreement into the principles of IWRM below in an attempt to figure out whether this agreement resulted in mutual benefits. In pursuance of creating a successful IWRM Hooper (2009) proposes eight guidelines for riparian states, and they are as follows:

Decision-making: to be undertaken by all the relevant stakeholders in all sectors of the basin (Hooper 2009:5). Article 6 of the treaty states that the LHDA will be responsible for all operations within the Lesotho border, while the TCTA will be responsible for all operations on the South African side. Communication and collaborative efforts will be facilitated by the joint commission of the LHWC. In the supplementary Protocol VI (1999), the LHWC as an independent body received more decision-making power it also

has the responsibility to attend individual ministries meeting in order to ensure smooth proceedings of the project. Protocol VI gave the chief executives of the LHWA and TCTA some decision-making leeway without consulting the LHWC in emergency situations.

Coordinated management with the stakeholders: effective ways of involving the public, the organisation must set up strategies that will ensure coordination (Hooper 2009:5). This principle recognises that public participation and involvement is not just an ethical issue, but it is important for the success of integrated resource management. In the context of the LHWP the consultation processes were not undertaken before the commencement of Phase1A, local communications that stood to be directly affected by the dam construction were not made aware of the implications of the project on their lives and mitigation processes were lacking (Mokhehle & Diab, 2012). However, after a lot outcry from civil society groups, Phase 1B involved better consultation processes with affected communities.

Goal: objectives need to be clearly set out and provide feasible solutions to river management (Hooper 2009:5). As it has already been mentioned that the main objective of the LHWP was to transfer water to the Gauteng Province and ease Lesotho's dependency on Eskom electricity (Haas, et al., 2010).

Financing: cost must be shared and the correct price for water needs to be set (Hooper 2009:5). Although this was a bilateral agreement between the Lesotho government and the South African government, a large portion of the project was funded by external financial institutions, both countries were open about their funding sources and there was transparency in these processes. Under Article 10 (1) of the agreed Treaty of Lesotho Highlands Water Project (1986), the responsibility of the Trans-Caledon Tunnel Authority (TCTA) is to incur all costs relating to “the implementation, operation and maintenance of that part of the project relating to the delivery of water to South Africa. Article 10(2) states that the Lesotho Highlands Water Authority (LHWA) shall incur all costs relating to “the implementation, operation and maintenance of that part of the project relating to the generation of hydro-electricity.

River Basin Commission Function: setting up democratic institutions (Hooper 2009:5). Under the 1986 treaty agreement, the Joint Permanent Technical Commission (JPTC) was

tasked with overseeing the implementation of the project, the operation and maintenance carried out by both these countries in their individual capacities (Treaty of Lesotho Highlands Water Project, 1986). In 1999 when JPTC was changed to the Lesotho Highlands Water Commission (LHWC) its tasks were expanded to include more involvement of the LHWC (World Bank, 1999). Under the revised Protocol VI, LHWC was given full responsibility of the project, which is made up of three delegates from each country (Protocol VI, 1999).

Law: Rules of the organisation must be in line with international law (Hooper 2009:5). International law allows for states to enter into agreements with each other, as long as they are not conflicting with international standards (Helsinki rule, 1967). The Revised Protocol of SADC also included an article on “reasonable utilisation” Article 3 (7) and the” obligation to prevent significant harm” Article 3(10). This is also in accordance with international standards and norms set out in both the documents of the Helsinki Rules and the United Nations Convention on Law of Non-Navigational Uses of International Watercourses (SADC, 2000). Both the SADC Convention and the UN Protocol were instrumental in providing guidance for TWD negotiations, which enabled downstream riparian states to have a say on how upstream states manage their water. To date the documented concerns from downstream communities in the case of LHWP have been in relation to the level of river, which has dropped, however more studies are still to be done to investigate the true impact of the LHWP on downstream communities (Mokhehle & Diab, 2012). Article 1(1) of Orasecom on the other hand, advocates for member states to have the prerogative to enter into any agreements with each other, however future agreements created will be subordinate to Orasecom (Orasecom, 2000).

Staff Training: There should be training courses aimed at improving capabilities of the staff that work at the institution (Hooper 2009:5). As part of the capacity building initiative of the LHWP, the Rural Development Plan (RDP) was created as a programme for “providing skills, training and income-generating activities” (Tilt et al., 2009: 252). The Thaba Tseka District Technical Institution was one such programme which dam authorities finally implemented for the communities that were affected by Phase 1B (Mashinini, 2010).

Information and Monitoring: there should be joint efforts to monitor and share information

between the stakeholders and organisation (Hooper 2009:5). Conducive to having a successful TWRM is for riparian states to be forth coming with their data, to share it with each other and harmonize their monitoring efforts (Ganoulis et al., 2011). Article 10 of the UN Convention aims to harmonize riparian states actions and share information in order to avoid conflicts. The principle of information sharing has however been challenge that LHWP has been faced with, not in relation to the two states but in relation downstream riparian states that have affected by the construction projects. In 2007 when Namibia raised downstream concern caused by the alteration of the Phase II part of LHWP, South Africa blatantly refused to discuss details of the bilateral agreement of LHWP at Orasecom meetings stating that the LHWP was a bilateral agreement (Kistin-Keller, 2012). Even though there is an Orasecom clause that stipulates that countries need to share information with each other, especially if the alteration of water courses will affect another riparian state (Orasecom, 2000). This is not only a violation of the Orasecom rules but it contravenes all the other international conventions and goes against the IWRM principle of information sharing. The power dynamics in this context are constituted by the location of riparian states along the river basin, as well as the influence that the states have. The upstream states (Lesotho and South Africa) have been able to get into an agreement, without consultations with downstream states and as a result, downstream state (Namibia) which is already facing severe water constrains as it was side-lined in negotiations that would affect the river levels.

3.3 INTERNATIONAL RELATIONS

The study of international relations came about as a response to World War I in order to understand how states could have entered into such a deadly war. According to Burchill et al., (2005), the aim of the study of international relations was to analyse past events in order to identify patterns and to predict future events. International relations has since grown and developed into different branches which have all attempted to make sense of the complex world of cross-border politics. These different branches or schools of thought all have different views of what theory is and what the theory of international relations is about. They take different approaches to explain events of international politics, the issues that face the international community, actors involved and how these actors relate to each

other. For this reason, in this paper I will use two opposing but complimentary international relations theories, in pursuance of creating a nuanced picture of the case study. In an increasingly globalizing world, this realm has never been more important because global and national politics have become more intertwined as the world becomes more connected.

3.3.1 Neo-Realism

Neo-realists strongly believe that states are driven by self-interests, whether it is wealth, resources, pride, ethical consideration or seeking to be glorified (Lebow & Risse-Kappen, 1996). This follows the assumption that even altruistic acts are driven by self-interest or some other motive. Hence, it is imperative to identify a state's national interests in order to predict its future actions (Burchill, 2005). On the other hand, Waltz (2000) states that even if we are able to identify structural hierarchies, we will be unable to predict how states will react if we do not have knowledge about their motives and interests. The following paragraphs will introduce some of the core principles of neo-realism, as to draw an in-depth picture of this school of thought and to apply it to the case study of LHWP.

Survival and National Security: At the centre of neo-realism principles, like its predecessor classical realism is survival, as reiterated by Waltz (1979) who stated that “at a minimum state seek their own preservation and at a maximum, drive for domination”. Therefore, according to the neo-realism school of thought, they would describe South Africa's goal as that of survival since 1950s when it was discovered that the country was experiencing water shortages and that “it would reach its water limits between 2020-2030” (Haas, et al., 2010). As it has already been mentioned, the Gauteng Province is the financial capital of South Africa and Southern African region, hence its survival was paramount for South African people and the region. The LHWP was therefore a project that was meant to alleviate Gauteng Province's water scarcity by getting it from its enclave neighbour. Scarcity relates to the gap that exists when demand surpasses supply, which leads to a shortage (Turton & Henwood, 2002). Water like all natural resources, is distributed unevenly across the globe, where one country has excess supply and another has a limited supply which cannot meet the demand of the entire country, as is the case with Lesotho and South Africa respectively. The issue of scarcity is a complex one, which is layered by a myriad of themes. Underlying the topic of resource scarcity, particularly

water scarcity, is the issue of national security. Scarcity of resources threatens a nation's survival hence, it is important for states to mitigate this scarcity in any way possible. That is why the scarcity of water is often linked to the conflict narrative (Ansink & Weikard 2009). Much like food security, a state that cannot provide water to its citizens is severely weakened and this could have negative effects for the country's security and ultimately its survival too.

Scarcity is "a product of its contemporary and historical socio-political context" (Furlong, 2006:447). In light of this, South Africa's water scarcity in the Gauteng Province is the direct result of water usage of the past century, which was caused by the gold rush. While Lesotho's mountainous terrain, which the Boer settlers viewed as undesirable when they captured the fertile low lying lands of Lesotho, in the 19th century have a valuable resource that present and future generations will need. The feasibility studies that were carried out in 1967, 1978 and 1983 were undertaken so as to ensure that the Gauteng province does not run out of water (World Bank, 1999). Therefore, the bilateral agreement that was signed in 1986 was a result of 30 years of unsuccessful negotiations, strained diplomatic relations and growing desperation to find a solution for South Africa's water problem.

Protecting national security is one of the core principles of neo-realism, which "underlies the desire to prevail over enemies who threaten the national security" (Dunne and Wheeler, 2004:11). Linked to the concept of scarcity is the topic of water wars, (Drieschova et al., 2008: 286) states that tensions can rise when the change in the resource environment outpaces the capacity of the existing institutions to deal with that change". In September 1998, 8 months after the inauguration of the LHWP Phase 1A project, there was political unrest in Lesotho due to contested elections and tensions rose as the opposition questioned the fairness of the outcome. The South African Development Community (SADC), mobilized the South African National Defence Force (SANDF) and the Botswana Defence Force (BDF) to quell the situations in Lesotho, at the request of the Basotho Prime Minister (Maroleng, 2002). To illustrate South Africa's strategic interest in Lesotho, the SANDF travelled deep into the highlands of Lesotho and attacked the Lesotho Defence Force (LDF) soldiers who were stationed at Katse Dam which is one of the key points of LHWP (Mwangi, 2007). This was a clear indication of South Africa

protecting its national interest and although this did not lead to an outright war, it is only indicative of how South Africa responds to perceived threats of national security and how it may react in the future.

Power: Power relations are at the heart of this school of thought and they are influenced by inequalities; which are illustrated in the power disparities that exist between small/weak states and stronger state. Neo-realism speaks to an anarchic world where there is no defined or recognised authority, individual states then engage in war to meet their self-interest (Turner, 2009). The power that realists tend to refer to is military might, however there are different types of power dynamics that come into play when states negotiate with each other. Negotiation skills can change the outcome of the process without parties even engaging in military threats. Cascao & Zeitoun (2010:33) on the other hand differentiate between different power dynamics that exist in the realm of international politics; the geographical power, the material power, the ideational power and the bargaining power. In relation to LHWP negotiation processes, South Africa wielded the 1st three types but Lesotho was able to block the processes for over 30 years because it has the bargaining power and held the resources. When Lesotho and South Africa engaged in the process of negotiations about the water sharing process, it cannot be assumed that South Africa had an upper hand over its economically weaker counterpart, due to the fact that the gains were different for both countries. Control of head waters is a powerful tool that states can use as leverage (Kahl, 2011). It can be deduced that Lesotho was stalling the processes by using the power that was available to it, access, and control of resources.

