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Power, Hydro-Hegemony and the Construction of Cooperative Transboundary Water Relations: The case of the Incomati International River Basin

A Doctoral Dissertation in Political Studies

By

Thobekile Zikhali

Supervisor (s)

Ahmed Veriava and Daryl Glaser

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in Political Studies



Declaration

I Thobekile Zikhali (student number 752708) declare that this thesis is my own unaided work. I submit it to the Faculty of Humanities, University of the Witwatersrand, in fulfilment of the requirements for the degree of Doctor of Philosophy in Political Studies. I declare that I have not submitted it, in part or in whole to any other Institution or University as a requirement for a degree or any other qualification.



_____

Thobekile Zikhali

Johannesburg

10 September 2019

Preface

> We have stood too long on the sidelines; and too many of us have adopted the cynical attitude that since you cannot beat them you must join them. Our inaction or cynical action are a serious betrayal of our education, of our historic mission and of succeeding generations who will have no future unless we save it now for them. To be educated is, after all, to develop the questioning habit, to be skeptical of easy promises and to use past experiences creatively (Chinua Achebe 1984:59).

In his book *The Trouble with Nigeria* (1984) referenced above, Achebe encourages freedom of speech and the need to be bold in contributing to ongoing political debates. In being cynical, we miss the opportunity to use our imaginative ways to engage with the pressing issues confronting our societies. My research on *Power, Hydro-hegemony and the Construction of Cooperative Transboundary Water Relations in the Incomati River Basin* has been a journey of self-discovery, a great learning and unlearning curve away from the sidelines.

My interest in transboundary water governance started when I was part of a team assigned by the Consultative Group for International Agricultural Research (CGIAR) to work on the Challenge Program on Water and Food in Southern Africa. My work was an assessment of pro-poor water and land governance in the Limpopo River Basin, focusing on Botswana. Amongst, other issues, I noticed that there was a deficiency in understanding both the power dynamics in river basins and the relationship between structure and agency. To explore these issues further, I decided to pursue my PhD. Through this PhD journey, I have managed to use 'my own creativity' together with my work experiences, a discursive theoretical framework and a triangulation of research methods to contribute to ongoing debates about power in shared international rivers.

What started as a study on water, led me to a path with socio-political explanations that are beyond water. I learnt that understanding power is a road better explained by those who have walked and those who are still walking the journey of transboundary water governance. The three states sharing the Incomati River Basin are varied and I do not claim to have covered all aspects of their interactions. In line with Achebe' advice of developing a questioning habit, I problematize the issues of power and hydro-hegemony in Southern Africa after apartheid. I use my interactions with various stakeholders and representations of power to create a narrative meant to ignite creative methodologies and zeal for social justice in transboundary water governance.

Thobekile Zikhali

Abstract

What do transboundary water interactions in the Incomati River Basin tell us about the issues of power and hydro-hegemony in Southern Africa after apartheid? In a water-scarce region such as Southern Africa, a river basin shared by many states presents multifarious socio-political and international relations challenges. The glaring economic and power differentials among the affected riparian countries accentuate such challenges. The thesis's main objective is to explore through Constructivist Institutionalism how socio-political relations constructed around water at a transfrontier level – in this case the Incomati River Basin - intersect with (sub) regional peace and development. The deficiency in the previous studies is failure to explain how states manage to forge cooperative relations despite the ubiquity of power in transboundary water governance. Theoretically, cooperation assumes a realist model of international relations, whereas, in the Incomati River Basin we have transnational cooperation which is more usefully theorized through more complex notions of power, hegemony and an interrogation of the structure and agency debate. I concur with the body of knowledge that acknowledges that the issues of space and time are critical for understanding the evolution of transboundary water relations. However, I argue that in our understanding of space and time, we need to explore the dynamic role of structure and agency. Despite my initial understanding of water being an instantiation of state power, empirical evidence, reveals the opposite. Water is a site of contestation where power represents a triumph of preferences rather than state power. While transboundary water literature perpetuates the question of 'who gets what when and how', the current dynamics in the Incomati River Basin have moved to 'how best do I get the capacity to create what is best for my state'. The study relies on triangulating various methods such as semi-structured interviews, focus group discussions, informal conversations, document analysis, academic literature reviews, and participatory observations to arrive at valid conclusions. The triad of ideas, structure and agency proposed by Constructivist Institutionalism produced four broad lessons about power in the post-apartheid era. These are power that unites-a constructed reality; power that divides- a disempowering mechanism; power that bleeds- shadows of the past; and power that produces- role of individuals and science in transboundary water governance. Concisely, by taking power as an explanandum, my study contributes to the active role played by transboundary water actors in both practice and theory.

Key Words: Power, Hydro-Hegemony, Transboundary Water Governance, Constructivist Institutionalism, Agency, Ideas, Institutions, Structure, Interactions, Incomati River Basin

Dedication

To my parents – my late father Douglas Zikhali who sadly could not live long enough to see this and my mother Joyce Zikhali who continues to hold my hand through it all.

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> For from him, through him, and for him are all things. To him be the glory forever! Amen. (Romans 11:36).

God makes all things beautiful in His time. All the glory that comes with this work goes to HIM.

The PhD fieldwork and thesis writing process benefited immensely from the United States of America's Social Sciences Research Council, Next Generation Social Sciences in Africa Program funding 2015-2017. I will also like to thank the University of Witwatersrand for the three (3) year Merit Awards, the Council for the Development of Social Science Research in Africa (CODESRIA)'s Thesis Writing Grant, the South African Education and Training Practices Sector Education and Authority (ETDP SETA), and the Human Sciences Research Council (HSRC) for their support.

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A very special thank you to all the participants of this study for their time and cooperation. Your lived and/or work experiences add value to this study and future studies. I extend my appreciation to the Inkomati-Usuthu Catchment Management Agency (IUCMA), Komati Basin Water Authority (KOBWA**)** and the Mozambique Regional Administration of Waters in the South (ARA-Sul) for their great assistance during my fieldwork. A special gratitude goes

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- The 2016 Human Sciences Research Council (HSRC) Social Science Research Conference, 'Poverty and inequality: diagnosis, prognosis, responses' Johannesburg, South Africa (22-23 September 2016)
- The 4th REMCO Conference 'A Climate Resilient Transboundary Catchment', eZulwini, Eswatini (25th - 28th September 2016)
- The Bergen Summer Research School, 'Water, Climate and Society', University of Bergen, Norway (12 June-24June 2016)
- The Global South Workshop for PhD Students jointly organized by Peking University China and the Graduate Institute Geneva (30 April- 6 May 2016)
- The Incomati Women in Water Conference, Nelspruit, South Africa (2-5 December 2015)

- The Brown International Advanced Research Institute (BIARI)'s Governance and Development in the Age of Globalization Programme. Brown University, Providence, United States of America. (6-20June 2015)
- The World Social Science Forum (WSSF2015) Conference on "Transforming global relations for a just world", International Convention Centre, Durban (13-16 September 2015)
- The 4th Young Water Professionals South Africa Biennial Conference. Council for Scientific and Industrial Research (CSIR) Convention Centre, Pretoria, South Africa (16-18 November 2015)
- The South African Sociological Association Conference, 'Contours of Violence: Manifestations, Interventions and Social Justice' (28June-1July 2015)
- The South African Historical Association, 25th Biennial Conference – 'Unsettling Stories and Unstable Subjects'. University of Stellenbosch, Cape Town (1-3 July 2015)
- The Thesis and Dissertation workshop, University of Pretoria, South Africa (30-31 October 2014)
- The 3rd International REMCO Conference on Transboundary Water Governance, Nelspruit, South Africa (28September-1 October 2014)
- The South African Association of Political Studies (SAAPS) Biannually Conference, Pretoria, South Africa (10-12 September 2014)
- The Berlin Social Science Summer School, Linking Theory and Empirical Research. University of Humboldt, Berlin, Germany (20 July-2 August 2014)
- The Transboundary Water Governance: Presentations on selected global transboundary water cooperation issues. International Water Management Water Institute, Pretoria, South Africa. (12 May 2014)

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Acronyms

AFDB	African Development Bank
ANC	African National Congress
ARA SUL	Mozambique Regional Administration of Waters in the South
AU	African Union
BRICS	Brazil, Russia, India, China and South Africa
CI	Constructivist Institutionalism
CMA	Catchment Management Agency
CMF	Catchment Management Forum
CMS	Catchment Management Strategy
DWS	Department of Water and Sanitation (South Africa)
DNA	National Directorate of Water (Mozambique).
FAO	Food and Agriculture Organisation
FRELIMO	Mozambique Liberation Front
GDP	Gross Domestic Product
GWP	Global Water Partnership
HSRC	Human Sciences Research Council
HDIs	Historically Disadvantaged Individuals
IIMA	Interim Inco-Maputo Water Use Agreement
Inco-Maputo Agreement	Tripartite Interim Agreement Between the Republic of Mozambique and The Republic of South Africa and The Kingdom of Eswatini for Co-Operation on the Protection and Sustainable Utilisation of the Water Resources of the Incomati and Maputo Watercourses
IFIs	International Financial Institutions
IR	International Relations
ISOTG	Incomati Systems Operation Task Group
IUCMA	Inkomati-Usuthu Catchment Management Agency
IWRM	Integrated Water Resource Management
JPTC	Joint Permanent Technical Committee
JWC	Joint Water Commission
JPTWC	Joint Permanent Technical Water Commission
JWC1	Joint Water Commission (South Africa and Eswatini)
JWC2	Joint Water Commission (South Africa and Mozambique)

KJOF	Komati Joint Operations Forum
KOBWA	Komati Basin Water Authority
LWHP	Lesotho Water Highlands Water Project
MNCs	Multi-National Corporations
NEPAD	New Partnership for African Development
PRIMA	Progressive Implementation of the Inco-Maputo Agreement
PUDEMO	The People's United Democratic Movement (Eswatini)
RBO	River basin organisation
REMCO	River and Environmental Management Cooperation
RENAMO	Mozambican National Resistance Party
RSAP (SADC)	Regional Strategic Action Plan
SADC	Southern African Development Community
SADCC	Southern African Development Coordination Conference
SADC-HYCOS	SADC Hydrological Cycle Observing System
SADC WD	SADC Water Division
SDGs	United Nations Sustainable Development Goals
TPTC	Tripartite Permanent Technical Committee
UNCED	UN Conference on Environment and Development
WMA	Water Management Area
ZAMCOM	Zambezi Water Commission

Chapter 1: Setting the Scene

1.1. Topic Introduction

> "A river transcends all diversities; it flows generously and faithfully without discriminating" (Arsano 2016)[1]
>
> As water flows it does not only cross physical borders but it crosses *different cultures*, different *people* who have different *needs* for water but it all comes down to the *main purpose*, that is to *feed* your country feed your family and feed yourself. This means that as a *negotiator* of this precious resource, you *do not just stand still* and watch nature or other people take in charge of your future. It means that you do the best you can to make sure that your voice is *heard* and that is what transboundary water governance is all about. We might have institutions, yes, but ultimately these *institutions are nothing without people* who dedicate their time and brains to ensure fair water access and distribution (Participant 24, emphasis added)[2]

How does water become a site for the instantiation of state power? Water is a mobile resource that resists the attempts to fix it. Through various technologies, the states of the Incomati River Basin together with relevant non-state actors have navigated the complex water terrain. This terrain is complex due to immanent power dynamics. However, stakeholders have constructed cooperative transboundary water relations amid those inherent power dynamics. Why is this the case in the Incomati River Basin? How do states manage to construct these cooperative transboundary water relations? In addition, what can we learn about power and hydro-hegemony in Southern Africa after apartheid using the Incomati River Basin as a case study?

The quote by Arsano (2016) and by Participant 24 of this study above introduces us to some aspects about rivers and dynamics of sharing international rivers. We note the kind of power that a river has as a physical entity: it flows without discerning the differences amongst those dependent on it. Of importance to note is that, as international rivers flow generously across

[1] Dr Jacob Arsano's presentation at the Bergen Summer Research School, 'Water, Climate and Society', Norway (June 2016)
[2] Maputo, Mozambique (7 December 2016)

borders, they bind their economies together. This creates interdependencies[3] amongst the states sharing the river source. These interdependencies may create three possibilities. First, the possibility of actors cooperating to minimise adverse impacts caused by for example climate change or conflict. Second, the possibility of conflict, because interdependencies might create some struggle for power in terms of 'who gets what when and how', as states contend with issues of water distribution and usage. Third, the interdependencies might produce the coexistence of both cooperation and conflict. In this thesis, I describe the coexistence of cooperation and conflict as transboundary water interactions. In these interactions, though cooperation is the end goal, states and non-state actors go through a complex process within a power-charged environment. I discuss the complex nature of transboundary water interactions further in chapter 2 of this thesis.

My interest in this work is to establish how actors within the Incomati River Basin have navigated the power-charged water environment, inclusive of the history of colonialism and apartheid, which brought divisions both in Southern Africa and within state boundaries. Unlike other river basins with a formal River Basin Organisation (RBO), the Incomati does not have a formal multilateral Organisation. This is still work in progress. Despite not having a RBO, however, my findings show that transboundary water interactions in the Incomati River Basin are largely cooperative. Actors standing differently in space and time *construct* these cooperative transboundary water relations. Construction of cooperative water relations implies a *movement* where states and other interested stakeholders purposively cooperate, particularly, in cases where preferences are homogenous and/or where benefits are comparable. The Incomati River Basin is an example of such a movement.

1.2. Brief Overview of the Research Context

The demise of apartheid regime in South Africa presented not only a beckon of democracy and change within the country but also heralded a change in the geopolitical landscape of Southern Africa. This coincided with changes in Mozambique, which like South Africa, was coming out of a political turmoil, having ended a 16 year civil war in 1992 through a peace deal and

[3] Interdependencies are "situations characterised by reciprocal effects among countries or among actors in different countries". Keohane and Nye in Furlong (2006:444).

conducted the first multi-party elections in 1994. This in turn brought new players (new governments) into the political scene. These geopolitical changes had consequences on the way the region managed transboundary resources. This was particularly pertinent with respect to scarce and strategic natural resources such as water resources that are subject to securitization and territorialisation efforts by states.

Southern Africa is a water scarce region with an inherent climatic variability and uneven distribution of perennial rivers that limit the economic growth potential of the region and make water a strategic resource. The Incomati International River Basin shared by Mozambique, South Africa and Eswatini is one of the most crucial river basins in the SADC region (Pickaver and Sadacharan 2007). The Incomati river basin is home to about 2 million people (Carmo Vaz and van de Zaag 2003).

The population of Southern Africa has grown in a way that increases the demand of its water usage (Heyns 2003). In terms of the Incomati River Basin states, in 2018, South Africa had an estimate population of 57 779 622, Mozambique has 29 495 962 and Eswatini has 1 136 1915 (Worldometers 2018; World Bank 2019). Therefore, when it comes to water, cooperation over shared resources is critical (Heyns 2003; Sebastian 2008) and not an option in Southern Africa. The unreliable water supply due to variable rainfall in the region coupled with the need for countries to feed their growing populations makes shared rivers contested.

These contestations cut in different scales, which are the local, national as well as international scales. Internationally, migration by citizens of other countries, including Eswatini and Mozambique to South Africa is a security concern for South Africa. Concerning transboundary water resources, victims of floods in Mozambique often move upstream in South Africa and this compromises water allocations in the river basin and has an impact on the regional development-peace-security nexus. Moreover, there are competing water interests within and abroad, which makes water even more, contested. For example, growing populations mean more competition for domestic water, and water for industries, forestry, irrigation and hydropower generation.

Mozambique, South Africa and Eswatini are sovereign states but the history of Southern Africa ties them together. Historically, the artificial boundaries created by colonial masters divided Southern African states in a way that facilitated easier collaboration amongst colonial masters whilst ignoring the impacts these divisions would have on vulnerable groups' access to water (Heyns 2003). Politically, the colonial systems of government including the effects of the Cold

War and Apartheid are still prevalent. However, Sebastian (2008) observes the emergence of a new wave of contrasting narratives by defenders of now sovereign states. It is important to note that in all the countries, the liberation movements or parties that won independence are still the political parties governing the countries. This according to Sebastian (2008) creates shared interest of retaining political power.

South Africa has gone through different leaders, Nelson Mandela (1994-1999), Thabo Mbeki (1999-2008), Kgalema Motlante (2008-2009), Jacob Zuma (2009-2018) and currently Cyril Ramaphosa however all from the African National Congress (ANC) political party. Mozambique has also gone through different leaders all within the Mozambique Liberation Front (FRELIMO) ruling party. When they attained independence in 1975, Mozambique was under the leadership of Samora Machel (1975-1986), followed by Joachim Chissano (1986-2004), Armando Guebuza (2005-2014), and Filipe Nyusi (2014 to date). Eswatini has since 1986 been under the leadership of Prince Makhosetive who assumed the title of King Mswati lll, also referred to Ngweyama, which translates to the lion. From 1967, Eswatini has had nine Prime Ministers. All of them appointed by the King and have their allegiance to the King. King Mswati's father, King Sobhuza formed the Imbokodvo National Movement (INM) political party in 1964 (BBC 2018b).

The politics of sharing international rivers still reflects the legacy of the past (Turton 2003, 2005; Sebastian 2008). Though colonialism and apartheid is long gone in Southern Africa, they left scars whose wounds are yet to heal. The poverty and inequalities related to race, gender and social class are some of these wounds. The nature and degree of these inequalities may differ across the countries but it is a policy problem facing the governments' of the three countries. Therefore, there are calls for social cohesion and democratic reforms within and across borders. When it comes to water resources, the scarcity and climate change impacts worsen the situation. The transboundary water challenges faced by the three states go beyond the institutional frameworks governing them. The new wave of globalization has introduced new actors in the scene. These actors, individually or collectively have the power to contribute to policy processes. A critical understanding of the multifaceted roles and agency of these multiple actors is important in finding lasting solutions.

The common theme running across the water policies of all three countries is that of redressing past injustices through the empowerment of small-scale farmers, particularly in the sugarcane industry (Carmo vaz and van de Zaag 2003). The SADC Revised Water Protocol guides all

three countries and it seeks to alleviate poverty and encourage socio-economic development as well as peace in the region (see chapter 2). The 2002 Tripartite Interim Agreement for Cooperation on the Protection and Sustainable Utilization of the Water Resources of the Incomati and Maputo Watercourses (Inco-Maputo Agreement) is the current legislation that guides transboundary water interactions between and amongst the three states. A detailed international, regional, national and local analysis of transboundary water governance follows in chapter 2 of this thesis. For now, I turn to the research problem identification and analysis below.

1.3. Problem identification and definition

> "We need to incorporate an active role of agents in the accounts we offer" (Hay 2002:253)

The research problem of this study comes from deficiencies that I identified in the scholarly literature on power with respect to issues in transboundary water governance. The following questions guide my contribution to the scholarly gaps observed; *how do states construct cooperative transboundary water relations amid power and hydro hegemonic dynamics. What are the effects of constructed cooperative transboundary water relations? In addition, what lessons about power can we draw from those constructed relations?*

Available in the literature is an agreement that power produces inequalities and other challenges that affect transboundary water cooperation. With few exceptions, scholars' research power from a structural point of view. This isolates the power of agency possessed by different stakeholders involved in transboundary water governance. This exclusionary approach omits the value that agents bring to knowledge production and policymaking. In that light, Hay (2002)'s opening quote encourages scholars to include voices of actors in their analysis. In my analysis, I explore the relationship between structure and agency using perspectives shared by participants of the study together with the structural practices that define their interactions. However, I refrain from methodological individualism (see the section on theoretical framework and methodology below for more details).

What complicates transboundary water governance is that states are sovereign and that although cooperation is beneficial it is however not mandatory (Katerere et al 2001). The movement of water across sovereign borders makes transboundary water governance an international political issue (Molinga 2001; Benjamin et al 2014). Political analysis "draws attention to the power relations implicated in social relations" (Hay 2002:3). Cumulative studies have discussed power asymmetries as one of the problems facing states in transboundary water governance (Turton 2003b; Zeitoun and Warner 2006; Zeitoun and Allan 2008; Cascao and Zeitoun 2010; Kim and Glaumann 2012; Zeitoun et al 2016; Petersen-Perlman et al 2017). Yet, a critical interpretation of the power plays that grease or block the cogs of transboundary water governance is not adequate. Below I share four general assumptions about power in scholarly debates and highlight the deficiencies that motivate my work. These are,

1. *Hydro-Hegemons dominate interactions within a river basin*. Hydro-hegemons are states that are more powerful in a river basin and therefore believed to have decisive actions in transboundary water governance (Turton 2003b; Turton 2005; Zeitoun and Warner 2006). Through their Hydro-Hegemonic Framework Zeitoun and Warner (2006) proffer four forms of power in international relations. These are geographical, ideational, bargaining and material power. Most scholars seeking to understand power in river basins have used the framework (see Hussein and Grandi 2017; Conker 2014; Warner et al 2013; Warner and Zawahri 2012; Kehl 2011; Cascao and Zeitoun 2010). While helpful, the framework lacks empirical evidence that incorporates the voices of stakeholders involved in transboundary water governance. It also misses the influence of third parties in a river basin, who can introduce hegemonic ideas in transboundary water processes. According to Hussein and Grandi (2017), the hydro-hegemonic framework ignores the processes involved in transboundary water governance. To me these processes include the dynamic relationship between structure and agency.
2. *South Africa is a hydro-hegemon in SADC Rivers* (Turton 2003b; Sebastian 2008; Warner and Zeitoun 2008; Turton 2010; Barua et al 2017). South Africa is a hegemon in Southern Africa (Chenje in Furlong 2006; Benjamin et al 2014; Cilliers 2017) however; this does not make the country a hydro-hegemon. Scholars such as Jacobs (2010) add that South Africa is a hegemon yet a fragile one. The empirical evidence of this study shows how the Incomati River Basin stakeholders navigate different forms of power. The findings do not show South Africa as a clear-cut hydro hegemon. Due to

interdependencies, and homogenous preferences states have chosen to unite in most circumstances. However, this unity reproduces other effects of power that have seen divisions and discontentment within borders (see chapter 6).

3. *Scholars perceive power as an explanans and not explanandum*: Taking power as an explanans has produced similar results across disciplines and case studies. For example, scholars focus on defining the concept of power. The complexities and relativity of power makes the current descriptions insufficient. I propose an approach that sees power as an explanandum. In so doing, we redefine the problems and are able to tailor-make arguments according to the cases that we are explaining at a given point. The current narrative, largely, produces agents who are incapable of freeing themselves from power as Giddens (1980) and Hay (2002) observe.
4. *Power is the major issue confronting states sharing a river basin* (Turton 2003b, 2005, 2010; Zeitoun and Warner 2006; Zeitoun and Allan 2008; Cascao and Zeitoun 2010; Kim and Glaumann 2012; Zeitoun et al 2016; Petersen-Perlman et al 2017). While this is true, the problem is that scholars will be writing about different research questions but produce same results about power. This does not extend knowledge, but leads us back to where we started i.e. on how best to understand these power dynamics. I argue for methodologies that consider the research context and conducting interviews with different stakeholders within all riparian states. This could explain why power dynamics persist even in changing times and teach us about specific issues as they play out in different contexts. Although scholars such as Zeitoun and Warner (2008), Cascao and Zeitoun (2010), Jacobs (2012), Zeitoun et al (2016), Hussein and Grandi (2017) and the World Bank (2017) highlight the importance of context, they do not discuss the dynamic nature of agents and their interactions with change.
5. *Structures are the main units of analysis* making most transboundary water governance scholars to limit their analysis to structure rather than agency (du Plessis 2000; Furlong 2006; Zeitoun and Warner 2006; Zeitoun and Warner 2008; Burchill 2009; Jacobs 2010, 2012). Moreover, the formulation and implementation of the Sustainable Development Goal 6, is largely state centric (Wiegleb and Bruns 2018). Over the years' non-state actors have made it into a point of analysis, however, the emphasis is on the processes and not the individuals involved in those processes. The structure centric nature of transboundary water governance (Furlong 2006) extends to third parties. For instance, when discussing the World Bank, scholars look at their practices such as

ideology or structural mandates without establishing the influence of individual or collective agency of World Bank employees.

Although power is a major problem confronting states sharing river basins, my argument is that, we need to describe and explain problems in ways that add value to existing knowledge. My study shows that amid problems associated with power dynamics, states can cooperate. Interpreting the relations as cooperative does not imply that there are no problems, but teaches us that through different mechanisms states can construct relations that are more cooperative than conflictual. These mechanisms extend to the agency of stakeholders involved in the process of governing, third parties and the social practices that define and redefine their context. Analyzing the constitutive nature of structure and agency with respect to both state and non-state actors can liberate us from the static holes that see power as a problem. As will be seen in chapter 6, in some circumstances, power can produce positive and comparable outcomes. Through Constructivist Institutionalism, I have managed to show the importance of analysing space and time within the relations of power under study.

1.4. Aims and Objectives

The aim of the thesis is to explore through a qualitative case study of the Incomati River Basin, how transboundary water interactions can contribute to the ongoing debate about power and hydro-hegemony in post-apartheid Southern Africa. I analyse different institutions in the river basin, focusing on their development and evolution over time. This includes the exploration of the relationship between structure and agency. According to Hay, (2006:253) agency is the "capacity of actors to shape the environment in which they find themselves". Therefore, I explore how lived and/or work experiences of participants can inform us about the relationship between structures and agency as well as the relations of power in the river basin.

The main point is to understand transboundary water governance in action. This involves the use of interviews and conversations with various stakeholders in the river basin. Understanding governance through the voices of those involved in governing processes fills a knowledge gap. There is insufficient empirical knowledge on how people working within transboundary water structures interpret river basin activities and outcomes. Often, analysts focus on state structures and on theoretical debates that view power as held and not relational.

The following are the objectives of the study,

1. To give a critical overview of the development and evolution of transboundary water institutions in the Incomati River Basin.
2. To critically understand the social and structural forms of power in the Incomati River Basin
3. To establish the relationship between the state and third parties in the Incomati River Basin and how the role of third parties influence the governing of the river basin
4. To learn what the combined interactions of all stakeholders involved in the Incomati River Basin teach us about the issues of power post 1994
5. To suggest new ways of analysing and understanding transboundary water governance

1.5. Research Questions

The main research question of the thesis is:

What do the transboundary water interactions in the Incomati International River Basin tell us about the nature of power and hydro hegemony in Southern Africa after apartheid?

It is from this broad question that the study seeks to solve the research puzzle of this thesis. During apartheid, the SADC relations were fragile with South Africa sidelined in the region, while the history of colonialism and conquest made the political environment volatile. The advent of democracy in South Africa saw an embrace of regional integration and efforts to build sustainable peace and stability. It is in this intersection that I position my research justification. Do we see a shift in how states relate to each other post-apartheid, are the fruits of democracy invisible in the interactions they have with one another, and is there change or continuity in the manner, which the governance of transboundary water resources evolves?

The motivation to look at the post-apartheid period is that Mozambique also had its first elections in 1994 and South Africa became a member of the Southern African Development Coordinating Conference (now SADC). This marked a democratic wave in the region, with South Africa moving from being a foe to a friend. According to Carmo Vaz and van de Zaag (2003), in the new political dispensation, South Africa stopped its unilateral decisions that

disadvantaged Mozambique in the Incomati River Basin before 1991. To me, the post-apartheid period marks the beginning of the construction of cooperative water relations in the SADC region. Similarly, Carmo Vaz and van de Zaag (2003) describe the post-apartheid period as a regional integration and liberalism phase.

The journey towards cooperation has potholes but memories of the volatile past remind the stakeholders of the need to keep walking. The question is how do they continue walking on top of inherited systems of government? The newly independent states had to build from those inherited institutions. In this research, therefore, I consider some of these institutions and analyse how they have evolved in the post-apartheid era. More specifically, the main research question above translates to *how do different forms of collaboration between and amongst Eswatini, Mozambique and South Africa as riparian states of the Incomati river basin, contribute to our understanding of power and hydro-hegemony after apartheid.* Below are the sub questions that guide my research.

(1) How has the nature of transboundary water relations amongst the Incomati river basin riparian states evolved over time?

With this in mind, I question whether the advent of democracy in South Africa affected water relations in the region. Specifically, whether this political change saw an improvement in the management of the Incomati River Basin. The Incomati river basin has both bilateral and multilateral forms of cooperation and I tried to explore how these work in practice. The question also calls for an interrogation of other actors, such as third parties involved in the management of the river basin. These include international financial institutions such as the World Bank, regional institutions such as SADC, and foreign governments such as Netherlands, Germany, Brazil and China. To answer the question, I relied mostly on document reviews, interviews, informal conversations and participatory observations.

(2) What are the social and structural power relations in the Incomati River Basin?

I left this question broad to explore deeper connotations of the concept of power in the river basin. The aim is to find out what elements of political, economic and social power have produced the assemblage of water as the object of territorial dispute. I engage with some of the scholarly deficiencies of the concept of power. The question was largely explorative and questioned the following issues. Is South Africa a hydro-hegemon in the Incomati River Basin?

What do different elements of power teach us about power in the context of Southern African hydro-politics? How do participants of the study view and interpret power dynamics?

(3) What is the role of third parties in reinforcing or neutralizing the existing power configuration in the basin?

To what extent do third parties influence transboundary water governance and do their involvement improve or worsen transboundary water relations amongst states? The motivation to consider the role of third parties was the recognition that states do not interact in a vacuum and external forces one way or another influences the interactions often. There are several third parties involved in transboundary water governance, for example, multinational corporations (MNCs), international financial institutions, United Nations Programmes, foreign governments etc. However, in this study I explored in detail the role that SADC, the World Bank, Brazil, China, and the state play in international river basin development. The question relies on literature review, interviews and participatory observations during conferences or dialogues that involved third parties.

1.6. Rationale and Significance

The findings of my study redound to academic and policy debates on transboundary water governance. The theoretical deficiency of understanding change (Jacobs 2012) and agency in transboundary water governance justifies the need for different theoretical frameworks. Thus, the use of Constructivist Institutionalism informs both policy makers and researchers about the importance of engaging with structure and agency as constitutive and an appreciation that they each possess independent analytic qualities that change with time. I situate my study in the puzzle that questions how the existing power configurations could result in cooperative transboundary water relations.

Practical Significance

The SADC Hydro-political complex framework lists Incomati River Basin as one of the pivotal rivers in the region (Turton 2003a). It is pivotal for all the three states because they depend on the river to sustain their water needs. According to the framework, Eswatini and Mozambique are impacted states because they do not have the capacity that matches the power of South

Africa (Turton 2003a). As a background, these implications of the SADC hydro-political complex undergird the significance of this study.

I set out to study a particular set of cross-border water management arrangements, derived from prior reading of transboundary water politics. I expected to find intense conflicts of interest between different states and users; and asymmetries of power, with South Africa acting as a hydro-hegemon and able to realise its own interests and preferences at the expense of those of weaker neighbouring states. Instead, I found a surprisingly cooperative and mutually beneficial set of relationships. There was little obvious exercise of open or arbitrary power over others by South Africa.

While it is impossible to generalise from a single case study, this finding suggests a need to see power as potentially productive, or as potentially a form of collective 'power to', rather than as necessarily a form of 'power over' exercised in zero sum fashion. Simultaneously, it suggests that power can operate in subtle and pervasive ways, such that participants in given social arrangements are unaware that (say) their knowledge (in this case about water management) is itself a product and form of power. On the other hand, there is a possibility that participants may defer to the superior power of a dominant actor wittingly or unwittingly. This means that, one does not always need to exercise power in order for it to be effective.

The interviews conducted with different stakeholders in all three states of the Incomati River Basin together with third parties brought to light critical issues that previous research failed to explore. Empirical evidence highlights various lessons about power. These inter alia, include, constructed collaborations, effects of power within the borders of countries sharing a river basin, the role of agents that manifest themselves as independent actors at one point while in other points power produces them as part of structures, the role of knowledge as well as the relationship between the past and the present.

Theoretical Significance

The thesis uses a Constructivist Institutionalist theoretical framework. Constructivist Institutionalism adds the triad of structure, agency and ideas in social interactions. Ideas embedded in institutions as social practices that inform and define the actions of actors involved. Both ideas and institutions produce effects on the actors involved. The extent to

which these actors operate independent of those effects is debatable. However, there is an agreement amongst scholars that social practices produce effects in the context where they are exercised (Jessop 1982, Zeitoun and Warner 2006; Furlong 2008; Zeitoun and Allan 2008; Cascao and Zeitoun 2010; Kim and Glaumann 2012; Hellberg 2014; Zeitoun et al 2016; Ho 2017; Petersen-Perlman et al 2017).

The above agreement amongst scholars makes the definition of power by Jessop (1982) below useful. Power is "the *production of effects* within the limits set by the 'structural constraints' confronting different agents" (1982:253 emphasis added). For Hay (1997:50), power is "the ability of actors (whether individual or collective) to have an effect upon the context which defines the range of possibilities of others". The definitions of power by both Jessop (1982) and Hay (1997) are instrumental in this study. First, they both speak to the interplays between structure and agency. Second, Jessop shows the possibility of structures influencing agents when he argues that structures produce effects that may affect both the agents and context. Third, Hay puts primacy on actors and shows a possibility that actors have agency that can define social structures and interactions that exist in those structures.