For neo-realists, these two countries' national interests could be very telling of the way that they behave towards each other. For South Africa, a country facing severe water shortages, getting access to Lesotho's water was of national interest. In the mid-1980s South Africa was in a tight position, where its water demand was escalating in the Gauteng province and the supply was running out. Three decades later, after numerous feasibility studies that had been conducted and proven that the project could be carried out successfully, the project had still not started and South Africa was growing more frustrated by the day. These delays were placing South Africa in a more precarious situation, which threatened its national interest. Over and above this, the South African

government had come to categorize the water scarcity as a national security matter as illustrated by the speech that was given by then Minister of Foreign Affairs Pik Botha, who threatened to discontinue the project if Lesotho kept stalling (Mirumachi, 2015). In 1986, there was a coup d'état in Lesotho, where a democratically elected government was overthrown by the military (Wentworth, 2012). The new head of state of Lesotho made a speech that asserted Lesotho's commitment to continue with the LHWP and soon after the 1986 agreement was signed (Matlosa, 1999). The events that followed in Lesotho can only be interpreted as political interference even though South Africa denied the claims even in light of all the evidence.

According to Waltz (2000), the father of neo-realism, the international structure is controlled by a hierarchical order, where the relations are constituted by the superior and the subordinate. In a relationship like this, power dynamics are instrumental to how the parties behave and if there is an acknowledgment of these roles, the superior are able to influence the subordinate in ways that the subordinate cannot do to the superior. While South Africa is able to postpone the Phase II part of project, there would be serious repercussions if Lesotho attempted to do the same. The Phase II was supposed to have already started, however there have been delays from the South African side, which has stalled the commencement of the project. Attributing to this delay is what (Mirumachi, 2015: 9) calls "hydro-hegemony, the asymmetrical relationship between states". As already mentioned, this power does not equate to a state's military might, but to the ability for a specific state to sway another riparian state to do what it wants. As such South Africa has been able to halt the progression of Phase II, even though Lesotho has maintained that it is ready to proceed as soon and possible (Muller, 2016). This is despite Article 5.2 which states that "unless the parties decide otherwise, each phase of the project shall be implemented in time to satisfy the minimum water deliveries" (Treaty of Lesotho Highlands Water Project, 1986). One reason stated for this delay was that the DWA was exploring alternative means of getting water from the Thukela Water Project in Kwa Zulu Natal Province that could provide water to Gauteng Province and also create employment opportunities for local people in Kwa Zulu-Natal (Timse & Ntaote, 2016). This is despite the numerous investigations that were conducted and revealed that there was political interference from the South African ministry of water affairs, as mentioned in the previous chapter. South Africa was able to delay the progress of the next phase because

it realised that it's water needs would only change in 2020 as opposed to 2018, which was what the initial feasibility studies had quoted (Kistin-Keller, 2012).

Neo Realists recognize that international institutions and regional organisations are important in international politics. Even with the heavy and binding international agreements that exist in international politics, a nation's self-interest is still at the heart of its foreign policy (Turner, 2009). This could be applied to the Orasecom case where South Africa refused to engage Namibia about the details of LHWP and how it affects the Orange-Senqu River basin. South Africa has continuously asserted itself as a "hydro hegemon" in the region despite international law stating that, a state is not allowed to modify its environment if it causes harm to another state (Turton & Henwood, 2002).

In his analysis, Waltz (1979) further posits that weaker or smaller states will usually form alliances with the stronger states for protection and he calls this to "bandwagon". Following this line of thinking, it would be in the best interest of a small state like Lesotho to join international organisations because this would protect them from being taken advantage of by bigger states. Therefore, international organisations such as the UN, and regional organisations such as SADC would all be viewed as advantageous for smaller states to ensure their survival. For bigger states that are able to protect themselves militarily, international organisations would only function to limit their sovereignty. An important theme that is subsequently at the focal point of this corporation between Lesotho and South Africa is the one of sovereignty. Sovereignty is a concept which was developed in 1648 Peace of Westphalia, where the national state was considered to be the sole actor in its specified territory (Alam et al., 2009). International organisations then challenge the concept of sovereignty and it illustrates that sovereignty is not absolute. TWB also challenge the concept of sovereignty because there are international laws that govern how upstream and downstream states make use of their water basins. These international conventions and rules have norms and standards which are expected of their member states to follow. Binding articles such as Article 7 of the UN Convention and the Helsinki rules posit that states should use TWB in a manner that avoids causing harm to another riparian state (UN Watercourse Convention, 2016). While these conventions are meant to protect small states and downstream states, in a self-help realm of realisms, each state is only out to protect its national interest and ensure its survival; hence it would not

have been favourable for South Africa to ratify the UN Convention, according to the realism reasoning.

This erosion of national sovereignty can therefore be translated into the erosion of national security hence, according to neo-realists any activity that challenges sovereignty and state security is not worth engaging in. Neo-realists are of the view that it is impossible for riparian states to cooperate with each other because they are more concerned with their national security, in fact they will try by all means not to engage in transboundary cooperation initiatives (Waltz, 2000). Furthermore, if a state placed international moral norms above its national interest, then this is highly irresponsible because according to neo-realists, the “ethical obligation of the state is to protect and further its national interest” (Burchill, 2005: 51). It can therefore be deduced that cooperation of transboundary water courses is not considered to be a plausible solution by neo-realists because cooperation can only be considered if it does not place the national security of a state in a precarious situation and only if it will benefit the state. Hence cooperation is still viewed as a product of self-interest, which is resorted to only if the state will benefit more from it than another state.

It can therefore be said that although states have become more interdependent as illustrated by the number of international organisations that exist today, neo-realists maintain that each state is still motivated by its national/self-interests. Therefore, to fully understand the motives of nation states actions, realism is still relevant but it is not sufficient as the only theory; it needs to be complimented with other theories that have also attempted to understand the realm of international relations in which nation states exist. For these reasons, complex interdependence theory which will be discussed as a complimentary theory in the next section.

3.3.2 Complex Interdependence

This theoretical framework can be linked to the growing move of globalization, which recognised that there are numerous actors in the international community that have the same influence in policy and decision making efforts as states. According to complex interdependence theorists, the realm of international relations is governed by many

interlinked actors who are not restricted by geographical national borders (Putman, 1988). There is a pluralism of state and non-state actors who all have influence on national and international matters (Rosenau, 1974). This is highlighted by what is now termed “glocalization”, which refers to the intersection between the global and local issues that happen on both the vertical and horizontal level (Blatter & Ingram, 2001). To illustrate this global relationship, Evaghorou & Mertzaniadis (2012) allude to cases where there is a transfer of goods across borderlines between a multinational corporation and a state, where money is exchanged and communication is taking place between actual people who represent the companies and states. This is a more nuanced picture that is painted about the international community by complex interdependence theories, where there are states, Multinational Corporations (MNC), individuals within these companies and where goods are traded between a state and MNC or between MNCs of different countries. According to complex interdependence theorists, the realm of international relations is governed by many actors who are in constant communication with each other and making decisions all the time (Putman, 1988).

It can therefore be deduced from the definitions above that complex interdependence speaks to a labyrinth of connections that are taking place on a horizontal level and a vertical level simultaneously. This is where complex interdependence and realism theory differ, because realism views states as unitary actors that represent one voice. According to realists the state is treated as an individual, a single entity who has a set of clearly defined interests.

Complex Interdependence theory holds three assumptions, which contrast with the realism assumptions (Evaghorou & Mertzaniadis, 2012: 109):

1. There are numerous intrastate interconnections and transnational relations that do not involve governments but are facilitated by non-governmental agents.
2. Unlike realism which places military issues at the core of all states’ interests, complex interdependence theories does not subscribe to a hierarchy of interest. Due to the fact that the scope of actors is so wide, there are various interests that states have, and their importance depends on the individual state and all those actors have a say in the countries dealings.
3. Linked to the 2nd assumption of hierarchies is the range of issues that states are

focused on and how military arsenal does not epitomize power, but other factors such as resources and trade are also of great importance.

To date, research shows that riparian states have responded more to cooperation than conflict and using a more benefits sharing approach towards TWB (Gupta & van der Zaag, 2008). Cooperation between states can be in the form of interbasin transfer schemes, where water is channelled from one river basin, that has it in abundance and transferred to another one where there is a shortage (Ganoulis et al., 2011). This counters all what realists believe to be true about the world of international relations. However, in the future as the population increases and climate change intensifies, riparian states might overlook diplomatic means of engaging with each other, hence it is important to draft more inclusive documents that will lead to greater cooperation between riparian state to avoid future water wars. This type of cooperation requires strong institutions and mechanisms, which the riparian states regard as legitimate, to decrease the possibilities of conflict.

Countries are also increasing engaging with other states at a regional level, through regional integration organisations such the most successful one, the European Union (EU). On the African context, there are many regional organisations that are less integrated than the EU, but they function to increase collaborative efforts between African states. These regional organizations make provisions for interstate cooperation, bearing in mind that cooperation surpasses trade deals, but involves a myriad of other collaborative efforts between the nation states, multinational companies and other international stakeholders. Lesotho and South Africa are part of the Southern African Development Community (SADC) which in recent years has played an instrumental role in promoting cooperation between Southern African member states. The SADC protocol on Shared Watercourses is one convention that was agreed upon in order to increase cooperation between member states who have shared watercourses (SADC, 2000). The protocol also highlights the need to harmonise national interests and development, as well as meeting sustainable development goals, while the revised protocol included the environmental aspect of water usage (Turton & Henwood 2002). Complex interdependence recognize that international institutions and regional organisations wield recognizable power in transnational politics, because they are custodians of agreed upon

principles and standards that need to be followed. These regional and international organizations, as well as the various international rules and standards are meant to ensure that cooperation between states is mutual that states do not compete in a self-help environment, where the winner takes all, in order to avoid the occurrence of war.

International norms and standards provide guidelines for states behaviour in the transnational sphere as well as for domestic conduct. Norms and practices that agreed upon in the realm of international politics have serious implications on the individual national politics and policies. While Burchill (2005) posits that international moral norms are generally respected by states because there is a fear of retaliation if these norms are broken, but there is general consensus among the majority of states about international organisations and they are highly respected, not based on fear. Therefore, it is imperative to create an international institution that will facilitate order and peace in the sphere of international relations. The international shared watercourses rules include the Helsinki rule and the United Nations Watercourse Conventions, while of the regional level the SADC's Protocol on Shared Watercourses System and Orange- Senqu River Commission have protocols that mention how shares water basins shall be utilized. International community is also playing a great role in ensuring that states employ good practices in their own countries and follow international norms and standards. When weaker states are coerced by more powerful states into taking decision that will not to fully benefit them, Kahl (2011) proposes that these weaker states should seek council from international actors. The events of 1976 could also be assessed from an angle that the international community pays in international politics. In 1976 when diplomatic relations between Lesotho and South Africa were at their lowest, the South African government then decided to use its greatest weapon against Lesotho; it closed off the Transkei-Lesotho border (Matlosa, 1999). As a result of the border blockade, the international community intervened in defence of the small landlocked country.