Briefly, the definitions sensitize my argument that we cannot understand the role of power in transboundary water governance without a critical understanding of the relationship between structure and agency. More so, building from an agreement that power produces effects either through structures or agents, I add the importance of understanding what those produced effects teach us about power in a certain context. Thus, I view power as an explanandum as earlier mentioned compared to power as an explanans. Taking power as an explanandum opens up a possibility of contributing to knowledge as well as identifying future research areas (Holst 1964).

In this study, I argue, for methodologies that acknowledge the interconnectedness between people and structures (including ideas) on one hand and the independence that may exist between structures and agents. In so doing, such methodologies distance themselves from methodological individualism, for example, where researchers focus on structures only and not agents. The deficiency of focusing on structures only is that it forgoes the relativism of agency (Emirbayer and Mische 1998; Connor 2011). Constructivist Institutionalism adds value by a methodology that combines both structures and agents in the development and evolution of institutions. This Constructivist Institutionalism analyses also extends to foreign policies (Oz 2011).

Transboundary water agents have the ability to engage in both practice and theory. This extends agency of actors not only to their work environment but also in knowledge production and contribution. Knowledge and power are related (Foucault 1981) and the research process is fraught with power imbalances between the researcher and participants (Ross 2017). I consider participants of this study as co-contributors to knowledge. Therefore, a methodology that empowers participants was ideal.

Agency is thus brought out by providing "moments of empowerment" defined by Ross (2017:1) as using a methodology that breaks the research power dynamics and allows participants to speak from a point of influence and emancipation. Participants can add value to the research process through their lived experiences. This can result in a mutual understanding of power, as an example, between the participants and myself. The aim is to

> Create good rapport with participants and build a strong enough relationship to enable participants to share their thoughts and emotions. Building this kind of relationship requires making oneself as a researcher vulnerable as well, and in doing so, being willing to forgo some of the power that is embedded structurally in most research processes (Ross 2017:6).

1.7. Methodology and Research Design

> "We cannot study everything about even one case" (Punch 2014:161)

This research adopts a qualitative case study[4] design. It focuses on how the Incomati River Basin states have managed to construct cooperative transboundary water interactions amid challenges. There are different structures and activities that one can analyse in the Incomati River Basin; however, taking the advice of Punch (2014) above, I limit my study to seven structures in the river basin. These are the state (South Africa, Eswatini, Mozambique), the Tripartite Permanent Technical Committee (TPTC), the Komati Basin Water Authority (KOBWA), the Southern African Development Community (SADC), the River and Environmental Management Cooperation (REMCO), Foreign states (Brazil, China) and International Financial Institutions (World Bank). The seven enable an understanding of

[4] A case study is "a type of qualitative research in which in-depth data are gathered relative to a single individual, programme, or event, for the purpose of learning more about an unknown or poorly understood situation" (Leed and Ormrod 2010:108).

domestic policies, multilateralism, bilateralism, regional institutions and role of third parties in transboundary water governance

The actions of actors in social interactions can reveal effects of power (Giddens 1984; Jessop 1982; Bourdieu 1990; Gramsci 1992; Sibeon 1999; Hay 2006). This motivates the research design and data collection methods used in this study. Closely related to phenomenological research, I critically engage with stakeholder perspectives on the social realities of governing the Incomati River Basin (Leed and Ormrod 2010). However, my analysis includes the environment that influences these stakeholders to act the way they do. My aim is to explore actor(s) narratives about different technologies of power in the Incomati river basin.

The data collection methods include forty three (43) semi-structured in-depth interviews, participatory observations, a focus group discussion, informal conversations and document analysis. The sampling techniques used in this study were purposive, convenience and snowball techniques (see chapter 4 for more details). Data triangulation enabled me to create a better understanding of the realities of water governance in the Incomati river basin. I had conversations with different groups of stakeholders ranging from public officials, small-scale farmers, community members, water users and representatives of third parties. The study also benefits from the Incomati River Basin Conferences that I attended in 2014, 2015 and 2016. I also participated in various international conferences that fed into my data collection and analysis. I share the details of the conferences attended in the Acknowledgement section of this thesis.

The thesis looks at all the three countries in the Incomati river basin, South Africa, Mozambique and Eswatini together with other stakeholders involved. The need to study all the countries involved, comes from the realisation that analyzing the process from an individual country's perspective could create some distance from structural and normative explanations. Focusing on all the three countries contribute to knowledge because most analyses in the current literature are country based. This creates problems associated with single story narratives. In her talk titled the dangers of a single story, Chimamanda Ngozi Adichie notes,

> "The single story creates stereotypes, and the problem with stereotypes is not that they are untrue, but that they are incomplete. They make one story become the only story."[5]

[5] See, https://www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story?language=en 16 July 2015

The qualitative case study approach taken in the thesis is 'explorative and interpretive'. Therefore, to analyse data, I use an exploratory approach[6] guided by Constructivist Institutionalists' theoretical propositions. This produced various themes about power and the different interactive roles between structure and agency. A critical engagement with themes, roles of stakeholders and structures constructed what Leed and Ormrod (2010) defines as a *case study portrait*. Through the case study portrait, my study has contributed new ways of understanding power in SADC international rivers and revealed knowledge holes significant for future studies.

1.8. Limitations of the Study

Some of the limitations of the study include, first, not being able to get some desired respondents I felt would add value to the study. For example, the failure to have access to higher political levels. Unfortunately, some of the socio-political dynamics operate within these higher political levels, which are outside the immediate field of view. I did not have access to the political discussions, for example at ministerial, presidential or TPTC level and with other actors involved in those institutions not open to share the details of those closed-door meetings. However, the respondents interviewed brought valuable information to the study. Due to a lack of a true demonstration of exclusion, domination and exploitation from those levels, I argue for the need to see power as a potentially cooperative form of power 'to' and not 'over' another. This therefore teaches us about the multiform character of power and that it can operate as empowerment and not disempowerment in some circumstances.

Second, this study focuses largely on a qualitative analysis of the socio-dynamics of sharing international river basins. The disadvantage with this approach is that it does not consider hydrological and economic components of power that could be analysed quantitatively. However, the main aim of the thesis was to understand socio-political aspects of sharing international rivers and the chosen methodology was the best fit.

[6] An exploratory approach to data analysis differs from a confirmatory approach in "for an exploratory study, the researcher carefully reads and rereads the data, looking for key words, trends, themes, or ideas in the data that will help outline the analysis, before any analysis takes place. By contrast, a confirmatory, hypothesis-driven study is guided by specific ideas or hypotheses the researcher wants to assess" (Guest, MacQueen & Namey 2012:7-8).

Third, it is also difficult to generalise findings from the Incomati river basin to the entire SADC region. However, the case study has shown the importance of understanding power and agency in a specific transboundary water context. In so doing, it has contributed critical insights to transboundary water governance in Southern Africa.

1.9. Structure of the thesis

Chapter 2 begins with a broad overview of transboundary water governance. I discuss the definitions, and explanation of transboundary water interactions that I adopt in this study. I engage with socio-political issues articulated and mediated by state and non-state actors in international river basins. I review literature on transboundary water cooperation and conflict in different geographic scales. These scales encompass international, regional, national and local levels. In the literature reviews, I highlight the research deficiencies significant for my study.

Chapter 3 discusses the conceptual and theoretical understanding of power, structure and agency. I problematize the issue of power in transboundary water governance, noting the gaps in the current literature and suggest possible contributions to knowledge. I study four frameworks used to explain transboundary water interactions and their implications for this study. Lastly, I share the argument about structure, agency and power and justify the theoretical framework of this study. This includes a consolidated literature based and theoretical understanding of the issues discussed.

Chapter 4 is the theoretical and methodology chapter of this thesis. First, I reiterate research deficiencies from the literature review and highlight the objectives of the study. Second, I discuss the importance of constructivist institutionalism and share five theoretical propositions guiding my study. Third, I examine the theoretical implications for methodology and analysis of this work. Four, I discuss the research design, data collection methods and the analysis used. Last, I discuss research ethics, as well as the methodological and theoretical limitations of the study.

The next three chapters (Chapter 5, 6 and 7) present the research findings and analysis of the empirical work. Each chapter addresses one sub question posed in the introductory chapter (chapter 1) of this study.

Chapter 5 engages with the first sub question of this study, ***how has the nature of transboundary water interactions amongst the Incomati river basin riparian states evolved over time*.** I discuss the development and evolution of four institutions in the Incomati river basin. These are, Tripartite Permanent Technical Committee (TPTC), the Komati Basin Water Authority (KOBWA), the Southern African Development Community's Water Division (SADC-WD) the River and Environmental Management Cooperation (REMCO). I justify the choice and implications of those four institutions for my study. I rely on empirical evidence to understand how different stakeholders perceive cooperation and conflict in the river basin. I assess the views of stakeholders in relation to the literature reviewed and theoretical debates informing this study. Overall, the chapter critically discusses the extent to which the interactions within TPTC, KOBWA, SADC and REMCO are cooperative and their implications for my study.

Chapter 6 explores the ***social and structural power relations in the Incomati River Basin*.** I give a general overview of how participants of the study define and understand the concept of power. The findings reveal four facets that we can learn about power in the post 1994 period. First, though power is omnipresent it is not necessarily negative. At times, power can unite different stakeholders to work together for the common good. Second, power can divide the society into winners and losers. Third, power can fail to heal wounds from the past as exemplified by the continued influence of colonial and apartheid systems in modern day systems. Four, power can give birth to new areas of analysis with implications for future studies. Briefly, the chapter contributes to power and hydro-hegemony debates in transboundary water governance, using empirical and theoretical evidence.

Chapter 7: The following question guides the discussion in this chapter, ***what is the role of third parties in reinforcing or neutralizing the existing power configuration in the basin?*** I discuss how foreign governments, international financial institutions, regional institutions and other third parties affect the manner, which states govern the Incomati River Basin. The discussion shows the constitutive nature of the relationship between state and non-state actors. The chapter concludes by assessing empirical evidence on the effects of third parties in the

Incomati River Basin and this yield positive and negative effects as well as an unexpected finding.

Chapter 8 is the concluding chapter of this thesis. I present the main findings of the study in line with research questions and objectives. I discuss the implications of the study findings for theory and practice. I also suggest areas for future studies. The main finding of this research is that transboundary water cooperation is a social construct between and amongst various actors who voluntarily or who acquiesce to power differently in space and time. This social construction of cooperation produces knowledge about power that is significant for both theory and practice.

PART 1: Background and Literature Review

Chapter 2: Transboundary Water Governance- Divergences, Convergences & Intersections

2.1. Introduction

There are two hundred and seventy-six (276) international rivers in the world and each of them cross two or more political boundaries (Benjamin et al, 2014; Armitage et al, 2015). In Africa, there are sixty-three (63) transboundary rivers and fifteen (15) of these are in the Southern African region (Ashton and Turton 2009). Katerere et al (2001) adds that all the states in the Southern African Development Community (SADC), except for two island states are dependent on transboundary water resources. The interdependences created by these transboundary rivers cause water to be critical and contested (Nakayama 1997; Ashton and Turton 2009; Pachego-Vega 2013). Central to these contestations are the challenges of promoting peaceful cooperation and developing equitable water use synergies among the river basin states (Sadoff et al, 2008). Therefore, effective governance of these resources is an important key to conflict prevention and promotion of peace amongst the relevant stakeholders.

Transboundary water governance is a set of practices that regulate and manage the process of cooperation between and amongst different actors involved in a shared international river basin. This however, goes beyond forms of cooperation and includes questions of power as well as conflict amongst those actors (Hanasz 2017). For Wiegleb and Bruns (2018:1155), transboundary water governance would include "formal and informal institutions, activities, and processes between different actors through which collective interests on water are articulated, differences are mediated, and joint actions are established". Similarly, Regan et al in Fauconnier et al (2017:3) posits that water governance is,

> The set of formal, public institutions and regulations, informal networks and social norms, as well as private sector mechanisms such as markets that modify and regulate the way stakeholders interact with water and water-related ecosystems and derive and distribute benefits from them

This study seeks to understand how social interactions in the Incomati river basin can inform our understanding of socio-political issues affecting transboundary water governance. A

combined analysis of the two definitions therefore sheds light on one of the key areas of this study; that is the structure and agency relationship. From the definitions, I understand structures to include the formal and informal institutions, networks, norms, processes, activities, while agency is the action where for example stakeholders articulate and mediate various issues within those institutions. I discuss the structure and agency debate more in the following chapter.

This chapter reviews literature on the nature and scope of transboundary water governance. It provides an overview of the socio-political issues found in transboundary water governance at different scales such as international, regional, national and sub national or river basin scales. First, I define and contextualize the meaning of transboundary water interactions in this study. Second, I discuss the role of third parties in transboundary water governance. Third, I use two international River Basins; the Nile River Basin and the Ganges-Brahmaputra-Meghna River Basin to bring out and engage some of the issues that actors contend with when collaborating in international river basin management. Fourth, I discuss transboundary water governance in the Southern African Region, specifically in the Southern African Development Community (SADC). Fifth, I give a background overview of the Incomati International River Basin as the case study of my thesis. The principal argument of this chapter is that, transboundary water governance is a contested terrain, where the dynamic interactions between and amongst actors require a critical exploration in relation to space, time and agency.

2.2. Defining Transboundary Water Interactions

> In the present world, water conflicts attract considerably more attention than cooperation, and the proponents of conflicts receive far more attention relative to those who prefer cooperation (Biswas 2011: 666).

To understand transboundary water governance, one must understand the role of actors involved in the process. Therefore, I look at the interactions of role players as they seek to manage river basins for the good of all parties concerned. I choose to look at the positive and negative aspects of interaction; that is cooperation and conflict over the water resources. I agree with scholars such as Mirumachi (2007) and Meissner (2000) on the coexistence of cooperation and conflict in any form of transboundary water interaction. For me, transboundary water interactions include both cooperation and conflict of the stakeholders involved as either

individuals or collectives. This also includes the interplay between these stakeholders and their environment.

The above quotation points to a recurring debate within transboundary water governance. The debate is whether the scarcity of water and problems associated with water will cause concerned parties to go to war, or whether such problems will draw states and parties towards cooperation. Studies by Ho (2017), Ashton and Turton (2009), Ashton (2004), Turton (2003), Wolf, et al (2003), and Ramoeli (2002) show that states are in favor of collaboration in international river basin management issues. The study by Wolf et al (2003) examined river basins that are at risk and concluded that states are more cooperative over water, with statistics pointing to 67, 1% in favor of cooperation to 27, 7% in favor of conflict (Wolf et al 2003). The United Nations Secretary General António Guterres solidifies the above claim that water relations are more cooperative than conflictual (UN Chronicle 2018b). Despite the cooperative transboundary water relations, there is evidence of sub national water conflicts (Moore 2016) that have affected women and girls in developing countries who spend a large number of hours annually trying to collect water for their families (UN Chronicle 2018b).

The international community has established guidelines on how to ensure equitable utilization of the shared water resources. Amongst these are the Helsinki rules[7] and the Law on the Non-Navigational Uses of International Watercourses[8]. The principles guiding the two include;

> the theory of limited territorial sovereignty; the principle of equitable and reasonable utilization; an obligation not to cause significant harm; the principles of cooperation, information exchange, notification and consultation; and the peaceful settlement of disputes (Rahaman 2009:160).

Most of the regional institutions tasked with managing cross border water resources follow the above-mentioned guidelines. More so, the importance of international river basins saw the United Nations Water Conference giving impetus to the initial register of international rivers and this gave rise to the launch of Integrated Water Resource Management (IWRM)[9] as a tool for managing international waters (Cardwell et al, 2006). The Convention on the Law of Non-

[7]Helsinki International rules 1966, See, http://namcow.cedare.int/namcow/attachments/article/105/THE%20HELSINKI%20RULES.pdf 2 March 2014

[8] Convention on the Law of the Non-navigational Uses of International Watercourses, 1997, See, http://legal.un.org/ilc/texts/instruments/english/conventions/8_3_1997.pdf 2 March 2014

[9] IWRM is "a process, which promotes the co-ordinated development and management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems" (Global Water Partnership, 2000:22)

Navigational uses of International Watercourses' faces coordination and implementation challenges despite becoming valid in 2014 (Cook 2015). Moreover the length of time it has taken to be ratified from its approval by the UN General Assembly on the 21st of May 1997 shows that transboundary water resource governance is not a priority in the global political agenda (Biswas 2011:662-663). The political factors largely contribute to these coordination and implementation challenges in international rivers (Molinga 2001; Allan 2001; Mirumachi and Allan 2007; Benjamin et al 2014).

The conflict potential posed by water scarcity has witnessed various scholars and political figures voicing out their concerns. For example, Mark Twain once said, "whiskey is for drinking, water is for fighting over[10]. In 1995, the then World Bank Vice president Ismail Serageldin said that, "if wars of this century were fought over oil, wars of the next century will be fought over water". The former Secretary-General of the United Nations Kofi Annan echoed the same sentiments in 2001 when he argued that "fierce competition for freshwater may well become a source of conflict and wars in the future". The articles discussing the myth or reality of water wars often quote these opinions. However, there is lack of evidence to substantiate these opinions[11] has led to the mis-conceptualization of the water war thesis (Biswas 2011; Turton 2000).

In discussing the inevitability or preventability of water conflicts, Ashton (2000:69) asserts that most critics focus on pointing fingers rather than coming up with solutions. For example, people are suspicious of the agendas of politicians and administrators, with some accusing them of being aware of the impending problem yet decide not take action. Biswas (2011) argues that, better-integrated management of water resources with other equally important development issues such as energy, agriculture, institutional development as well as technological advancements would in the future improve water use and governance across states.

Ashton (2000) is optimistic about institutions and the public playing a huge role in ameliorating potential disputes over water. Ashton (2000) calls for proactive solutions to conflicts faced in transboundary water governance, particularly, now that actors have matured in management and know the importance of sharing information across all actors involved. Despite such constructive calls, water wars still occupy the minds of both scholars and political analysts.

[10] See for example, https://quoteinvestigator.com/2013/06/03/whiskey-water/ 3 March 2019
[11] ibid

Meissner (2000:104) defines a water war as "a violent conflict which is directly caused by the incompatible sharing and/or allocation of water resources between states or non-state entities, at both the national and international level". Those who believe on the possibility of a water war argue that the scarcity of water coupled with population explosions and climate change impacts will lead to wars between and amongst states (Meissner 2000:106). Turton (2000) dismisses water wars as a myth. He argues that "water wars are nothing more than a red herring, consuming our collective research energy when there are other more pressing problems which we need to attack" (Turton 2000:165). Veilleux in Petersen-Perlman, Veilleux and Wolf (2017) argue that media perpetuate the conflict potential of water while empirical evidence demonstrates cooperative behavior amongst riparian countries.

Ashton (2000) argues that when water infrastructures are disrupted it does not mean that it is a water war because the conflict was not directed to water supply. When hydraulic installations are targeted for war, Turton (2000) calls this a conventional war and war targeted on waterways could be called a quasi-water war "because the war is merely being fought in a theatre that is dominated by an aquatic environment" (Turton 2000:37). Holst in Meissner (2000:106) notes that water is usually not the primary cause of water conflicts and lists other issues such as religion, ideology, ethnicity and border disputes as possible reasons why states could go to war against each other. The power of the media can play a role in producing knowledge falsely about the water conflicts, which is propaganda likely to reduce investor confidence in a region where water wars are allegedly anticipated (Turton 2000).

Even with no evidence of water wars (Flintan and Tamrat 2007), however, there are instabilities that can result due to the negative impacts of climate change, ineffective governance and asymmetries of the states concerned (Benjamin et al 2014). Flintan and Tamrat (2007) cite the Senegal versus Mauritania fight over the Senegalese river, which escalated into both countries guarding their borders with military troops. Flintan and Tamrat (2007) discuss the farmer disputes in Mali in which water access was one of the driving forces. As mentioned earlier, transboundary water interactions include both cooperation and conflict. The disputes in Mali and the conflict in the Senegalese river both include attempts by parties to cooperate and solve the disputes. The coexistence of cooperation and conflict is complex. Below I define transboundary water cooperation and conflict and highlight how they may coexist.

2.2.1. Transboundary Water Cooperation

Cooperation often results in signed treaties after long time communication and deliberations amongst concerned parties (Pfeiffer and Leentvaar 2013). For any development to be termed cooperative, it has to result in mutual benefits to the concerned actors (Jägerskog and Zeitoun 2009). Transboundary water cooperation is a continuous non-linear process where both states and third parties continue to communicate even beyond sealing water-sharing agreements (Kistin 2007). Fauconnier, et al (2017) argue that transboundary water cooperation is an evolving process that could be affected by the stakeholders involved, new data as well as changes in the environment.

Thus, cooperation can move from deliberations on the common water problem at hand, to agreeing and signing documents sealing agreements, to implementing agreed initiatives and joint development projects such as dam constructions and flood mitigation plans. Delbourg and Strobl (2014) suggest that, at times, states cooperative engagements are not visible. They describe this as "negative peace" whereby actors will not be actively communicating with each other due to various reasons. The reason could be that the parties might be satisfied with the status of the river basin development or they could be employing informal arrangements, which do not need formal agreements (John Galtung in Delbourg and Strobl 2014).

Cooperation may reduce the risk of conflict, enhance regional integration and open up a range of management options that can improve conditions in transboundary water governance. Yet, fostering cooperation is often long, arduous, and incomplete as riparian states struggle to manifest the boldness that is frequently required to achieve cooperation on transboundary waters. For example, in the Senegal River Basin (shared by Senegal, Mali, Guinea, and Mauritania) through the Organisation pour la Mise en Valeus du Fleuva Senegal (OMVS) managed to work together to develop the basin, for example, irrigation to the benefit of all concerned, something that no one country could have done independently (Benjamin et al 2014). The authors however argue that although benefits outweigh the previous situation, there remains asymmetries in the sharing of benefits with Senegal getting more water for irrigation than others. According to Armitage et al (2015), analysts need to deconstruct cooperation in order to see who benefits and who does not benefit. Petersen-Perlman, Veilleux and Wolf (2017) add that cooperative initiatives and agreements can hide power dynamics. This shows

the coexistence of cooperation and conflict. It also shows that there are always winners and losers in international water interactions.

2.2.2. Transboundary Water Conflict

Transboundary water conflict is "a series of tensions or specific non-cooperative acts perpetrated by one of the countries regarding the others" (Delbourg and Strobl (2014:12). According to Petersen-Perlman, Veilleux and Wolf (2017:2), conflict in international rivers includes "verbal, economic, or militarily hostile actions between stakeholders over internationally shared water resources". Some scholars argue that population explosions (Sanchez and Roberts 2014; Ashton 2000) and urbanization are some of the drivers of water insecurities that could lead to conflicts (Earl 2013). Downstream countries are even more vulnerable if they have weaker economies or weaker military capabilities than their upstream counterparts do (Ashton 2000). However, conflict is not only restricted to state actors, non-state actors can have a role to play in the disputes involved.

Conflicts manifest in different forms. These include, (1) hydraulic conflicts which might destabilize relations between various water users, (2) allocation conflicts that occur when water is allocated unfairly across different water users, (3) distribution conflicts between the haves and the have nots and (4) qualitative disputes which arise when the quality of water is compromised by upstream users (Moore 2016:3 paraphrased). Moore (2016) adds that sub national conflicts are often missing in transboundary conflict discussions, yet there are important for bringing social justice within states.

The likelihood of disagreements over sharing international rivers increase when the actors politicize and securitize water resources (Mirumachi and Allan 2008). This includes issues that may pose threats to the economic and political development within a country (Mirumachi and Allan 2008; Hanasz 2013). However, conflict over water resources is not always negative, and sometimes conflict can be transformative (Flintan and Tamrat 2007). This is particularly the case when states challenge the status quo of unfair distribution; thus, conflict here opens opportunities to renegotiate unfair arrangements and a possibility of attaining relatively fairer outcomes.

There is need to nuance the coexistence of cooperation and conflict (hereafter referred to interactions in this thesis) in the structure and agency debate. For example, as the parties in Mali and the Senegalese river mentioned above contend with opportunities and challenges

through various structures. Structures include legislative and policy frameworks that govern the behavior of people within that environment (Giddens 1984; Bourdieu 1990). Structures in this study include institutions, ideas and norms included in the legal and policy frameworks. Embodied in those structures are individuals or collective groups who have agency to define the process and outcomes of water interactions. Giddens (1979:55) define agency as "a continuous flow of conduct". Rizzo (2013) argues that this conduct is multidimensional and flows across the past, present and future. Chapter three of this thesis discusses the relationship between structure and agency in more detail. The next section analyses transboundary water interactions in two international rivers: the Nile River Basin and the Ganges- Brahmaputra-Meghna River Basin.

2.3. Role of Third Parties

In his study on transboundary water governance in Southern Africa, Sebastian (2008) notes a deficiency of the role of third parties. Further, he articulates the need to understand the role of third parties in a post-colonial context (Sebastian 2008). This study seeks to explore the role of third parties in the SADC region and specifically in the Incomati river basin. In this section, I briefly review literature on third parties.

Transboundary water interactions as I have shown so far include the activities of both state and non-state actors. Globalization has opened up borders and the interconnectedness of global challenges faced has forced different players to come together to address common problems. The United Nations Sustainable Development Goals (SDGs) have emphasized good water governance that encourages participation of different stakeholders in society (UN Water 2014). Turton (2000) advises analysts to consider people such as farmers in the analysis of transboundary water conflicts because a lot could be happening downwards unnoticed, yet with valid implications. Accordingly, participation of everyone in the society can transform the lives of vulnerable groups such as women and children (UN Chronicle 2018b).

Furthermore, globalization and governance literature has seen an emphasis on the increasing role of non-state actors and a shrinking power of the state (Fauconnier et al 2017; Hanasz 2017; World Bank 2017). The government or the state to me has subtle power even in situations where it seems non-state actors are in control. For Barret (1994), third parties do not have

power to inforce or impose agreements within a river basin. I concur with Sending and Neumann in Withanachchi (2012:10) who interpret the changing dynamics between state and non-state actors as "a shift of logic or rationality of government instead of a transformation of power from the state to non-state". Therefore, I argue that the state is not entirely powerless amid the growing influence of non-state actors such as Non-Governmental Organisations (NGOs), Multinational Corporations (MNCs) and the Global civil society; but globalization has facilitated a restructuring and redefinition of state functions and power. This call for analysts to revisit the socio-political issues affecting water governance. For Wiegleb and Bruns (2018) despite having a progressive water goal 6, the SDGs neglect the role of socio-political issues in water governance by maintaining the hydrological or managerial focus of water governance when analyzing the challenges.

Third parties, such as donors, International financial institutions (IFS), civil society and regional institutions, play an important role in TWG. These actors can influence decision-making processes indirectly through the media or directly through face-to-face dialogues with people involved in making decisions (Meissner 2000). Civil society organisations are "legitimate hydro political role players" and their role needs to be analyzed critically (Turton 2000:168). For Turton (2000) disputes amongst players involved in transboundary water governance are unavoidable, particularly, because, the involvement of non-state actors shifts the traditional way of doing things and invites highly contested opinions as these actors are bringing different interests to the table. For example, some players will be interested in climate change, others in environmental issues, and others in funding while others could be interested in human rights. SADC as a regional organ, tasked with integrating the region could for instance prioritize regional integration and see water as a human right. On the other hand, international financial institutions such as the World Bank might prioritize economic efficiency.

Third parties can have a good influence in transboundary water governance. Sadoff et al (2008), notes that World Bank mediators played an important brokerage role between India and Pakistan that led to the successful signing of the Indus Water Treaty. The effectiveness of third parties is not dependent on their skills only, but the timing is also crucial. For example, Biswas (2011) gives credit for the success of the Indus Treaty to the then President of the World Bank. In addition, Biswas (2011) argues that the commitment of World Bank President and the conducive political environment in Pakistan and India at the time led to the success of the treaty. Moreover, Biswas 2011 echoes,

> Asia was a different continent half a century ago, and the World Bank, which acted as a facilitator to make this treaty possible (Biswas, 1992), was held in very high esteem in the subcontinent at that time. In addition, the political leaderships in both India and Pakistan were enlightened, and the leaders of both countries truly wanted a solution. Equally, the relationships between the two countries were significantly more positive compared to what exists at present. Furthermore, Eugene Black, the then World Bank President, was willing to take the risk of possible failure in the negotiations, in contrast to the mostly risk-averse Presidents who have followed him. The "carrot" that the World Bank dangled in front of the two countries, consisted of significant funding for projects in both, provided they reached a mutually acceptable agreement. This proved to be a very important practical incentive to expedite the Treaty (Biswas 2011:664).

The above quotation sheds light to the power of individuals and their interests, which the thesis will engage. One will notice that the success of the treaty is attributed to the then President of the World Bank Eugene Black who is hailed as progressive. The leaders of both India and Pakistan were also cooperative. Prior to the World Bank giving funds to both countries, Biswas (2011) highlights that the two countries had to reach a mutual agreement. This is in agreement with Klaphake and Scheumann (2006)'s findings that third parties place conditions before they can fund states.

There are certain dynamics not problematized by some theorists. For example, while rationalists argue that both India and Pakistan are rational states and welfare maximizing entities, constructivist institutionalism, which is the theoretical framework of the study, would question the interactions between structure and agency in the Pakistan-India case study. The leaders of the two countries and of the World Bank demonstrate the power that people have in transboundary water governance. Through agency, we see how these leaders took advantage of the political opportunities available at the time to redefine the context of cooperation. Further, one can argue that redefining their context produced an outcome that can deem them as structures because in some circumstances structures are internal to people which allows them to construct and reconstruct knowledge (see Schmidt 2008).

The involvement of donors is a necessity in meeting adequate finances when developing basin infrastructure and in promoting institutional building (Subramanian, et al 2012; Qaddumi 2008). However, donor involvement usually comes with certain stringent conditions. For example, the World Bank emphasizes the compliance of all the riparian countries prior to funding the river basin development initiatives (Klaphake and Scheumann 2006). For example,

prior to the World Bank giving funds to Eswatini for the development of Maguga dam, they needed compliance from Mozambique that at the time was in conflict with South Africa on the water flows (van der Zaag and Vaz 2002). The World Bank lists the Lesotho Highlands Water Project as one of the most successful projects they have funded in the Southern African region (Furlong 2006). The project "brings much needed revenues and electricity to economically stressed Lesotho" while it feeds South Africa with much needed water to sustain her growing population (Furlong 2006:452). Although, the Lesotho Highlands Water Project (LHWP) is a success story for the World Bank, a more theoretical and practical engagement reveals other complexities. For example, the continued poverty suffered by the displaced people due to the LHWP and population of Lesotho.

A major disadvantage regarding the involvement of Third Parties is that they often do not coordinate their work very well (Benjamin et al 2014). For example, there are several NGOs working on transboundary water issues, however, many organisations work largely in silos. Klaphake and Scheumann (2006) further argue that the challenge faced is whether the motives of decision makers when working with third parties are driven by the needs of the populations that they govern or they will be for their own benefit. Whether administrators and political representatives would seek to ensure the general wellbeing of the state or would exhibit rent seeking attitudes and self-interests of decisions makers.

Moreover, third parties such as Non-Governmental Organisations (NGOs), Inter-Governmental Organisations (IGOs), nation states and donors can also motivate countries to cooperate. According to Kehl (2011), in countering hegemony in a region, the less powerful might seek the help of third actors in providing them incentives to cooperate or influence water and benefit sharing arrangements. These often play a brokerage role; help facilitate basin investments and they assist in negotiation and mediation process between or amongst riparian states. I will discuss the roles played by third parties in detail within chapter seven of this thesis.

2.4. Transboundary Interactions in Two International River Basins

In this section, I engage with socio-political issues in the Nile River Basin and the Ganges-Brahmaputra-Meghna River Basin. The Nile River is in North East Africa and the Ganges-Brahmaputra-Meghna River Basin is in South Asia (Himalayan Rivers). The chosen case studies offer a socio-political perspective of sharing international rivers. More so, I choose

these river basins because of the differences and similarities with the Incomati River Basin in Southern Africa. The three are similar in that the countries are developing nations with similar struggles in terms of resources and political dynamics. The difference is that they are however, in three different geographical locations and different institutions guide the management of the rivers. Therefore, I want to understand critically, those differences and similarities and explore how they lead to an understanding of socio-political dynamics in transboundary water governance.

2.4.1. The Nile River Basin

If you drink from the Nile, you will always come back (Egyptian Proverb)

The Nile River Basin is one of the highly contested river basins. Being a highly contested river basin, effective governance of the Nile waters is crucial for facilitating regional peace and security. The Nile River Basin is described as the longest river in the world by the Guinness World Records (Cook 2015) and is shared by eleven (11) countries. These countries are Egypt, Rwanda, Sudan, Ethiopia, Tanzania, Uganda, Burundi, South Sudan, Democratic Republic of Congo (DRC), Eritrea and Kenya.

The Nile waters are highly securitized as reflected in sentiments that have been openly expressed by political leaders of the riparian states of the Nile river. Below I give some of the sentiments shared by political leaders over the years,

> "If Egypt were to ever go to *war again* it *would be over water*" (a former Egyptian President Anwar Sadat, emphasis added)

This was a political way of saying, that Egypt is willing to use its military power should anyone threaten the Egyptian water supply from the river.

> "I am not worried that the Egyptians will suddenly invade Ethiopia. *Nobody who has tried has lived to tell the story*" (The Ethiopian Prime Minister Meles Zenawi, emphasis added)
>
> "Ethiopia has reached a stage where it can build *its own dams with its own money*" (Meles Zenawi in Whittington 2014: 4)

In simple terms, Meles Zenawi was informing Egypt that Ethiopia, as a sovereign nation is also capable of defending their sovereignty even if it means military war. In 2010, Meles Zenawi

expressed his second quote on television (Whittington 2014). Such a sentiment from the President of Ethiopia symbolizes the independence of Ethiopia in constructing the dam and the determination to see the project to completion regardless of external opposition. In total, such statements show the securitization of the Nile waters.

> "When you rely on the water more than others or think about water more than others; *it does not mean that you have the right to do what you want*". (The President of Rwanda Paul Kagame, emphasis added)

In this case, Paul Kagame was diplomatically telling Egypt and other states that are always making developments on the Nile, that Rwanda still has a share of the water and has the power to claim it should the need arise.

Tanzanian President Nyerere came up with the Nyerere Doctrine[12], which opposed the Nile colonial water agreements saying that,

> "The newly *independent colonies* were under *no obligation* to *abide by treaties* signed *on their behalf by Great Britain*" (Cook 2015:3)

The superficial nature of the above quotations by the four Presidents, notwithstanding, show how the interactions in the Nile are highly political whereby central points of power such as the Presidency participate actively in the dialogues. This puts water as a potential cause for territorial dispute under the spotlight and begs the question what socio-political and economic factors lead to territorialisation of water resources despite the interactions by a number of actors outside the state domain. Most importantly, how do geopolitical dynamics shape efforts to – through for example agreements– effect cooperation (or fuel conflict) over transboundary water resources?

The quotes also show the centrality of water in the economies of the riparian states, with countries, such as Egypt and Ethiopia using threats as a way of securing their position within the river basin. For Schulz (1995), this is an example of a hydro political security complex whereby states sharing an international river basin (in terms of both ownership and water usage) make the river a strategic and a security concern for each state. The role played by these leaders is not adequately analysed in transboundary water governance. Often times, as

[12] The then President of Tanzania Julius Nyerere, advocated for flexibility to colonial international agreements. He called for these to be renegotiated upon independence because African states were not supposed to be bound by agreements signed when they didn't have power to negotiate as independent states (Turack 1984).

Presidents, their role is discussed under structures in the structure and agency debate. However, this thesis questions the role of these leaders and poses a concern that if we take them as structures, we might miss their active role as individuals who have the power to act in ways not formally described in their legislations (as an example).

In the Nile river basin, Egypt has historically consumed most of the water (Benjamin et al 2014), yet it is the driest state receiving less rainfall than all riparians' (Frenken 1997). Egypt and Sudan benefitted more from the 1929 Nile Waters Agreement, that gave Egypt,

> 48 billion cubic meters of water per year and gave veto power to Egypt over any water projects, with Sudan securing 4 billion cubic meters of Nile waters per Year-Ethiopia was not included nor consulted for the development of this agreement (Carlson 2013 in Cook 2015:3).

In 1959, the water allocations for Egypt and Sudan increased to 55, 5 billion cubic meters and 18, 5 billion cubic meters per year respectively (Cook 2015; Whittington et al 2014). The 1959 treaty saw Sudan and Egypt building dams on the Nile and this fueled the tensions amongst other states because they did not benefit from the treaty and Sudan and Egypt did not consult them (Whittington et al 2014; Flintan and Tamrat 2007). Egypt could afford to build those dams so this could imply that she has economic resources compared to other countries who cannot afford to be involved in large hydraulic projects. The reasons why Egypt has the kind of power she has in the river are not so clear. Most literature speculates that Egypt has economic and military prowess that is a threat to the other states.

Warner and Zeitoun (2008) argue that Egypt seems to be having its cake and eating it too. For example, although the Nile Basin Initiative[13] has managed to solve long time problems in the river basin, Egypt has deemed the 1959 treaty between her and Sudan as 'non-negotiable' (Warner and Zeitoun 2008: 807). The 1959 treaty gives the two countries a bigger share of water with an intention of controlling water flows in such a way that upstream countries have limited power to develop (Flintan and Tamrat 2007). The Nile Basin Initiative motivated by international law principles such as equitable utilisation of water was a temporary measure to find ways in which the riparian states would find lasting solutions (Cook 2015). The anticipated

[13] The Nile Basin Initiative (NBI) is "an intergovernmental partnership of 10 Nile Basin countries, namely Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, The Sudan, Tanzania and Uganda. Eritrea participates as an observer" pasted from the NBI website, see, http://www.nilebasin.org/). 17 August 2017.

outcome is a RBO that would be responsible for the management of the river basin. However, challenges persist.

In 2011, Ethiopia announced that it would construct the Grand Renaissance Dam that marked a serious threat to Egypt's power (Whittington et al 2014). This was a demonstration that colonial laws such as the 1929 Agreement no longer bound the Nile states. As mentioned earlier, the 1929 Nile Waters Agreement gave Egypt more water and benefits that affected upstream states to develop. Through, the Grand Renaissance Dam, Ethiopia, was about to shift the geopolitics of the Nile. The birth of South Sudan as an independent state also added to the geopolitical shifts in the region, with South Sudan choosing to comply with the 1959 treaty (Whittington et al 2014). The reluctance by Sudan and Egypt to ratify the Nile Basin Initiative (Whittington et al 2014) to create a Cooperative Arrangement could be a sign that the two countries are still comfortable with the colonial rules and not willing to change. Benjamin et al (2014) discusses how Ethiopia's 'Grand Ethiopian Renaissance Dam' could destabilize relations with downstream countries who fear that Ethiopia will use the project to pursue her needs of controlling the water flows whilst putting others at risk of not having adequate water.

The hydro political constellations or the position of states will largely determine how they relate (Klaphake and Scheumann 2006). A good example is the Egypt-Sudan-Ethiopia political relations whereby Egypt and Sudan the downstream countries are constantly fighting against the potential dominance of Ethiopia in the upstream. There is a potential risk that if Ethiopia increases its water levels or builds more water infrastructure, it will harm the two downstream states. Such fears are described by Subramanian et al (2012:7) as a "perceived risk" that is the "perception that an act of cooperation will expose the country to harm, will jeopardize something of value to the country, or will threaten the political future of individual policymakers". Failure to support the creation of a RBO in the Nile Basin by Egypt and Sudan therefore shows that states are rational actors who will only support initiatives that favor their own self-interests (Mitchell and Keilbach 2001; Sadoff and Grey 2002; Dinah 2004).

Furthermore, the challenges facing TWG are beyond water and include the allocation and contestation of values across different stakeholders. One of the concerns as noted in the introduction is how does water become a site of contestation. In the Nile river basin, the answer to this question might look simple whereas in reality it is complex. First, all the 11 countries of the Nile use the river for irrigation purposes and hydro electricity generation. This means that their economies are heavily dependent on the river. Second, while all of them depend on the

water for economic advancement, some states depend on the resource more than others. For example, Egypt is 100% dependent on the Nile for survival yet it does not have any of the tributaries of the Nile within her territory. On the other hand, Ethiopia is a host of many tributaries but does not use as much water as Egypt does.

Thirdly, some states such as Ethiopia are in the headwaters of the Nile while Egypt is downstream making it difficult to manipulate the flows from a downward position. However, most literature has noted that Egypt has managed to maintain her power despite her position of disadvantage. She has used various tactics, for example building of the Aswan dam, boycotting the signing of the basin level agreement and persistently pushing the need to uphold the previous colonial agreements. The colonial agreements of 1929 and 1959 give Sudan and Egypt more relative power over the waters of the Nile (Barret 1994).

However, missing in the literature is the explanation of 'power' what exactly do we mean when we say Egypt is the most powerful state in the Nile? How do we qualify that? Further, how do we define the recent actions by the Ethiopian government to implement the Great Ethiopian Renaissance Dam without consulting all the relevant Egyptian authorities? Do we see this as a counter attack against growing influence of Egypt on the Nile? While Egypt is anxious about such a move and feels it presents a threat to the security of her water flows, Ethiopia refuses to take blame arguing that the project will benefit all riparian states (Grandi 2016).

2.4.2. Ganges-Brahmaputra-Meghna (GBM) River Basin

In terms of the volume of river basin systems, the Ganges-Brahmaputra-Meghna (GBM) River is the third biggest river in the globe (Benjamin et al 2014) shared by China, India, Bhutan, Bangladesh and Nepal. The river is "highly politicized" (Bandyopadhyay in Centre for North East Studies 2014:1) due to population explosions, unequal distribution of water, urbanization, and poverty (Benjamin et al 2014). India and Bhutan in the Ganges-Brahmaputra-Meghna (GBM) river basin have managed to develop their water in a way that brings substantial benefits to both countries, that is, poverty alleviation and economic growth while India, Bangladesh and Nepal on the same river basin have failed to exploit the abundant water resources for their socio-economic development (Barua 2008; Biswas 2011).

According to the Food and Agricultural Organisation (FAO: 2016), it seems to be India's strategy to push for bilateral engagements as opposed to multilateral engagements to solidify her powerful status in the river basin. Similarly, in the Incomati river basin, South Africa has more bilateral agreements with Eswatini (see Turton 2005). The reasons why bilateral engagements help hegemons to maintain power in the river basins is not clear. I assume that with bilateral arrangements it is easier to check and balance the activities of each other compared to when more states are involved. The comparison will be further explored in Chapter five (5) of this thesis.

According to Biswas (2011), all rivers of Bhutan are transboundary. It is interesting to note that the same applies to the Eswatini's river networks. Being also the smallest country in terms of population within the GBM river basin, as Eswatini is in the Incomati River Basin. This however, does not necessarily assume a weaker position in relation to other riparian states. Bhutan, exploited its position and coming from a very mountainous position, which is not ideal for agriculture, Bhutan tapped into a great opportunity of hydropower generation. The strategic need to cooperate with India in the GBM river basin is similar to the strategic need that Eswatini saw in cooperating with South Africa as will be seen later in the chapter (see also chapter 5 and 6).

In 1980, Bhutan brought to the negotiating table with India

> a plan to develop the hydropower potential of the Wangchu Cascade at Chukha, in cooperation with India…India agreed to construct a 336 MW run-of-the-river project at Chukha…the project was so successful that it had covered its costs by 1993 (Biswas 2011:666).

The win-win scenario between the two countries happens because they agreed that they would sell excess hydropower to energy hungry India (FAO 2016). According to Biswas (2011), due to profit from the sales Bhutan has been able to increase her GDP per capita from being the least amongst the riparian states of the GBM river basin to be the highest. She has also used the profits to repay the loans and social development initiatives such as increasing salaries for the civil servants and poverty alleviation.

Domestic policies play a role in the way states interact with other states. For example, in the GBM river basin, the nature of Bhutan and Nepal domestic policies define their foreign policies with India. Although Nepal suffers from internal challenges such as insurgency, it has remained less cooperative with India while Bhutan's few internal challenges beyond water have made

Bhutan cooperative with India (Hanasz in Hanasz 2017). Similar to Nepal, Bangladesh has failed to take advantage of the power of collaboration on the shared water resources. These three, are not cooperating "due to past perceived differences, a legacy of mistrust, lack of goodwill and an absence of sustained political will" (Biswas 2011: 669) and power imbalances, what Biswas describes as "big brother–small brother syndrome" (ibid: 668). This has led to the conclusion that this lack of cooperation is a missed opportunity for poverty alleviation for one of the poorest people on earth.

Earl et al (2015) argue that the governments of the GBM river basin do not prioritise transboundary water governance. For instance, governments are reluctant to sponsor initiatives aimed at cooperation. An example of such as initiative is the South Asia Water Initiative. The World Bank established the South Asia Water Initiative (SAWI) in 2007 to facilitate the activities of the Abu Dhabi Dialogue (ADD). The ADD is an informal platform where different groups from Bangladesh, Afghanistan, China, Bhutan, India, Pakistan and Nepal come together under the guidance of third parties to discuss issues affecting the South Asian region, specifically the Himalayan river (Hanasz 2017). SAWI is a brainchild and financially supported by the following third parties, the World Bank, United Kingdom, Norway, and Australia (Hanasz 2017). Jones (2015) in Hanasz (2017) suggests the analysis of third party interests before ascertaining their role in transboundary water governance. Earl et al (2015) recommends the GBM states build a permanent institute as a way of containing their recurring problems.

Biswas (2011: 669) describes the failure of cooperation between India, Nepal and Bangladesh as "an agonizing paradox", particularly because the region has vast resources, not exploited due to political influences at the expense of the local populace. More so, in that region, China is one of the countries in the world who has not ratified the UN Convention (Benjamin et al 2014). This compromises the development and collaborative efforts in the region since the riparian states might share different ideological influence. Contrary to the GBM river basin, countries in the SADC region, including the Incomati river basin countries have all ratified the UN Convention, and the SADC Revised Water Protocol. In the next section, I discuss transboundary water relations in the Southern African region.

2.5. Transboundary Water Governance in Southern Africa

Water is a vital component to Southern Africa's developmental needs. Key drivers of development such as industrialization and economic development depend on a steady and reliable supply of water. However, there is scarcity of this precious resource in the region. This is partly because many countries in the region are in the arid and semi-arid regions of the world (Turton and Ashton 2004). The other reason is the region's geographical location in relation to the equator. In the equatorial climatic zones, there is an abundance of rainfall, but rainfall totals systematically decrease and there is also a rise in evapotranspiration rates as one moves away from the equator (Turton et al 2006). Against this backdrop, Turton et al (2006) notes that the vulnerability of the Southern African region concerning its hydrology and politics can be better understood through an examination of the inherent hydrological factors and the social responses to their change. This could also speak to ways of curbing the effects of climate change on the hydrological arena of the Southern African region by institutionalizing responses to it.

One of the key aspects of the Southern African region is that it has several rivers that cut across national boundaries. The table below shows the fifteen river basins found in the region.

River Basin	Riparian States
Buzi	Mozambique, Zimbabwe.
Cunene	Angola, Namibia
Cuvelai	Angola, Namibia
Incomati	Mozambique, South Africa, Eswatini
Limpopo	Botswana, Mozambique, South Africa, Zimbabwe
Maputo	Mozambique, South Africa, Eswatini
Nata	Botswana, Zimbabwe (a component of the Makgadikgadi System)
Okavango	Angola, Botswana, Namibia
Orange	Botswana, Lesotho, Namibia, South Africa
Pungué	Mozambique, Zimbabwe
Rovuma	Malawi, Mozambique, Tanzania
Save	Mozambique, Zimbabwe
Umbeluzi	Mozambique, Eswatini
Zaire (Congo)	Angola, Burundi, Cameroon, Central African Republic, Congo, Democratic Republic of Congo (formerly Zaire), Rwanda, Tanzania, Zambia
Zambezi	Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania, Zambia, Zimbabwe

Table 1*: International River Basins in the SADC Region*
Source: (Turton and Ashton n.d:52; Turton 2004)

The states sharing the river basin become dependent on each other, and create a regional security complex. A regional security complex is a group of states whose national securities and level of development connect in such a way that the behavior of one state has implications for the whole group (Buzan 1991). According to Buzan (1991), an example of a regional security complex in Southern Africa consists of Botswana, Angola, South Africa, Zimbabwe, Zambia, Eswatini, Mozambique, Namibia, Lesotho, and Malawi. The Incomati river basin riparians' (South Africa, Mozambique and Eswatini) are part of the security complex and this highlights the level of dependence they have on each other.

Specifically, for transboundary water governance, Schulz (1995) developed the concept of a hydro political security complex using Buzan's framework (Ashton and Turton 2009). Schulz (1995) defines a hydro political security complex as an example of a regional security complex whereby states sharing an international river basin (in terms of both ownership and water usage) make the river a strategic and a security concern for each state. This gave rise to the concept of Southern African Hydro-political complex. Turton (2003a) developed the concept of the Southern African Hydro-political complex. One will notice that in Southern Africa the concept excludes 'security' and is a hydro-political complex and not a hydro-political security complex. Ashton and Turton (2009) and Jacobs (2010) argue that water in the Southern African region is not securitized hence the exclusion of security in the SADC hydro political complex.

Southern Africa's hydro political complex as envisaged by Turton et al (2006) places the Incomati basin as of strategic importance to South Africa (regional hegemonic power) and that the future of Mozambique and Eswatini is impacted by that (see figure 5 below). Turton et al (2004) refer to pivotal states that are riparian states that are well developed in the region and are heavily reliant on shared international rivers for their development. Therefore, Turton refers to the riparian states that share waters with hegemons as impacted states. Allegedly, impacted states do not have freedom of choice when it comes to developing the water resources to which they might feel they have a right. Therefore, this means that if the basin is approaching a point of closure[14] the weaker states are impacted because they are unlikely to be given a free hand to develop water resources, if this is deemed to potentially threaten the future viability of the pivotal state within the basin configuration (Turton 2005).

[14] Basin Closure means a river basin has allocated all its water to different uses and there is not much room for more allocations.

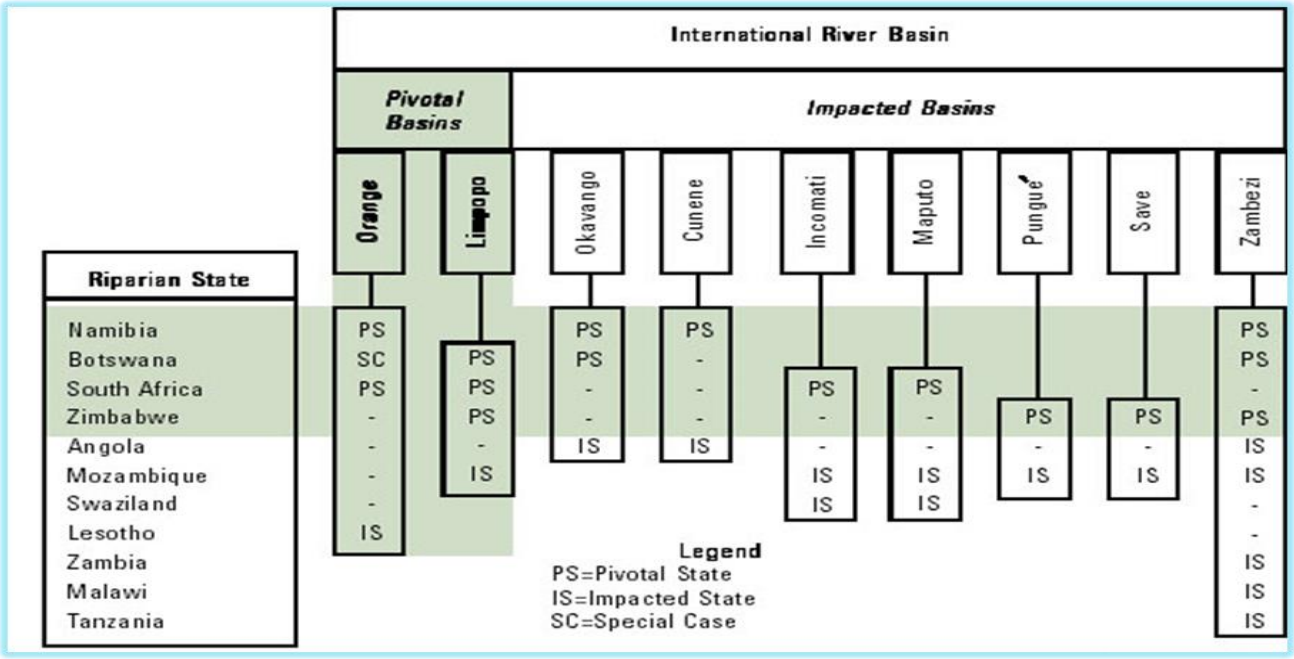


Figure 1*: The Southern African Hydro-Political Complex*
Source: Turton (2005)

International water governance in Southern Africa cannot be divorced from the politics that shaped the region during the colonial era and during apartheid in South Africa. During apartheid, South Africa through her National Total Strategy15 set up carrots and sticks for the neighbouring countries to secure enough water and overall national interests. Some countries such as Botswana and Eswatini consented to South Africa's influence as a survival strategy, to push their national interests while not facing the stick of not aligning with the hegemon.

One of legacies of colonial rule in the region is the existence of International river basins brought about by the arbitrary demarcation of state boundaries (Turton et al, 2006). There has been a lot of contention on the issue of borders, in terms of who defines them. Katerere et al (2001:10) argue that the difficulties involved in defining borders accurately has led to boundary disputes, for example the Sedudu /Kasikili island between Namibia and Botswana which was later found to belong to Botswana by the International Court of Justice in 1999. The culture of militarization in conflict resolution is not encouraging in a region whose economies are largely dependent on shared natural resources (Katerere et al 2001:9).

[15] The National Total Strategy was a counter-revolutionary attack that the National Party set up to fight any regional liberation movements that were perceived to be against South Africa. These liberation movements against the country were defined as "total onslaught".

The interdependencies have instead presented states with a situation whereby they should negotiate ways of mitigating development related consequences on these international river basins; so as to minimize environmentally hazardous effects of river exploitation, especially in the states that are positioned downstream of a river basin. For example, Mozambique is downstream in the Incomati and Maputo rivers, as well as in the Zambezi River and Save Rivers (Turton et al, 2004) and this places it in a vulnerable position.

In addition to this, countries in the region have been under different colonial masters for example, Mozambique under the Portuguese and Zimbabwe under British rule, this makes the coming together of two or more countries difficult for instance in terms of negotiations involving countries which speak different languages. Unlike its neighbors who were colonized by the British English speakers, Mozambicans communicate using the Portuguese language, which is foreign in other countries of the Southern African region. In this regard, Turton et al (2006) point out each country in the region as having a different colonial experience in terms of their political administrations and legal systems, which are a legacy of former colonial masters like for instance the Portuguese and the British. This further complicates the governance of international river basins because of the differences inherent in each of the countries that make up the Southern African region. More so, Southern Africa being under colonial rule has a history of armed struggle. The need to gain control or ownership of dispossessed land and resources drives this struggle (Swatuk, 2015).

In a similar vein, Ramoeli (2002) notes that the vital role of water in the Southern African region saw the SADC region adopting its first protocol which was based on shared international river basins. This further cemented the idea that water plays a significantly high political role in the region. However, this does not mean that there are no problems concerning the governance of international rivers. Amestrand and Hanson (1993) note that despite the SADC protocol on water a number of rivers in the region do not have functioning agreements. This is exacerbated by the fact that the Southern African region has been the hardest hit by the HIV/AIDS pandemic in the African region leading to the loss of highly skilled, much needed human resources in the governance of international rivers (Turton et al, 2006). Good governance of international river basins has the potential to alleviate poverty and instigate economic development integration in the region (Turton, 2008). The management of transnational water resources can create a platform to discuss and bring about policies that can work towards the development of the region.

The Southern African regional states have to negotiate the differences that they had during the cold war era, colonization and during the apartheid era in South Africa in order to work towards an amicable way of managing transboundary waters. During the era of apartheid, South Africa played a big role in sabotaging majority rule, for example, in countries such as Namibia and Angola (Swatuk, 2015). However, despite the demise of apartheid and the incorporation of South Africa as a member of the SADC, other actors still view the African National Congress (ANC) with suspicion just like its predecessor the National Party (NP)[16] political party (Turton, 2004).

The above argument implies that the political history of the Southern African region informs how states interact with each other in regional bodies such as the SADC. In a region where there is water scarcity, a history of political violence and skewed economic development, it is logical to assume that there is bound to be conflict in the management of rivers that transcend national borders. The Orange river shared by South Africa, Botswana, Lesotho and Namibia is the most strategic river for South Africa as it gets most of its water resources there (Ashton and Turton 2009). Botswana is in an unfortunate position because it does not have access to the surface water from the river basin; she only uses water from the Kalahari aquifer since the basin includes the Kalahari Desert area (Ashton and Turton 2009). The SADC Protocol ensured the inclusion of Botswana and Namibia in the development plans of the river basin as the negotiations excluded them despite being affected by upstream developments of Lesotho and South Africa (Benjamin et al 2014).

Scholarship on transboundary water governance indicates that water is fostering cooperation among states in the region and has the potential to aid regional integration as compared to conflict (Benjamin et al 2014; Turton, Patrick and Julien, 2006: Turton, 2004). However, Benjamin et al (2014) advises against complacency due to growing concerns caused by climate change, poor governance and socio-political challenges. More so, because scholars such as Swatuk (2015) have argued that in terms of transboundary waters in the SADC region there is a coexistence of both conflict and cooperation. Thus, countries can work well together even during conflict or conflict can bring about more cooperation. Homer-Dixon (1995) notes that some of the ways of mitigating conflict include countries committing to building and maintaining trust, partnering with other actors in the governance sector such as the private

[16] The National Party was the ruling party in South Africa from 1948-1994 and is often referred as the apartheid regime. The African National Congress is the current ruling party in South Africa.

sector and civil society. In this way, countries acknowledge and understand that the governance of transboundary river basins is transdisciplinary and involves a variety of actors. Turton (2001) acknowledges that lack of good governance is a hindrance to sound water management. This is mainly because of the poorly developed institutions in the Southern African region (Hirji and Grey, 1998).

The possibility of conflict over transboundary river systems increases when one of the riparian states decides to withhold information or data from the public leading to the securitization of river basin matters (Schulz 1995: Turton 2008). Pivotal states are better positioned to be able to control the kind of data that they want to share with other states whilst the impacted (underdeveloped) states lack the necessary expertise needed to be able to have the kind of data that pivotal states have (Turton, 2008). This creates an uneven playing field which leaves the impacted states in a perpetually vulnerable position.

2.5.1. The Role of the Southern African Development Community (SADC)

The Southern African Development Community (SADC) was born in 1979-80 as a 'development coordinating conference' (SADCC) of regional states actively opposed to apartheid and minority-rule; and became a 'development community' in 1994; welcoming a new democratic South Africa into the party (du Pisani, 2001). Its primary objective is regional cooperation and integration, with water placed at the centre of the overall socio-economic development of the region (Msangi 2014:23). According to Oden (1996:87), an "exceptionally violent, conflict ridden regional history of colonialism, South Africa's system of apartheid and its brutal and multi prolonged attempt to dominate the surrounding region" characterize Southern Africa. Similarly, Swatuk (2002) notes that the legacies of the colonial and postcolonial settlement policies still perpetrate inequalities, particularly between urban and rural communities. According to Lindemann (2005), some of the water scarcity explanations in the region are inadequate supply of water due to climatic conditions, while some are demand induced, due to the growing water needs for industrial, agricultural and massive population growth over the years.

The growing literature citing water as a potential driver of armed conflict in the twenty first century note the fifteen basins in the SADC region as points of tension. In terms of institutional

and legislative framework, the SADC Revised Protocol on Shared Watercourse Systems (2000) governs the Incomati river basin, like all the basins in the region. The Protocol relates to various international instruments such as the Helsinki rules and the UN Convention on the Law of the Non-Navigational Uses of international Watercourses (UNHABITAT/UNEP 2007).

The Revised Protocol's main objective as noted in the agreement signed by SADC Heads of States is to "foster close cooperation for judicious, sustainable and coordinated management, protection and utilization of shared water courses and advance the SADC agenda of regional integration and poverty alleviation" (SADC Revised Protocol 2000:3). To achieve this, the Protocol seeks to,

1. Promote and facilitate the establishment of shared watercourse agreements and Shared Watercourse institutions for the management of shared water courses;
2. Advance the sustainability for the management of shared watercourses;
3. Promote a coordinated and integrated environmentally sound development and management of shared watercourses;
4. Promote the harmonization and monitoring of legislation and policies for planning, development, conservation, protection of shared watercourses and allocation of the resources thereof; and
5. Promote research and technology development, information exchange, capacity building and the application of appropriate technologies in shared watercourses management (SADC Revised Protocol 2000:3-4).

Principle 3 and 4 above relate to vertical policy alignment from river basin level policies to national and local levels. They are also important particularly as water resource management has undergone a series of decentralization processes (e.g. the establishment of water users' associations in South Africa) and successful decentralization requires harmonized policies and complementary actions at national and local levels.

Swatuk and Fatch (2013:1) explain the importance of the SADC revised Protocol below;

> The symbolic value of this protocol was clear: for the region to recover from a century of colonial misrule and maldevelopment symbolized by cycles of violence, destruction and disorganisation it would have to overcome the artificial divisions contrived and codified at the Berlin Conference in 1884. The practical value of the protocol was that these political boundaries disrupted the natural rhythm and flow of people, animals and resources laid down

> by the geo-historical patterns of the region's hydrological cycle; for the region to prosper, it would have to return to the collective utilization of its shared water resources.

Therefore, the Protocol sought to iron out the past differences amongst the Southern African states sharing and dependent on the water source. It was a way of opening the regional borders to the benefit of the SADC population. In the process, it would promote equitable use of the water resources, sustainable development of the watercourse system and the sharing of information as it relates to the river basin flows.

Ashton (2000) proposes tailor made sustainable long-term solutions to the problems facing countries sharing river basins in Southern Africa. Equitable distribution of water is one of the key international law principles governing shared rivers. This however comes secondary to 'not causing harm to any party' because when one is harmed there is no way the argument of equity can stand (Ashton 2000). The problem with international law is that it "lacks the compulsory jurisdiction and enforcement" but relies on the compliance of states and relevant global stakeholders (Ashton 2000:95). Although Ashton (2000) is optimistic about institutions such as water commissions in Southern Africa, he acknowledges the problems faced when it comes to practical cooperation amongst actors involved.

The laws and policies governing water resources in Southern Africa have changed from those that were there during the colonial era, making the frameworks similar across SADC states (Ashton 2000). The similarity of legislations is good on a theoretical level as it shows that states respect both the international principles and those stipulated in the SADC Revised Protocol. However, on a practical level it may have negative implications. Despite the democratic wave that has swept across the region, some states are still young democracies and traces of colonialism are still visible in the way some countries act in relation to certain issues. For example, one can recognize the Portuguese imprint in Mozambique even today, for example through cultural artifacts.

2.6. Transboundary Water Governance in the Incomati International River Basin

Mozambique, South Africa and Eswatini share the Incomati River Basin. The Incomati river basin is approximately 46,800 km2, with South Africa occupying a larger portion of 61%, while Eswatini and Mozambique occupy 6% and 33% respectively (Schreiner, et al 2011). The Incomati river starts flowing from the east of South Africa and moves to the Northern part of Eswatini and then to the southern side of Mozambique and then finally offloads into the Indian Ocean.

The basin consists of six main tributaries, namely, the Crocodile, Komati, Massintonto, Sabie, Mazimechopes and Uanetze tributaries. Interestingly, the three countries also share the Umbeluzi and Maputo river basins, which surround Eswatini. The Inco-Maputo Agreement currently governs the Incomati and Maputo river basins. The Inco-Maputo agreement was signed in 2002, during the World Summit on Sustainable Development in Johannesburg. In terms of institutional and legislative framework, the SADC Revised Protocol on Shared Watercourse Systems (2000) governs the Incomati river basin, like all the basins in the region.

Although, the river basin is relatively small compared to other river basins in the region- its importance is based on its location that has intense development initiatives (Vaz and van der Zaag 2003). The Incomati basin also is central to the economic development of the riparian countries. This is because the population living around the basin are largely dependent on agriculture and forestry for sustaining their livelihoods; these two sectors depend on water availability to sustain them (Schreiner, et al 2011). Sugar production is common across all three states. Notable are the two Mozambique sugar estates, owned by both South Africa and Mozambique. One is Tongaat-Hulett estate located in Xinavane and the Illovo estate in Maragra, and both depended on the Incomati waters (Carmo vaz and van de Zaag 2003). The South African company Tongaat-Hulett also bought one of the sugar estates in Eswatini (Carmo vaz and van de Zaag 2003). This shows the South African influence in sugar production.

Policies related to transboundary water management are often justified by governments at national scales, while implemented by decentralised management agencies at basin scale (Vollmer et al 2010). The decentralized organisations tasked with managing the Incomati River basin include, the Inkomati-Usuthu Catchment Management Agency (IUCMA, South Africa),

Mozambique Regional Administration of Waters in the South (ARA-Sul, Mozambique), and Komati River Basin Authority (Eswatini). Other institutions responsible for the management of the river basin are Komati Basin Water Authority (KOBWA), Tripartite Permanent Technical Committee (TPTC), and the River and Environmental Management Cooperation (REMCO). Table 2 below, provides a chronological list of some of the agreements signed in the Incomati river basin from 1964.

Year	Parties	Scope	Purpose
1964	Portugal; South Africa	Rivers of mutual interest	Technical and economic collaboration
1983	Mozambique, Eswatini, SA	Rivers of common interest	Formation of the Tripartite Permanent Technical Committee (TPTC)
1991	Mozambique, Eswatini, SA	Basin	Allocation, approval of joint study, prior notification
1992	Eswatini, South Africa	Basin/project	The development of the water resources of the Komati river and the formation of KOBWA
1992	Eswatini , SA	Water resources of common interest	Establishment of the JWC
1996	Mozambique, SA	Water resources of common interest	Establishment of the JWC
2002	Mozambique, Eswatini, SA	Basins (Incomati and Maputo)	Enhance water quality and data exchange
2002	Mozambique, Eswatini, SA	Basins (Incomati and Maputo)	Allocation and utilization
2004	Eswatini; South Africa	Project	Operation and maintenance of Lavumisa Scheme

Table 2*: Some of the Agreements signed in the Incomati River Basin*
Source: Kistin et al (2009)

The history of sharing the Incomati waters is important for the following reasons,

> Water usage is very intense with half of the generated water withdrawn and the states sharing the basin have experienced a dynamic, sometimes turbulent and volatile political history, which includes the colonial and apartheid accompanied by violent interventions (Carmo Vas and van der Zaag 2003: 1).