Civil society groups and NGOs can put pressure on their own governments to change policies that can affect another sovereign state. Layton (2006:11) defines civil society as the "social organisation occupying the space between the household and the state that enable people to coordinate their management of resources and activities". The 20th century saw a spike in civil society movements and it resulted in the democratization of

many third world countries, the fall of the Soviet Union and ultimately the collapse of communism (Sung, 2004). Civil society groups are not only protected but they also encouraged because they are viewed as indicators of strong democracies (Flyvbjerg, 1998). Pressure from the international community has certainly increased more in recent years, where other states have gone as far as to “intervene” in a sovereign states domestic politics. In the 1980’s there was growing pressure in the international community as civil society groups around the world to put pressure on their governments to force the South African apartheid government to be have a more inclusive country that was not segregated along racial divides (Hefti & Stahelin-Witt). As a result, the international community sanctioned South African goods and metals: The United States, European Commission and Japan all sanctioned goods from South Africa while the OPEC oil group placed an oil embargo on the country (Levy, 1999). Domestic unrest coupled with the international pressure weakened the South African government and as a result the country held its 1st democratic elections in 1994 (Barnes, 1990). Sanctions could only work because the world is so interconnected that South Africa needed other countries to trade with, but civil society groups around the world were also able to put enough pressure on their own governments to ensure that South Africa adopts international norms and standards.

What Keohane & Nye (2012) alluded to is the “asymmetrical interdependence” that exists between states. This can be a result of unequal economic, geographical, or military capabilities that exist between states. Power dynamics are instrumental to the types of relations forged between states and the benefits yielded as a result (Putman, 1988). What is important to also take note of are the power dynamics that exists between nation states and other non-state actors. Financial institutions and international organisations wield a lot of power and influence in current transnational politics. The WB has the power to instruct states to undertake certain policies and actions as part of the conditions of the loan agreements. Midway through the Phase IA, the LHWA started with Environmental Actions Plans (EAPs), which were meant to mitigate environmental impacts caused by the dam construction (World Bank, 1999). The EAPs of the project are usually conducted prior to the dam construction, but in this case they were not done. The WB was facing pressure from environmental experts and NGOs hence the LHWA was instructed to start the programme midway through the dam construction (Wolf & Newton, 2008). This is an illustration of the kind of power that financial institutions have on nation states and the

type of influence that NGOs have in the realm of international politics. It goes to show that cross boundary politics are saturated by a plethora of actors who wield different levels of power and they are able to influence other states, as proposed by complex interdependence theories.

What is also important to note is that with the plethora of actors that are active in international politics, their interests may differ and it could cause some conflicts in some cases (Flyvbjerg, 1998). This is particularly visible in cases of developmental projects that require constructions, where engineers, officials, environmental NGOs and/or civil society groups are at odds with each other. These groups usually have different interests however, they all constitute each, especially in democratic societies. As such the role of the state has not been eroded by these actors, but the groups exist to ensure that the states take into account all the stakeholders that are involved as well as demanding accountability from their leaders (Keohane & Nye, 2012). In the case of the LHWP, there have been numerous stakeholders that have been involved in the implementation of it including, International NGO, International Rivers who has been at the forefront of bringing concerns of communities to the attention of dam authorities (Mirumachi & Van Wyk, 2010). Environmentally based NGO have also been instrumental in ensuring that good practices are followed during after the construction of the dams for the sake of the environment. While the efforts of NGOs can influence decision makers, they cannot completely stop the water projects from moving ahead, they can however ensure that dam authorities take into consideration local communities' grievances and tread with care when it comes to environmental impacts.

It is important to note that complex interdependence theory does not assume that in the world of interdependencies there are no conflicts. In the case of transboundary water basins, the problem lies in the management and decision making phases, which includes two or more states state (Ansink & Weikard, 2009). The fluidity of water and its borderless nature forces state to engage with each other. In fact, there are more chances of conflicts taking place, but these are mitigated by the various conventions signed which make provision for conflict resolution mechanisms. Water Management agreements are highly revered because they contain sections that deal with Conflict Resolution Mechanisms (CRMs) (De Bruyne & Fischhendler, 2013). Article 33 of the UN

Convention deals with dispute settlement mechanisms in a peaceful manner and Helsinki Rules Article XXVIII has a preventative and settlements of disputes mechanism which is binding. Likewise, the LHWP treaty has a dispute settlement mechanism that may arise due to unpaid royalties, or if the LHWA and the TCTA disagree on the amount of water that has been transferred to South Africa. In such a case, Article 16 (4) states that “in an event of a dispute arising, either parties can jointly or individually request the LHWC to conduct an investigation and to present a written report containing recommendations to both parties” (Treaty of Lesotho Highlands Water Project, 1986).

3.4 CONCLUSION

Complex interdependence theory and IWRM share some similarities in that they both encourage cooperation of all relevant stakeholders. While IWRM is more specific on the issue of transboundary water basin as noted by Gupta & van der Zaag (2008: 28), IWRM is a “more holistic approach to water management which attempts to balance environmental, social and economic considerations in decision making”. While complex interdependence theories is more broad, tackling the sphere of international politics in its entirety. Complex interdependence theory can also be linked to the IWRM because they both deal with how states will engage with each other in cross boundary politics. Both these lenses encourage democratic practices of public engagement and pluralism as well as acknowledging the various institutions: IWRM encourages dam authorities to have an inclusive decision making process, while complex interdependence is aware of the multiple actors involved in cross border politics which strengthen the participation of all actors in societies.

Critics of realism, on the other hand lament that people and countries are not solely driven by self-interest alone and that state actors can take actions based on altruism motives as well. To counter this point neo-realists are of the view that even the altruistic behaviour is driven by “egoism or self-interest” (Wohlforth, 1998: 36). Although this theory has been criticised and refuted through-out the years, the core belief of state self-interest is still at the heart of international relations, even though not only *realpolitik* drives states anymore. This point is reiterated by Waltz (2000:40) who posits that “states coexist in a self-help

system”. Complex interdependence theory does not argue against the fact that conflicts can arise between states, but they make provision for dealing with conflicts in ways that do not only involve arms races. While Dunne and Wheeler (2004:10) state that “realism leads to moral indifference and a myopic approach to security and pluralism is complacent about how the rules and norms of international society exclude humanitarian concern”. Complex interdependence theorists recognise that in the international community there are numerous options available to states which they can use in order to mitigate conflicts. In light of this, all the conventions and treaty agreements mentioned above have stipulated clauses of dispute settlement mechanisms. From the discussion above it appears as though that the conflict rhetoric linked to transboundary water basins is more applicable to the neo-realism school of thought, while cooperation and interconnections of the international community are more in line with the principles of complex interdependence theory and IWRM.

The similarities that can be drawn from realism and complex interdependence are important for the analysis of this paper because they both interrogate how actors in the international arena negotiate with each other to fulfil their own interests. “Both doctrines view politics as a process of political and economic exchanges” (Keohane & Nye, 2012: 728). They both agree that actors are driven by their individual self-interests but what they differ in, is the means of achieving these goals. Hence it is imperative to note that “adding international organisations, non-governmental organizations and multinational corporations does not undermine the core ideas of realism” because states are merely socially constructed entities that provide a sense of community (Lebow & Risse-Kappen, 1996). While realists allude to the use of military coercion, complex interdependence theorists emphasise the importance of cooperative exchanges as a conducive method of achieving one’s goals. They also both agree that international institutions or external actors can be instrumental in assisting the weaker states during the negotiation processes, in an effort to help them avoid getting into deals that are detrimental to them (Kahl, 2011). Another point that they agree on is that, in the absence of an international government conflicts could arise. Realists posit that the international politics happen in an anarchic sphere, while complex interdependence theorists’ states that international institutions are important for facilitating peace, however this does not mean that they advocate for a world government to be created (Evaghorou & Mertzaniadis, 2012).

CHAPTER 4

SOCIAL AND ENVIRONMENTAL IMPLICATIONS

4.1 INTRODUCTION

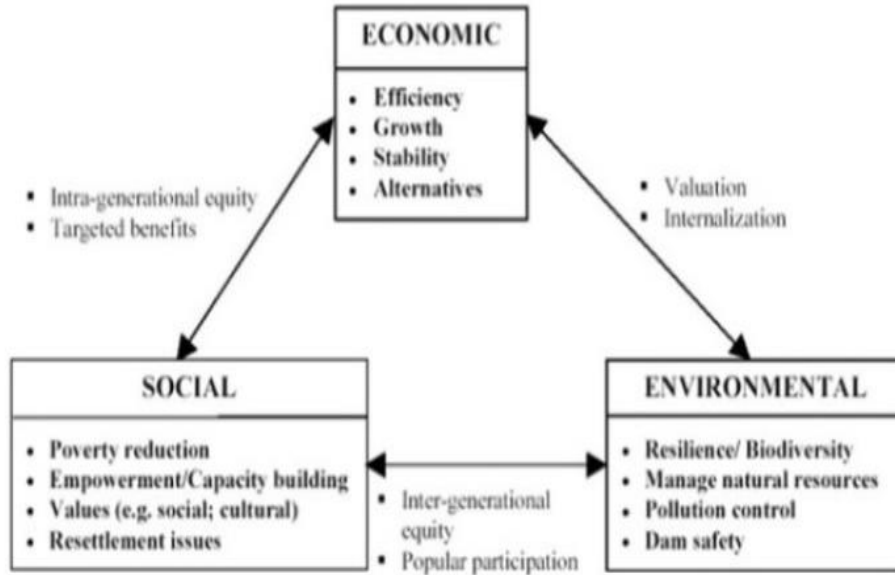
Villages are usually built along water sources for irrigation and sustenance purposes, therefore any alteration of rivers needs careful consideration for those communities that rely on these water sources for survival. The issues of project-affected people and environmental implications needs careful consideration before any project commences. The greater focus of dam construction and transboundary cooperation is usually placed on the nation states, the funders, the engineering teams, while the communities and the environment are usually treated as by-products of the project, even though they are

usually the most affected. It is imperative that water transfer schemes meet social and ethical considerations by remaining transparent and engaging with the communities fully (Manatunge et al., 1993). This is especially important for projects that claim to be win-win for all stakeholders involved, because this requires a balanced approach (see Figure 7). The International Water Power (2016) described the LHWP as having “a priority strategy to reduce poverty, stimulate economic growth and improve the livelihoods of people from both countries”. For the Phase 1B part of the project, the European Investment Bank (2002) states that 10% of the total cost of the project was put aside to deal with social and environmental issues that related to the project.

This chapter will analyse the social and environmental impacts that were caused by the project and analyse whether this project lives up to the win-win rhetoric that is so widely used to describe it. The chapter will also briefly incorporate the integrated water resource management (IWRM) to evaluate the project from a social and environmental perspective. IWRM allows the focus of water to shift from the economic approach, which is mainly based on the commodification and tradability of water, to include a comprehensive approach which takes into account people that use it for various other reasons (Lamoree & van Steenberg, 2006). In the case of TWB, this includes people that are not connected to states water supply lines, but use the flowing rivers for their daily lives. There have been numerous case studies done on project-affected communities to document how construction of dams has affected them, the focus being to compare their pre-dam lives to those that they lead after the dam has been constructed. The social implications section will incorporate extracts from interviews conducted by the Panos non-governmental organisation with villagers of Molika-liko, whose village would be submerged as a result of the dam construction. The interviews were done prior to the dam construction, to find out their views about the projects and then again after the relocation to find out how their lives had changed since they had been moved. These interviews were conducted in 2001 in collaboration with the Transformations Resource Centre (TRC) of Lesotho (Panos, 2017). This chapter will address both the positive and negative social and environmental impacts on the communities which were affected, that are the results of LHWP. This chapter will first address the positive social outcomes brought about by the project and then move on to address the challenges faced by the communities. Following that, environmental implications will also be discussed, also

starting with the positive and moving to the negative implications.

Figure 7: Approach to Sustainable Development



(Manatunge et al., 1993)

4.1.1 Infrastructure

The most quoted positive outcomes which are usually addressed in relation to the LHWP are based on infrastructural improvements. As it has been mentioned above Lesotho’s terrain is mostly mountainous and until the project started, the country had a very poor road network that only extended across the lowlands. Therefore, one of the 1st infrastructural tasks which needed to be undertaken prior to the construction of the dams was building a road network, which would transport the construction material and the workers to these remote areas. New roads, telecommunication facilities and power lines had to be erected from scratch (Wentworth, 2012). Most of these communities had been cut off from the lowlands until then, because the road network was limited and there were no telecommunication facilities. Phase 1A of the project is estimated to have contributed to the construction of “a new 295-km rural road network, three road bridges, water ponds, water diversion tunnels, gully reclamation canals, schools, clinics, soil conservation programmes” (World Bank, 1999: 6). The following extract is from a relocated community member (Panos, 2013):

“I think this [resettlement] is a great help to [young people] because schools are many and nearby, unlike in Molika-like where they had to walk long distances to school. The problem arises when we don’t have money, but really they have been brought near to many things like schools and a health clinic.”

Malibuseng (female), 36 years old

Therefore, the improvements that came with the construction, opened them up to the rest of the country and the world. The roads also benefited communities that are situated along the roadside that lead to the dam, as well as electricity and telecommunication connections and brought the communities some level of “urbanization” (Akindele and Senyane, 2004). The adjacent communities also benefited a lot from being employed on the construction of the dams, although this was not permanent employment, as 40% of the 9 000 jobs that were created came from the surrounding communities (Mashinini, 2010).

4.1.2 Capacity Building

Capacity building is the process where local communities are trained and skills are imparted onto them in order to have skilled workers that will manage the water resources (Chikozho, 2014). Rates of unemployment and unskilled work force on the African continental are exceptionally high; there are large numbers of unemployed youth that cannot be absorbed by the labour market, however there is also gap in the high skilled sectors. Capacity building can be useful in that it can provide employment opportunities to the youth and also function as a development tool. However, it is not to imply that building a few dams on the continent will solve the unemployment problem but to point to the disjuncture that exists in the work force and the need to address this problem. In practical terms this could involve getting experts from the various fields to conduct workshops or facilitating short training courses with the participants.

Capacity building programs much like community outreach programs do not function only to uplift communities but also to build mutual trust between community members and the project managers. IWRM promotes staff training programmes which should provide courses aimed at improving capabilities of the staff that work at the institution (Hooper 2009:5). In the context of the LHWP, the Rural Development Plan (RDP) was

created as a programme that would facilitate capacity building by “providing skills, training and income-generating activities” however, initially there was lack of interests from both the Lesotho and South African governments to implement it as none of them viewed it as their responsibility to carry out (Tilt et al., 2009: 252). While Mashinini (2010) states that there have since been improvements and part of RDP, the Thaba Tseka District Technical Institution was created and until 2010, there were “157 participants trained in basic literary, 75 people trained in brick making and laying, 67 in poultry, 43 in sewing and knitting, and 69 in water minding”. Thamae & Pottinger (2006) on the other hand counter this point and state that this programme ruined more lives than it improved.

The challenge with such programmes lies in the coordination of the programme because both logistical and financial initiatives need to be channelled into these programmes. Considering that the management of TWB involves cooperation between two or more different countries, which usually have different practices, different legal systems and methods of accounting, (Ganoulis et al., 2011) states that the coordination of such a magnitude could be a challenge, however it is one that needs to be undertaken. There also needs to be willingness from the dam authorities to undertake such programmes as part of the project mandate.

4.1.3 Social Impact Assessment

Social Impact Assessments (SIA) are meant to determine possible impacts that dams will have on communities as a way of mitigating damages and as a means of preparing for the inevitable (Haas et al., 2010). According to the United Nations Environmental Programme (2007) SIA is “a process of research, planning and the management of social change consequences arising from policies, plans, programmes and projects”. The best practices of SIAs are ‘grounded in fundamental human rights frameworks of the UN Declaration of human Rights (1947), the Declaration on the Human Rights and Development (1986) and the Rio Declaration on Environmental and Development Principle” (Tilt et al., 2009: 257). SIA encourage public participations and the involvement of the affected communities in decision making processes, from the beginning (United Nations Environmental Programme, 2007). It is also in line with good practice of IWRM which encourages the decision-making process to be undertaken by all

the relevant stakeholders in all sectors of the basin (Hooper 2009:5). The SIAs need to include through detailed report of the consequences of the dam on the communities; the loss of livelihoods, downstream impacts and as well as the mitigation plans that will be implemented (World Commission of Dams, 2000). SIA are undertaken prior to the dam constructions in order to avoid doing harm in the form of consultations, they provide the framework for monitoring and evaluation, throughout the entire project in order to ensure that the best practices are followed (United Nations Environmental Programme, 2007).

According to the (World Commission of Dam, 2000) good practices to mitigate development-induced displacements involve proper prior construction consultations with the communities, where dam authorities explain to the affected communities in detail where they will be taken and what challenges they can expect. This is not only an ethical practice but it also prepares the communities for what to expect and there will be few dissatisfied people when they have been warned beforehand. For most communities, relocation processes are less transparent, because there is little engagement with them by all the bureaucracies involved (Bakker, 1999). In the context of the LHWP the SIA consultation processes were not undertaken before the commencement of Phase 1A, local communications that stood to be directly affected by the dam construction were not made aware of the implications of the project on their lives and mitigation processes were lacking (Mokhehle & Diab, 2012). However, after a lot of pressure from INGOs, they were incorporated into the project and included into Phase 1B (Wolf & Newton, 2008). The limitation with not undertaking proper consultation and decision making process with all relevant stakeholders is that it renders the water management project a political process instead (Ashton et al., 2006). Therefore, if the LHWP was a merely a political process, then it should be classified as such and not be paraded as a win-win project because this undermines the (non)involvement of the communities in the consultation processes.

4.1.4 Relocations and Reimbursements

The significance of history is that it allows us to learn from it and avoid making the same mistakes, and (World Commission on Dams, 2000: 43) states that “one of the most serious institutional failures” is the inability to “carry the lessons from failings and successes of one project to the next”. According to the UNDP (2008) in most cases around the world where people are displaced, they are usually the ones that depend on the land the most for

their livelihoods. In Sub-Saharan Africa “the ecosystems are of great importance because a huge proportion of the poor population depend directly on the ecosystem” (Nkhata, et al., 2012). Table 4 below shows the number of people that have been relocated on the continent as a result of dam constructions. These are usually poor, rural farming communities that are usually affected. Signifying underlying dynamics in a society, because these are usually marginalised communities who do not enjoy the same benefits as the rest of society, so they are easier to be dismissed by dam authorities (Terminski, 2013). Project coordinators need to employ appropriate mechanisms, which will address issues of communities and the people that will be directly and indirectly affected by the dams. According to Article 7(18) it was the responsibility of the LHWA to carry out all the compensations programmes and to ensure that there is no harm to the communities brought about by droughts or flooding (Treaty of the Lesotho Highlands Water Project, 1986). Those communities directly affected are the ones that will need to be relocated in order to make way for the dam because the land they inhabited or their cultivating land would be completely or partially submerged under water. Those indirectly affected by the dam are communities that lie downstream or those who have to welcome the relocated people into their communities (International Water Power 2016). The 2nd type are relocated because their villages lie too close to the water or they will be partially submerged are usually just moved upslope because being too close to the water is poses dangers for both humans and livestock.

Table 4: Examples of Involuntary Resettlement in Africa

Country	Dam	Date completed	Displaced people
Egypt/Sudan	Aswan High Dam	1970	120000
Ghana	Akosombo Dam	1965	82000
Mozambique	Cabora Bassa	1969	25000
Nigeria	Kainji Dam	1968	50000
Sudan	Merowe Dam	2009	55000
Ivory Coast	Kossou Dam	1973	75000
Zambia/Zimbabwe.	Kariba Dam	1959	57000

(Terminski, 2013: 52)

These relocations are usually referred to as Development-Induced Displacement, which

speaks to “a socioeconomic issue associated with loss or reduction of access to basic resources on which communities depend” (Terminski, 2013: 22). The LHWP’s programme reimbursement structure consisted of relocation and compensation. This is a 50-year compensation programme which will be undertaken by the LHDA (World Bank, 1999). People who lost their homes were moved to new houses in different villages and in other cases in different towns, while people who lost their land were compensated monetarily and with annual maize deliveries (Tilt et al., 2009). At the end of Phase 1 the total number of households that had been relocated stood at 573 (see Table 5), while the total number of indirectly affected people stood at 20 000 (Hitchcock, 2015). Some people also lost their grazing land and their cultivation land, the relocation therefore had adverse economic implications on their lives many communities and some could not recover after they were relocated. The repercussions of development-induced displacements are that once social and cultural ties have been interrupted, they are very hard to replicate somewhere else (Robinson, 2003). Relocating people is different from uprooting a plant and replanting it somewhere else, social connections are harder reproduce, and all that communities can be do is to adapt to a new way of life. This is even made worse if there was lack of proper consultation with the communities prior to the project, as was the case with Phase 1A of LHWP. The communities which were affected, viewed the project as a gross imposition in the lives (Mokhehle & Diab, 2012). Hence, it is imperative for dam authorities fully to prepare the communities and mitigate the discomfort of starting over in a new location.

Table 5: Families Relocated or Resettled by Destination and Stage

Stage	Destination	Foothills	Maseru	Total
1A Katse	Katse Basin			
	71 (25 in crash program in 1995)	0	0	71
1B Mohale	Mohale Basin			
Stage 1(1996-1998)	37	38	24	99
Stage 2 (2002-2006)	27	177	18	222
Stage 3 (post inundation, 2006-present)	103 (165)	4	0	169
People Who Lost over 50% of their land under Stage 3	72			74
Total	298	233	42	573 relocated, resettled, or affected directly

(Hitchcock, 2015: 528)

According to (Turton & Henwood, 2002: 182) the total land lost amounted to “1600 hectares of arable land and 3 200 hectares of grazing land”. Considering that less than 10% of Lesotho’s terrain is suitable for cultivation any loss of land can have detrimental effects on the communities (UNDP, 2008). Therefore, any loss of arable land is a big loss and it places greater stress on the remaining land. According to the LHDA Section 22(2) of 1986, “the standard of living and income of persons displaced by the construction of an approved scheme shall not be reduced from the standard of living prior to the displacement”. The compensation of cultivatable land lost was made up of a once off provision of 970 kg of maize and 30kg for every hectare for 15 years, as well as a compensation structure for loss of trees and grazing land (Mashinini, 2010). Although some people received maize and fruits as part of their compensation, many of rural communities of Lesotho also survived from growing and cultivating marijuana, which authorities turned a blind eye to because they were aware of its income benefits (Thamane & Pottinger, 2006). Therefore, these cannabis farmers who lost their land were side-lined in the compensation process and many of them are disgruntled because they were able to feed their families and send their kids to school through those sales (Panos, 2001). Relocations are also associated with stress and psychological trauma for the communities because of the losses they experience (Manatunge et al., 1993). In the following extract the village member discusses how they survive in the new villages (Panos, 2013).