One would expect conflicts in the interactions of the three countries, however most scholars agree that the interactions are cooperative. I examine the extent to which such a proposition is true in chapter 5 and reflect upon it in different areas within the thesis.

The economic growth potential of a country necessitates a greater assurance of water flows within the country's borders (Ashton and Turton 2009). In the case of the Incomati river basin, the basin is of strategic importance to South Africa because it supports its economic development (Turton, 2004). South Africa has the capacity to cater for her national needs through inter-basin transfer schemes and storing their water in large reservoirs and this unfortunately strains relationships with their neighbours who cannot afford such "hydraulic missions"[17] (Ashton and Turton 2009:665).

Katerere et al (2001:9) notes that Mozambique has "at least 50 percent of its land drained by 8 international shared rivers and 54 percent of all its surface water resources come through its borders with neighboring countries". There is need for coordinated plans and efforts to work as a regional unit and not as individual countries. This is difficult to achieve, within international systems where each country is concerned more about her national needs and to cater for the population and growth within her borders. In that light, Ramoeli (2002) calls for a regional hydraulic mission where water infrastructural development will go beyond national borders. In Section 2.5.2 below, I look at these national borders, discussing water governance and an overview of the socio-political dynamics in South Africa, Eswatini and Mozambique. Before that, I highlight the three phases of interaction in the Incomati River Basin.

2.6.1. Phases of Interaction in the Incomati River Basin

The first complex and challenging interaction phase in the Incomati river basin extends from **1964–1991**. In this period there were many tensions owing to different political ideologies, for example, when Eswatini and Mozambique were still under colonial rule and South Africa under apartheid (Slinger et al 2010). However, despite these different political ideologies, in 1967 the riparian states of the Incomati river basin participated in a conference on the Rivers of Common Interests in Mbabane, Eswatini. The conference's aim was to find ways to share hydrological

[17] A hydraulic mission speaks to the need to come up with strategies that will bring about a high assurance of water supply (Waterbury 1979:270; Allan 2000:28 in Ashton and Turton 2009).

data amongst the three countries (Kistin 2007). Despite the emphasis on information sharing, nothing concrete materialized in that regard (van der Zaag and Carmo Vaz 2002). About a decade later, the efforts of information sharing and other issues in the basin reached a deadlock before the riparian countries met again in 1982. This is an indication that dynamism of international water interactions favors the coexistence of conflict and cooperation instead of the dichotomization of the two.

After the above mentioned political impasse, and the 1982 droughts, in the South African and Mozambican side, the Tripartite Permanent Technical Committee was officially established in 1983 and was tasked with advising the riparian countries on water management and development issues of the Incomati river basin (van der Zaag and Vaz 2003). Turton (2003) argues that despite the formation of the TPTC, there was mistrust amongst the three countries. Specifically, when it came to how Mozambique and Eswatini perceived the role of the 'hegemon' in the river basin. Mozambique was particularly suspicious of South Africa, which at the time had deployed and funded armed troops in certain parts of Mozambique.

On the other hand, Eswatini managed to maintain a diplomatic front in her relations with South Africa. The evidence is in the bilateral relations between the two countries in relation to the development of the Komati sub basin shared by the two. The bilateral relationship later formed part of the drivers of the construction of Maguga dam shared 60% and 40% to South Africa and Eswatini respectively. Similarly, Daoudy (2009) notes that the list of the signed agreements does not necessarily mean there is effective cooperation in the river basin. For example, South Africa and Portugal's efforts to manage and sustain the Cunene common river agreement of 1964 did not yield fruits as issues of war, power and territoriality took centre stage over the initial agreement.

In relation to the above and the scarcities of water in the 1980s, Mozambique expressed her concerns as a downstream country and urged Eswatini and South Africa to be transparent in their upper basin level developments (Turton 2005). While Eswatini revealed plans for dam construction in Maguga dam, South Africa expressed her plans of constructing the Driekoppies dam. Both countries justified the dam constructions as a way of stabilizing water flows for irrigation purposes. Mozambique on the other hand was constructing the massive Corumana dam (van der Zaag and Vaz 2003). In these dam constructions, South Africa had asked Mozambique not to object to the construction of the Driekoppies dam, while Mozambique placed a condition that SA would in turn promise to maintain minimum flows upstream

(Klaphake and Scheumann 2006). Although, South Africa did not maintain her side of the promise, the tensions were eased when the World bank funded Eswatini in the Maguga dam and put a condition that Mozambique should not object to dam constructions of the other two (Klaphake and Scheumann 2006). It is not clear in the literature how South Africa did not maintain her side of the promise. However, what is clear is that, in the 1984 Nkomati Accord, the Mozambican government withdrew their support of the ANC government due to South African support of RENAMO (BBC 2018a). This was a year after the formation of TPTC.

The briefly described period 1964-1991 show both aspects of conflict and cooperation. What is interesting is that the riparian states despite the political differences, managed to iron out their differences and cooperate where possible, for example, the formation of the TPTC. This period is marked with many uncertainties on the parts of each riparian state. Each state was contending with perceived of compromising their sovereignty and issues of equity and capacity in terms of hydrological data as explained by Subramanian, et al (2012) in their perceived risk and perceived opportunities framework.

In the 1990s the focus of many arguments was the conflict potential of shared water resources (see Homer-Dixon 1994, Gleik 1993). The notable obstacles to cooperation during the 1964-1991 period were weak governance systems. The political tensions within the region before the formation of SADC and before the demise of apartheid contributed to poor systems of governance. More so, unclear commitments within the domestic policies on transboundary water issues due to uncertainties and civil wars that that disrupted development as it was in the case of Mozambique.

Concerning capacity in the Incomati river basin, there are allegations of capacity imbalances. For example, van der Zaag and Savenije (2000) argue that Mozambique has inadequate human resources and information compared to other riparian states. For example, South Africa is better equipped to negotiate fair deals as it is more economically developed (van der Zaag and Savenije 2000). Earl (2010) argues that capacity-building initiatives could assist in ironing out power asymmetries between and amongst states.

The next phase is the period between **1991 and 2002.** During this period, relations amongst the riparian states started to improve. This was due to changes that created political opportunities. The apartheid system ended in South Africa, bringing new players onto the political scene. For example, the African National Congress ruled the new democratic country under the leadership of Nelson Mandela. The 16-year-old civil war between RENAMO and FRELIMO ended in

Mozambique. In 1994, Mozambique and South Africa held their first democratic elections. South Africa became a member of SADC and was integrated as a partner in the region and not an opponent as it was during apartheid. Moreover, in 2002, Eswatini, Mozambique and South Africa signed the Tripartite Interim Agreement for Cooperation on the Protection and Sustainable Utilization of the Water Resources of the Incomati and Maputo Watercourses (Inco-Maputo Agreement) in 2002 (Klaphake and Scheumann 2006).

What triggered the formation of the Inco-Maputo Agreement was the way the parties were able to address information uncertainty by breaking down decision making into a sequence of decisions that states were to consider over time (Klaphake and Scheumann 2006). Similarly, Van der Zaag and Vaz (2003) highlights that the Inco-Maputo Agreement managed to break down their plans into a measurable timeline of activities. For instance, states agreed that decisions pertaining to the management of water flows were works in progress (Slinger et al 2010). The Inco-Maputo Agreement and the SADC Water Protocol continue to guide transboundary water interactions post 2002.

Many developments have taken place in SADC and in the Incomati River Basin since 2002. This thesis considers some of them. Important to note is that in the **post 2002 period,** there are many actors in transboundary water governance. For example, in 2009, the Incomati River basin decentralised institutions and participants from Netherlands and Germany who share the Vecht River Basin formed the River and Environmental Management Cooperation (REMCO). Cooperation with external players such as foreign governments, in the REMCO case, Germany and Netherlands is one of the visions of the Inco-Maputo Agreement. I discuss the role of third parties in section 2.6 of this chapter and I engage with the role of REMCO in chapter 5 of this thesis. The Incomati river basin states have each revised their policy frameworks and created decentralized institutions. Below I highlight some of the key water governance issues in Eswatini, Mozambique and South Africa. This context creates a background for the research problem and questions addressed in this thesis.

2.6.2. Profiles of the Incomati Riparian Countries

2.6.2.1. Mozambique

Named as one of the poorest countries in Africa (FAO 2016; BCC 2018a), Mozambique is still recovering from the scars of a 16 year old (1976-92) civil war. Mozambique attained its independence in 1975 through the Mozambique Liberation Front, from henceforth referred as FRELIMO. Today the country is still under the political leadership of FRELIMO. Mozambique was a one party state and only had their first multi-party elections in 1994. The main opposition party, is the Mozambican National Resistance, henceforth referred, as RENAMO. The political leader of RENAMO, Afonso Dhlakama died in 2018. We are yet to realise the political implications of his death after ruling RENAMO for long. Recently there is a new political party, which is an offspring of former RENAMO party member. The new opposition party is the Democratic Movement of Mozambique (MDM) established in 2009 by Deviz Simango. This Party is attractive to the youth and those who want change from the RENAMO and FRELIMO.

According to Shikhani (2012) and Orre and Rønning (2017)), though leadership styles might vary FRELIMO dominance of the political, socio-economic spheres in Mozambique has not changed. The media in Mozambique is highly censored. There are other ongoing issues of concern in Mozambique such as the alleged kidnappings and beheadings by Islamic fundamentalists in 2013 and 2018 (BBC 2018a). There was a potential civil war in 2013 with RENAMO threatening to withdraw from the agreed peace deal of 1992 (Orre and Rønning 2017; BBC 2018a). In 2014, there was a peace deal between RENAMO and FRELIMO to end the civil unrest (BBC 2018a). The opposition parties in Mozambique lack a clear ideas or political vision, which makes them ineffective against RENAMO (Shikhani 2012). According to Shikhani (2012:7)

> The absence of a political alternative to Frelimo is the biggest political challenge facing Mozambique, as Frelimo does not seem to be changing or adapting itself to the new realities and Renamo remains backward in its thinking.

Concerning water, the constitution and the 1991 water law, the 1995 national policy on water guide the development and management of water in the country. The revised 2007 water policy reiterates the IWRM international principles of equity, sustainable development, economic

efficiency as well as gender mainstreaming (FAO 2016). The national institution responsible for implementing these policies is the Direcção Nacional de Águas, in English it is called National Directorate of Water (DNA). ARA-Sul is responsible for administering the management of water in the Incomati River and coordinates efforts by different water users in the southern region of the country.

Mozambique is prone to climate change impacts such a droughts and floods. A quarter of its population faces risk and is third amongst African states at risks from floods and droughts (Venton et al 2013). Most of the population is highly dependent on subsistence farming. However, challenges such as infertile soils, lack of credit support and poor infrastructure (Venton et al 2013) amongst others lead to food insecurities and inequality within the country. Moreover, the civil war in Mozambique affected the agriculture sector largely (Shikhani 2012), yet today, allegedly, the government fails to prioritise the sector (Orre and Rønning 2017). Orre and Rønning (2017:4) predicts the *resource curse scenario* (emphasis added) whereby the corruption and political manipulation of economically viable resources would cause more harm than good in the society.

Though Mozambique has improved economically due to gas fields, most of her population is still living below the poverty line (BBC 2018a). Orre and Rønning (2017) dismiss the claims of economic improvements in Mozambique as artificial because they ignore the problems of the country's political economic outlook. The civil war (1977–1992) defines the political context of Mozambique, continued political conflicts between the ruling party Frelimo and the opposition party Renamo and the various changes within the Frelimo policies (Shikhani 2012). Allegedly, FRELIMO shows political patronage in the public sector (Orre and Rønning 2017). Shikhani (2012) cautions that critics might still see FRELIMO as a one party Marxist state and overlook some of the positive changes that might have taken place. For example, Renamo tries to undermine Frelimo's legitimacy by accusing them of electoral fraud (Shikhani 2012).

There is a growing number of third party involvement in factors affecting the country. Mozambique is highly dependent on foreign aid (Shikhani 2012; Orre and Rønning 2017), with 51% of the national budget coming from foreign funds (Shikhani 2012). Although third parties claim not to be influencing domestic policies, there is a higher chance that they do influence due to the finances they put in the budget (Shikhani 2012). On the other hand, FRELIMO often defends the country from donor influence by citing the international principles of sovereignty and non-interference. The impact of civil society and donors to socio-economic development

is not clear, but there is an agreement that their presence at least, assists in encouraging democracy in the country and dealing with challenges faced (Shikhani 2012). Challenges faced by Mozambique, include corruption, poverty alleviation, inequality, unemployment, foreign debt, poor service provision (Shikhani 2012; Orre and Rønning 2017).

2.6.2.2. Eswatini

The Kingdom of Eswatini attained its independence in 1968 and today stands as the longest serving monarchy in Africa. As a constitutional monarchy, the parliament is answerable to the King (Chapeyama and Mhlanga-Ndlovu 2016). This autocratic system of governance has been criticised by many. The King is often criticised of his authoritarian rule, exemplified by dropping the constitution and endorsing a one party state in 1973 and more recently the unilateral declaration of the name change from Swaziland to Eswatini (BBC 2018b). The King through various chiefdoms has overall control of the country's natural resources (State Of Environment Report for Swaziland, 2001).

The People's United Democratic Movement (PUDEMO) is the largest opposition party formed in 1983. Though there are a number of opposition parties, their significance is minimal due to the authoritarian rule of an absolute monarchy that forbids equal participation in socio-political issues such as elections and media access. Eswatini opposition parties have tried to fight against the autocratic system of rule; however, this has not yielded any meaningful results. For example in 1996, the opposition party PUDEMO orchestrated a civil strike against the one party system, echoing the need for reforming the constitution. Instead of reforming the constitution, the 2001 Constitutional review commission extended the powers of King Mswati (BBC 2018b).

Water is central to the economic development of the kingdom of Eswatini. The 2003 Water Act guides the governance of water in Eswatini. Similar to the water legislations of South Africa and Mozambique, the 2003 Water Act of Eswatini is in line with the principles of IWRM. The National Water Policy in Eswatini seeks to develop water resources in a sustainable and integrated way that leads to economic prosperity and poverty alleviation (National water policy 2009). The constitution of Eswatini, section 210 defines "water as a national resource and vests the ultimate responsibility for its protection in the State" (National water policy 2009:14). While decentralization and creation of institutions are key in the legislation, Mlilo et al (2014:9) note that the institutions are still "in infancy" and might take time for them to function in an effective and efficient manner.

Historically, there has been inequitable access to water in Eswatini, with marginalized groups such as orphans, children, the disabled, the elderly being the most affected (National water policy 2009). The limited number of women in decision making within the water sector is associated with the cultural and social dynamics of patriarchy (National water policy 2009). More so, the incoherent data makes management of water resources difficult in Eswatini (Mlilo et al 2014).

Transboundary water cooperation is critical for Eswatini (Chapeyama and Mhlanga-Ndlovu 2016) because all of the rivers in the country are transboundary (State Of Environment Report for Swaziland, 2001). This means that the level of interdependence on other countries for water security is higher. Eswatini shares its four major rivers (Incomati, Usuthu, Ingwavuma and Mbuluzi)[18] with South Africa and Mozambique (Mlilo et al 2014). Maguga located in the Komati system is the largest dam in Eswatini with a carrying capacity of 332 million m3 (Mlilo et al 2014). Its main purposes are to generate hydro-electricity, tourism and irrigation (Mlilo et al 2014). The uneven water distribution across the country often requires "reservoirs and conveyance systems to bring water to the user" (Mlilo et al 2014:5) and this is a costly exercise. The responsibilities of international water usage and governance lies with the Joint Water Commission.

The water policy in Eswatini makes room for twinning arrangements with other transboundary water institutions regionally or internationally, particularly concerning capacity-building initiatives (National water policy 2009). This has led to collaboration between Eswatini and institutions in the Netherlands. To facilitate more informed stakeholder engagement, the water policy in Eswatini encourages public-private partnerships. In these partnerships, the previously highly centralised government is supposed to be more open to decentralisation and working with NGOs in the water sector (National water policy 2009).

Though Eswatini is a lower middle-income country, it has several challenges that threaten sustainable development and transformation. HIV infection rates are the highest in the world (UNICEF in BBC 2018b). The country has poor health services, and at some point could not pay for public servants salaries and commodities such as fuel were in shortage (Chothia 2011). Moreover, droughts and floods affect the economy of Eswatini and the capacity constraints

[18] Incomati waters move from South Africa, Eswatini, South Africa, Indian Ocean via Mozambique; Mbuluzi waters move from Eswatini to Mozambique; Usuthu waters flow from South Africa, Eswatini and to Mozambique; the Ngwavuma waters move from Eswatini, to South Africa and then to Mozambique (Mlilo et al 2014). Mozambique is downstream in all the systems and making it more vulnerable compared to the other two riparians.

exacerbate the situation (Chapeyama and Mhlanga-Ndlovu 2016). The capacity constraints include, the technical know-how, financial, climate change policy development, infrastructure development (Chapeyama and Mhlanga-Ndlovu 2016). The 2016-2020 United Nations Development Assistance Framework in Chapeyama and Mhlanga-Ndlovu (2016: 17) outline the following to the challenges;

> …lack of youth employment opportunities, poverty and inequality, high levels of HIV/AIDS, poor health care system, lack of financial and human resources to implement pro-poor development policies, lack of technical know how to deal with climate change research, resilience and adaptation amongst other issues.

Amongst other issues, the economic instabilities in Eswatini are largely pinned to irregular spending of the royal family (Chothia 2011) as well as corruption.

2.6.2.3. South Africa

"Among the many things I learnt as a president, was the centrality of water in the social, political and economic affairs of the country, the continent and the world" (Nelson Mandela, World Summit on Sustainable Development 2002). The principle of *dominus fluminis* that gave the government absolute control of water resources guided the water sector during apartheid. The seeds of apartheid have perpetuated poverty and inequality within the borders of the country. For, Denby, et al (2016) the socio-political dynamics of water governance in South Africa mirror the power asymmetries and discrimination caused by apartheid. As the first democratically elected President of South Africa, Nelson Mandela and the ruling African National Congress party had the responsibility of reversing the wrongs done through years of colonialism and apartheid rule. For, Mandela, as envisioned by the above quote water development was central to realising that vision.

On that backdrop, the post-apartheid water legislative and policy framework in South Africa takes a pro-poor water access approach. The Reconstruction and Development Programme (RDP) considered water as a human right for everyone (in ANC 1994). Section 27 of the South African Constitution, puts water as a right that has to be progressively realised within the limits of the state resources. To ensure the realisation of socio-economic rights to water, the

government has implemented pro-poor policies such as the free basic water policy[19] and other indigent policies. The free basic water policy's aim is to give free water access to vulnerable groups in society who cannot afford to pay for water.

South Africa is a water scarce country, yet Slabbert (2019) argues that 63% of South African water resources is dedicated to food production. This means that the country depends on water to ensure food security for all citizens. However, the country experiences a gap between the demand and supply of water, putting a strain on economic activities such as mining and agriculture (Zikhali 2015; KOBWA 2017). The supply-oriented approaches to water management have further exacerbated the effects on poor populations, because they fail to capture the needs of vulnerable people (Zikhali 2015). For example, in shared sanitation facilities, vulnerable groups such as women and children face abuse (Motsoeneng, 2016).

Although internationally, South Africa is a success story when it comes to integrated water management (Hellberg 2014), the government's neoliberal approach to water provision has widened the inequality gap between the haves and the have-nots (Bond in Hellberg 2014; Zikhali 2015). The problem is that government does not take cognizance of the complexities of the inherited systems and this makes implementation difficult. There is also a failure to note the past discrepancies in the new policy and legal frameworks (Denby, et al 2016).

In South Africa, there are various actors in the water and sanitation domain. These includes the catchment management agencies, catchment management forums, water boards, municipalities, water and sanitation forums, tribal authorities, ward councillors etc. The Department of Water and Sanitation (DWS) is the national institution that is responsible for formulating and implementing state policies. The DWS works hand in hand with the local government sphere that is responsible for water service delivery in municipalities (Matthew 2017). Municipalities have a responsibility of water service provision as per the National Water Services Act of 1997. Enshrined in the National Water Strategy 2, the Catchment Management Forums operate at a local level as a platform to facilitate participation amongst different stakeholders. The catchment management agency is a statutory body established by the National Act and deals with the management of water. The IUCMA is the catchment management agency tasked with the management of the Incomati river basin.

[19] The Free Basic Water Policy seeks to give vulnerable groups in society at least six "kilolitres" of free water per month. The effectiveness of this policy and the indigent policies is debatable due to the challenges faced by government in implementation and because of the manner that the policies were formulated.

The Department of Water and Sanitation is facing institutional challenges. Phakathi (2018) narrates that DWS is facing a huge financial strain due to corruption, irregular expenditure and an overdraft of R2, 9 billion. Because of such challenges, South Africa has failed to attract investor confidence (Slabbert 2019). There is need for government to implement effective monitoring and evaluation mechanisms to encourage good water governance (Motsoeneng, 2016).

Recently, there are talks about creating an independent regulator of water by two civil society organisations (Slabbert 2019). The two are Organisation Undoing Tax Abuse (Outa) and Water Shortage South Africa (WSSA). According to Slabbert (2019), the two organisations seek to create a platform consisting of different state and non-state stakeholders that advocates for the depoliticisation of water in the country. The good news is that the government is set to revise the National Water Act and Water Strategies. There is an expectation that the new Act will address some of the major challenges faced in the water sector, such as the irregularities with the DWS (Slabbert 2019). However, there is a lot of scepticism due to the longer period it has taken to conclude the revision process.

2.7. Conclusion

There is an acknowledgement that transboundary water relations are more cooperative than conflictual in the literature reviewed. Despite having a history of conflict, *Southern African states have never experienced a water war*. This is an interesting fact that the study seeks to understand in detail. More so, the literature reviewed shows that both state and non-state actors contend with power issues. In the Nile river basin, Egypt as the 'hegemon' is increasingly trying to exploit water resources to her benefit, while Ethiopia in the upstream is also trying to control the headwaters through the Grand Renaissance Dam. In Southern Africa, South Africa is often cited as a regional water hegemon (Benjamin et al 2014; Zeitoun and Warner 2008; Turton 2003). *The thesis questions whether South Africa is a hydro-hegemon in all SADC river basins, and argues for context based analysis*. The following chapter 3 will discuss the concept of power amongst other issues.

Analyzing context will challenge us to consider the domestic policies of the countries sharing a river basin. The brief analysis of Eswatini, South Africa and Mozambique show that the

inherited colonial and apartheid systems continue to define the present. Moreover, there is a likelihood that the domestic challenges have socio-political implications and are more urgent compared to international relations challenges. The available literature discusses the internal dynamics to a lesser degree. In this study, *I add the interactions within state boundaries* to the ongoing international river basin debates.

The influence of third parties and individuals is challenging the traditional role of the state in TWG. In all the cases presented above, there is influence of third parties. The World Bank led other donors within the Nile river basin to come up with the Nile River Basin Initiative. In South Asia, the World Bank assisted India and Pakistan to establish the Indus Water Treaty amidst fights from both countries. In the Incomati, the World Bank was a broker between South Africa and Mozambique that led to the construction of the Corumana dam in Mozambique as a condition of allowing South Africa and Eswatini to build the Driekoppies and Maguga dam respectively. While there is a fair engagement of the role that non-state actors or third parties, *there is a deficiency in understanding the extent to which they contribute to our understanding of power dynamics*.

More so, I identify *a research gap of the role of individuals* in TWG. For example, the role played by the former Vice President of the World Bank, the Presidents of India and Pakistan in the Indus water distribution Treaty. Similarly, in the Nile River, we see how politicized water relations are, to the extent that Heads of States engage publicly about the resource. There are limited attempts in the available literature to analyse the role played by Heads of States or actors as individuals, thus leading to a lack of understanding of the active role that these actors play in transboundary water governance. Recently, there are proposals to contextualize political engagements within the overarching national transboundary water policy framework (see Petersen-Perlman and Wolf 2015; Carstensen and Schmidt 2016; Hussein and Grandi 2017). In this thesis, an attempt to contextualize the agency of actors (both individuals and groups) as proposed above is made.

The chapter also highlights issues of *mistrust* amongst actors. For example, the reluctance to sign the Nile Basin Initiative by Sudan and Egypt and the suspicions that Ethiopia through the Grand Ethiopian Renaissance Dam could jeopardize downstream access to water. In the Incomati, how the political conflicts between South Africa and Mozambique during apartheid creates mistrust between the two. In the GBM basin, countries such as Nepal do not trust India

due to political instabilities. In all river basins, this has led to a prevalence of bilateral engagements compared to multilateral cooperation.

Overall, this chapter has shown convergences, divergences and intersections that we can learn from transboundary water interactions. At some point actors in transboundary water governance will *diverge* due to conflicts or disputes over different aspects affecting them. At another point, the actors will *converge* and cooperate in project development, treaties and managing the shared resource. However, between those convergences and divergences actors will often get to an intersection where their differences or similarities do not matter. At that stage, they *intersect* and *construct* what I call constructed cooperative water relations in this study.

Chapter 3: Power, Structure and Agency-A Literature Review

3.1. Introduction

> Ignoring the role of power in transboundary water management and allocation would be as irrational as ignoring the role of gravity or river bed's friction coefficient while modelling sediment transport (Zeitoun and Allan 2008:6)

Power permeates all spheres of transboundary water relations, yet there is a limited understanding of what power means in practice. What is *power*? How are power relations understood in *transboundary water governance*? What can we learn from the *structure and agency* debate about the issues of power in transboundary water governance? This chapter attempts to answer the above questions by reviewing literature on power, structure, agency and the relevant socio-political dynamics involved in sharing international rivers. My argument is that we cannot discuss transboundary water governance without unpacking the power relations, and we cannot discuss power relations in transboundary water governance without reference to the structure-agency relationship. The discussion lays the foundation of the theoretical framework for the study.

I begin this chapter with a definition of key concepts relating to the study. I engage scholarly debates on issues of power, structure and agency. Thereafter, I give a description and analysis of power in transboundary water governance, discussing some of the frameworks used to describe the subject. Third, I move to the relationship between structure and agency as well as the importance of understanding it when exploring the socio-political dynamics involved in transboundary water governance. I do not claim that this literature review is exhaustive; the objective is to engage with the pertinent issues based on selected theoretical and conceptual tools.

3.2. Understanding the Concept of Power

Power is a highly contested and relative concept (Dahl 1957; Bachrach and Baratz 1962; Partridge 1963; Hay 1997; Lukes 2005; Zeitoun and Allan 2008; Cilliers et al 2015). As Dahl (1957) echoed in his famous article, 'The concept of power', albeit in an optimistic manner, that, although we might not be able to get through the 'swamp' of adequately conceptualizing power we might one day go through it. Several people, philosophers, academics and policy makers have attempted to unpack the concept of power. This study contributes to an understanding of power in practice.

From a constructivist approach, Guzzini (2005) sees power as performative, that is, one can see its effects when applied. These include an assessment of what power does in a defined context (Guzzini 2005). Some scholars such as Latour (1986) question the practicality of the concept and dismiss it as 'empty'. However, Lukes (2005) argues that power is not empty but a useful concept, particularly for those researchers who are interested in engaging with empirical findings. In a similar vein Bourdieu (1990) sees power leaning more on practice than analysis. I consider all the definitions to be valuable in contributing to a comprehensive understanding of the concept. I agree with Bourdieu (1990) that focusing on practice is important. By practice, I mean the everyday interactions (challenges and opportunities) that different stakeholders contend with while constructing better ways of working together. In the next sub sections, I engage critically with some of the existing definitions of power.

3.2.1. Different Faces of Power

One can say *A* has power over *B* to the extent that he can get *B* to do something that *B* would not otherwise do (Dahl 1957:202). This is perhaps the most reiterated definition of power in political studies. Most scholars acknowledge it as the *first face of power*. In his argument, Dahl points out as a fact, that some actors will always have power over others. What does the definition mean in practical ways? One answer could be that *B* is dependent on *A* and is not satisfied with the actions he has taken. Therefore, power is relational and it touches more on decision making, where *B* is obedient to *A* with little or no resistance. In addition, Dahl argues that *A* should have a sufficient base to have power over *B*. He defines the base of an actor's power as "consisting of all the resources, opportunities, acts, objects and so on that he can

exploit in order to affect the behaviour of another" (Dahl 1957:202). I notice one limitation about the face of power that has implications for analysis. How do we know that actor *B* is under coercion to comply or whether he is knowledgeable or not of what he could be losing? This observation is incited by Hay (2002), who argues that if *B* is not aware of what they could possible lose by complying then there was no exercise of power. The loopholes of the *first face* of power is therefore that it assumes that winners in a certain context imply that they are dominant, when in some contexts this could be a 'zero sum'[20] game (Hay 2002). On the other hand, can this imply an unintended case of asymmetric information, in a case where *A* is aware that *B* will incur losses and hide this information from *B*? If such is the case, then I argue that *A* has exercised information power over *B*. I will discuss information power or ideational power in detail within section 3.4 of this chapter.

Building on Dahl's definition of power and acknowledged, as the pioneers of the *second face of power* are Bachrach and Baratz (1962). For them, a powerful actor *A* is the one that can put *restrictive measures* on actor *B* forcing *B* to act in a way that will favour *A* and render *B* less powerful. These restrictive measures largely include the ability of A to control the environment and/or setting the agenda of their interactions. For example, A can create values that limit the effective participation of *B* in decision-making. Such power is complex and usually subtle as it is often unclear who controls the agenda. Below is a detailed description of how researchers can analyse power using the second face of power,

> Under this approach the researcher would begin not, as does the sociologist who asks, "Who rules?" nor as does the pluralist who asks, "Does anyone have power?" but by investigating the particular "mobilization of bias" in the institution under scrutiny. Then, having analyzed the dominant values, the myths and the established political procedures and rules of the game, he would make a careful inquiry into which persons or groups, if any, gain from the existing bias and which, if any, are handicapped by it. Next, he would investigate the dynamics of non-decision making; that is, he would examine the extent to which and the manner in which the status quo oriented persons and groups influence those community values and those political institutions. Finally, using his knowledge of the restrictive face of power as a foundation for analysis and as a standard for distinguishing between "key" and "routine" political decisions, the researcher would, after the manner of the pluralists, analyse participation in decision making of concrete issues (Bachrach and Baratz 1962:952).

[20] In politics, a zero-sum situation is the realisation that due to resource constraints, there will always be those who lose and those who gain from any decision made.

While the major contribution of Bachrach and Baratz 1962's definition of power was to point out ways by which powerful states manipulate the systems at work to their favour and restrict other players to play the game; however, they fail to consider the limitations that come with carrying out such a study in a manner that they recommend. While it might be possible to understand the values at play in any situation, it is impossible to be certain about those assumptions. Experience has shown that states outwardly endorse international standards of democracy, as an example, while internally they are free to behave the way they want. For example, Eswatini endorses democratic principles in international relations while the country is the longest surviving autocratic state in Africa. Therefore, what Bachrach and Baratz overlook is that researchers no matter how prepared they are for fieldwork there are some complexities that they will run into and struggle to get the facts right.

Going forward, I take the lesson that inherent restrictive measures within the Incomati interactions should be one of the focuses of the study and I add that the measures I note might not necessarily be true and therefore require constant checking with respondents. I therefore employ data triangulation to cater for the obstacles one method could have (see Chapter 4 of this thesis on the methodology and research design).

The *third face of power* by Steven Lukes (1974) is more complex and subtle than the other two. Lukes (1974) argues that researchers should look beyond binary relations (one actor having power over another) imposed by Dahl (1957) as well as Bachrach and Baratz (1962). Through various acts of manipulation, actor *A* can control the way *B* and other actors think in a way that makes them obedient without much resistance. Power analysis would involve a critical look at how *A* convincingly manipulates *B and/or other actors* to respond in ways that benefits A more than themselves (Digeser 1992) and the possibility that *B and/other actors* indeed have limited choices when making those decisions (Lukes 1974). Thus *A* not only gets *B* to do what they would otherwise not do but they shape their preferences in a way that makes *B* see A's proposal as the only possibility or the best. The third face of power is often associated with ideational power in transboundary water governance (see Zeitoun and Warner 2006).

Scholars attribute the fourth *face power* to the writings of Michael Foucault. This form of power is omnipresent, productive and relational (Digeser 1992; Merlingen 2011; Daldai 2014). Hay (2002) argues that while the three faces of power above focus on the definition and measurement of power, the Foucauldian definition of power is curious with ontological

questions, for example, “how does power function? Is it ubiquitous?” (Hay 2002:170). In that light, Foucault argues that,

> Between every point of a social body, between a man and a woman, between the members of a family, between a master and his pupil, between everyone who knows and everyone who does not, there exist relations of power which are not purely and simply a projection of the sovereign's great power over the individual, they are rather the concrete, changing soil in which the sovereign's power is grounded, the conditions which make it possible for it to function (Foucault 1980:187).

The fourth face of power argues that power is not in the hands of one party over others but emerges from the relations between different actors (Digeser 1992). Similarly, Foucault (1980:98) argues that, “not only is it everywhere, but power is never in anybody’s hands it is never appropriated as commodity or piece of wealth”. According to Foucault cited in Digeser (1992: 982);

> … Both the influencer and the influenced are vehicles of power because “power is conveyed through our practices and interactions. It is put into operation when we participate in discourse and norms and does not exist independently of those practices”.

The above description implies that power produces agents and that there are societal values or ideas that control these agents. This makes A and B social creations who cannot escape the influence of the environment in which they interact.

Similar to Gramsci (1992), Foucault sees power as a relation of force that only exists in action. While Gramsci saw power relations in terms of binary oppositions, that is, leaders and the led, Foucault argues that “power and the resistance it generates are diffused and not localized in some points” (Daldai 2014:149).The aspect of resistance is a crucial point for analysis. Resistance by actors is inborn (Connolly in Digeser 1992). The complication however, is that resistance comes in different forms and just like power sometimes resistance is not visible but is hidden. Complexity begins when analysts fail to show the difference between resisting power and the modes of expressing freedom by those who are governed (Hansson and Hellberg 2015). Foucault’s work on resistance and power show that since there is room of freedom for parties there will always be some form of resistance to power as actors contend with different options of action (Foucault 1998). The fact that actors refuse one actor to pursue a dominant role is itself a manifestation of power configurations in that relationship. That is why this thesis sees

value in bringing agency back in the analysis of TWG. The goal is to try to unpack how actors resist or contest power through an active conversation with them.

3.2.2. Governmentality and Biopower

While the narration of the fourth face of power by Digeser is valuable, in this section I discuss some aspects of Foucault's work on power that are missing in the above discussion. These aspects are governmentality and biopower. These two are relevant for my study.

Governmentality is simply the art of governing. It takes into consideration, the rationalities or techniques and practises that governments use to govern its diverse population (Lemke 2000). The notion of Governmentality supports the argument that people or the 'governed' are responsible actors who can act and think independently (Hansson and Hellberg 2015). It therefore prefers the use of positive means of power and not disciplinary power. In that case, states are not the only actors but governance combines different actors and norms which work together to find solutions.

Of interest in this study is how actors in the Incomati river basin engage with rationalities that govern them on a daily basis. According to Hansson and Hellberg (2015:25), agents respond to these rationalities through "technologies of the self". Technologies of the self;

> permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality (Hansson and Hellberg 2015:25-26)

For Hansson and Hellberg (2015), governmentality presents a challenge when trying to understand how people react to the influence of power. Using the analogy of Machiavelli's 'Prince', Foucault in Senellard (not dated) talks about a descending line of governing whereby the good conduct of the state affects the behavior of agents below. Likewise, in transboundary water governance, the behavior of state agencies on the ground is likely to reflect the state policy priorities. For example, government regulates the actions of local actors who are accountable to them. Ostensibly, the mentalities of local agencies reflect the governing mechanisms and objectives from their central governments.

Withanachchi (2012) adds that governmentality points to the possibility of relationships between and amongst different forms of actors. Foucault's concept of Governmentality is not presented to deny the existence of the state, but, rather, an attempt to decentre the state through different relations of power that constitute the basis of modern forms of rule (Hansson and Hellberg 2015). Analysing how decentralized transboundary water institutions, non-state agencies and actors relate with the state would be useful in understanding the dynamics involved. According to Rose (1996), the actions of these different actors have the ability to redefine and reconstruct government rationalities.

Mirumachi (2015) argues that in transboundary water governance, governmentality is in the way governments prioritize supply side water management compared to water demand management. In such a scenario, governments often invest in hydraulic projects such as dam constructions. These dam constructions are costly and not always sustainable, but they are a preferred political option as limiting water sources could be detrimental in the face of, for example, elections. In this case, dam constructions become part of the bigger political picture where states focus on supply-oriented approaches as a short-term solution, which potentially has long-term impacts of failing to meet the demands of water for everyone concerned.

Biopower focuses on the whole population under study. Biopolitics generally implies the management of human beings as populations (Hellberg 2014). This includes socio-economic rights such as health, education and water access. Hellberg (2014) sees water governance as biopolitical interactions involving water as a resource as well as the governmental technologies and active role of stakeholders involved. Such an understanding shifts power from the centre.

Foucault (1998:89) argues that we need to " cut off the head of the king", meaning that we should stop assuming that power is located in one central place and understand the multiple ways through which power can manifest. Biopower does not necessarily do away with legislation as part of sovereign power; however, it focuses more on regulation and government (Hansson and Hellberg 2015). Foucault describes the shift in focus in the following way,

> I do not mean to say that the law fades into the background or that the institutions of justice tend to disappear, but rather that the law operates more and more as a norm, and that the judicial institution is increasingly incorporated into a continuum of apparatuses (medical, administrative, and so on) whose functions are for the most part regulatory. (Foucault, 1998: 144)

There is need to analyze how agency is produced within these regulated and asymmetrical power relations. Hansson and Hellberg (2015) relates such regulation to governmentality that focuses more on decentralization of power. In such an arrangement, decentralized agencies are answerable to the centre and this compromises their independence from the influence of the state (Hansson and Hellberg 2015). That is why in most cases the interests at the periphery resonate with those in the centre (Cruikshank, in Hansson and Hellberg 2015).

As has been shown above, the first face of power is more open and focuses on decision-making. The second face of power focuses on agenda setting while the third face of power adds the aspect of manipulation to the understanding of power. The first two faces of power are liberal, assuming that actors are intentional, and are fully aware that there is exercise of power (Digeser 1992). The fourth face of power relates to the demands of this thesis. I agree with the fourth face of power's argument that A and B are social beings whose interactions and interests are defined by a paradigm which none of them can escape. It is from this reading that the foundation of the theoretical framework for this study is established.

It is difficult to understand agency empirically "when we cannot separate the subject's 'own' agency and the power that forms the subject" (Hansson and Hellberg 2015:25). Scholars such as Giddens (1984) have reservations about Foucault's decentering agency and argue that issues such as reflexivity, intentions and independence should be included when analyzing agency. Lukes (2005) dismisses Foucault's as encouraging complacency in analyzing power relationships, due to a lack of objectivity (Lukes 2005). In section 3.3, I turn to the structure and agency debate, followed by a justification of the theoretical framework of the study. Below I discuss the concept of hegemony.

3.2.3. Hegemon(y)

Hegemony is a s*ystem* that favours the most powerful actor, in such a way that they will have decisive influence over the activities pertaining to the whole group. In transboundary water governance, Warner and Zeitoun (2008) define the concept of hegemony as an empire, "where the more powerful competitor of formally equal parties maintains its control through a mix of coercion (hard power) and consent (soft power)" (ibid: 805). In traditional international relations, hegemony means the "predominance of one state over its peers" (Stiles 2009:2). Such a definition narrows the concept to state relations. Instead, as a system hegemony includes non-state actors and the ideologies informing various relations. Gramsci (1971) concurs with the

issue of ideology and adds culture and morality as ways that a leader utilises to maintain power. Some scholars such as Ikenberry and Kupchan (1990) consider hegemony as a system of socialisation, whereby the powerful state mobilises support of the less powerful by altering norms and values that will maintain its power. The hegemon can ingrain these norms and values in such a way that they continue to define the system even after the hegemon changes or loses its power (Grandi 2016).

A hegemonic system, for Gramsci (1971) should balance coercion and consent as alternatives of social power. Gramsci uses the concept of hegemony to illustrate how the state and civil society produce and maintain consent for the class hierarchies of capitalist society (Hall 1992). Coercion according to Gramsci, (1992) is the ability for the state to use violence against those who refuse to cooperate in its capitalist relations of production. On the other hand, the issue of domination by consent comprises of a fatalistic feeling we have (Gramsci 1971). For example, the ability of everyone to see what is happening but feel powerless to oppose due to either lack of resources or other socio-political limitations. Contrary to our understanding of civil society as a private space, Gramsci perceived civil society as,

> the public sphere where trade unions and political parties gained concessions from the bourgeois state, and the sphere in which ideas and beliefs were shaped, where bourgeois 'hegemony' was reproduced in cultural life through the media, universities and religious institutions to 'manufacture consent' and legitimacy (Heywood 1994: 100-101).

This means that civil society was an instrument to consolidate and maintain the ruling government's power over the led. Hegemonic stability theorists consider maintaining the power of the leader as crucial in securing stability and legitimacy in the international system (Milner 1998). According to Haggard and Simmons (1987), the theory of hegemonic stability links regime creation and maintenance to a dominant power's existence and the weakening of regimes to a waning hegemon. This implies that institutions are as strong as the hegemon in place, meaning, that when there is no strong state in charge institutions are likely not to withstand the test of time.

Gramsci observes a gap in analysing counter hegemonic strategies that weaker actors might employ to contest the power dynamics within a system (Gramsci 1971). In response, this has produced counter hegemonic strategies that actors use to contest hydro-hegemonic position (see Zeitoun and Warner 2006). Partridge (1963) adds that even in areas where we can identify

power, it is difficult to claim that the weaker actor is entirely powerless. According to Partridge (1963:118), "it seldom happens that B is so weak that he cannot compel A to pay a price he would rather not pay for the sake of enforcing his will".

Agnew and Corbridge in Furlong (2006) argue that ideologies such as market liberalism can be hegemonic structures that condition the behavior of actors. Such a mentality is linked to the notion of governmentality, "where through degrees of force and reason…ordered visions of space, territory and geography [are imposed] upon ambivalent lands, terrains, and cultures to coincide with imperial imperatives and perspectives" (O Tuathail in Furlong 2006:443). Similarly, at the face of globalization, Furlong (2000) notes the influence of third parties such as the World Bank and their neoliberal developmental agenda in transboundary water governance processes. In this line of thinking, third parties can produce ideas that override those of states as sovereign entities. However, Furlong does not explain how third parties sustain their hegemonic ideas (Warner and Zeitoun 2008).

Such an observation by Warner and Zeitoun (2008) feeds into some of the issues that this thesis seeks to explore such as the relations of power. According to Jessop, (1982:253) power is "the production of effects within the limits set by the 'structural constraints' confronting different agents". For Hay (1997:50), "power is the ability of actors (whether individual or collective) to have an effect upon the context which defines the range of possibilities of others". Therefore, through their ideas the World Bank can produce effects on transboundary water governance. There is a deficiency in understanding what both Jessop and Hay mean by effects. In this study, effects are changes that happen or are influenced by actors and/or institutional practices. From Hay's definition we learn that there are two types of agency, individual and collective agency (see also Jessop 1982). This is important to note as this thesis considers both types of agency.

3.3. Understanding Structure and Agency

> For it is part and parcel of daily experience to feel both free and enchained, capable of shaping our own future and yet confronted by towering, seemingly impersonal constraints (Archer 1996: xii)

Is there a dichotomy between structure and agency? Hay (2006:89) describes the relationship between structure and agency as "the extent to which political conduct shapes and is shaped by

political context". My study adds to the ongoing discussion about the relationship between structure and agency. Using experiences from the Incomati river basin stakeholders, I reject the dichotomy of structure and agency. I argue that in that inseparable relationship, we should have a balance when analyzing the relationship between structure and agency. Balancing will include not only structures, i.e. role of state but will extend to the agency, i.e. the power of employees or citizens, to individually or collectively influence the water governance processes. Often times, water institutions are units of analysis without incorporating the active role that agents play to create outcomes. However, understanding the actions of individuals is important when analyzing societal processes (Elster in Connor 2011). Emirbayer and Mische (1998) points out the importance of analyzing agency or recognizing the theoretical aspects of agency as ongoing and dynamic.

The debate on structure and agency is a longstanding one. Yet, there is a gap in engaging with the issues of structure and agency in political research (Carstensen and Schmidt 2016; Hay 2006; Hay 2002; Sibeon 1999; Aston, not dated). Sibeon (1999: 140) observes, "Introductions to the questions of structure and agency in political science are noticeable by their absence". Hay (2006), agrees about the silence of political scientists in explicitly theorising agency and structure for a long time, but adds that there has been improvement recently particularly amongst international relations scholars. The structure and agency debate is an "explanation of political and social phenomena" (Hay 2002:93). It is the "ordered nature of social and political relations" (Hay 2002: 94) which dictate how interactions evolve. For Connor, (2011:97) the debate between structure and agency is 'strained'. The strain shows the difficulty to arrive at satisfactory conclusions due to the complexities involved in the relationship.

According to Hay (2002:94) in political science structure is an "ordered nature of social and political relations-to the fact that political institutions, practices, routines and conventions appear to exhibit some regularity or structure over time". Musolf in Connor (2011:101) describes social structures as "some form of enduring material, but possibly ideational relationship between individuals and communities". This includes ideas as part of the defining elements of what a structure consists of. Social practices such as institutions and ideas are seen as part of structure by Jessop (1982) and these structures "cannot be altered by a given agent (or set of agents) during a given time period" (Jessop 1982:253).

In agreement with scholars such as Jessop (1982) as well as Hussein and Grandi (2017), I consider ideas as part of structures. Hence, my discussion of structures includes ideas. Ideas

are ideational elements such as norms, discourses, narratives, grammar and memos (Carstensen and Schmidt 2016). Jabco defines ideas as "strategic constructions" (Schmidt 2008:306) while Blyth (2002) in Schmidt (2008:306) argues that ideas are "strategic weapons in the battle for control". By being strategic, actors will be calculative in achieving their main goals. This implies that ideas are conscious creations by actors to bring about the outcomes they would love to see in their world of influence.

More so, Foucault (2000) and Gramsci argue that ideas allow the most powerful actors to dominate other players, thereby creating an ideological system that defines context. Carstensen and Schmidt (2016:321) define ideational power as "the capacity of actors whether individual or collective to influence other actors normative and cognitive beliefs through the ideational elements". Ideas informing state engagements could also be an explanatory factor as to why some states manage to maintain the status quo. For example, Cascão (2009) argues that Egypt's reason for taking part in the NBI negotiations was to make sure that her values were included in the final document as a way of solidifying her role as a legitimate party in the river basin. Zeitoun et al (2009) also note the ideational power that Egypt has in the Nile Rivers.

Some of the ideas found in transboundary water policy and legislative framework include: democracy, human rights, decentralisation, participation, sustainability, equitable utilisation, principle of no harm to other parties, integrated water resources management, information sharing, economic efficiency amongst others. Of particular interest to this study are the ideas emanating from the 2002 Inco-Maputo Agreement and these are, sustainable development, participation, cooperation, conflict prevention, equity, reasonableness.

According to Sibeon (1999:142), structure "refers to the relatively enduring though not immutable circumstances within which actors operate". Structures are not always visible. According to Giddens analysis "…unless and until structure is instantiated it has only virtual existence in the form of memory traces in people's minds" (Sibeon 1999:139). Agency is "the capacity of actors to shape the environment in which they find themselves" (Hay 2006:253). An actor is "an entity that, in principle has the means of formulating and acting upon decisions" (Sibeon 1999:141). According to Hay (2002:94-95) agency is "a sense of free will, choice or autonomy-that the actor could have behaved differently and that this choice between potential course of action was, or at least could have been, subject to the actors' conscious deliberation".

Agency brings out the important role of individuals. According to Aston (n.d:3), "the great man view of history" locates world leaders such as Hitler or Napoleon as people whose free conduct

influenced world events. Giddens (1976:75) adds that an individual located in various circumstances has the power to choose how to act, making them an "embodied unit". As embodied units, actors have the power to shift the course of events within institutions or leave them the way they are. The point is that they have power and are not toothless as implied by some analysts.

Petersen-Perlman and Wolf (2015) bring the role of individuals in transboundary water governance. They note that people who oversee making decisions make those decisions under the influence of history as well as other factors emanating from either within their institutions or outside their institutions. A close view of the above statement shows the interplay of the structure, agency and ideas in transboundary water decision making. I consider history to consist of a set of ideas that have been influencing relations over time, internal and external factors could be the invisible structural issues such as race, gender or the more visible ones such as RBOs.

Literature reviewed shows that there are three ways to look at the structure and agency debate. **First**, structure and agency are two separate entities that should be analysed independent of each other (see Durkheim 1964). Durkheim argues that structure and agency are two separate entities; with the structure independent of the influence of the people living within it and people having the power to exist as individuals in a society involving other people (Giddens 1979). Taking both extremes can miss some nuances. This does not imply a rejection of both insights on understanding societal relations but there is need for a careful explanation of the circumstances in which these insights are true. My argument is therefore that, while it is important to understand the implications of the terms separately, however, by separating the two we could miss the fact that they are constitutive. Thus, an agency-focused approach that I am proposing here does not imply removing structures from analysis, but it calls for a close look at the agency of actors within their environments of operation. This means that I am against methodological individualism.

Second, structure and agency are inseparable and these two should be analysed as mutually constitutive (see Giddens 1979, 1984; Jessop 1982). Giddens (1984; 1993) argues that structure and agency are mutually inclusive in that while structure influences actors, it also cannot function without the interplay of these players who sustain the existence of such structures. Likewise, Connor (2011) supports analytic dualism arguing that people are capable of defining their environment while at the same time the environment has the power to define them. Connor

(2011) adds that, we should establish whether actors have the capacity to do what they intend to do in social interactions. To get a better understanding of societal relations, Connor (2011) advises analysts to start with an understanding of structure as an ongoing process influenced by both time and space. Similarly, Emirbayer and Mische (1998) notes the capability of actors to change their relationship in line with the changing circumstances around them. This according to Connor (2011) avoids the erroneous analysis of agency as an independent component of society. This speak to the dynamic element of agency in any social setting. According to Emirbayer and Mische (1998), most scholars fail to capture the complexities of understanding agency as dynamic.

Third, although structure and agency are inseparable, it is important to analyze the two separately and learn about the intersections between them (see Rizzo 2013). Although the two are inseparable, however, they both contain an element of independence, which is valuable when analyzing social relations (Rizzo 2013). Using evidence on leadership and policy practices in Italy and Finland, Rizzo (2013), shows that key stakeholders have the power to change the policy narrative of the institutions they work in. To arrive at such a conclusion, it was important to note how these agencies function as independent entities (ibid). This validates the importance of empirical work when exploring the relationship between structure and agency. Likewise, Sibeon (1999) argues that it is not possible to ascertain the relationship between structure and agency before fieldwork.

In line with the above assertion, I explore transboundary water relations in the Incomati river basin though fieldwork with people who work on the structures that govern the Incomati water resources. The aim is in part to explore if individuals can act autonomously in a defined context like the Incomati River Basin without ignoring the influence of the structure. Ignoring the independent components that both structure and agency have even in a two way relationship can distort the realities that may exist within the river basin.

My argument leans more to this third understanding of the structure and agency debate. In the next section, I look at the four conceptual frameworks used to understand transboundary water relations in literature. The objective is to see whether they address issues of power, structure and agency. I then return to this debate on structure and agency and show how I interpret its relationship to power. The consolidated discussion of these issues will inform and justify the theoretical framework of the study.

3.4. Conceptual Frameworks used to understand Transboundary Water Relations

This section revisits some of the conceptual frameworks used to explain transboundary water relations. So far, we have established that power affects transboundary water relations (Mirumachi and Allan 2008). How do scholars understand power in transboundary water governance? The section's main aim is to highlight the main debates in transboundary water governance and explore how the socio-political dynamics (including power) of sharing international rivers have been defined and investigated over time. These are the *Hydro-Hegemony Framework* originally by Zeitoun and Warner (2006) and as used by Cascao and Zeitoun (2010) and Warner et al (2013); *Rational Design Framework*, adapted from Klaphake and Scheumann (2006) and Mitchell and Keilbach (2001), *Perceived Risks and Perceived Opportunities* by Subramanian, et al (2012), and the *Water and Society Approach* by Tvedt (2015).

3.4.1. Hydro-Hegemony Framework

The Hydro-hegemony framework by Zeitoun and Warner (2006) is the first structured analysis of power in international rivers (Grandi 2016). The framework has since been used to critically engage with relations in various river basins (see Hussein and Grandi 2017; Conker 2014; Warner et al 2013; Warner and Zawahri 2012; Kehl 2011; Cascao and Zeitoun 2010). Though these scholars point to some of the weaknesses of the framework, it still gives a firm foundation to understanding issues of power in international river basins. A close look at the framework shows a heavy reliance on Luke's radical view of power, discussed in section 3.2.

In the framework Zeitoun and Warner (2006) define the most powerful country or hegemon in a river basin as the one with a definitive answer to situations affecting a river basin. The authors differentiate between two possible types of hegemons. The first possibility is a powerful state who uses its power negatively to 'bully' weaker parties. The second possibility is to have 'a torch bearer' who uses its power to improve the state of other parties as well. Such a positive impact produces positive sum results that could ensure peace, stability and the sustainability of cooperative initiatives. However, Zeitoun and Warner (2006) point to the likelihood of some states taking advantage of the torchbearers' power to free ride in a way that benefits them at a low or no cost.

The Hydro-Hegemony Framework presents four types of power that states contend with in transboundary water governance.

1. ***Geographical power***: Normatively, the state with geographical power in transboundary water governance is the one located at the upper stream level of a river basin. The rationale is that upstream countries can manipulate the flow of water at the expense of those downstream (World Bank 2017). However, history has shown that downstream states such as Egypt in the Nile river basin have managed to define the activities in the river basin due to their high dependence on the water. Approximately 90% of Egypt's landmark is desert (Rahman 2013) and this has caused the high level of dependence on the Nile river basin for the survival of her population and for agricultural purposes. Though South Africa is upstream, however, in the Komati Catchment Area, the country is downstream to Swaziland. This has made South Africa sensitive to her activities when relating to Swaziland while enjoying the dominant position in the areas where she sits upstream (Carmo and van der Zaag 2003). This puts Mozambique at the lower end of the stick and less powerful when defining power in geographical terms.

2. ***Material power***: Material power is when issues such as military capacity, economic development, technological capabilities, donor support and international political support sets one state against other states. For instance, greater economic development would mean that a state has financial resources at its disposal to use for the basin developments (Rahim and Zikhali 2015). According to Dahl (1957), material power is a sufficient base to control others. The assumption is that states who have such capacities will be negotiating from a position of authority compared to others who might fail to implement policy or legal requirements due to resource constraints.

   Grandi (2016) argues that Egyptian interests have shaped the geopolitics of the river basin due to her economic and political capabilities. Egypt has also benefited from external support. Does this therefore imply that Egypt is powerful because of her economy and political strength? Is that an adequate analysis of power? How about the voices or agency of actors from other 10 riparian states? Does their silence mean that they are weak? All these are interesting questions which are not adequately answered in the currently literature on hydro politics. Therefore, I attempt to visit such unanswered questions in a theoretically informed methodology that will generate new

insights in understanding the relation dynamics of riparian states over shared water resource distribution.

3. ***Bargaining power*:** Zeitoun and Warner (2006)'s description of bargaining power is close to what was discussed as the second face of power. A state who holds bargaining power is the one who is capable to control the agenda of the discussions and the rules that inform interactions. The relationship between bargaining power and agenda setting is that *A* negotiates conditions that are favourable to them through various ways such as setting the agenda that includes the conditions that benefits them.

4. ***Ideational power***: The framework describes ideational power as having decisive influence over ideas that inform the governance of a river. Ideational power is also part of the discussion within the third face of power.

There is a possible interaction between these power forms, for example, if country *A* have material power, it will have more bargaining and ideational power. However, this is not explicit in the framework. Cascao and Zeitoun (2010) provide a more comprehensive analysis of the hydro-hegemonic framework. Accordingly, various riparian states have highly asymmetric capacity to use both hard and soft power. Considering soft power when analysing transboundary relations opens a wider understanding of why at times negotiations end up being conflict management mechanisms instead of conflict resolution (Warner et al 2013). For example, the use of diplomacy by the hegemon might lead to power asymmetries going unchallenged and in turn could drive states to commit to agreements that bring out highly differential benefits. In such a case, agreements would manage conflicts but will not solve the real problems on the ground.

More so, Cascao and Zeitoun (2010) note that a deeper examination of transboundary water interactions reveal evidence of counter hegemonic mechanisms applied by the non-hegemonic states with the aim to change the outcomes of water control and allocation towards fair distribution. Therefore, the explicit consideration of the perspectives of the non-hegemonic actors could provide valuable insights into the processes and outcomes of transboundary water interactions.

The allocation of resources tends to be asymmetric. Thus instead of asking the question who gets what, the question should be, who is left out of the equation (Cascao and Zeitoun 2010). The good news is that the non-hegemonic states also have bargaining power that they can use

to counter power. If used properly, their bargaining power could influence policy processes and balance the agenda to accommodate their needs as well. For example, what the upstream riparian countries headed by Ethiopia are currently doing to contest Egypt's de facto control of the Nile river basin through the Grand Renaissance Dam. As predicted by Barret (1994), a dam in Ethiopia will increase water supply and other benefits in Ethiopia. However, the risk is that these benefits are not going to cater for Egypt's demands for water. Barret (1994) warns against unilateral water decisions that produce one-sided benefits that are not equitable.

More so, Warner and Zawahri in Hussein and Grandi (2017) have extended the hydro-hegemony framework. They argue for the need to include transnational and domestic issues in the discussion. Hussein and Grandi (2017) observe that the framework still ignores the role played by third parties such as non-government organisations and the complex role played by transboundary water institutions. Conker in Hussein and Grandi (2017) argues that the limitation of the Hydro-Hegemony framework is that it looks at outcomes and not the processes of transboundary water governance. By looking at outcomes, the framework will base their arguments on for example signed agreements or informal arrangements and leave out the details on how actors reached those arrangements or agreements. Hussein and Grandi (2017:6) argue that there is need to "understand the processes of consolidation of hydro hegemony and water allocation and understand how and why changes occur". Processes would include the active discussions and highlight the challenges as well as the opportunities faced. A critical engagement with the structure and agency debate could help us understand those processes.

The Hydro-Hegemony Framework teaches us the following aspects: (1) the need to do empirical work (2) include the role of other actors such as water users and third parties (3) the value of counter hegemonic strategies in transboundary water politics. As mentioned earlier the Hydro-Hegemony Framework gives valuable information on power in transboundary water governance. To me, empirical work could strengthen the framework. For instance, including the agency of the policy players involved in the bargaining table. This would also include some stakeholders that are missing in the framework such as water users and brokers. Empirical work would fill the 'process' gap identified by Hussein and Grandi (2017) above. As recommended by Gramsci (1971), methods to counter the power of the hegemon are important. In that light, participants who are under the hegemonic ideology have the power to contest the power dynamics in a river basin. Missing in the framework is the possibility that other players such as the World Bank could introduce hegemonic ideologies

that influence governance (Furlong 2008). The extent of their influence is not the main essence of this study; my aim is to explore the nature and dynamics of those interactions.

3.4.2. Rational Design Framework

Scholars who belong to the Rational Design Framework school of thought consider states as rational and welfare maximizing actors, who cooperate when it is in their best interests to do so (Klaphake and Scheumann 2006; Dinah 2004; Sadoff and Grey 2002; Mitchell and Keilbach 2001). The logic behind this framework is that economic benefits are the most important factors states consider in their international interactions. In transboundary water governance, the way states respond to a situation largely depends on the scope of the problem as well as the geographical location of the state within the river basin (Klaphake and Scheumann 2006).

The challenges related to environmental issues have generally been understood "as problems of collective action, and 'through lenses of security', whereby various actors' actions are viewed as a threat to the security of their livelihood" (Paterson 2009:262). Paterson (2009:262) argues that the basis for such an understanding is Hardin's 1968 'Tragedy of the Commons' which "suggests that the structural incentives of actors (states) operating in relation to open access resources (Hardin's misnamed commons) both lead to the overuse and abuse of those resources, and impede collective efforts to mitigate such abuse".

The logic, just like rational choice theory, is that all the actors have their own share of resources but all of them have a motive of using beyond their share. This unfortunately negatively affects the outcomes and affect everyone concerned. At times problems such as droughts affect all the states concerned, making the benefits symmetrical (Klaphake and Scheumann 2006). Paterson 2009 compares Hardin's tragedy of the commons to the Prisoner's Dilemma game[21], where cooperation is a solution that can work for all parties involved. William Ophuls 1977 in Burchill et al (2009) argues that the solution to the tragedy rests upon a powerful global institution with the ability to control the behavior of actors.

[21] Prisoner's Dilemma is "a game, where (classically) two prisoners are held by the police and offered more lenient sentences in return for information which will lead to the conviction of their colleague for a more serious crime, the best outcome is that both keep quiet (cooperate) but in fact each is likely to spill the beans (defect). Similarly, the best outcome in Hardin's commons is that all limit themselves to 10 cows (cooperate) but the dominant dynamic is that each puts an extra cow on the land (defects), thus undermining the interests of each" (Paterson 2009:263)

In some instances, floods, affect downstream countries more than those upstream. In such circumstances, the problem will be asymmetrical, putting certain actors at an advantage while making others vulnerable. In such a situation, there is need for 'package deals' to be reached (Klaphake and Scheumann 2006), whereby the parties work together in finding a solution. The upstream countries could assist with flood protection in exchange for side payments (Vollmer et al 2010) or out of good will. In the Incomati river basin, package deals should consider Mozambique's vulnerable position as a downstream country in times of droughts and floods (Tauacale 2002). These deals should see states committing to their international obligations of water flows that will ensure that Mozambique receives the minimum stipulated water flows.

Koremenos et al (2001) have extended the theoretical understandings of rational scholars to institutions. According to Koremenos et al (2001), states and non-state actors join institutions for their own personal interests. The pursuit of interests, imply that rationalist actors would not participate in issues not directly related to them. Therefore, there is a need for constant definition and revising of interests as they relate to a problem (Koremenos et al 2001). However, in an unequal system, powerful states' interests often overshadow the interests of the other actors (Mearsheimer 1995; Barkin and Shambaugh 1999).

The implications for the study that I get from the Rational Design Framework are twofold. First the issue about interests. The original framework is state centric and assumes that transboundary water governance is an interaction between and amongst states only. However, scholars such as Koremenos et al (2001) have added the role of non-state actors as well as decentralised actors within states. This addition is important today because of globalisation that has allowed various actors to work together in finding solutions to global challenges. The framework assumes that A will make sure that their interests prevail without considering the needs of B. The problem with such an assessment is not only that it is simplistic but also it ignores that interests are dynamic. Contrary to the common knowledge in international relations, that states have permanent interests and not permanent friends; the scarcity of water and climate change has unfortunately left states with very few options. Thus, even in instances where the effects of floods are not affecting everyone in the Incomati river basin, droughts will affect everyone. Therefore, the way you treat flood victims might be the way they treat you when drought strikes as an example. The point is that climate change impacts have exacerbated water insecurities, leaving states with limited options for unilateralism. On the other hand, one might argue that, even in circumstances where states are interdependent, interests should still be analysed. That is very true because having dynamic interests does not mean that states are

'friends'. It means that the interests of states have shifted in relation to context. In the water sector, context is important and state interactions should be analysed based on geopolitics of the day. I agree with Koremenos et al (2001), that the interests of both states and non-state actors change over time as those involved negotiate and renegotiate the conditions.

3.4.3. Perceived Risks and Perceived Opportunities

States are "risk averse" (Koremenos et al 2001:781). They are not willing to participate in uncertain situations even with a possibility for large returns, preferring rather to cooperate in circumstances with certainty despite having low returns. Simultaneously, as benefit optimizers, they will take part in situations that safeguard their sovereignty. Therefore, they will look at opportunities that will make them better off rather than worse off. Subramanian et al (2012), discuss the fears and opportune circumstances faced by states.

Subramanian, et al (2012: 4) define a perceived political opportunity as "the perception that an act of cooperation will enhance the country's wellbeing, will augment something of value to the country, or will improve the political future of individual policy makers". For example, domestic reforms in India that encouraged regional integration saw her committing to the Ganges treaty. As noted in chapter one of this thesis, the successful signing of the Indus Treaty by India and Pakistan was because the two states took advantage of the conducive political environment at the time and efforts of a committed third party: Eugene Black, the then World Bank President. A change in government can also be an opportunity for cooperative engagements (Subramanian, et al 2012). The demise of apartheid in Southern Africa saw South Africa move from being a foe to a friend in the Southern African Development Community regional block. Former South African President, Nelson Mandela who is an international human rights icon could have provided South Africa an opportunity to integrate with other states. Rahman (2011) in Hussein and Grandi (2017:9) note that, "the fall of Menghistu's regime in 1991 and the 1998–2000 conflict with Eritrea" gave Ethiopia the confidence to contest the leadership of Egypt in the river basin. However, the framework does not discuss the role of individuals explicitly; the focus is on structures, i.e. regimes.

However, some perceived political opportunities could have negative impacts on people at the grassroots level. According to Mwangi (2007), the economic and strategic opportunities

perceived by the government of Lesotho and South Africa in the Lesotho Highlands Water Project miscalculated the social and environmental impacts in Lesotho. For example, the construction of large dams has led to ecocide-displacement of victims, while the compensation policy has not been effective. Similarly, the perceived human security and ecological advancement in the Zambezi River has often led to agreements that only advance the securitisation of the environment by the riparian states (Fox and Sneddon 2007).