“Life is difficult here. Everything is money here. Nowadays we are forced to scratch our heads thinking about what is going to be eaten in the household in the evening... The diet has changed...we are not able to grow the kind of crops we used to grow because we do not have the land to cultivate. Here we are forced to wait for winter when we will receive our compensation yet at Molika-liko we... used to eat wheat, maize and potatoes...wild vegetables, cabbage, radish, beans, peas, lentils, milk”

Matokelo (female), 42 years old

The loss of land cannot be merely replaced by relocating people to another area; communities dependency on a particular area is a culmination of various reasons: proximity to water sources, or forests to collect wood, wild vegetables or medicine (Tilt et al., 2009). This World Bank Implementation Report (1999) states that “the quasi-welfare programme has a danger that can create a pattern of dependency” among the

affected communities. Therefore, by merely moving people from one area to another and compensating them does not guarantee that they will be able to survive as they did before, they could also be worse off than they were before the relocation. Wentworth (2012) posits that there is no evidence that suggests that the lives of people who received monetary compensation, improved as compared to the lives they led before. This point is reiterated by (Robinson, 2003) who states that when people are forced off their lands, there is a high chance that they will become poorer than before, as seen with the case of China's Yangtze River and India's Sardar Sarovar dam. While this is not meant to take away the agency of rural communities it is meant to highlight the great injustice and lack of responsibility from the project authorities who throw money at the problem without carefully engaging with communities on how they can use this money for other income generating activities.

Land carries an immense cultural significance in African communities; it is a symbolism of wealth within the community, it serves a means of survival for cultivating purposes and it is also indicative of one's ancestral lineage because dead relatives are usually buried on the family land (Thamae & Pottinger: 2006). Therefore, the loss of it is symbolic of losing one's identity, due to the fact that identity and a sense of belonging are rooted in one's ancestors land. Burial sites are also very sacred and play a spiritual role in communities, so the loss of it is a spiritual upheaval. For those households that were able to get their graves removed, they faced new challenges of finding new burial sites because in communities where they were relocated, the villagers did not want to allow them to bury "strangers" on these sites as it interrupts the spirits of their own ancestors (Akindele and Senyane, 2004). In the following extract, a Village member of Makhoakhoeng, one host village of LHWP, discusses the topic of burial sites (Akindele and Senyane, 2004):

"It then happened that one of the resettled people died. They came to the chief to ask him to allow them to bury that body on our graveyard but were denied a place of burial. The reason why this happened was that from the municipal site plan it showed that there was a graveyard for those people. As villagers, we found it difficult to allow them to bury people on our graveyard as they were not introduced to the chief. We refused to give them permission to use our graveyard."

Kanono Thabane

Linked to the topic of infrastructure is access to electricity and water. While the LHWP is lauded as a win-win situation because Lesotho now has the capability to produce its own electricity while South Africa gets water, the affected communities have not benefited from the electricity produced at the Muela hydropower station, because it is simply too expensive for them. While their water leaves the area through tunnels to sustain South Africa's hub, they are forced to share a single tap that feeds the entire community ((Thamae & Pottinger: 2006). Adversely, in an effort to provide the economic hub of South Africa water, the repercussions of the LHWP have led to drying up of wetlands, which are sources of rivers. According to (Orasecom, 2000), it is the responsibility of upstream riparian states to protect headwaters for the sake of downstream communities and for future generations. While the Policy Statement 4 of the Lesotho Ministry of Natural Resources states that it is the responsibility of Lesotho to "manage trans-boundary water resources on the basis of Lesotho's sovereignty but also to ensure maximum benefits while taking cognisance of her obligations to downstream users under international law" (Ministry of Natural Resources, 2007). It is the responsibility of the LHWA to ensure "the minimum rate of flow to be maintained in the natural river channels downstream of dams forming part of Phase 1" according to article 7(12) of the (Treaty of Lesotho Highlands Water Project, 1986). However, in the future the dried-up stream will not only affect the LHWP, but also other downstream riparian states which are also reliant on the shared river Basins. In recent years, there have been unpredicted droughts that have hit Lesotho and most people that have suffered are downstream communities, whose water levels have dropped severely and it has placed these communities in worse situations than they were before the dam construction (Wentworth, 2012).

Large residential areas needed to be built to accommodate the staff and workers of the dams, as well as site offices workshops and plant yards. As a result, "gated suburban communities" were erected in Butha Buthe, Mohale and Katse villages (International Water Power, 2016). Subsequently, Katse village was built on arable and pastoral land that the village of Khokhoba had depended on for animal grazing (Tilt et al., 2009). The community lost this land when the housing project started, as they were closed out and barred from entering the newly build gated communities. This contradicted the

development agenda that the dam authorities have used sell the project to the public, because even to this day after the completion of the projects, these gated communities are still standing alongside the rural villages, representing the clear violence and inequality that the villagers were exposed to since the dam construction began.

4.2 ENVIRONMENTAL IMPLICATIONS

4.2.1 Environmental Impact Assessment

Altering the course of nature comes with environmental consequences either foreseeable or unforeseeable. This is due to the fact that rivers have ecosystems that are reliant on them, either being the aquatic habitats or land based ecosystems that derive their nutrients for the survival (Bergkamp, 2000). Construction of dams has some negative ecological impacts as dams alter the natural flow of rivers, therefore it is important for the project authorities to employ methods that can mitigate the inevitable damage. Environmental Impact Assessments (EIA) are a widely-used form of mitigation procedure, but they do not only ensure that there is minimum damage done on the environment but they are also meant to evaluate and come up with the sufficient steps to take in order to reverse the damage done (Sakamoto & Yasuda, 2012). EIA strongly promote the principles of sustainable development, which Flint (2004: 44) defines as “working to improve human’s productive power without damaging or undermining society or the environment”. This is closely linked to IWRM principles which also include “the concepts of sustainability to the practices of water resource management” (Lant, 2004:27). EIA and IWRM both promote water management as collaborated effort between states and doing so in a manner that will benefit present and future generations. EIAs are done in the form of rehabilitation and conservation (Hitchcock, 2015). The LHWP rehabilitation programme involved conserving the Maluti minnow fish and the spiral aloe plant species in the newly established national parks that were created as part of the conservation programme (International Water Power, 2016). The national parks included the Tšehlanyane National Park and the Bokong Nature Reserve, which accepted the plant species that were uprooted from the natural environments to make way for the dam (Manatunge et al., 1993).

It has become more acceptable and widely practiced to incorporate protective and restorative environmental issues into construction projects. EIAs carried out before the dam is constructed can allude to factors that need careful consideration, in order to avoid future disaster (Wentworth, 2012). However, with this said, there are still some unpredictable environmental effects that can be overlooked by human calculations and remain undetected by technological forecasts. This was the case when 7 villages which lie in close proximity to the Katse Dam were hit by an earth quake in November 1995, a month after the dam reservoir was filled (Manatunge et al., 1993). For a region that experiences no tectonic activity, scientists accredited this vibration to Reservoir-Induced Seismicity (RIS) (World Bank, 1999). Although the scale of the seismic activity was not large, the damage done to some of the houses was significant. For poor and rural communities, whose homes are built with mud and stone, small tremors can cause a lot of damage.

Linked to the EIAs are assessments and mitigation policies that will ensure that not only downstream communities are affected negatively by the dam but that the flow of the river is not severely interrupted by the dam reservoir (Mokhehle & Diab, 2012). One such mitigation policy is the Instream Flow Requirement (IFR), which refers to the “amount, quality, and timing of water released through or over dams to meet riverine ecosystem and social needs in the reaches downstream of dams” (LHDA, 2002). It is the measurement of the river flow, which is altered as a result of dam wall or other forms of construction. According the LHDA report, the approach taken by the LHDC was in line with the requirements stipulated by the World Bank, to avoid negative implications for downstream communities. Environmental Actions Plans (EAPs) were meant to concentrate on “soil conservation and sedimentation, pilot watershed management, biological monitoring, environmental monitoring, cultural heritage funded by the European Development Fund” (World Bank, 1999). The LHDA report further states that it there was a need to manage the river and not the dam because it places the needs of the downstream communities at the forefront of this programme. Although this EAP met the World Bank requirements, it was criticized for being too generic and lacking sufficient public consultations (World Bank, 1999). The programme started in 1992 and ended in 1997 “targeting 300 villages, through radio broadcasts, films, pamphlets, and newspapers and public meetings” (World Bank, 1999). For the Phase 1A project, these EAP were

carried out, however this was done when the project has already started, not only did this oversight have environmental implications, it also had heavy financial costs (Wolf & Newton, 2008). According to the (UN Environmental Programme, 2007) report, phase 1 was instrumental in providing lessons to avoid in the next phases of the project, as more cautious steps were taken in Phase 1B.

One flaw that EIA programs tend to focus on when dealing with environment degradation issues is what (Mirumachi & Chan, 2014: 12) call the anthropocentric trap perspective, it is undeniable that “fresh water ecosystems are fundamental to human energy, food, fresh water and other interests” but humans treat the ecosystem secondary to TWM. This anthropocentric perspective is driven by the high demands of water in economic hubs around the world and in this case, Gauteng a national hub of South Africa and regional hub in SADC. What is typical of these economic hubs is their persistent need for more resources, an insatiable need that will never stop (Gupta & van der Zaag, 2008). In response to this never-ending demand for water, the state employs all means within its power to ensure that the supply side of resources keeps flowing (Gupta & van der Zaag, 2008). The problem with this constant supply and the entitlement to gain these resources is that it does not address the real problem, which is usage of water in a sustainable manner. Instead these hubs use and abuse resources made available to them because they never have to consider the supply running out.

4.2.2 Hydroelectricity

One of the benefits of dam reservoirs are hydropower stations that usually are included as part of the project. The world is increasingly adopting renewable methods of energy production, and according to Nováček (2011: 172), “hydropower plants supply about one quarter of the world’s production”. Hydropower stations are not only good for the environment, but they are also less expensive to operate as compared to thermal power station (Flint, 2004). Unlike thermal power stations, hydropower stations do not release dangerous gases into the atmosphere and there are no toxic liquids that are released into the water stream (Manatunge et al., 1993). The Muela hydropower station was built for Lesotho to be able to produce some of its own power, as the country had been entirely dependent on South Africa and Mozambique for electricity (USAID, 2016). Most of South Africa’s electricity is still coal based (Rangeley et al., 1994). Although this

hydropower station does not make Lesotho self-sufficient to produce power for the whole country, it did however ease the country's dependency on other countries for energy and also contributed positively to the environment. As the world is moving to using renewable sources of energy, this has been a step in the right direction for Lesotho, because it indirectly decreases the country's carbon footprint, while also contributing to its development agenda. Ultimately this power station had economic and environmental benefits.

4.2.3 Long-term effects

In many dam construction cases, the emphasis has been on maximizing economic profits, there is little understanding on “the long-term effects of flow volumes, flow patterns and water quality” (McCartney, 2007: 6). The full impacts caused by large dam constructions do not appear immediately, they only become apparent later after the dam has been completed hence, monitoring the effects is a long-term process (Sakamoto & Yasuda, 2012). These long-term effects could include deteriorating water quality, changing in temperature and change in sediment regime (McCartney, 2007). The environmental impacts felt by downstream communities have not been fully investigated however, there has already been a significant drop on the water levels because water is diverted from the mouth of the Senqu River in Lesotho and transferred to the Vaal River, which is another river basin. In the case of the Orange-Senqu River Basin, the 24 dams built along this river have contributed to the temperature change in the region (Manatunge et al., 1993). According to the (UNDP, 2008) report, the Orange River Mouth has already deteriorated and this could have long term effects on the ecosystem in that area.

One of the greatest concerns regarding the future of the project is that Lesotho is “exporting itself into water scarcity as a result of recurrent droughts” (Wentworth, 2012: 4). It could place the country in a precarious situation in the future as more arable land is lost to these projects, and this could also jeopardize the country's future food security. Linked to relocations is the unrecoverable loss of cultivation and grazing land (United Nations Environmental Programme, 2007). When communities are relocated from their

original land, the land lost to the dam construction cannot be recovered and these communities are moved to new locations where in some cases they have to share cultivating and grazing land with other villagers, and find energy sources from other places (Thamae & Pottinger, 2006) This puts greater strain on the land where they are relocated and contributes negatively to land degradation. Lesotho already has problems with soil erosion, deforestation and drying up of wetlands, therefore for a country with only 10% cultivatable land, the loss of it will have detrimental effects for the people affected and the future of the country (Bisaro et al., 2010).