Using Ethiopia and Egypt, Hussein and Grandi (2017) shows how a shift in regional politics can also shift the way, which countries interact in a river basin. Hussein and Grandi (2017) argue that the Nile river basin states do not have the same vision when it comes to the Nile waters and this leads to individualistic or bilateral actions which override the needs of everyone else concerned (Hussein and Grandi 2017). Hussein and Grandi (2017:2) describe the efforts by Ethiopia to contest the historical influence of Egypt in the Nile river basin "partially successful".

A perceived risk is "a perception that an act of cooperation will expose the country to harm, will jeopardize something of value to the country, or will threaten the political future of individual policy makers" (Subramanian et al 2012:7). According to the architects of the framework, before any form of engagement, states will do a thorough analysis of the other players who they will be cooperating with. The reason for this analysis is so that they protect their sovereignty and to ensure that they have the capacity to cooperate or not. Some of the factors that they will consider before committing to cooperation are,

1. Whether a state has enough capacity and knowledge to negotiate a fair agreement,
2. Whether the state has a voice or say in the decision-making processes,
3. Whether the engagement will produce equitable and sustainable outcomes, and
4. Whether their sovereignty is protected or compromised.

The Perceived Risks and Opportunities Framework assumes that states constantly contend with the benefits and costs of cooperation in different contexts. My understanding of the above four issues is that states know that there are power issues to contend with right from the beginning. For example, capacity and knowledge will speak to material and ideational power respectively. Considering issues such as equity and sustainability shows their grasp of the international norms and their right to attain them. Whether sovereignty is protected or not could add the

aspect of *B* countering the power of *A* in areas where *A*'s power interferes in the domestic politics of *B*.

The implications for the study derived from the Perceived Risks and Perceived Opportunities framework are the role of perceptions and the dominance of structure versus agency in the narrative. First, I will show in the next chapter of this thesis that perceptions are not very reliable and are difficult to analyse. However, there are good as a foundation to base one's analysis, because they shape foreign policy. So understanding their perceived risks and opportunities would aid one to understand some of state decisions and outcomes. Second, the framework is state centric. It does not discuss the agency of individuals or non-state actors involved explicitly. Although it mentions opportunities that could be presented by these, but it shies away from giving credit to the role-played by these actors. What I derive from my own reading is the crucial role of agency. This could either be individual or collective agency. For example, in their description of the framework, Subramanian et al (2012) give reference to Eugene Black, the then World Bank President who was key to the success of the Indus treaty. However, in their engagement they miss (1) that Eugene Black is an individual (2) that the World Bank is a non-state actor. This shows us that transboundary water governance extends beyond states. More so, it shows that Black as an actor has agency and likewise, there are individuals who deserve credit for their contribution to transboundary water cooperation. The World Bank also represent a structure, meaning that structures should not be restricted to states in the structure and agency debate. What I also pick out from the World Bank story is the aspect of collective agency, because in as much as Eugene Black made it to the news, the success of the treaty was also due to the support he got from his team at the World Bank.

3.4.4. Water and Society Approach

The Water and Society Approach by Tvedt (2015) argues for the integration of hydrological and social dynamics in the analyses of water resources. It essentially encourages the inclusion of the role of water in our understanding of social and historical processes. It is against the tradition of working in silos i.e. analyzing water from a social angle only or hydrological angle only. The argument is that water and the factors affecting its flow are related. To me this approach is complex, yet, largely relevant in transboundary river basin management. It is relevant, particularly in critically understanding how the social, economic, political, and

physical factors influence the water cycle. More so, Tvedt (2015:15) through his water and society approach, argues that,

> …water as nature not only exists but changes both of its own accord and as a result of human actions and its many interactions with society and in so doing not only changes the context in which human histories unfold but becomes part of human history itself.

The Water and Society Approach consists of three layers. The two layers being the physical and social factors of the water system approach enable us to "analytically incorporate the creative power of human actions and aims, while still look for deeper structures that influence and constitute societies and their patterns of development" (Tvedt 2015:12). For example, the hydrology of the Komati catchment area shared by Swaziland and South Africa ensures that there is effective allocation of water amongst all water users using various technologies by governments. These technologies include the building of the Maguga and Driekoppies dams in Eswatini and South Africa respectively.

To understand these interactions, there is need to understand what the pressing issues are and this implies I look out for the hydrological aspects such as, (a) how water is governed (b) how such governance affects the general understanding of the river basin and (c) what data is available in the system. The Komati Basin Water Authority (KOBWA) needs sufficient and up-to-date data and information about water quality and quantity and their spatial and temporal trends in order to operate and manage the system effectively and efficiently. The data is required to support decision-making concerning systems operation (water supply and demand management), managing risk and uncertainty, dam safety, as well as environmental management. Data limitation specifically, lack of coordinated data management systems during fieldwork data did not allow me to undertake this approach in this study.

The third layer of the water system approach argues that water can play different roles in a society. For example, some water developments can symbolize power or cultural heritage. For example, in Eswatini the King and the royal family have the power to influence water resource management. The most of the water from the Komati catchment area feeds the Royal Swaziland Sugar Corporation Limited (RSSC), a sugar estate owned by the royal family. Other water users have complained about water allocations but no one is willing to go against the King's wishes or question the unfair distribution of water in the favor of the royal family. Largely the arguments of the water and society approach are applicable to my thesis. The problem is the

complexities when conducting research in a developing area where resources for funding are minimal and where data management systems are not functioning properly.

The Water and Society Approach teaches us that the socio-political issues surrounding us can define the flow of water. As an example, to understand water governance in Eswatini one needs to understand that Eswatini is an absolute monarch. This opens the discussion to another angle of power not problematized in transboundary water governance: the issue of political regimes. The question is, should democratic and authoritarian governments be analysed the same or should context should be highlighted? To answer this question, I thought about the actors involved in transboundary water governance. Do actors function differently in different regimes? As a signatory of the SADC, Revised Protocol Eswatini is supposed to act according to the prescriptions of the protocol. This means that they are accountable to the SADC Water Secretariat, the same way other states are.

Concerning actors, do states strategically choose representatives in international negotiations? Who are these people and how much power do they hold? An answer to these questions could contribute to the important role played by actors in transboundary water governance. In simple terms, though the King defines the domestic policies of Eswatini, which inform and guide actors as they negotiate with diplomats from other countries. I argue that these actors are active players who use their independence to some extent to reach their desired end. If we continue treating them as only instruments of the higher power (the state), we might miss out on the lessons that these actors can teach us as independent players. The analysis does not disregard the influence that the state has on the actor but it challenges us to see their relationship as one that has an alternative explanation that goes beyond the state having the overall power.

3.5. Building the Theoretical Framework

3.5.1. Power, Structure and Agency Nexus: The Argument

According to Morgenthau in Holsti, (1964:179) "all politics is a struggle for power". There is an agreement amongst scholars of the asymmetry of power amongst states sharing international rivers (Mirumachi and Allan 2008; Waterbury 2002; Zeitoun and Warner 2006; Sebastian

2008; Barua 2018). More recently, there is also an agreement that both the dynamics of power and the transboundary water interactions continue to evolve in space and time (for example see Hussein and Grandi 2017). I position myself in these debates and argue that these conversations should not ignore the relationship between structure and agency. To me, power, structure and agency have an inextricable relationship. I do not claim to be the first to attempt such an analysis in a shared river setting. However, bringing the important role of agency, which is often overlooked, I contribute to understanding the role that structure and agency can bring in contemporary transboundary water politics.

Schmidt (2008) sums up the relationship between structure and agency in the following description of what a structure is. A structure is,

> …as given (as the context within which agents think, speak, and act) and as contingent (as the results of agents' thoughts, words, and actions). These institutions are therefore internal to the actors, serving both as structures that constrain actors and as constructs created and changed by those actors (Schmidt 2008:314)

This is line with the analytic dualism postulated by Giddens (1984, 1993), Connor (2011) and Emirbayer and Mische (1998). However, Schmidt (2008) goes further by highlighting not only that structure and agency are constitutive but adds how social practices are internal to actors in a way that in some circumstances they have the power to construct and reconstruct knowledge. In addition, such capabilities can deem actors as *structures* at some point (Schmidt 2008). The ability to reconstruct knowledge goes hand in hand with Bourdieu's concept of habitus or socialisation of norms[22]. Bourdieu argues that through actions, actors mirror and reconstruct their contexts. In the same light, Navaro (2006) cautions researchers of the possibility that individuals have been deeply socialised in the context which they operate in, in such a way that they now act as defined for them by ever-changing norms or cultures of those institutions. Such complexities, justify the need to understand the independence of these two, even within analytic dualism, which is what I intend to explore in this study.

Hay (1997) argues that in understanding power one has to separate between normative and analytical questions. I identify with the normative aspect, which is concerned with "the critique of the distribution and exercise of power thus identified" (Hay 1997:45). Instead of merely identifying power (analytical) within the Incomati water governance sphere, I critically explore

[22] Habitus "is the way society becomes deposited in persons in the form of lasting dispositions or trained capacities and structured propensities to think, feel and act in determinant ways which then guide them" (Wacquant 2005 in Navaro 2006:16).

the socio-political implications of the interactions that take place. This requires one to understand the context of the Incomati river basin and identify how actors exercise power. Such an approach does not focus on the definition of power per se but uses the realities found in the Incomati to inform us about what we can learn about power. The sentiments below motivates this approach,

> The role of the agent in water politics has thus to be contextualised within a relational web of multiple dimensions. Ultimately, this lies outside the water sector: we ought to contextualize social and political action within the structural context in which it takes place (Hussein and Grandi 2017: 4)

The above quote highlights the important role of people in transboundary water governance as Hussein and Grandi proposes. The quote also adds that socio-political dynamics affecting transboundary water governance could be beyond water. This means that we have to analyze even the context that is outside the area of focus (see Sadoff and Grey 2002). The above observations validates the focus on the normative questions when exploring power issues. This is in line with Jessop (1982) of viewing power as an explanandum and not as an explanans. Taken as an explanandum, power can "indicate areas of inquiry for further research in international processes and if formulated carefully it may become for the first time an important teaching device" (Holsti 1964: 193).

Viewing power as an explanandum calls us to analyze action. For Giddens (1979:91), power is "instantiated in action, as a regular and routine phenomenon". Similarly, Jessop (1982) sees power not as pre-given but as relational, dynamic and complex. That is why I focus on interactions, because as agents are interacting we can learn something about social relationships and how these contribute to an understanding of power. My interest is thus to understand, how different agents navigate and explain the socio-political dynamics involved in sharing an international river basin within the confines of the institutional machinery governing them. A historical analysis would be important to understand this dynamic relationship between structure and agency (Jessop 1982). According to Jessop (1982), the interests of agents should be analysed against the structural limitations within specific space and time. These limits determine what changes can be implemented or not implemented (Rizzo 2013).

Important for this study, Giddens (1979) cautions against ignoring the active role of actors. I agree with Giddens (1979) observation that some schools of thought tend to discount the

rationale of agents actions in their analysis; which I argue is very important in understanding social interactions. The current discussions often reduce people to lay actors; and this is described by Giddens as problematic and has "potentially offensive political implications…that imply a derogation of the lay actor" (Giddens 1979:71). This derogation of actors can largely discredit their participation in the policy-making processes (Giddens 1979).

Going forward, I combine *agency and power* in the discussion of the processes involved in transboundary water management in Southern Africa. In previous research when scholars discuss power relations, they focus on structures and leave out people working on those structures. However, this does not mean that I adopt methodological individualism whereby I look at agencies and disregard structures. In pursuing methodological individualism, rational choice theorists miss the possible manifestations of agency in space and time (Emirbayer and Mische 1998; Connor 2011). Carstensen and Schmidt (2016:321) reiterates the fact that focusing on agency does not mean structure is less important but "agents are clearly dependent on existing ideational structures to develop, defend and communicate their ideas to other elites and the public". I agree with the following explanation of agency as,

> the temporally constructed engagement by actors of different structural environments—the temporal relational contexts of action—which, through the interplay of habit, imagination, and judgment, both reproduces and transforms those structures in interactive response to the problems posed by changing historical situations (Emirbayer and Mische 1998:970).

Similarly, Homans in Emirbayer and Mische (1998:966) asserts that there is a need to "bring men back in and to return to an action theory firmly grounded in the purposive, instrumental, and calculating orientations of individuals". Connor (2011) argues that the importance of agency in social analysis is that it allows people the possibility and capacity to be masters of their destinies. This establishes Constructivist Institutionalism as the theoretical framework for this study. CI allows me to take a close look at agency (actors) or group of actors (collective agency) on the one hand and on the other hand understand the power context from which they function. This way I contribute and argue for the *Power, Structure and Agency Nexus.*

In chapter, four, titled *Bringing Agency back to Transboundary Water Governance,* I attempt to show that actors (either as individuals or collectives) have the power to alter or redefine the context in which they operate in within the Power, Structure and Agency Nexus . What I value more about Constructivist Institutionalism is that it leans more to the role of agents within

institutional development and change. This is in line with my study objectives of bringing agency back in transboundary water conversations in relation to space and time. Constructivist Institutionalism is also ideal because not only is it agency centreed but it is a critical theory which allows one to understand some of the mechanisms in social settings that could be missed by other theories.

3.6. Conclusion

In this chapter, I have engaged with the issues of power, structure and agency; revisited four frameworks used in the literature and shared the implications for this study from the four frameworks. The different conceptualisations of power reveal the concerns or questions that often matter in power debates. For example, when we are looking for power, what exactly are we looking for? *A*'s preferences prevailing over *B*'s? *A* setting the agenda to the exclusion of relevant concerns or interests of *B*? *A* acting against the objective interests of *B*? Unequal representation in places of power? Discourses and practices that embody various forms of domination? The chapter has shown that power is relative and complex. However, understanding it through the *actions* of actors, can add value to the context that is of interest.

Similar to Bachrach and Baratz (1962)'s caution that researchers should not ask who has power; I agree that this is not important in advancing the knowledge we already have about power. However, I differ, with their methodology to analyse "mobilisation of bias" (ibid: 952). Without discrediting their methodology, I argue that, instead of asking who has power, we should analyse what interactions of actors (action) *tell us* about the issues that are of interest. For example, in my study, my main interest are the issues of power and hydro-hegemony. Thus instead of asking which state of the Incomati river basin has power, I should analyse how different forms of both cooperation and conflict inform my understanding of power. This should be analysed together with *structure and agency* so that we can identify the social relations produced by this intersection.

The discussion also shows how different scholars view *power and interest* in social interactions. The first face of power by Dahl offers an agential account of power and subjective account of interests. The second face of power by Bachrach and Baratz introduced structural power, but retained a subjective concept of interest. The third face of power by Lukes is mainly concerned with manipulation of preferences and their influences on objective interests. The forth face of power by Foucault locates power in structures of knowledge and in technologies,

having little room for notions of either objective interest or autonomous subject. Constructivist Institutionalism *locates power in the triad of structure, agency and ideas*, arguing that *homogenous preferences matter* when it comes to interests.

PART 2: Theoretical Framework and Methodology

Chapter 4: Bringing Agency Back into Transboundary Water Governance- A Road Map

4.1. Introduction

> Most of what you know is a matter of agreement and belief. Little of it is based on personal experience and discovery (Babbie 2011: 2).

In this theory and methods chapter, I present the various methods that I used to answer the research concerns raised by this study. According to Hofstee (2006), with appropriate methods a researcher is able to provide a clear picture (or road map) of their arguments.

Babbie (2011) begins her book *'Introduction to Social Research'* with some of the issues we have come to consider as facts, because we were taught by either our parents or experts and we came to 'agreement' with such conclusions without really questioning them. In studying transboundary water governance, there are such 'agreements'. When I began this journey, I had a limited understanding of power and other socio-political dynamics of sharing international rivers. For example, I was in agreement with the following arguments; that power is a negative, and that South Africa is a SADC hydro-hegemon. I still identified with realist thoughts I had mastered from my *Introduction to Political Science* undergraduate course. Although, I have interacted with critical theories over the years, my realist's assumptions about power remained (at least to myself) as a 'fact'.

However, this view changed when I presented a paper at the River and Environment Management Cooperation (REMCO)[23], 'Water Governance' Conference on the 29th September to the 1st of October 2014. My presentation was *on factors that can trigger transboundary water cooperation.* The participants received my presentation well and as an important governance issue often overlooked by analysts. There was an agreement on the social

[23] REMCO is a bi-annual conference held by Incomati river basin stakeholders to discuss issues affecting governance of the shared resource. It is mostly run by the decentralised institutions Inkomati-Usuthu Catchment Management Agency (South Africa), Komati River Basin Authority (Eswatini) and ARA-Sul (Mozambique). These institutions work with German and Netherlands delegates from the Vecht river basin shared by the two countries; and together they share experiences of their respective river basins. Participants vary from research institutes, universities, national departments and water users.

science gap in analysing transboundary water governance. When I presented on the Hydro-Hegemonic Framework (discussed in chapter 3 of this thesis), I considered South Africa as a hegemon in the basin, and it was not until I presented her as a potential bully in the basin that I noticed some discomforts in the audience, particularly from the South African representatives. I chose to be objective and carried on with my presentation, stating clearly that my presentation relied on secondary analysis, as I was still to conduct my fieldwork the following year.

My observation from the conference proceedings and literature review was that there was not an adequate engagement with questions of power. Where discussed, these discussions ended with power asymmetries as a key challenge confronting states sharing river basins. This is a fact that I do not dispute, however, missing was a study which goes further than seeing power as a problem. Seeing power as a problem traps one into an academic or policy hole with hidden possibilities. Through this study, I attempt to expand our understanding of power in transboundary water governance. The ubiquity of power makes it penetrate both the structures and actors involved. To my knowledge, there is a significant gap in our understanding of the lived experiences of different groups involved in transboundary water governance.

Therefore, I decided to conduct preliminary interviews (more details in the methodology below) and to scan through a lot of secondary literature available. I did this to understand whether my observations at the time were valid or not. After going through a reasonable number of articles and talking to twelve (12) experts in transboundary water governance, I noted other points that were relevant for my analysis. First, many studies were replicating the same findings. For example, scholars conclude that power is an inescapable problem in transboundary water governance. Through their Hydro-Hegemony Framework Zeitoun and Warner (2006) have shown powerful states influencing activities of the river basin with at times weaker states being able to contest the power. Using different approaches, most scholars pinpoint power as the major problem affecting the sharing of international rivers (Turton 2003b,2010; Zeitoun and Allan 2008; Cascao and Zeitoun 2010; Kim and Glaumann 2012; Zeitoun et al 2016; Petersen-Perlman et al 2017). While that is true, I argue, the conclusion that power is a problem does not add much value to knowledge, instead it reproduces knowledge in a different context. Taking power as an explanandum can add value to knowledge (Jessop 1982) through work and/or lived experiences of stakeholders involved.

Second, the discussion often includes structures (for example states) and not the agency of actors. In cases where scholars include non-state actors such as World Bank, the focus of their

analysis is in the structural aspects of interaction such as ideology while individual and collective agency of those actors is not established.

Third, literature does not problematize the issues of space and time. For example, the way power was viewed during the colonial times and apartheid is to large extent still viewed the same way. In most narratives, scholars see *A* has having power over *B*. For example the Hydro-political complex described in chapter one of this thesis, assumes that pivotal states have power over impacted states (Turton 2003a). This fails to capture that relations evolve, and an impacted state such as Mozambique and a pivotal state such as South Africa in the Incomati river basin share a relationship that is different now than it was during apartheid. Today, the role of foreign governments such as the Netherlands also contribute to the shift in power dynamics. Jacobs (2010) describes South Africa as a fragile hegemon due to a lot of civil unrest in the country. Such considerations shape our understanding of how South Africa as a country interacts with others in that fragile state. Zimbabwe is also included as one of the four pivotal states in Southern Africa (Turton 2003a). However, the socio-political and economic challenges in Zimbabwe puts its pivotal status into dispute. I observe a lack of understanding of the 'change' that comes within structures. Although some scholars such as Agnew (1994) and Petersen-Perlman et al (2017) touch on the evolution, their deficiency is that they do not capture how institutions evolve over time and the role of agency in that evolution.

Considering the above observations, I decided to focus on the gaps identified. I knew from the start that it was not going to be an easy road as I was leaving the comfortable seat of merely agreeing with what was there before but questioning what had been accepted as true for many years. To me, transboundary water governance ceased to be just a study for a degree. I encountered a different kind of knowledge that no 'arm chair' research could have uncovered. I realised that to produce a thorough understanding of transboundary water governance, both theory and empirical research were important. Communicating with operational institutions of the Incomati river basin (for example, KOBWA, IUCMA, and ARASUL) was an eye opener; and attending workshops and conferences organised by the Incomati River Basin stakeholders as well as other international conferences on river management brought me into the inner circle of what transboundary water governance is all about. I saw it in action or, so I thought.

I strongly feel eclectic approaches are good; however, for fear of duplication, I have left the 'safety' or comfort zone that comes with such approaches. The comfort zone, for instance, is borrowing from various theories but fail to use one approach to substantiate one's findings.

Although it was tempting to use an eclectic approach because of the interesting contribution each theory brings to the analysis table, to stay true to my thesis statement and problem at hand, I decided to stick to a theory that I feel is the closest to both my ontological and epistemological position: Constructivist Institutionalism. Constructivist Institutionalism allows me to engage with some of the identified gaps in knowledge and most importantly, it gives primacy to agency often neglected in ongoing debates in transboundary water governance.

In the next section, I explain and justify the use of constructivist institutionalism as a theoretical framework informing the study.

4.2. Why Constructivist Institutionalism?

Rationalist ontological and epistemological concerns are still dominant in the water discourse and they could contribute to why there is a lot of criticism of international relations theories on water (du Plessis 2000) particularly in the face of a fast-changing world. According to Vogler and Imber (2005:9), realists treat institutions as "mere epiphenomena, the product either of power (notably hegemony) relationships or of the underlying material and class bases for the international political and legal system". For realism, power is at the centre, specifically, the necessity of a hegemonic leader within a system (Vogler and Imber 2005:9).

From a realist perspective, shortages of water and the impacts of climate change could generate international instabilities through interstate conflicts (Kaplan 1994 in Burchill et al 2009). The water shortages and problems associated with resource scarcity makes it difficult to govern the resource fairly across different states. Smith (in Vogler and Imber 2005:10) argues that the realists view on power politics is sometimes invalid and robs analysts a chance to have a conversation with other discourses such as post structuralism, gender, normative and critical theories.

Although important in understanding shared rivers, however International relations theories or discourses obscure several important factors (Furlong 2006). Furlong (2006:439) notes that international relations theories have a,

> mis-theorization of the hegemonic structures at work, undue pessimism regarding the propensity for multi-lateral cooperation, an assumption that conflict and cooperation

> exist along a progressive continuum, a tenet that conflict is restricted to state competition, and thus a neglect of state collusion in violence against citizens, and depoliticization of ecological conditions.

Warner and Zeitoun (2008) criticizes Furlong's sentiments for failing to look beyond the mainstream international relations theories and argue that international relations is a very broad field which includes the critical theories as well as international political economy. Although they appreciate some of Furlong's arguments, Warner and Zeitoun (2008), fault Furlong for lack of substantial evidence to back her claims and note that they is some misunderstanding of hegemony from Furlong's arguments. Warner and Zeitoun (2008) note that the few international water relations studies are often written in haste and casually by people outside the field such as geographers and civil engineers which produce alleged implicit arguments. The thesis agrees that the implicit use of mainstream international theories such as realism fails to address the central transboundary water questions.

Klaphake and Scheumann (2006) argue that it is difficult to have a theory that adequately addresses or explains the dynamics of sharing international rivers. Burchill and Linklater (2009), when arguing how the complexity of international politics makes it impossible to find answers in one theory, share the same sentiments. Zeitoun et al (2016) advise water security researchers to use theories that are flexible enough to address their main concerns. Therefore, through Constructivist Institutionalism, I manage to engage with the complexities of understanding power in an evolving context (Bacalso 2010). I also engage with the role of ideas and agency as it relates to established institutions. The theoretical framework supports the interrelatedness of the three, as shown in figure 2 below. The discussion of the framework also incorporates power and justifies the argument for a power-structure-agency nexus I proposed in chapter 3 of this thesis.

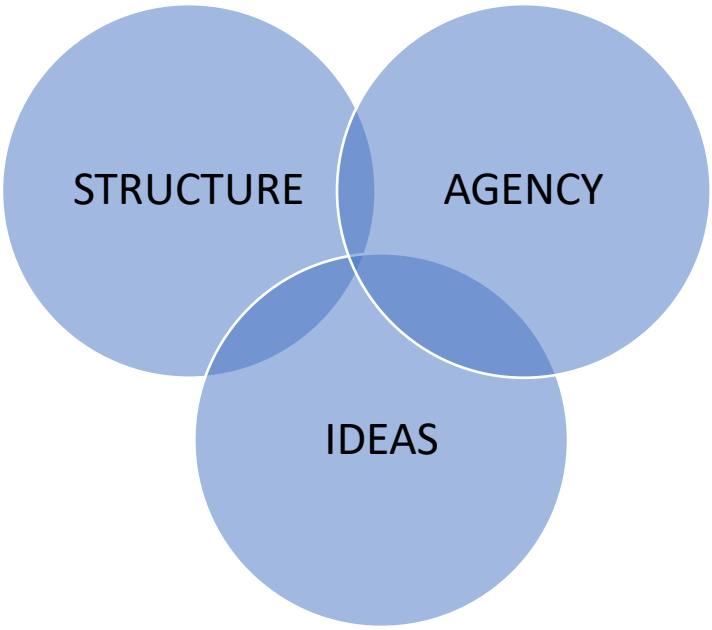


Figure 2*: The interconnectedness of structure, agency and ideas*
Source: Author's creation

There are a number of interpretations, writings, and critiques on constructivist institutionalism (see Carstensen and Schmidt 2016; Schmidt 2012, 2010, and 2006; Bell 2011; Blyth 2003) but my reading and analysis of the theory is influenced largely by the writings of Colin Hay (2002, 2006).

Constructivist Institutionalism falls among the 'discursive institutionalists' school of thought. Unlike other forms of institutionalisms such as rational choice that does not focus on changes within institutions (Hay 2002), constructivist institutionalism brings to the table the dynamic nature of institutions. Thus, the value of the theory is its discursive nature and its power to explain complex institutional changes. Discursive interactions are "people's ability to think and speak outside the institutions in which they continue to act" (Schmidt 2008:315).

According to Dodds (2013), constructivist institutionalism underlines that actors have agency in social settings. Institutions provide a platform where multiple stakeholders negotiate values that define their space and bring coordinated changes (Dodds 2013). The argument is that social interactions are subjective and they take place in an environment where subjects are able to contest or negotiate the existing power dynamics including the ideas informing those institutions. This line of argument is similar to Foucault's conceptualisation of power; as a discursive understanding of the subjective relationship between or amongst institutions, discourse (in this case, ideas) and the actors involved (Foucault 1980, 2000).

However, the discursive nature of constructivist institutionalism has been criticised by other institutionalist theorists. Bell (2011) comments on the heavy focus of Constructivist Institutionalism on agents and their ability to construct their reality and less on structure. In doing this, Constructivist Institutionalism exaggerates its contribution by discrediting for example historical institutionalists for failing to explain change (Bell 2011). Furthermore, Bell (2011) criticises the proponents of Constructivist Institutionalism for wanting to take the institutional debate back where it came from by removing institutions as central in political analysis despite efforts made to bring institutions into these debates.

Schmidt (2012) did not take lightly the critique by Bell (2011) of constructivist institutionalism. In the publication titled *A Curious Constructivism: A Response to Professor Bell*, in the British Journal of Political Science, Schmidt (2012) accuses Bell of misreading constructivist institutionalist arguments by Schmidt, Hay and Blyth. Schmidt defends the work of Blyth below, arguing that Blyth's highlight of the importance of ideas in times of uncertainties does not imply that institutions are absent,

> In my reading at least, Blyth argues that actors both lose their faith in existing institutions, and gain new ideas about their interests under the conditions of heightened uncertainty generated in the moments when existing institutions, no longer promote the coordination of expectations (Schmidt 2012:3)

Schmidt continues to argue that Bell misread their work and that she does not recognise her own work in Bell's interpretations of it. Further, she argues that Colin Hay has spent a lot of time and has experience in the discussion of the topic for him to be ignorant about the role of structures as Bell suggests. She concludes that the work of Bell sounds more constructivist than what he seeks to advance. I agree with Schmidt's sentiments, as I believe constructivist institutionalism is not discrediting the work done before but it is encouraging academics and political analysts to incorporate the likelihood of change in any institutional set up and devise ways to analyse at such situations.

The debate on the role of ideas, institutions and agency as mentioned in chapter 3 of this thesis is not new. What is new in this study is an attempt to engage with agency, which this study identified, as a gap in studies of transboundary water governance. Therefore, this does not discredit the impeccable role that institutions play in transboundary water governance, but seeks to analyse them in relation to agency (Schmidt 2006, 2010; Blyth in Bell 2011).

Blyth (in Bell 2011) considers ideas more important than institutions. For example, in situations where institutions seize to exist in times of uncertainty, left to govern will be the ideas (Bell 2011:887). In the context of this study, ideas are part of structures. For example, what is the underlying theme running through an institutional agreement? It could inter alia include equitable utilisation of water, information sharing, sustainable development. Therefore, in times of uncertainties, the role of the researcher would be to go back to these themes and analyse how the actors will be surviving outside the original ideas.

Discursive institutionalists also extends the analysis of agency to foreign policies and international relations (Oz 2011). In other institutionalists, agents are constrained by their environment making it impossible to explain institutional change (Bell 2011). For constructivist institutionalism, structure and agency are interactive. To avoid the trap of a 'single story', I use constructivist institutionalism in conversation with other related debates. Although I engage with institutions (inclusive of ideas) within the case study, however, the complexities of agency need more care. The reason for this is to bring the voices from the Incomati River Basin stakeholders in a way that adds value to the existing knowledge.

4.2.1. Constructivist Institutionalism by Colin Hay

Constructivist Institutionalism relates to constructivism as an ontological position. Burchill (2009:223) asserts that where "rationalists assume that actors are atomic egoists, constructivists treat them as deeply social". However, a close look at Constructivist Institutionalism shows that its ontology is unique and goes further than constructivism in international relations (Hay 2002). While agreeing with constructivism that actors are social beings capable of constructing their social reality (Hay 2002), Constructivist Institutionalism adds the role of institutions and ideas in influencing and constraining actors. Thelen and Steinmo in Hay (2006) note that the same institutions that shape or constrain interactions are also the outcome of the cooperation and conflict of the agents involved. Thus, Hay (2002) recommends that political analysts look at the complex relationship between structure and agency.

The Constructivist institutionalism framework sees institutions as the subject of socio-political struggles and argues that the outcomes of such struggles cannot be derived only from the institutional context but also from the individuals operating in those institutions. For constructivist institutionalism, therefore, while structure shapes actors, actors can also shape

structure (Hay 2006). Goodin et al (2006) further argues that the international system under the lenses of constructivist institutionalism is not only influenced by the social components only but also by issues of perceptions. This brings into light the issue of perceptions that state actors contend with when engaging in transboundary water interactions. However, Hay (2006) acknowledges that perceptions can be misleading due to the difficulties researchers' face in trying to identify them. In this study, perceptions would be comments or views that respondents have on a particular subject.

Below I present the five propositions adapted from Colin Hay (2002, 2006, and 2011) as theoretical assumptions that will guide me in this thesis.

1. ***Actors involved in transboundary water governance are not equally equipped***: Hay (2002) argues that actors involved in any institutional set up are not evenly equipped, in both financial and human resources thereby affecting the way they interact and their ability to make meaningful contributions. As shown in Chapter 2 and 3 of this thesis most scholars consider asymmetries amongst actors as conclusions of their study. However, for constructivist institutionalism, this asymmetry of power amongst actors is a given. If it is given, then as I earlier argued, power asymmetries should not be the conclusions of research but should be a means to an end. The end being the main question of this study. What do transboundary relations teach us about power? What can we do with what we already know? Hay adds that there is always a battle between "challengers and holders of power" (2006: xiv) and that the system favours a certain group at one point and at some point, favour the previously disadvantaged ones (Hay 2006). This shows that power relations have the possibility to change and shift as time changes.
2. ***Analysis of post institutional creation (changes) is important***: Although other theories such as Historical Institutionalism trace the development and evolution of institutions, they however give more emphasis to their creation compared to a thorough analysis of what happens after creation. Through constructivist institutionalism, researchers can trace how interactions change over time, problematize, unpack different episodes of institutional development and construct meaning of those experiences.
3. ***Decisions are made under uncertainty***: Uncertainty is "the extent to which actors are not fully informed about others' behaviour, the state of the world, and/or others' preferences (Koremenos 2001:778). In transboundary water, governance actors are in constant need to make decisions. For example, climate change threats cause actors to

plan the ways to mitigate or adapt to the situation. Due to capacity and resource constraints, for example, developing states might need to make decisions using incomplete information. Incomplete information in this case speaks to some of the uncertainties that actors face. To me, it feels like a game where one needs to take a chance and hope that their move (decision) would work out for their good. They are taking a chance because of the limited options they normally have at the time and unfortunately, some decisions are not possible to postpone. In Hay (2006: 63)'s words, actors "must rely upon perceptions of that context which are at best incomplete and which may very often prove to have been inaccurate after the event". Hay (2006) goes on to argue that to a large extent power affects institutions and creates a continuous struggle of who gets her way, how and why. Such struggles often lead to inefficiencies within these institutions. The puzzle that researchers are faced with here is how institutions evolve amid uncertainties.

4. ***Ideas matter in transboundary water governance***: Hay (2006:65) describes the importance of ideas for Constructivist Institutionalism as 'ideational path dependence'. The argument is that institutions are always subject to the ideas that underpin their creation and these ideas influence the decisions taken. However, Hay notes that these ideas are not static and recommends the need for researchers to constantly engage with how other players within those institutional arrangements challenge and in some cases, manage to have them revised or changed (Hay 2006).

Therefore people's "perceptions about what is feasible, legitimate, possible and desirable are shaped both by the institutional environment which they find themselves in and by existing policy paradigms and world views" (Hay 2006:65). For Hay (2006) the institutions that result do not survive simple because they are most functional or appropriate but because they represent the triumph of a social force in a political struggle. The ideas or beliefs that agents have shape the way they behave in an institutional set up (Hay 2011). To get a clearer picture of ideas, ideas should be given "an independent role" (Hay 2002:557) when analyzing transboundary water politics. A good example in transboundary water governance is that some actors might not be willing to share information with other riparian stakeholders. In his discussion of governmentality, as well as on power and knowledge, Foucault refers withholding of information as rationalities that states use to attain an upper hand over others (Lemke 2000).

5. ***Interests are not static and they are difficult to define***: In the field of political science, the discussion about interests[24] is not new and it is not surprising that constructivist institutionalism includes the interests of actors in its analysis. Interests are conscious or sub conscious wants of actors (Giddens 1979). Although important to understand, interests are however difficult to investigate empirically (Hay 2006:64). It is difficult for researchers to be confident when describing actors' interests as the actors prefer to keep them as confidential as possible. The conversations with different players in the Incomati river basin can reveal some of their interests to a certain degree. A take home message on this aspect is Hay's observation that "when preferences are sufficiently homogenous it may be in one's self interest to get along rather than be seen as deviant" (Hay 2006: xvi). Chapter 5 shows that for the sake of development and financial aid states in some instances get along, albeit not in a permanent way. As the saying goes, in international politics 'there are no permanent friends but permanent interests'. Thus, no matter how cooperative they are in certain issues, they carefully guide their permanent interests.

4.3. Theoretical Implications for Methodology and Analysis

Constructivist Institutionalism is new, yet very useful in understanding the issues that the thesis questions. The strength of the approach is its interconnectedness of disciplines when analysing issues or processes. For example, we should not limit the analysis of "history to historians" and "economics to economists" (Hay 2002:4) when such disciplines are equally important in discerning the political distribution of power across the social circle. The above propositions derived from my critical reading of Colin Hay's work together with other discursive institutionalists such as Blyth and Schmidt inform my methodology and analysis.

What I value more about their work is that their approach leans more to the role of agents within institutional development and change. More so, they add the important role of ideas as part of social practices in shaping agency of actors. This is in line with my study objectives of

[24] "Interests are the needs, hopes, fears, and desires that drive our actions and underlie our positions in negotiation" (Doran and Winkeler 2017), in *What are Interests, and Why Do They Matter in Negotiations?* At https://www.mwi.org/what-are-interests/ Accessed 22 September 2017.

bringing agency back in transboundary water governance. Such an approach attempts to fill gaps on the shortcomings of other theories, particularly those analysing institutional evolution and development. To me, the Incomati river basin has gone through various stages and processes from 1964 to the present moment. Thus, Constructivist Institutionalism brings to the table the ability to interrogate the complexities of post institutional formation, and the transformations in a context of imbalances or capacity inequalities.

4.3.1. Methodology: Research Design, Methods & Analysis

In a qualitative study like this one, it is important to describe the data collection methods used (Avenier and Thomas 2015) to provide a valid answer to the research problems that motivated the study (Hofstee 2006). The study sought to address some of the knowledge holes (Leed and Ormrod 2010) when it comes to sharing international rivers in the SADC region. The specific knowledge hole that I sought to explore was to understand power dynamics in a specific setting by the specific actors involved and affected by the structure and ideas surrounding their interactions. The main objective was to explore *how different forms of collaboration in the Incomati River Basin contribute to or inform the ongoing debates about power and hydro-hegemony in transboundary water governance.*

The qualitative case study approach made it possible for me to understand the evolution of interactions and issues (Leed and Ormrod 2010) in the Incomati river basin in line with the recommendations of constructivist institutionalism about the need to understand institutional changes over a period. I chose to conduct qualitative research due to the possibility of many socially constructed realities by several and unique respondents (Leed and Ormrod 2010); which required me to have an in-depth discussion with them in a way that would allow me to interpret the findings in relation to the research problem. My main aim of having these in-depth conversations with participants was to explore the multilayered problems (Leed and Ormrod 2010. Such an undertaking allows me to explore different facets of the phenomenon I am interested to understand: power. For example, I managed to uncover the agency of individuals and groups of people in the Incomati River Basin. Furthermore, the multilayered problems associated with gender, race and knowledge also added value to our understanding of power and hydro-hegemony. For a detailed discussion of these issues, see chapter 6 and 7 of this thesis.

To ensure validity I used data triangulation, which included interviews, a focus group discussion, participatory observations and document analysis. I also had regular engagement with the activities of the Incomati basin, for example through attending river basin conferences and intentionally visiting all the three countries (South Africa, Eswatini and Mozambique) for better observations. I presented my work in conferences around Germany, United States of America, China, Italy, Eswatini, South Africa, Zambia, Ethiopia, Kenya, and Norway (see the Acknowledgement section for the details of the presentations). I also consulted some of the respondents to check whether the findings reflect their experiences and relied on comments from colleagues to check the reliability and validity of my findings as I proceeded with fieldwork. I stopped the interviews when I reached data saturation, as I was no longer getting information strikingly different from what I already had.

Below I present the research design in line with the constructivist philosophical stance informing the study. I then explain the methods used to collect data, and explanation of how I analyzed the data collected. The last sections of the chapter will discuss the ethical issues encountered, as well as the theoretical and methodological limitations of the study.

4.4. Research Design: A Qualitative Case study

The case study design involves an intense examination of one case. Gerring (2007:20) defines a case study as "the intensive study of a single case where the purpose of that study is, at least in part-to shed light on a larger class of cases". A case study is very useful when it comes to exploring an area that is not widely known and is in most instances misunderstood (Leed and Ormrod 2010). Particularly useful for the study is the claimed assumption that case studies have a potential to understand the complex interplay of agency and structure (Yin 2009) which is one of the central goals of this work. Interviewing actors within their "real world context" (Yin 2009:18) allowed me to have a better sense of their practical interactions and not "derived data" (Bromley 1986:23). Therefore, case studies are instrumental in providing insights about social and political interactions (Punch 2014). As a case study, the Incomati river basin was instrumental in providing insights about power and hydro politics in Southern Africa.

The uniqueness of the case study provides lessons about the importance of contextualising research. Though my case study is the Incomati River Basin, it was important for me to select

specific people, events, and processes I was going to study (Punch 2014) because it is difficult to analyse every component involved in a case study. For the sake of brevity, I chose to analyse the following institutions, the Tripartite Permanent Technical Committee (TPTC), the Komati Basin Water Authority (KOBWA), the Southern African Development Community (SADC) and the River and Environmental Management Cooperation (REMCO). I consider these as representations of cooperation at different levels in the river basin. TPTC represents multilateral cooperation, KOBWA represents bilateral cooperation, SADC represents regional cooperation and REMCO allows an investigation of the role played by third parties and collective agency. Such delineations made it possible for me to understand the evolution of interactions and issues (Leed and Ormrod 2010) in the Incomati river basin in line with the recommendations of constructivist institutionalism about the need to understand institutional changes over a period.

Some of the common critiques of using a case study are,

1. That the researcher already has an idea of what they want to get in the field even before the interviews (Yin 2009) and
2. That a case study has a limited capacity to generalize findings to a bigger scope (see Punch 2014; Babbie 2011; Leed and Ormrod 2010; Yin 2009).

Proponents of the first critique might argue for example; that a case study in this case, the Incomati river basin would not be enough to make conclusions about experiences of the whole SADC region. To address the first concern, I borrowed data collection strategies from other qualitative approaches such as Burawoy's extended case method[25] and from grounded theory[26]. The extended case method argues that researchers should have a good understanding of the existing literature before fieldwork and grounded theory argues for conducting fieldwork without preconceived ideas (Babbie 2011).

Even though I had done literature review before my fieldwork, I created a balance by going to the field with an open mind and revisiting literature after I collected data. I had to revisit the literature as I noted some contradictions between the literature I had reviewed and the findings

25 Extended case method takes "a series of specific incidents affecting the same persons or groups, through a long period of time, and showing … [the] change of social relations among these persons and groups, within the framework of their social system and culture" (Gluckman 1961:10).

[26] Grounded theory is "the discovery of theory from data systematically obtained from social research" (Glaser and Strauss 1967: 2). Grounded theory values a critical understanding of issues involved in a specific context and data analysis is an ongoing process.

on some aspects. For example, most respondents disputed the notion that South Africa is a clear-cut hydro-hegemon in the Incomati river basin.

On the second concern about generalisability, it was not my intention to see interactions of the Incomati as a mirror of the entire SADC region. My main purpose was to explore different narratives that explain the socio-political issues affecting transboundary water governance in the region. To do that effectively I needed a river basin with few riparian states that would allow me to engage with them face to face. The three countries sharing the Incomati River individually have interesting attributes that were critical in my analysis. South Africa is arguable considered the most powerful state in the region and relies heavily on water transfers to feed her growing population, Mozambique is downstream to all the rivers that she shares with other states in the region, putting her in a vulnerable position. Eswatini's rivers are all transboundary, meaning that all her water depends on negotiations with other countries.

In addition, the Incomati riparian states have managed to construct cooperative engagements on their own and through the involvement of foreign governments, for example, the Dutch. The involvement of foreign governments was valuable for my third sub question on the role of external players in transboundary water governance.

4.4.1. Data Collection Methods

To capture the experiences of the stakeholders in line with my study purposes, I relied on interviews. Semi-structured in-depth interviews allowed me to understand agency by adding voices of various stakeholders in the Incomati River specifically and Southern Africa in general. To supplement interviews, I conducted a focus group discussion in Eswatini, participatory observations, reviewed various documents, and had informal conversations with people I met during conferences and fieldwork. Before conducting individual and group interviews, I formally introduced my study objectives and myself. I also informed focus group participants about the limits of confidentiality in a group discussion and emphasized that their names will not be identifiable in my thesis or publications. I recorded in-depth interviews and focus group discussions after obtaining informed consent from participants.

My interviews made use of purposive, convenience as well as snowball sampling techniques. I purposively selected participants that were directly involved in the governance issues of the

Incomati and experts who have written extensively on transboundary water politics in general as well as those who have contributed to Southern African transboundary water research or policymaking. The availability of important respondents such as political officials in the conferences I attended drove me to take advantage of the convenience (Bryman 2008) to discuss some aspects of the research with them.

Snowball sampling was very helpful in a complex study like this one. Although I had identified offices and eventual participants, in some cases I relied on respondents pointing me to a person who was knowledgeable about the issues at hand. Through the snowball technique, I could reach out to valuable participants who were no longer working in the institutions that I visited. Tracing those individuals made me realize the importance of individuals; in that, though they change jobs or retire their influence in the water sector continues. The three sampling techniques and data triangulation contributed to a better understanding of the multilayered aspects of transboundary water governance. In the next section, I discuss the data collection methods used in this thesis. Table 2, at the end of this section highlights the institutions and platforms consulted to collect data.

In-depth Interviews

It is important to show how I put life to the research design described above and why I chose to go about it the way I did (Hofstee 2006). My interviews with the 43 participants[27] were open ended and semi-structured in-depth conversations. The flexibility of open-ended interviews allows researchers to have an intense discussion with participants and learn how they construct the phenomena under study (Yin 2006). Two of the 43 interviews were telephone interviews with transboundary water academics and consultants based in the United Kingdom and Netherlands.

I had my interview schedule that had eight issues of concern in relation to my research questions. However, these general questions were to guide me and to keep me in check that the conversation does not stray too far from the main topic. As Punch (2014) advices, the responses of the interviewees guided our conversations. Therefore, my icebreaker question was to know about the participant's experiences so that I tailor questions in a way that was easy for the respondent to engage and useful for my study.

[27] The forty-three participants consisted of eleven (11) women and thirty-two (32) men.

To avoid the danger of respondents citing an ongoing "institutional mantra", that they have adopted and tailored to every researcher that asks about how they function; I asked the same questions differently according to the respondent's experiences. The interviewing process made me a co-participant as I was actively engaged in the conversation and together we constructed some possible narratives on socio-political issues. The interviews took an average of an hour with the longest being 2hours 16 minutes and the shortest being 34 minutes.

Instead of a few interviews in one country, I went across borders to interview different level stakeholders in Eswatini and Mozambique in addition to those in South Africa where I reside. Going across borders to gather information solicited a balanced overview of the multifaceted issues in the Incomati river basin and the realities of the respondents. My own observation was that in Eswatini and South Africa, the respondents were free to share the information with me. In Mozambique, although respondents were friendly and open to an interview, in some of the conversations I felt they were holding back some information or they were not free to give details pertaining to the politics of domestic water governance. I assume this to be in line with the freedom of speech allowed by the governments of the three countries. However, my experiences in Eswatini contradicts the evidence that the autocratic government by the King in Eswatini restricts freedom of speech (Chothia 2011; BBC 2018b) but confirms the restriction of freedom to speak placed by the Mozambican government (Shikhani 2012; Orre and Rønning 2017). The findings chapters will discuss in detail the relationship between regime types and cooperation. At this stage, my intuitions on regime types are at face value.

Throughout my interviews, I avoided "leading questions" (Shank in Leed and Ormrod 2010) and was sensitive to the culture of the respondents and their political reality. I always reminded myself that the respondents were merely sharing their insights or views on the subject and not truths as advised by Leed and Ormrod (2010); and that these insights won't always come in a logical or systematic way (Kvale 1996). Likewise, interviewees in some parts of the conversation demonstrated confidence and in some parts, I felt like there were not very sure of what they were saying. To make sure I captured correct information, I repeated the points they raised and asked if my interpretation was accurate or not.

I also had to go back to other respondents to clarify some issues that were not clear to me when I was analyzing their transcripts. One might argue that by going back to respondents to check

the accuracy of the information and my interpretations, I was leaning on grounded theory[28] methods. Although, I highlighted earlier that I borrowed some research techniques from grounded theory. However, grounded theory is a complex method that warrants a specific approach that I cannot fully claim to have used in this study.

My conversations with participants were free flowing. I made an effort to allow respondents to express themselves when answering the questions without me arm-twisting their responses. This allowed me to learn from the respondents, in a way that challenged my preconceived ideas. I realized that 'power' is a political concept that not all respondents were willing to engage. Therefore, where I felt that respondents were not comfortable, I had to ask the questions in an abstract way. For example, instead of asking 'who has power over whom', I asked 'whether there was fairness amongst actors involved'.

The interview questions were refined after the 12 preliminary interviews I conducted with experts I met during the REMCO Conference in 2014. I had to consult more literature on the Incomati river basin and read more on the theoretical framework. Afterwards, I identified the key institutions running the activities of the Incomati river basin as IUCMA, KOBWA, ARASUL, and Komati River basin authority, National departments of water in South Africa, Mozambique and Eswatini. I interviewed respondents from these institutions in the comfort of their offices. I conducted interviews with the respondents who had resigned or retired at a place of their convenience. Some were at their homes while others were in public spaces.

It is important to note that I interviewed seven of the 12 preliminary interviewees again using refined questions. Other interviews included water researchers, consultants and water user representatives across the three countries. Some interviewees belonged in different categories that were of interest to this study; for example, I interviewed a consultant who has worked for both SADC and KOBWA before. I attempted to bring this dynamic in the findings section. To me, such respondents were vital in bringing a consolidated overview of the management of shared water resources. The in-depth interviews focused on the experiences of the respondents, roles of different stakeholders with a bias on the power aspects to the way they relate, challenges faced, and opportunities seen.

[28] Grounded theory is "a set of methods that "consist of systematic, yet flexible guidelines for collecting and analysing qualitative data to construct theories 'grounded' in the data themselves" (Charmaz (2006: 2 in Guest, MacQueen & Namey 2012:12).

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Focus Group Discussions

The main aim of a focus group is to explore and not to explain something in a definitive way (Babbie 2011). Kitzinger (1994: 109) argues that focus group discussions "reach that part that other methods cannot reach-revealing dimensions of understanding that often remain untapped by the more conventional one to one interview or questionnaire". The discussions produce a "happening that cannot be replicated" (Hesse-Biber and Leavy 2011:166). My group discussions deepened my understanding of the issues that individual interviewees had highlighted. There were good opportunities because I did not plan to conduct focus group interviews, but I was conveniently involved with them whilst doing fieldwork. I analysed both individual views as well as the group narrative that was dominant or contested.

In Eswatini, one of the respondents from KOBWA offices offered to help organise a focus group discussion with water users who could shed more light on the issues we discussed. Such an offer saw me driving to Matsamo, a border town between Eswatini and South Africa, to conduct a focus group with water users. What was peculiar with this group is that while there are in Eswatini, there are dependent on the Driekoppies dam, which is in South Africa. I was therefore interested to know if these community members understood the transboundary nature of the river.

The focus group questions were not structured and focused on their social constructions of the socio-political issues of the river as their source of livelihood. The main objective was to see whether they understood what transboundary meant and learn their perceptions on power within and outside their borders. My research assistant in Eswatini co-facilitated the focus group discussion. I understand siSwati, the language that used in the discussion, however, I preferred that he co-facilitate, as siSwati was his mother tongue. He also assisted me in making sure that my transcription was accurate.

Informal Conversations

Informal conversations "can occur over the course of an entire day, with a researcher and one or more participants accompanying one another to view or participate in different events" (Yin 2009:12). In my case, some of these conversations happened during the drive in Eswatini and Mozambique, as I did not want to miss the opportunities of learning outside the comfort of a formal desk and perfect time. The drive around the Incomati River in Mozambique enabled me to ask and learn questions about the river system and put my eyes to the dry river in the

Mozambican side, which according to my participant was full of salt water. Through the explanation, I noted the challenges that salt water poses and the implications of such to a broader scheme of sharing the river with other countries.
In Eswatini, the drive included road trips between the KOBWA Maguga office in Eswatini and Driekoppies office in South Africa. I learnt the interconnectedness of these two offices and understood the close-knit relationship between South Africa and Eswatini. I could observe the tree plantations on the roadside, which benefit from the Incomati River. I documented the information before I forgot in my notebook. I also made use of technology by recording with hand held devices like my cellular phone.

I also had informal discussions at the conferences I attended during my study period. I documented the proceedings in my notebook and recorded some of the information with consent from participants. This helped me frame my research questions. Other informal conversations were with people that I met in the reception areas of the institutions I visited and through coffee and over lunch with some of the people working on the Incomati issues. I made sure I wrote notes on these conversations as well.

Observations

I was a co-participant and observer of the way situations were evolving and the non-verbal cues from respondents. My observations were not structured; they were open with no preconceived ideas. It was important to write down the observations as I was interviewing, where not possible I made sure I wrote down notes soon after the interview as advised by Babbie (2011). I divided my notes into two sections. On one end I recorded the actual words of respondents and on one end I had my own interpretation of what I thought they meant or implied. This enabled me to create a narrative (Yin 2009) of what the relations I observed teach us about hydro politics.

I was a participatory observer in four instances. In South Africa, I participated in one of the breakaway sessions at the 2015 Women in Water Conference in Nelspruit. The session was on "water resources management at basin level" and the issues discussed were in line with my research interests. In this discussion, I acted as both a participant and observer. The discussions were between participants from South Africa and Eswatini on how different institutions have implemented policies in the basin as well as the challenges faced. In 2014, I also participated in a workshop during the REMCO Conference. In Mozambique, I was a participatory observer

in a 2016 workshop that took place at the Illovo Sugar Estate in Maragra. The participants were small-scale farmers, sugar industries, third parties and representatives from ARA Sul. In 2016, I was also a participatory observer and a rapporteur during the REMCO conference held in Eswatini. The information I gathered from these four participatory observations could not have come from one on one interviews (Punch 2014, Babbie 2011). In all the four platforms, I introduced myself as a PhD Student and sought informed consent from other participants.

Document and Literature Reviews

I reviewed journal articles, books and other documents in the public domain. The review was ongoing. I was always on the lookout for publications related to my topic so that I stay in tune with arguments that were coming up. Before fieldwork, it was important to understand the context of the Incomati river basin in line with my research objectives. This included, the physical, social, political and economic aspects of the river basin, the actors involved and to a limited extent the interests of these actors, (I say limited because of the difficulty in getting facts about one's true interests), as well as the history and structure of interactions of the three countries.

The main aim was to familiarize myself with the relations during colonialism and before apartheid ended in South Africa so that I can better understand the changes and current relations. This enabled me to draw sub conclusions on what the relations tell us about water politics and power in the river basin and in the Southern African region in general over time. I did a more focused literature review after fieldwork. This does not necessarily mean that I read different articles from the ones I read before fieldwork. It means that I used the findings to revisit the literature and critically engage it with the findings.

Category	Institutions or Affiliation
Academia Consultants	• University of Witwatersrand,South Africa • Wageningen University , Netherlands • University of East Anglia, United Kingdom • Eduardo Mondlane University, Mozambique • University of Eswatini, Eswatini • University of Bergen, Norway • Independent Consultants • Council for Scientific and Industrial Research (CSIR), South Africa
Government	• Direcção Nacional de Águas or National Directorate of Water (DNA), Maputo, Mozambique • Department of Water and Sanitation, Pretoria, South Africa • Department of Water and Sanitation, Nelspruit, South Africa • Department of Water Affairs, Mbabane, Swaziland • Ministry of Natural Resources Ministry of Public Works and Housing (Ministério das Obras Públicas, Habitação e Recursos Hidricos –MOPH, Maputo, Mozambique
Institutions in the Incomati River Basin	• Mozambique Regional Administration of Waters in the South (Arasul) • Inkomati-Usuthu Catchment Management Agency (IUCMA) • Komati river basin authority • Komati Basin Water Authority (KOBWA) • Tripartite Permanent Technical Committee (TPTC) • River and Environmental Management Cooperation (REMCO) • Southern African Development Community (SADC-Water Division)
International Financial Institutions	• World Bank
Water User Representatives	• In South Africa, Eswatini and Mozambique
Conferences and Stakeholder Meetings	• Stakeholder Meeting (Mozambique, 2016) • The 4th REMCO Conference (Eswatini, 2016) • The Bergen Summer Research School (Norway 2016) • The Incomati Women in Water Conference (South Africa 2015) • The 4th Young Water Professionals Conference (South Africa 2015) • The 3rd International REMCO Conference (South Africa 2014)
Focus group Discussion	• Lake Matsamo Project Committee, Matsamo, Eswatini

Table 3: *Institutions and Platforms Visited for Data Collection*

4.5. Data Analysis

The data gathered was analysed using an exploratory approach[29]. While in some parts of the thesis I describe the situation, however, my main purpose of this qualitative case study was to interpret the findings. Therefore, I was guided by the following three points which I attribute to the reading of Leed and Ormrod (2010)'s work on interpretive research approaches. These

[29] An exploratory approach to data analysis differs from a confirmatory approach in "for an exploratory study, the researcher carefully reads and rereads the data, looking for key words, trends, themes, or ideas in the data that will help outline the analysis, before any analysis takes place. By contrast, a confirmatory, hypothesis-driven study is guided by specific ideas or hypotheses the researcher wants to assess" (Guest, MacQueen & Namey 2012:7-8).

are, (1) develop new ways of thinking about the issues of power, (2) come up with new theoretical viewpoints of analyzing transboundary water interactions, (3) explore some of the knowledge holes and problems I think are associated with power as a concept and a reality. The five propositions adapted from Hay (2002; 2006 and 2011)'s constructivist institutionalism were used to interpret the findings. Where contradictions happened between theory and findings, I applied my own interpretations of the situation at hand.

The interviews were tape recorded with participants' informed consent and transcripts were verbatim to capture participants' voices clearly. Analysis took into cognizance the ethical issues by making sure my writing protects the identity of participants and that the difference between my own interpretation and that of respondents is clear. I used memo-ing, that is, writing my analysis about the data as soon as I collected it, reflecting on the strengths and weaknesses and what it tells us about the objectives.

I took time to go through the transcripts and notes several times before starting to analyze in a systematic way. I was paying attention to the issues of interest. I noted commonalities, recurring themes, and the themes related to my research questions. Then I classified them to relevant themes. I realized there were some issues that were important, yet difficult to put in one umbrella group, so I labelled it other themes. The 'other themes' have great implications for the study of transboundary water governance, such as gender issues, the battle of hard and social sciences amongst others.

Our analysis of political issues should embrace the dynamism of globalisation and disciplines (Hay 2002). The analysis is not country-focused views, but I combine the sentiments of all respondents regardless of where they are located. The reason is to have a dynamic co-production of knowledge by all participants about their overall space of operation. Therefore, all countries were free to comment on another country. However, I did not ignore the significant issues that came out strongly within each country and were not necessarily cross cutting.

I analysed some of the interviews before continuing with others. For example, I analysed the findings from Eswatini before conducting interviews in South Africa. I also analysed findings in South Africa before conducting interviews in Mozambique. The reason for this approach was for me to have a better understanding of similarities or differences and to be able to cross check the validity of what has been said before, particularly on the country that I will be visiting next. In the focus group discussions, I analysed participants as both individuals and as a group

because in a focus group there is always “a group narrative that emerges” (Hesse-Biber and Leavy 2011: 187).

Respondents according to their own experiences construct information and there is often questions of how accurate it is (Pops and May 2009). To minimize the risk of getting inaccurate information, I made sure I listened attentively to respondents and observed the implications of what they were saying. If I had concern about the validity of some of the statements, I made sure I followed up on that aspect at the end of the conversation. I also asked other respondents about the same issue to check if there are similarities or differences in opinions. As expected in an interpretive research approach, the respondents demonstrated that actors understand the transboundary water issues in question differently. For Hesse-Biber and Leavy (2011), the differences in their interpretation to some extent are due to their social class and experiences that differ.

In my study, I attach “importance of subjective meanings individuals bring to the research process and acknowledge the importance of social construction of reality” (Hesse-Baber and Leavy 2011:35). This called me to analyse the data as I collected it. The ongoing analysis enabled me to revise my probing strategy to the same questions leading me to conclusions that are more relevant. It helped me verify some previous answers or personal perceptions about a subject. I took down notes and tried to interpret meaning of each conversation in relation to the study.

All the themes combined helped me answer my main research question in a critical way as they all in different directions led to a better understanding of power and the different angles one can take to getting an informed answer. The combination of the themes into one umbrella interpretation and generalising across related subjects is what Leed and Ormrod (2010) describe as the construction of a case study portrait.

The research process is value laden and my own values can influence the research process and outcomes (Parker and Burman 1993). To avoid interfering in the research findings, I was constantly reflecting how my values influence my conversations with respondents (Gernish and Lacey 2006). I remained resolute all the time and allowed the voices from the field and not my own assumptions to guide me. This helped me to be professional throughout the research process. I also tried to find evidence that contradicts my initial thoughts and personal perceptions (Hesse-Biber and Leavy 2011) about sharing international rivers. For example, I

let go of the obsession that South Africa is a hegemon in the Incomati river basin. I wrote two conference papers to verify the validity of the data collected and my analysis. My presentations on the two papers were in China, Norway and South Africa. A renowned researcher in Norway validated my finding that South Africa is not a hydro-hegemon in the Incomati river basin.

I decided to stop the fieldwork as I reached data saturation. However, in that saturated data there was some uniqueness in the way respondents narrated their perspectives, which was valuable.

4.6. Ethical Considerations

The subject of this thesis is interesting and important, yet the complex nature of the subject makes it complicated to research. By complicated, I mean, that the study is very broad with a lot of interesting issues to tackle but I had to draw a line for the purposes of my PhD and at the same time making sure I respect the participants of the study and the research protocols for each country that I was going to conduct interviews in. I got an unconditional ethics clearance certificate from the University of Witwatersrand Research Ethics Committee (see appendix A.2). I also did two online courses on ethical research conduct involving humans (see appendix A.5 and A.6) to improve my research skills.

As Wassenaar (2008) recommends, I chose my participants because they were instrumental in addressing my research questions. Although the risks associated with my study were minimal and not beyond those that participants encounter in their daily lives, some issues such as a description of power situations ended up being risky especially when they disclosed information that might compromise their jobs. I explained the goals of my study and informed my participants that the research is for degree purposes and that I was going to protect their identity in my thesis or any publication that could result from this work. To gain trust from participants' confidentiality is important (Kaiser 2009). The participants are named in numerical form throughout the thesis as a way of protecting the identity of participants. At the end of our conversation, I told the participants that they are welcome to request my thesis upon completion.

While my analysis does not reflect names of participants and specific institutions that shared some 'sensitive information' as expected in ethical research conduct, there is a limitation to that. The limitation is the possibility of hiding important messages that are rich in meaning for fear that they can be traceable. I also had to protect the job positions held by some respondents as there are easy to trace; for example, if I say IUCMA CEO one can identify the person since there is only one CEO in IUCMA.

My formal 43 participants are key informants who are actively working in the field of transboundary water governance. I attempt to provide some background information about participants where possible in the narration. Deductive disclosure is one of the weaknesses in qualitative research whereby readers are able to deduce who the participant is by a mention of their institution or position (Kaiser 2009). To minimize loss of useful information, I made sure I captured the main message verbatim while hiding the identity of the informant. The anonymity and confidentiality I ensured respondents allowed me to discuss sensitive questions to those willing to share and get equally sensitive yet worthwhile data. Some respondents asked me to pause the recording when sharing the sensitive information for them to be comfortable that their voice will not be traceable.

4.7. Theoretical and Methodological Limitations

Below are the issues I considered as limitations to my study and an explanation of how I attempted to minimize those limitations.

1. ***Relying on one methodological approach***: I dropped the quantitative research component when I realized that it was not going to be feasible during the preliminary phase, which I consider equivalent to a pilot study. Quantitative research was not feasible because of the following reasons; limited quantitative research skills on my part, time constraints, difficulty in attaining respondents to complete the survey and limits of probing and observing the research participants.

Although I had set out to do a survey using survey monkey, I ended up not doing it because it was not going to address my questions adequately. The questions I was posing needed me to have a one on one conversation with people where I could observe

and draw implications from their narration. The focus group discussion with water users and participating in workshops bridged the gap because I collected rich data from those group narratives.

2. ***Not everyone responded to my request for an interview***: I sent out emails requesting experts in transboundary water governance for an interview. Out of the twelve expert interviews I had initially planned, I failed to secure interviews from three. However, the rich content I got from the nine experts was enough to address the questions I had. Interviews with stakeholders of the Incomati river basin went well because the interviews there were purposive.

There was always someone relevant to talk to through the assistance of KOBWA in Eswatini, IUCMA in South Africa and ARA Sul in Mozambique. Where it was difficult to get appropriate people, my contacts in those relative institutions helped me get hold of the interviewees. Although I would have loved to conduct focus group discussion with water users in South Africa, it did not materialise. I then interacted with water users informally during conference breaks and telephonically. I also managed to note the water users' views during focus group workshop on transboundary water governance as part of the women in water conference in December 2015.

3. ***Generalizability***: The limit of a case study research approach is reaching conclusions applicable to the whole SADC region (Leed and Ormrod 2010). Although it might be difficult to generalise my findings to other river basins either in Southern Africa or beyond, my results are still worthwhile. At the end of the day, I proffered new and creative ways of thinking about transboundary water relations and power, which one can use in any river basin as well.

4. ***Constructivist Institutionalism was time consuming and complex***: The propositions made by Colin Hay are in line with my own philosophical grounding in social constructivism. Therefore, although the theoretical framework adopted in this study was time consuming and complex, its contributions to knowledge are valid. I also had an ongoing challenge of compressing massive and rich data to digestible information that readers could identify as having answered the research

questions. I managed to reach a balance by continuously going back to my drawing board and reminding myself of the key themes I was exploring.

4.8. Conclusion

Through this chapter, the second part of the thesis, has discussed the theoretical grounding of the study and the research methodology. The theoretical framework informs the methodology used in the study largely. However, because, each theory has its own limitations, I tried to be creative and use my imagination in some areas where I felt constructivist institutionalism was coming short. I chose to take Babbie (2011)'s sentiments I used as an opening quote of this chapter and allow my personal engagement with research participants experiences take me to a new road of discovery. The *co-construction of knowledge between respondents and myself contributed to a creative and alternative way* of understanding socio-political aspects surrounding transboundary water governance of the Incomati river basin in general and more broadly the interpretation of mainstream understanding of SADC regional water politics.