CONCLUSION

The LHWP was recognised as a possible solution for South Africa's water shortages in the 1950s however, it took over 30 years for the Lesotho and the South African government to come to an agreement (European Investment Bank, 2002). The relationship between these two countries was fostered by the individual national politics, which date back to when Lesotho was still a protectorate of Britain. After independence, Lesotho had to tread carefully about its criticism of the apartheid system because its geographical location means that it is entirely depended on South Africa for its survival, hence good relations between these two countries is paramount to its existence. South Africa on the other hand was faced with an undemocratic political structure, which was experiencing severe water strains. Considering what has been discussed above, it is evident that the water scarcity problem in South Africa had been heightened by numerous factors; the fact that during the initial urban planning process of Johannesburg, the Apartheid government of South Africa had not anticipated the number of inhabitants that now reside in the city. The second factor is the enormous urbanization movement from both within the country and the migration of foreign nationals from neighbouring countries. Finally, South Africa's economic hub lies far from sources of water. As a result, the LHWP was identified as the most favourable long-term solution for the growing demand of water in South Africa. The treaty agreement of 1986 came after many failed negotiations and numerous feasibility studies. The treaty included agreements about the distribution of tasks; the operations, management, maintenance as well as issues of compensations and royalties (Treaty of Lesotho Highlands Water Project, 1986).

The project was funded by various banks, international financial institutions, regional bodies, and other private funders. The role of financial institutions, particularly the World Bank (WB) being the most visible, was to finance the project but also to provide technical and legal expertise. The division of tasks were assigned to the respective countries' water authorities, which are answerable to the independent body of Lesotho Highlands Water Commission (LHWC), as was suggested by the WB. This financial institution also played a big role against the fight of corruption and in facilitating programmes that dealt with social and environmental issues, when the gap was pointed out by NGOs.

The theoretical frameworks of Integrated Water Resource Management (IWRM), neo-realism and complex interdependence theories all provided different explanations and insights about the LHWP. IWRM promotes cooperation of all stakeholders in the management of resources, while complex interdependence theories was mainly focused on the plurality of actors in transboundary politics. In a world where national borders constitute sovereignty and independence, globalization has increased interdependencies of both people and the states. According to IWRM paramount to having a successful resource management project, is to take into account the economic benefits as well as social and environmental impacts of a project. In the discussion above, LHWP was analysed through the principles of IWRM, in order to investigate whether the project met the criteria.

Interbasin water transfer projects and transboundary water basins, which transcended political and geographical borders, have been highlighted as instruments of cooperation between riparian states (Graefe, 2011). Therefore, it is imperative that states and their relevant ministries take into account the fluidity of rivers, because they are not constrained by borders. International rules on transboundary watercourses give all countries where these rivers flow, the legitimate right to contribute to how the water will be used, due to the fact that concern of upstream and downstream communities are different and this is where the point to contention could usually arise. From what has been mentioned above, it is clear that while the upstream communities may be concerned about the rain levels of that year, downstream countries' concerns could include the rain levels coupled with the water usage of the upstream countries and the levels of pollution. This paper mentioned a few of these conventions and rules, which are related to the LHWP.

Therefore, construction of dams by upstream communities can have detrimental effects on communities and ecosystems located downstream, so this is where cooperative governance is needed as indicated by international norms and standards. As such international organisations through the norms and standards and IWRM provide frameworks for best practices and they also have mediations clauses that exist which are aimed at decreasing the occurrences of conflicts in international politics. From this analysis it became apparent that while the treaty of 1986 encompassed a holistic approach to this agreement between all stakeholders, in practice this was a shallow inclusion, which mainly disadvantaged the dam-affected communities and the environment.

International relations theories provided a framework to analyse the states actions towards each other and in the case of complex interdependence, the actions of state and non-state actors. Neo-realism theory was used to analyse the issues of national interest, national security and power dynamics between these two countries. In the case of South Africa, its national interest in this case was linked to getting water for its economic hub and this was linked to its national security, which the South Africa government was painstakingly trying to find solutions to. In relation to power dynamics, it became evident that the military power that realists allude to is not the only power that exists in the realm of international relations. It was evident during the stalled negotiation processes that both countries possessed some type of negotiating power. This paper has also shown that water rights are not automatically determined by geographical setting of upstream or downstream settings, there are culmination of factors that give rights to riparian states, which in some cases is equally shared and in other cases there are disproportionate allocations. Complex interdependence theories on the other hand alluded to the various actors that exist in international relations, particularly in relation to this project. The functions of states, multinational corporations, and civil society groups all played a significance role in the project. Civil society groups could put pressure on their governments to take into account the needs of communities and the environment.

The paper also delved into the concepts of conflict and cooperation which are associated with the management of resources. There are nuanced ways in which riparian states engage with each other, therefore limiting it to conflict or cooperation misses the complexity of issues that led them to their chosen actions. The conflict versus cooperation

tropes were then applied into the IWRM, neo-realism and complex interdependence theories to investigate how these theories explain the behaviour of states in the realm of international politics and more specifically to explain the relationship between Lesotho and South Africa. It became clear that conflict and cooperation do not exist as opposite ends of one spectrum as explained by (Mirumachi, 2015), who discredits the notion that scarcity automatically leads to conflict between states, because riparian states will develop other means to mitigate the shortage. There were cases when tensions were high and diplomatic relations between Lesotho and South Africa were at their lowest, but this did not lead to conflicts or outright wars. Hence it is flawed to analyse conflict and cooperation as binary opposites, existing at extreme ends of each other. This was a point that was argued by IWRM and complex interdependence theorists who alluded to the interdependencies that exist in transboundary politics, which make cooperation more favourable than conflict. Although there were many events that increased tensions and eroded diplomatic relations between these two countries, the case study illustrated more an overriding need for cooperation between them.

In the quest to examine whether the LHWP has benefited all the stakeholders involved, the paper also discussed the impacts that were felt by affected communities and the environment. The LHWP was celebrated for the positive economic effects it brought to the Basotho nation, such as employment of local Basotho in the construction process, infrastructural developments of roads that reached isolated rural communities and gave them access to water and electricity services (Hitchcock, 2015). Although it is impossible to ignore the positive changes brought about by this project, the construction of dams does however, come with negative implications for the environment, as well as local ecosystems that are interrupted and the communities that are displaced in the process. Considering the level of environmental and social alterations that dam constructions cause, it was expected that dam authorities could take more careful to adaptive management planning programmes in the 1st phase of the project (Wentworth, 2012).

Mitigation compensations programs tend to disguise their reimbursement programmes under the development and poverty reduction agenda, however these are only secondary concerns, while the primary goal is to meet the requirements of international institutions such as the WB (Tilt et al., 2009). This is an illustration of how far removed these

“development” projects are from the people that bare most of the brunt. There is a pattern that is followed by large dam projects including the LHWP, where communities are left worse off than they were before the dam construction (Tilt et al., 2009). Phase 1A completely side-lined affected communities in the decision-making process and the environmental mitigation programmes were only implemented half way through the project. Due to the fact that the communities’ concerns are considered to be of secondary importance, it goes without saying that failure to properly consult with them could ultimately result in the failure of the whole project if they are left disgruntled. It is imperative that dam authorities employ best practices of social implication assessments to ensure that the projects well-rounded because failure to do so does not only undermine the success of the project but it is also a direct infringement on peoples’ human rights as it was seen in Phase 1A of the project. Deducing from the interviews that were conducted by Panos and TRC, many people maintained that their lives were worse off, especially the ones that were relocated to urban areas where they could not survive on cultivating their lands but had to resort monetary ways of survival (Akindele and Senyane, 2004). A theme that is reoccurring in the interviews is the frustration with the loss of independence, because before they were relocated they were self-sufficient even if they were poor. Their land provided them with all they needed for them to survive, however after the relocation they have to find other income sources, particularly wages in order to survive and because they have no land they cannot grow their own crops (Panos, 2001). This is despite the WB requirements, which state that the project was not supposed to leave the communities worse off than they were before (Wentworth, 2012). According to Terminski (2013: 22) financial institutions also need to take a more decisive role to force countries to employ good practices rather than supporting unsustainable projects.

Phase 1A is a reminder on the LHWA officials that public consultations need to be properly undertaken in future projects, because having disgruntled communities can undermine the success of a project. Not only do the communities being relocated need careful consultations, but also the host villages because clashes can arise between the new arrivals and the hosts (Mokhehle & Diab, 2012). Apart from the communities which were evacuated because their villages were in areas near and around the dam, there are also people who had no choice but to leave their homes behind due to the growing environmental degradation caused by the dam. The people become “environmental

refugees” in their own countries (Mwangi, 2007: 40). In the case of the LHWP, those communities that inhabited land within the areas that would be covered by the dam were relocated to different locations and compensated for the losses that they incurred. Loss of habitat was a big problem for the displaced communities due to the cultural importance attached to land in African communities. Finding alternative land to cultivate was difficult because of the mountainous terrain in these areas, which according to Hitchcock (2015) makes up 80% of the whole country. There are also serious implications that need to be considered for those communities and countries that lie downstream whose supply of water is affected by the restrictions imposed by the reservoir dams such as Namibia and Botswana in the case of the Orange- Senqu River.

The LHWP is usually lauded as a successful bilateral transboundary agreement and an “ongoing African success story” (International Water Power, 2016). From the analysis above, it can therefore be concluded that the LHWP has brought many economic developments into Lesotho including; infrastructural developments and electricity productions capacity and it has assisted South Africa to avert an environmental and economic disaster. However, while the dam authorities have disguised the LHWP as a developmental project that will have lasting benefits for all affected stakeholders, the picture on the ground has been relatively different. The project has been politically beneficial for both countries, as they have been able to display a successful bilateral agreement in relation to water resource management and the project had tremendous economic benefits for both Lesotho and South Africa. The LHWP has been an exemplary case where resources have led to deep cooperation linkages between these two states as opposed to leading to a conflict. The national interest of South Africa, was to gain access to water sources and it has been achieved through a collaborative bilateral agreement, which ultimately also benefited Lesotho economically. Communities in the highlands of Lesotho benefitted from the infrastructural developments brought about by the project and employment opportunities resulting from the construction of the project. Dam authorities are always quick to make reference to hydropower and infrastructural improvements in the highlands of Lesotho when questioned about the social and environmental implications. One of the aims of this paper was to investigate whether this project has been beneficial to all stakeholders therefore, it can be concluded that the project provided economic benefits but there was a clear disregard to affected

communities and the environment in Phase 1A. While the full impact of the project on the social and environmental aspects will only be felt in the future, the paper demonstrates that there are already some challenges being faced by the communities and the environment. Therefore, when the LHWP is described as a mutually beneficial nature of this project, it is important to be specific about who benefited the most because the blanket of win-win does not apply to all stakeholders who were affected by the project.

BIBLIOGRAPHY

- Alam, U., Dione, O. & Jeffrey, P., 2009. The Benefit-Sharing Principle: Implementing Sovereignty Bargains on Water. *Political Geography*, 28(2), 90–100.
- Ashton, P., Turton, A., and Roux, D., 2006. *Exploring the Government Society and Science Interface Integrated Water Resource Management in South Africa*. *Journal of Contemporary Water Research & Education*.135. 28-35.
- Bakker, K., 1999. The Politics of Hydropower: Developing Mekong. *Political Geography*, 18(2), 209- 232.
- Barnes, C.,1990. International Isolation and Pressure for change in South Africa. *Conciliation Resources*. From <http://www.c-r.org/accord/incentives-sanctions-and-conditional/international-isolation-and-pressure-change-south>. Accessed on 16 March 2017.
- Basson, M., van Niekerk., P., van Rooyen, J., 1997. Overview of Water Resource Availability and Utilization in South Africa. *Department of Water Affairs and Forestry*. Pretoria, June 1997.
- Bergkamp, G., et al., 2000. *Dams, Ecosystem Functions and Environmental Restoration*. *WCD Thematic Review Environmental Issues*. 2(1).
- Bisaro, A., Hinkel, J. & Kranz., 2010. Multilevel Water, Biodiversity and Climate Adaptation Governance: Evaluating Adaptive Management in Lesotho. *Environmental Science and Policy*, 12(7), 637- 647.
- Blatter, J., & Ingram, H., 2001, *Reflections on Water*. Massachusetts: The MIT Press.
- Burchill et al., 2005. *Theories of International Relations*. New York: Palgrave Macmillan.
- Cascao, A.E. & Zeitoun, M., 2010. Power, hegemony and critical hydropolitics. *Transboundary Water Management Principles and Practice*, pp.27–42.
- Chikozho, C., Pathways for Building Capacity and Ensuring Effective Transboundary Water Resource Management in Africa: Revisiting the Key Issues, Opportunities and

Challenges. *Physics and Chemistry of the Earth*, pp. 72-82.

Country Reports, 2017. Lesotho Facts and Culture. From <http://www.countryreports.org/country/Lesotho.htm>. Accessed on 21 March 2017.

Craven, M., 2015. Between Law and History: the Berlin Conference of 1884- 1885 and the logic of free trade. *London Review International Law*. 3(1). 31-59.

Crush, J., 2014. 8 . Southern hub : the globalization of migration to South Africa. , pp.211–240.

De Bruyne, C. & Fischhendler, I., 2013. Negotiating conflict resolution mechanisms for transboundary water treaties: A transaction cost approach. *Global Environmental Change*, 23(6), 1841–1851.

Department of Water Affairs (DWA), 1989, *Report of the Director-General: Water Affairs for Period 1 April 1987 to 31 March 1988*. Pretoria: DWA.

Dinar, S., 2006. Assessing Side-payment and Cost-sharing Patterns in International Water Agreements: The Geographic and Economic Connection. *Political Geography*, 25(4), pp.412–437.

Drieschova, A., Giordano, M. & Fischhendler, I., 2008. Governance Mechanisms to Address Flow Variability in Water Treaties. *Global Environmental Change*, 18(2), pp.285–295.

Dunne, T., and Wheeler, N., 2004. ‘We the Peoples’ : Contending Discourses of Security in Human Rights Theory and Practice. *International Relations, Sage Publications*. 18(1). 9-23.

Ecolex, 2017. From <https://www.ecolex.org/details/treaty/treaty-on-the-lesotho-highlands-water-project-between-the-government-of-the-kingdom-of-lesotho-and-the-government-of-the-republic-of-south-africa-signed-at-maseru-24-october-1986-treaty-152232/>. Accessed on 28 November 2016.

European Investment Bank, 2002. *The Lesotho Highlands Water Project*. From <http://www.eib.org/infocentre/press/news/all/lesotho-highlands-water-project.htm>.

Accessed on 30 March 2017.

Flint R., 2004. The Sustainable Development of Water Resources. *Water Resource Update*, 127, 41-51.

Food and Agriculture Organisation, 2017. *Treaty on the Lesotho Highlands Water Projects Between the Government of the Kingdom of Lesotho and the Government of the Republic of South Africa Signed at Maseru, 24 October 1986*. From <http://www.fao.org/docrep/w7414b/w7414b0w.htm#TopOfPage>. Accessed on 30 January 2017.

Furlong, K., 2008. Hidden theories , troubled waters : Response to critics. *Political Geography*, 27,811–814.

Flyvbjerg, B., 1998. Habermans and Foucault: Thinkers for Civil Society. *British Journal of Sociaology*. 49(2).

Garfinkle, A. & Elisha, B., 1995. *Hung Out to Dry or All Wet? Water in the Jordan Valley*. pp.129–138.

Ganoulis, J., Aureli, A. & Fried, J., 2011, *Transboundary Water Resources Management: A Multidisciplinary Approach*, Weinheim: Wiley- VCH.

Gleditsch, N.P. et al., 2006. Conflicts over shared rivers: Resource scarcity or fuzzy boundaries? *Political Geography*, 25(4), pp.361–382.

Given, L., 2008. *The Sage Encyclopaedia of Qualitative Research Methods*. Los Angeles: Sage Publications.

Graefe, O., 2011. River basins as new environmental regions? the depolitization of water management. *Procedia - Social and Behavioral Sciences*, 14, pp.24–27.

Gupta, J. & van der Zaag, P., 2008. Interbasin water transfers and integrated water resources management: Where engineering, science and politics interlock. *Physics and Chemistry of the Earth*, 33(1–2), pp.28–40.

Hedden, S., 2016. Parched Prospects II: A revised long-term water supply and demand forecast for South Africa. *Institute of Security Studies*. 16.

Hefti, C., & Stahelin-Witt E. Economic Sanctions against South Africa and the Importance of Switzerland. From

http://www.snf.ch/sitecollectiondocuments/nfp/nfp42p/nfp42p_stahelin-e.pdf.

Accessed on 16 March 2017.

Helsinki Rules, 1967. Helsinki Rules on the Uses of the International Rivers. *International Water Law Project*. 7-55.

Hitchcock, R.K., 2015. The Lesotho Highlands Water Project: Dams, Development, and the World Bank. *Sociology and Anthropology*, 3(10), pp.526–538.

Holstein J., and Gubrium J. 2002 *Interviews*. CA: Sage Publications.

Hooper, B., 2009. Integrated Water Resources Management: Governance, Best Practice, and Research Challenges. *Journal of Contemporary Water Research & Education*, 135(1).

International Monetary Fund, 1999. Lesotho:Recent Economic Developments and Selected Issues. *IMF Staff Country Report*. Washington.

International Water Law Project, 2016. *Helsinki Rules on the Use of the Waters of International Rivers*. From <http://www.internationalwaterlaw.org/documents/intldocs/>. Accessed 07 July 2016.

International Water Power and Dam Construction, 2016. *An African Success Story*. From <http://www.waterpowermagazine.com/projectprofiles/projectprofilesan-african-success-story/>. Accessed 07 July 2016.

Jackson, V.A & Mazzei, L.A. 2012. *Thinking with theory in Qualitative Research*. New York & London: Routledge.

Kehl, J.R., 2011. Hydropolitical Complexes and Asymmetrical Power: Conflict, Cooperation, and Governance of International River Systems. *Journal of World-Systems Research*, 17(1), pp.218–235.

Keohane, R.O. et al., 2012. *Revisited Power and Interdependence*. , 41(4), pp.725–753.

Kistin E., & Ashton P., 2008. Adapting to Change in Transboundary Rivers: An Analysis

of Treaty Flexibility on the Orange- Senqu River Basin. *International Journal of Water Resources Development*. 24(3).

Kistin-Keller, E., 2012. Critiquing Cooperation: Transboundary Water Governace and Adapative Capacity in the Orange-Senque Basin. *Journal of Contemporary Water Reaserch & Education*. 149. 41-55.

Krippendorff, K., 2004. *Content Analysis: An introduction to its methodology*. Thousand Oaks: Sage Publication.

Lamoree, B., & van Steenberg F., 2006. From Value to Finance: Making IWRM Work. *Journal of Contemporary Water Research & Education*. 135. 100-106.

Lant, C., 2004. Water Resources Sustainability: An Ecological Economics Perspective. *Water Resource Update*. 127. 20-30.

Layton R., 2006. *Order and Anarchy: Civil society, social disorder and war*. Cambridge: Cambridge University Press.

Lebow, E. N., and Risse-Kappen, T., 1996. *International Relations Theory and the End of the Cold War*. New York: Colombia University Press.

Lesotho Electricity and Water Authority, 2008. From http://www.lewa.org.ls/library/Publications/Load_Shedding_Report.pdf. Accessed on 16 December 2016.

Lesotho Highlands Water Project. Development of a Policy for Instean Flow Requirements. 2002. From <http://www.dwa.gov.za/Docs/Other/LHWP/LHDA%20IFR%20PID%20final.pdf>. Accessed on 18 December 2016.

Lesotho Highlands Water Project, 2013. *Lesotho Highlands Water Project, Phase 1*. From http://www.lhda.org.ls/Phase1/?page_id=5. Accessed on 16 December 2016.

Levy P., 1999. Sanctions on South Africa: What did the Do? *AEA Papers and Proceedings*. 89(2). 415- 420.

Manatunge, J., Priyadarshana, T., and Nakayama, M., 1993. Environmental and Social

Implications of Reservoirs: *Issues and Mitigation. Encyclopedia of Life Support Systems.* Vol 1.

Mandela, N., 1998. *Address by President Nelson Mandela at the Opening of the Lesotho Highlands Water Project katse.* From http://www.mandela.gov.za/mandela_speeches/1998/980122_lesotho.htm. Accessed on 25 April 2017.

Mashinini V., 2010. The Lesotho Highlands Water Project and Sustainable Livelihood. *Africa Institute of South Africa.* Vol 22.

Matlosa, K., 1999. *Aid, Development and Democracy in Lesotho, 1966-1996.* Paper Presented to a workshop on Aid, Development and Democracy in Southern Africa” University of Cape Town on 21-22 November 1999.

Matete, M. & Hassan, R., 2005. An ecological economics framework for assessing environmental flows: The case of inter-basin water transfers in Lesotho. *Global and Planetary Change*, 47(2–4), pp.193–200.

McCartney, M. P., 2007. Decision Support Systems fo Large Dam Planning and Opreation in Africa. *International Water Management Institute.* 119

Meissner, R., 2016. *Coming to the party of their own volition : Interest groups , the Lesotho Highlands Water Project Phase 1 and change in the water sector.* , 42(2), pp.261–270.

Mhlali, M., Salani, E., & Mokotedi, R., 2015. Understanding Apartheid in South Africa Through Racial Contract. *International Journal of Asian Social Sciences.* 5(4). 203- 219.

Milverton, D., 2004. World Bank Sanctions Acres International Limited. The world Bank. From <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20229958~menuPK:34463~pagePK:64003015~piPK:64003012~theSitePK:4607,00.html>. Accessed on 03 March 2017.

- Mirumachi, N., 2015. *Transboundary Water Politics in the Developing World*, 2, pp. 9-15.
- Mirumachi, N. & Chan, K., 2014. Anthropocentric Hydro Politics? Key Developments in the Analysis of International Transboundary Water Politics and Some Suggestions for Moving Forward. *Aquatic Procedia*, 2, pp.9–15.
- Mirumachi, N. & Van Wyk, E., 2010. Cooperation at different scales: Challenges for local and international water resource governance in South Africa. *Geographical Journal*, 176(1), pp.25–38.
- Mofuoa, K., 2015. The Exemplary Ethical Leadership of King Moshoeshoe of Basotho of Lesotho in the Nineteenth Century Southern Africa. *Journal of Public Administration and Governance*. 5: 21-35.
- Mokhehle, L., & Diab, R., 2012. Evolution of Environmental Impact Assessment in a Small Developing Country: a review of Lesotho Case Studies from 1980 to 1999. *Impact Assesement an Project Appraisal*. 19(1). 9-18.
- Moreleng, C., 2002. Lesotho General Elections 2002: Prospects for the Future. *Institute for Security Studies*. From <https://issafrica.org/topics/corruption-and-governance/01-may-2002-lesotho-general-elections-2002-prospects-for-the-future-chris-maroleng>. Accessed on 14 April 2017.
- Mostert, E., 2006. Intergrated Water Resources Management in the Netherlands: How Concerpts Function. *Journal of Contemporary Water Research & Education*. 135. 19-27.
- Mothibe, T. H.,1994. The Military and Democratization in Lesotho. *Lesotho Social Sciences Review*. 5(1).
- Muller, M., 2004. *Report of the Department of State of Water Resources Report State of Water Services Report*, Department of Water Affairs and Forestry.
- Muller, M., 2016. South Africs’s Water Sector: a case study in state capture. *The Mail and Gaurdian*. 05 December. From <https://mg.co.za/article/2016-12-05-south-africas-water-sector-a-case-study-in-state-capture>.

Mwangi, O., 2007. Hydropolitics, Ecocide and Human Security in Lesotho: A Case Study of the Lesotho Highlands Water Project. *Journal of Southern African Studies*, 33(1), pp.3–17.

Nkhata, B. A., et al., 2012. A typology of Benefit Sharing Arrangement for the Governance of Social-Ecological Systems in Developing Countries. *Ecology and Society*. 17(1). 17.

Nováček P., 2011. *Sustainable Development*. Olomouc: Olomouc Press Palacky University.

Orange-Senqu River Commission, 2000. *Agreement Between The Government of The Republic of Botswana, The Kingdom of Lesotho, The Republic of Namibia and The Republic of South Africa on the Establishment of the Orange- Senqu River Commission*. 03 November 2000.

Paisley, R.K. & Henshaw, T.W., 2013. Transboundary governance of the Nile River Basin: Past, present and future. *Environmental Development*, 7(1), 59–71.

Pottinger, L., 1999. Companies Charged with Corruption on Lesotho Dams. *International Rivers*. From <https://www.internationalrivers.org/resources/companies-charged-with-corruption-on-lesotho-dams-3863>. Accessed on 03 March 2017.

Protocol VI to the Treaty on the Lesotho Highlands Water Project, 1999. *Supplementary Arrangements Regarding the System of Governance for the Project*. From http://www.lhda.org.ls/phase2/documents/Legal%20Framework/Protocol_VI_System_of_Governance.pdf. Accessed on 29 October 2016.

Putman, R., 1988. *Diplomacy and Domestic Politics: the Logic of Two-Level Games*. The MIT Press. 42(3). 427-460.

Rangeley, R. et al, 1994, *International River Basin Organizations in Sub-Saharan Africa*.

Republic of South Africa. 1996. *Constitution of the Republic of South Africa, Act 108 of 1996*. Pretoria: Government Printer. From http://www.acts.co.za/constitution_of_the_republic_o. Accessed 08 February 2017.

Robinson, W. C., 2003. *Risks and Rights: The Cause, Consequences and Challenges of Development-Induced Displacement*. The Brookings Institute: School of Advanced International Studies.

Rosenau, J., 1974. *Comparing Foreign Policies*. New York: John: Wiley & Sons.

SACU, 2013. SACU Member States Economic Performance. From <http://www.sacu.int/list.php?type=Economic%20Performance>. Accessed 12 February 2017.

SADC, 2000, *Protocol on Shared Watercourses. Gaborone, Southern African Development Community*. From http://www.sadc.int/files/3413/6698/6218/Revised_Protocol_on_Shared_Watercourses_-_2000_-_English.pdf. Accessed on 27 June 2016.

Sakamoto, T., & Yasuda, N., 2012. Monitoring and Evaluations of Dams and Reservoirs. *Encyclopaedia of Life Support Systems*.

Sakano, M., 1976. *On the Conceptual Framework for Comparative Political Analysis*. *Osaka University Knowledge Archive*. No. 23.

Saldana, J. 2009. *The Coding Manual for Qualitative Researchers*. London: Sage Publications.

South African History, 2011. King Moshoeshoe I. From <http://www.sahistory.org.za/people/king-moshoeshoe-i>. Accessed on 18 January 2017

Sneddon, C., & Fox, C., 2006. Rethinking Transboundary Waters: A critical hydrogeopolitics of the Mekong Basin. *Political Geography*, 25(2), 181- 202.

Sung, K., 2004. *Max Weber's Politics of Society*. Cambridge: Cambridge University Press.

Taele, B., Makhutsoane, L., & Hapazari, I., 2012, An Overview of Small Hydropower Development in Lesotho: Challenges and Prospects. *Renewable Energy*, 44, pp. 448- 452.

Taele, B.M. et al., 2012. Grid electrification challenges, photovoltaic electrification progress and energy sustainability in Lesotho. *Renewable and Sustainable Energy Reviews*, 16(1), pp.973–980.

Tafirenyika, M., 2011. Lesotho’s Economy Catches a Flu from Big Brother’s Sneeze. *Africa Renewal*. From <http://www.un.org/en/africarenewal/vol25no4/lesotho.html>. Accessed on 17 March 2017.

Terminski, B., 2013. *Development-Induced Displacement and Resettlement: Theoretical Frameworks and Current Challenges*. Stuttgart: Ibidem Press.

Thamae, L., & Pottinger L., 2006. *On the Wrong Side of Development*. Morija: Morija Printing Works.

Thamae, R.I., Thamae L. Z., & Thamae M. T., 2015. Assessing a Decade of Regulatory Performance for the Lesotho Electricity Industry. *Utilities Policy*, 35, 91-101.

The Commonwealth, 2017, *Lesotho: History*. From <http://thecommonwealth.org/our-member-countries/lesotho/history>, Accessed on 18 January 2017.

The Panos Institute, 2013. *Lesotho: Highlands Project*. From <http://panoslondon.panosnetwork.org/resources/lesotho-highlands-water-project/>. Accessed on 15 February 2017.

The Panos Institute, 2001. *Voices from the Mountain*. From <http://panoslondon.panosnetwork.org/resources/voices-from-the-mountain-lesotho/>. Accessed on 15 February 2017.

The World Bank, 1991. *Kingdom of Lesotho: Lesotho Highlands Water Project Phase I(A)*. From <http://documents.worldbank.org/curated/en/693451468266076550/pdf/multi-page.pdf>. Accessed on 12 April 2017.

The World Bank, 1999. *Implementation and Completion Report, The Kingdom of*

Lesotho Highlands Water Project- Phase IA. 1991/69.

The World Bank, 2011. *Migration and Remittances Factbook 2011*. Washington: The World Bank.

Thopil, G.A. & Pouris, A., 2016. A 20 year forecast of Water Usage in Electricity Generation for South Africa Amidst Water Scarce Conditions. *Renewable and Sustainable Energy Reviews*, 62, 1106–1121.

Tilt, B., Braun, Y. & He, D., 2009. Social Impacts of Large Dam Projects: A Comparison of International Case Studies and Implications for Best Practice. *Journal of Environmental Management*, 90(3), 249–257.

Timse, T., & Ntaote, B., 2016. “Mokonyane’s Alleged New Terms for Lesotho Water Project Cited as Cause for Delays”. Ama Bhungane: Center for Investigative Journalism. 05 August. From <http://amabhungane.co.za/article/2016-08-05-mokonyanes-alleged-new-terms-for-lesotho-water-project-cited-as-causing-delays>.

Toset, H. P.W. et al., 2000, Shared Rivers and Interstate Conflicts. *Political Geography*, 19, pp. 971-996.

Transboundary Freshwater Dispute Database. 2000. Oregon State University, Institute for Water and Watersheds. From <http://transboundarywaters.orst.edu/database>, Accessed on 12 March 2017.

Trans-Caledon Tunnel Authority (TCTA). 2015. Lesotho Highlands. From <http://www.tcta.co.za/lesotho-highlands>. Accessed on 30 July 2016.

Treaty of Lesotho Highlands Water Project. 1986. *Treaty on the Lesotho Highlands Water Projects Between the Government of the Kingdom of Lesotho and the Government of the Republic of South Africa Signed at Maseru, 24 October 1986*.

Treiman, D., 2005. *The Legacy of Apartheid Racial Inequalities in the New South Africa*. Oxford: Oxford University Press.

Turner, B., S. 2009. *The New Blackwell Companion to Social Theory*. Oxford: Wiley-Blackwell Publishing Ltd.

Turton, A. & Henwood, R., 2002. *Hydropolitics in the developing world: A Southern African perspective*, Pretoria: African Water Issues Research Unit.

Unesco, 1974. *Racism and Apatheird in Southern Africa: South Africa and Namibia*. Paris: Unesco Press.

United Nations Convention on the Law of the Non-navigational Uses of International Watercourses. 2014. From <http://www.unwatercoursesconvention.org/>. Accessed on 17 September 2016.

United Nations Department of Economics and Social Affairs, 2017. International Decade for Action “Water for Life” 2005- 2015, From http://www.un.org/waterforlifedecade/transboundary_waters.shtml, Accessed on 23 February 2017.

United Nations Development Programme, 2008. *Orange-Senqu River Basin*. From http://books.google.com/books?id=UBc9QwAACAAJ&dq=orange+senqu+river+basin&hl=&cd=1&source=gbs_api%5Cnpapers3://publication/uuid/00C18E3E-016C-4E59-B741-39294A304B83. Accessed on 19 November 2016.

United Nations Environmental Programme, 2007. *Dams and Development Project Compendium on Relevant Practices*. Nairobi.

United Nations Watercourse Convention, 2016. *United Nations Watercourse Convention Enters into Force*. From <http://www.unwatercoursesconvention.org/news/united-nations-watercourses-convention-enters-into-force/>, Accessed on 18 December 2016.

USAID, 2016. Lesotho Power Africa Fact Sheet. From <https://www.usaid.gov/powerafrica/lesotho>. Accessed on 06 February 2017.

Vaal Triangle, 2016, *Vaal Triangle History*, From http://www.vaaltriangleinfo.co.za/history/resources/lesotho_1.htm, Accessed on 18 January 2017.

Waltz, K, N., 1979. *Theory of International Relations*. Massachusetts: Addison- Wesley Publication.

- Waltz, K.N., 2000. *Structural Realism after the Cold War.* , 91(4), pp.5–41.
- Wentworth, L., 2012. Lesotho Highlands: Water Woes or Win-Wins? *South African Institute of International Affairs*. Johannesburg.
- Wohlforth, W., *Realism and Foreign Policy*. Foreign Policy, Oxford: Oxford University Press.
- Wolf, A., T., and Newton J. 2008. *Case Study of Transboundary Dispute Resolution: the Lesotho Highlands Water Project*. Cambridge University Cambridge University Press.
- World Commission of Dams, 2000. Displacement, Resettlement, Rehabilitation, Reparation and Development. From <https://www.internationalrivers.org/campaigns/the-world-commission-on-dams>. Accessed on 18 January 2017.
- World Wildlife Fund, 2011. *The 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses and Southern Africa's Transboundary Water Systems*. From http://wwf.panda.org/what_we_do/how_we_work/policy/conventions/water_conventions/un_watercourses_convention/. Accessed on 12 November 2016.
- World Wildlife Fund, 2016. UN Watercourse Convention. From http://wwf.panda.org/what_we_do/how_we_work/policy/conventions/water_conventions/un_watercourses_convention/http://wwf.panda.org/what_we_do/how_we_work/policy/conventions/water_conventions/un_watercourses_convention/. Accessed on 12 November 2016.