PART 3: Findings and Analysis

Chapter 5: Construction of Cooperative Transnational Water Relations- *Institutional Building and Evolution*

5.1. Introduction

> Incomati is like a well-disciplined child; even without parents, the children know how to take care of themselves. There is no River Basin Organisation governing the Incomati but the cooperation levels are much better than those river basins with an organisation. However being a disciplined child does not mean you are always happy about the situation, but it means that you choose to do the right thing even if you have a choice not to. Likewise the Incomati, is not without challenges but it is one of those river basins who have chosen to see the light in a dark world (Participant 13[30])

> …while the mainstream water profession and the media have been pre-occupied with water wars and conflicts in transboundary rivers, they are not aware of the good cases of cooperation and collaboration that have brought untold benefits to the people of the countries concerned (Biswas 2011: 664).

This chapter examines institutional development and evolution in the Incomati River Basin. In chapter 2 of this thesis, I established that through transboundary water interactions actors could either converge, diverge or intersect on various issues. The coexistence of both conflict and cooperation in their interactions defines this relationship. In this chapter, I discuss how the Incomati River Basin has created institutions and maintained them amid challenges such as power dynamics and not having a RBO. Guided by the first sub question; ***how has the nature of transboundary water relations amongst the Incomati river basin riparian states evolved over time.*** My main purpose is to establish the changes and continuities in the river basin.

A critical engagement with Southern Africa's history of conquest and conflict (Vas and Pereira 1998; Swatuk 2015) undergirds this purpose. Various scholars (see Turton 2003, 2005, 2010; Benjamin et al 2014; Swatuk 2015; Swatuk and van der Zaag 2016) have studied Southern Africa's water history and politics. Their work feeds into this analysis. My analysis goes further

[30] Maputo, Mozambique (5 December 2016)

to question; how agents contend with evolving institutional ideas, and reflects on what the interactions tell us about the socio-political dynamics of sharing a river basin. Overall, my contribution will be in exploring how the mobile technology of water and the changing dynamics of the environment inform us about structural and agential power after apartheid.

First, I will give an overview of institutional development and evolution in the Incomati River Basin. Second, I assess the development and evolution of four (institutions) that define the relationship of the three countries and related stakeholders. I choose these institutions for their value add in understanding different dynamics and levels of interaction. To understand how the three countries manage their multilateral relationship, I chose the Tripartite Permanent Technical Committee (TPTC). To understand the bilateral relations, I chose Komati Basin Water Authority (KOBWA). To understand the regional context I chose the Southern African Development Community's Water Division (SADC-WD). To understand basin interactions with external actors together with multiple stakeholders I chose the River and Environmental Management Cooperation (REMCO).

All in all these four institutions inform us of the different forms of collaboration in the basin and provide a lens to identify differences and similarities in those interactions. Third, I rely on empirical evidence to understand why relations evolve the way they do and analyse the reasons why scholars such as Carmo vaz and van der Zaag (2003) regard the Incomati river basin interactions as cooperative. I argue that these cooperative relations are social constructions between agents and structure. Built using different mechanisms, these constructed relations show how the benefits of cooperation outweigh the costs of not cooperating.

The chapter shows the triad relationship of structures, ideas and agency. The three are not static but evolve in space and time. The findings reveal that as the SADC region moved from colonialism and apartheid, they focused more on regional integration and this has elicited what I describe in this thesis *constructed cooperative engagements*. However, these efforts are not without difficulties as they demonstrate the complex relationships and interests that have developed. Moreover, as I will discuss in the next chapter, the seeds of colonialism and apartheid did not fade with the collapse of those systems. The influence of SADC has in some circumstances intercepted state power in cases where donors channel funds through SADC. In some circumstances, SADC or other third parties have opened the space of transboundary water interactions to a variety of actors and created more agency.

5.2. Institutional Building and Evolution in the Incomati River Basin

> The Incomati river basin is a water scarce basin whose combined future demands exceeds the supply so we need to cooperate. Cooperation is the only way even if it is tough sometimes, but we learn by doing, for example all of us are doing our best in implementing the Progressive Realisation of the Inco-Maputo Agreement (participant 29[31])

Institutional building is not easy (Swatuk and van der Zaag 2016). The history of cooperation in the Incomati River Basin can be traced to 1926, in the treaty between Portugal and South Africa (Turton 2003, 2010). The 1964 Cunene Agreement (rivers of mutual interest) discussed in chapter two of this thesis, also marks a historical milestone of water sharing between Portugal and South Africa. Eswatini consented to the Cunene Agreement in 1967, making the agreement binding to all three states. Since then there is legislation and policy frameworks that govern the Incomati River.

Cooperation among groups of actors can be more difficult to achieve and sustain than cooperation in pairs. Two problems can prevent cooperation, the tendency of individuals to free ride on the efforts of others and the difficulty of overcoming coordination among group of actors. Large and powerful countries (Hegemons) are aware of the immediate benefits of implementing divide and rule strategy (Turton 2005; Barua 2017) through bilateral agreements. The strategy of divide and rule can mean any of the two. First as an opportunistic attitude adopted to make the other side appear weaker, and therefore, less dangerous as adversary. Second, as an organisational strategy to provide a solution to a complicated problem.

As shown in chapter 2 and 3 of this thesis, the Nile River Basin states have a tendency of aligning with a few states that are advocating for same interests. For example, the way Ethiopia and Sudan are currently collaborating against the continued influence of Egypt in the river basin. The GBM river basin has no formal agreement that caters for the management of the entire river basin but relies on bilateral engagements (Kim and Glaumann 2012). According to Benjamin et al (2014). In South Asia Bangladesh and Pakistan, guide India's hegemonic tendencies because India uses its power in the basin to influence the regional hydro-political constellations. For example, by pairing with Bhutan in the Ganges river basin, India manages to secure water resources for the exploitation of hydropower and cater for her growing

[31] Maputo, Mozambique (12 December 2016)

populations. Scholars such as Benjamin et al (2014) argue that hegemons prefer bilateral arrangements compared to multilateral agreements as this gives them enough power to influence one party instead of the whole unit.

However, the role of institutions, bilateral or not remains important in transboundary water governance (see Petersen-Perlman, Veilleux and Wolf 2017) . Ho (2017:100) argues,

> No matter how imperfect water institutions and treaties can be, they nevertheless help routinize issues, lower the risks of crises, facilitate issue-linkages, and provide platforms for reducing differences, thus helping promote stability at both river basin and regional levels.

Paterson (2009) cements the above argument, arguing that institutions enable actors to articulate their concerns and participate in solution finding discussions. In so doing, they can better develop their capabilities to respond to challenges (Patterson 2009) such as climate change. If institutions are very important in international relations, then the question remains, how do we assess the effectiveness of these institutions?

The effectiveness of these institutions is best assessed by a critical look at why they were created and whether they are delivering those expectations (Kistin 2007, Zeitoun and Mirumachi 2008; Earle and Bazilli 2013). In other words, the above scholars imply that we should base the success or failure of institutions on its objectives. While this is a fair assessment, however, the deficiency is that in so doing we assume that institutions are static. Constructivist institutionalism adds that institutions are dynamic and participants within those institutions have dynamic interests (Hay 2002, 2006). It is therefore important to trace whether the interactions are still in line with the objectives of institutions. If not, the answer should go beyond an assumption that the institutions are failing. Instead, we should unpack other possibilities and one explanation could be that the actors are changing in line with the changing dynamics surrounding them. Again, constructivist institutionalism cautions us about uncertainty when making decisions. Thus, there is a possibility that the objectives came under uncertain circumstances and as the situation became clearer, as dynamic actors they have the power to redefine the environment. The power of actors to redefine their environment is in line with Rizzo (2013)'s analytic dualism of structure and agency.

Despite not having a RBO, the Incomati Basin states have constructed various institutions that have managed to coordinate basin activities. Likewise, the Incomati as participant 13 and 29 alluded in the opening quote of this chapter and this section respectively has managed to find

a balance of cooperation between the struggles of collaboration and disputes. There are still ongoing discussions about the possibility of creating a RBO. However, at the end of this study, such initiatives had not materialized. According to (Dlamini not dated), the Incomati River Basin is a special case study because her cooperation cuts deeper than other river basins; as it includes the collaboration of various water users in all three countries, different water sectors and amongst national departments.

The Tripartite Interim Agreement between Mozambique, South Africa and Eswatini for cooperation on the Protection and Sustainable Utilization of the Water Resources of the Incomati and Maputo Watercourses (henceforth referred to as the Inco-Maputo Agreement 2002) is the current legislation governing the Incomati River Basin. The principles guiding the Inco-Maputo Agreement are sustainable development, participation, cooperation, conflict prevention, equity, reasonableness (Inco Maputo Agreement 2002)[32]. These principles resonate with the international protocols and the SADC Revised Protocol. In the next section, I discuss the building and the evolution of TPTC, KOBWA, SADC and REMCO.

5.3. The Tripartite Permanent Technical Committee: A Multilateral Attempt

5.3.1. The *Creation* of the Tripartite Permanent Technical Committee (TPTC)

The Tripartite Permanent Technical Committee (TPTC) is a committee that was born in 1983 and it includes Mozambique, South Africa and Eswatini (see figure 3 below). It is responsible for managing the Incomati and Maputo rivers and coordinating the basin activities that affect all the three countries. Its main task is to advise the three states on how best to manage and protect the scarce water resources. Specifically, TPTC is mandated to; explore different development options available, mobilization of funds to develop the basin, appointment of research experts on issues affecting the river basin and to check whether all the countries are adhering to the stipulations of signed agreements (Shongwe 2016). The advisors of the TPTC include technical experts from the three countries such as hydrologists, engineers etc. From

[32] When discussing ideas in this thesis, I refer to these principles enshrined in the Inco-Maputo Agreement.

2002, the TPTC was given the responsibility to implement the Inco-Maputo Agreement. More recently, the committee prioritizes climate change impacts such as drought which many respondents cited as a cause for concern.

Some scholars define TPTC as a regime (see Turton 2010). Keohane and Nye, in Katzenstein et al (1998:660) define regimes as "governing arrangements that affect relationships of interdependence". However, for Turton (2003a) regimes still fall under institutions. The TPTC is a multilateral mode of governing transboundary water related issues in the three countries. For those, who see it as a regime, the reason could be that the TPTC does not have physical offices as other institutions would. They conduct their meetings in the three countries on a rotational basis. However, in this study I consider them as an institution because of the big role and influence that the organ has in the Incomati river basin.

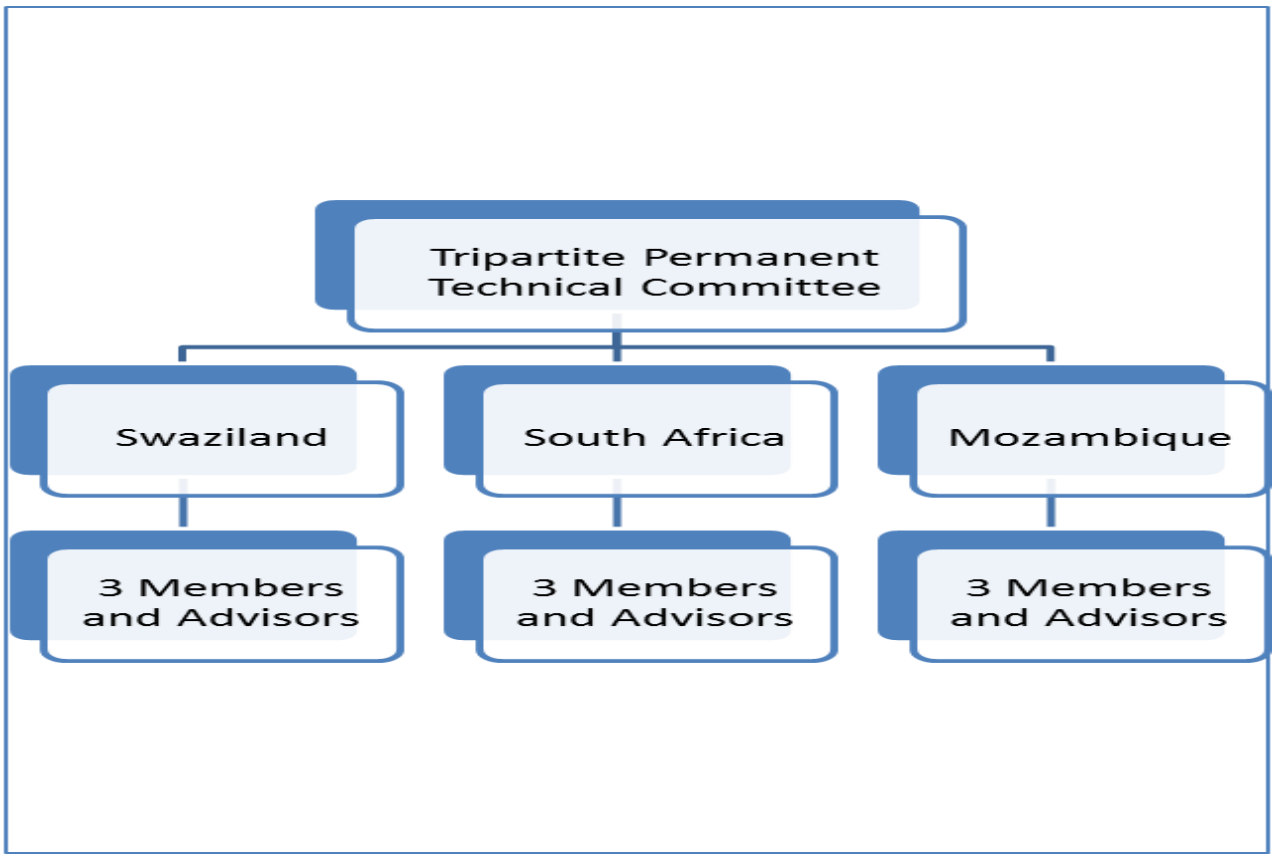


Figure 3: *Structure of the Tripartite Permanent Technical Committee (TPTC)*
Source: Shongwe (2016)

5.3.2. The *Evolution* of the Tripartite Permanent Technical Committee (TPTC)

The TPTC is the first multilateral arrangement in Southern African regional water politics (Turton 2010). However, its development has not been smooth. The TPTC negotiations were in a volatile environment, which included both political instabilities and insufficient resources (Vas and Pereira 1998). South Africa's Total National Strategy, whereby South Africa was prioritising water as a national security resource was at its climax (Turton 2003). The relations between the apartheid government in South Africa and Mozambique were fragile due to revolutionary movements in the region. This made it difficult for the three countries to find common ground.

Despite operational challenges, the three states had to find a way of working together. For example, the need to construct the Driekoppies dam by South Africa and the Maguga dam by Eswatini drove the TPTC back to the negotiation table (Turton 2003). This resulted in the 1991 Piggs Peak agreement. Through the Piggs Peak agreement Mozambique gave their consent to the building of the two dams in South Africa and Eswatini by Mozambique,with a condition. The condition was that the two countries allow for "an interim cross-border flow to Mozambique of 2 m3/s averaged over 3 days at Ressano Garcia and the Joint Incomati River Basin Study (JIBS) to proceed" which would be used to monitor if Mozambique is fairly treated (Dlamini not dated). Though the consultants were from South Africa and Mozambique, South Africa was to pay for the JIBS.

The findings of the JIBS reiterated that Mozambique would remain worse off should the dam constructions happen in Eswatini and South Africa (Vas in Turton 2003). In response to that, Mozambique did not approve the report, leading to data collection hiccups within Mozambique (Poulsen in Turton 2003). Contrary to Turton (2008)'s argument that pivotal states can withhold data that may have a negative impact to them, in this case, South Africa funded the JIBS study and did not manipulate the results. This shows that securitisation of data does not work in all contexts. By not approving the report, Mozambique was contesting the hegemonic influence of South Africa. However, this led to a political impasse.

The hiccups above drove the TPTC to continue merely as an "intergovernmental structure" and dysfunctional regime (Turton 2003:232). This in turn encouraged bilateral arrangements in the river basin, the first notable one is the Joint Water Commission between Eswatini and South

Africa. This Joint Water Commission led to the birth of the Komati Basin Water Authority (KOBWA) discussed later.

After years of silence, the 2002 Inco-Maputo Agreement passed the Resolution on Exchange of Information and Water Quality[33] by TPTC, thereby, reviving the institution. The enabling environment of a post-apartheid and post-Cold war era is attributed to this revival (Turton 2003). Following that, the TPTC, recommended the Incomati System Operating Task Group (ISOTG) to encourage information sharing across the entire basin. The organ has representatives from all the three countries. The main objective of ISOTG is to communicate information as it happens so that technicians could make informed decisions. Such information includes but not limited to weather conditions, early warning signs for droughts, floods and the quality of water etc.

While the ISOTG is a crucial organ, the effectiveness of the ISOTG is limited. Interviews with both national and subnational officials across the three countries indicate that the three states are not equally developed hence they are not equally equipped to have functional systems. Currently South Africa is doing better, in terms of communicating data across the border. South Africa and Eswatini through KOBWA are doing better in the Komati catchment, while Mozambique was to a large extent reported to be lagging in that regard.

TPTC has also facilitated the creation of the Komati Joint Operations Forum (KJOF). KJOF consists of water users, and employees from the three water departments in all countries as well as sub national institutions such as IUCMA and the River Basin Authority in Eswatini. They meet once every month to discuss issues pertaining to governance and community needs. However, Mozambique is not always present in these meetings. Dlamini (not dated) argues that Mozambique's absence in such meetings is because the current discussions are not affecting the country directly and assumes that her involvement could increase with time as the matters start affecting them directly. In the next section, I discuss the role of the TPTC as a multilateral institute as well as its challenges and opportunities using empirical evidence.

[33] "The parties shall, within the TPTC, exchange available information and data regarding the hydrological, geohydrological, water quality, meteorological and environmental condition of the Incomati and Maputo watercourses to enable planning, development and management of these shared watercourses" Inco Maputo Agreement. Article 12. (2002:13)

5.3.3. Discussion of the TPTC: Voices from the Field

> …Who is TPTC? I do not understand what they do; all I know is that they attend meetings in different countries…" (Participant 7)[34]
>
> …TPTC deserves some credit; they are our mouthpiece to the government; they really make our work easy (Participant 4)[35]

The ideas behind the creation of the TPTC were informed by the need to have an institution that represents the interests of all states sharing a river basin. Being the first multilateral institute in Southern Africa meant that the organ had to experiment with a lot of things or "learn by doing" as highlighted by one of the TPTC members interviewed. I defined TPTC above as a 'multilateral attempt' because by continuing to exist despite various operational and political challenges, the institution demonstrates resilience.

The governments of the three countries (through their national departments of water) maintain TPTC as an advisory body tasked with integrating their water policies. Though some groups of stakeholders such as water users and technical people within subnational water departments do not understand the TPTC mandate, there were some people who understood their role. For example, the two quotes above by participant 7 and 4 reflect these controversies. For participant 7, TPTC remains a vague institution while participant 4 appreciates the role played by TPTC. My conversation with the two participants, revealed that, participant 4 holds a senior position in a government department and therefore is privy to the operations of the TPTC. On the other hand, participant 7 works at a subnational office and their position does not allow them to interact with high-level politics with such interactions done by senior staff within their offices. Although, these controversies do not show whether the TPTC is effective or not, we learn that there is no open transmission of information across the Incomati river basin.

The challenges faced by the TPTC including the discussed political impasse did not lead to the dismantling of the TPTC. Failure to work together confirms the argument by Turton (2003) that despite the creation of the TPTC, mistrust amongst the countries continued. Despite these challenges, the TPTC continued as an idea. Just as Jacobsen in Bell (2011:887) argues, that in institutional uncertainty "all that is solid melts into ideational air". Schmidt (2012:3) supports Bell's argument above; and notes that "when existing institutions, no longer promote the

[34] Nelspruit South Africa (12 March 2016)
[35] Mbabane Eswatini (17 February 2016)

coordination of expectations" it does not mean that institutions are absent, but may imply that actors within those institutions chose to revise their interests. Therefore, even during the political impasse the TPTC remained as an idea that would later on unite the three states again.

Likewise, the Inco-Maputo agreement revived the TPTC. According to participant 9,[36] the TPTC is "an example of an institution that no one can get rid of because it has been the glue that keep all of us together". Participant 9 went on to say that "ideas don't die" and though the TPTC was created before he started working in the Incomati River Basin, the TPTC is important because it is the closest to a RBO which is lacking in the Incomati. Similarly, participant 13[37] notes that despite the ambiguity of the TPTC roles, the institution allows the people of Incomati to prioritise regional integration that is more important than pursuing self-interests.

To me, one shortcoming of TPTC is failure to see water as a site of contestation but to see water as a resource that the technicians can manage. The TPTC was born in 1983 during the apartheid system and as earlier mentioned their role was to advise the governments on how to manage and develop the water resources. The committee consists of technical people such as hydrologists and engineers who mostly understood the hydrological components of water management. The composition also includes lawyers who are who would be checking the legal pronouncements as far as the current situation is concerned. Therefore, they did not give space to social issues such as gender and culture amongst others. I observed that most water managers in various institutions came from the engineering fields and not in social sciences. Social sciences such as sociology and political sciences would add value by understanding the social issues that physical sciences would not be able to understand. For example to manage people, especially, now that most scholars agree that the problems of water are more to do with poor management.

More so, it was state centric and ignored the role of non-state actors. However, the good news is that there was an ideological shift when the Inco-Maputo Agreement negotiations revived it. Today we see a new TPTC that has made progress. A presentation on the role of the TPTC during the 2016 REMCO Conference in Ezulwini, Eswatini showed that the TPTC have expanded their mandate. This includes working with different stakeholders such as foreign

[36] Mbabane (12 February 2016)
[37] Maputo (5 December 2016)

governments and other water institutions to fight common challenges such as climate change impacts.

One aspect that is evident in the literature and confirmed by interviews is that the TPTC faces various challenges in carrying out their mandate. These include communication problems, mistrust amongst the committee members and the hydrometric systems that they rely on are not functioning effectively (van der Zaag and Vaz 2002). The mistrust between and amongst countries was confirmed by most participants of this study. This also confirms Turton's (2004) argument that despite democratic reforms, other countries in the region were still suspicious of the ANC. According to participant 9, the problems faced by TPTC all boil down to a lack of resources. This view is in line with Petersen-Perlman et al (2017)'s observation that inadequate resources affect the running of the institutions. A lack of resources has led to states implementing half-baked solutions, because at the end of the day you have to make do with what you have, said participant 9.

Having no powers to execute decisions made, the TPTC is for some participants a 'toothless dog'. There are three main points that those who felt that TPTC was toothless mentioned. First, that they do not have a financial muscle. Participant five, a TPTC representative[38] highlighted that there have been budget constraints due to the recession leading to the cutting of national budgets. Participant 5 notes that the rigid bureaucratic system worsens the situation. For example,

> One of the main challenges that have been hitting us all the time are the issues of bureaucracy within states; because if you want to go to a meeting there are processes to be followed within countries, for example, now there are processes that delegates have to follow to move to and from one country. You need to put in a request that has to go through the cabinet and they are timelines to submit those requests. If you do not submit your request on time, you would not be able to attend the meeting (Participant 5)

Similarly, participant 9, a former TPTC representative, cited inability to attend TPTC meetings as an obstacle. He mentioned that although meetings have improved recently compared to apartheid or colonial times, however, "TPTC does not meet as often as needed". My observations illustrate that the lack of adequate meetings for TPTC is largely due to the centralisation of the institution. The operations of the TPTC are at the discretion of national governments without adequate participation of other organs of water governance. This leads to

[38] Mbabane, Eswatini (17 February 2016)

meetings that have agendas, which do not reflect the needs of the people or the implementing agencies on the ground.

To support the above sentiment, during my visit to the KOBWA Driekoppies office, which coincided with the TPTC meeting in their offices. I noticed that the office was a meeting point and employees working in the offices were just hosts who were not aware of the agenda of the meeting. A few people I asked about the ongoing TPTC meeting did not have detailed information about the agenda and the details of the meeting. I also could not attend the meeting; I learnt that to attend the meeting one has to apply in advance because TPTC is only for invited participants. I noticed that there was a lot of secrecy surrounding the institution. On that day of their meeting, I came to understand that the TPTC members had met to discuss the drought that was affecting people from all countries. While that made sense as a security issue and state responsibilities to find solutions to the problem, however, I found the secrecy behind the meetings problematic. It is problematic because it encourages efforts that are not coordinated. For example, implementing agencies and water users might do activities that contradict TPTC discussions or vice versa. This also can lead to duplication of efforts, as there is no effective communication amongst all the actors involved.

Second, the TPTC was criticized for being an "an elite institution" that according to one of the water users I had an informal chat with "only represents the desires of the 'rich". To her, the fact that TPTC interacts with "people in offices" and "not farmers like us" shows that we are not important to them. This point resonates with my earlier argument about the the secrecy surrounding the institution. Another informal conversation with one of the farmers revealed, that,

> TPTC members are high level people; it is difficult to talk to them when you are based on the ground. We rely on KOBWA and the department to carry our concerns to TPTC and hope that they address them. However, I do not understand what they do; all I know is that they attend meetings in different countries…

This introduced me to class dynamics amongst the various stakeholders of the Incomati river basin. The interview with the water user above tells us that according to him water users assume a lower position while the TPTC works at a higher level. It is also interesting that this portrays domestic or internal power dynamics within a river basin. It seems to me that most water users (at least those I interviewed) lack agency to influence water policies as they affect them. Water

policies in all the three countries to me, seemed to be highly centralized; with participatory forums only as a created platform that does not mirror the objectives advertised.

While there was more agreement on the superiority of TPTC amongst participants of my study, the third point suggesting it is toothless is that the TPTC has no power to make decisions. The TPTC is at the end of the day "a group of individuals who report to their governments and wait to hear what the governments decide" (respondent 9). Therefore, at the end of the day TPTC is a political creation that has no operational independence. For some, despite this challenge, TPTC is better because it is a multilateral agreement. However, participant two[39] said, "You will rather have no agreement at all rather than have a bad agreement because a bad agreement can continue to haunt you for a very long time".

However, for some, TPTC was a very influential institution, which under limited resources has managed to maintain decent relationships amongst the three countries. According to participant 9, "We should not forget that TPTC is the first institution to be recorded in SADC as having brought all countries sharing a river basin together" and therefore that is a success story. For him, the weaknesses that people point out should therefore not outweigh the good job that the institution is doing. Second, they are constantly evolving and have expanded their mandate in line with the current global challenges such as climate change. More so, the creation of the Komati Joint Operations Forum is a good way of sharing information across borders and water users. While one participant 7 criticized TPTC for creating KJOF as "building systems that we are not able to feed" the KJOF should however be seen as an idea that will yield fruits if enough resources are added to it. The endorsement of international principles such as equitable utilization of water, sustainable development and information sharing provides the TPTC with a room for improvement.

[39] Telephonic interview (25 February 2016)

5.4. Komati Basin Water Authority: A Bilateral Engagement

5.4.1. The *Creation* of the Komati Basin Water Authority (KOBWA)

KOBWA is the product of the 1991 Development and Utilisation of the Water Resources of the Komati River Basin Treaty and the 1992 Joint Water Commission between the government of South Africa and Eswatini. As a bilateral institute, KOBWA is a parastatal (KOBWA Annual Report 2016) which advises the two states on the management of the Maguga and Driekoppies dams in Eswatini and South Africa respectively as well as related infrastructure. The main reason for the birth of KOBWA was "designing, constructing, operating and maintaining" the Driekoppies Dam (South Africa) and the Maguga Dam (Eswatini) (REMCO 2016). The Driekoppies Dam was constructed from 1993-1998 while the Maguga dam was from 1998-2003. The UN Convention on Non-navigational uses of International Waters and the SADC Revised Protocol also informs the institution. Amongst the objectives of KOBWA is to encourage stakeholder participation between two countries, poverty alleviation, monitor water developments within the two countries, ensure there is equitable utilization of water resources and financially support projects relevant to their mandate (KOBWA Annual Reports 2016; 2017).

5.4.2. The *Evolution* of the Komati Basin Water Authority (KOBWA)

KOBWA has evolved ever since the 1948 talks between South Africa and Eswatini on the use of the Komati sub catchment area (Turton 2010). In 1978, South Africa and Eswatini signed the Joint Permanent Technical Committee (JPTC), now referred as the Joint Water Commission. KOBWA has gone through various stages, but of interest to this thesis is how KOBWA has survived and why it is a good example for other areas to emulate. Table 4 below shows historic activities that have taken place in the Komati Catchment Area, currently managed by KOBWA since 1948.

YEAR	MILESTONE
1948	The two countries, South Africa and Eswatini agree on water use from the Komati River
1969	Mozambique, South Africa and Eswatini start technical meetings
1978	Eswatini and SA form the Joint Permanent Technical Committee (JPTC) which later became the Joint Water Commission
1989	South Africa and Eswatini resolve to implement Driekoppies Dam and Maguga Dam as phase 1a and phase 1b respectively
1991	Pigg's Peak Agreement - South Africa, Eswatini and Mozambique is signed.
1992	South Africa and Eswatini sign and ratify the Komati River Basin Treaty which also established KOBWA.
1993	The Construction of Driekoppies Dam commences (Phase 1a)
1998	The Construction of Maguga Dam starts (Phase 1b)
2002	KOBWA is fully established as it enters the operation and maintenance phase Task Group (ISOTG), the Water Management operation rules are adopted
2007	Following a collaborative effort between KOBWA and the Eswatini Electricity Company (SEC), the Maguga Hydropower Generation plant is constructed
2010	the Edwaleni commercial farms and the Masibambisane Game Farm are handed over to Beneficiaries of the Relocation Allocation Plan (RAP)
2011-2012	The Matsamo Business Centre and the Timphisini Markets are constructed as part of the Comprehensive Mitigation Plan
2011-2012	Potable water purification plants constructed at; Buffelspruit, Block–B and Gomora. These augment water supply in the communities where they are installed
2013	KOBWA celebrates 21 years in trans-boundary water management
2014	The Driekoppies West Bank Access Road is constructed
2016	The construction of the Maguga Conference Centre is completed

Table 4*: Activities within the Komati Catchment from 1948-2016*
Source: KOBWA Annual Report (2017:5)

It is important to note that, despite the agreement being bilateral, the two countries still have to comply with international principles, for example, informing other parties which could be affected by their actions. As mentioned before, through the 1991 Piggs Peak Agreement, Eswatini and South Africa recognised Mozambique as an equal party to the Incomati river basin and committed to allow 2m3/s of water to flow through Ressano Garcia for the benefit of Mozambique. However, the perceived violations of the treaty by Mozambique led to a

political impasse where there was no functional water institute in the basin as described in the TPTC section.

The vision of KOBWA positions it as an evolving and progressive institute. KOBWA's vision is to "to be recognised as a leading entity in sustainable integrated transboundary water resource development and management (KOBWA Annual Report 2016:8). The table below shows some of the focus areas in bringing out the vision to life.

Water Related	**Beyond Water**
• Water Quality • The need to comply with policy and legislative framework informing the operations of KOBWA • Good Environmental Governance • Infrastructure Development in line with the stipulated regulations and values. • Make the best use of available resources	• Empowering employees in a way that encourages qualified people who will drive KOBWA to realise her vision • Community focused socio-economic development initiatives • Participation of all relevant stakeholders

Table 5: *Some of the factors that guide KOBWA in fulfilling their mandate and vision*
Source: KOBWA Annual Report (2016).

During the El Nino drought situation, KOBWA was actively involved in managing the situation through monitoring their systems and engaging with those affected (KOBWA Annual Report 2016). The institute was also proactive in dealing with the climate change deal as they developed a draft strategy for climate change (KOBWA Annual Report 2016. According to participant 6[40], this strategy is likely to yield good results because it is all-inclusive. The problem that affects the effectiveness of KOBWA's plans is that they do not have power over the activities of other stakeholders within the Incomati River Basin, particularly those external to their area of operation (participant 9; KOBWA Annual Report 2016).

Another strength that KOBWA has is the transparency of their work. For example, one can find their annual financial statements on their website or outlined in their annual reports. More

[40] Piggs Peak, Eswatini (15 February 2016)

so, there is a constant change of leadership, which creates room for new creativity or a chance to explore different things. For example, the CEO in 2009-2015 was Dr Sipho Nkambule and from 2015-present KOBWA it is Mr Collin Zwane. My study benefited from the insights of both these leaders. The change of leadership is also in their change of the Board of directors' representatives. More so, through their commitment to Corporate Social Responsibility, KOBWA is able to influence the community in a positive way both in water and beyond water initiatives. Initiatives that go beyond help the institution to be socially responsible in both countries. For example, in 2014, the Driekoppies West Bank Access Road was finalised while in 2016 KOBWA celebrated the completion of the Maguga Conference Centre (REMCO 2016). The two offices have also brought employment opportunities in the communities that they work in.

5.4.3. Discussion of KOBWA: Voices from the Field

KOBWA is a good example of a bilateral engagement that has yielded good results and has grown to be an establishment that I think is worth emulating. Turton (2010) describes KOBWA as a complex institution that has survived the test of time. The institution has gone through the challenges faced by states in maintaining established institutions yet through flexibility it has survived the test of time. Another strength that KOBWA has is transparency about their activities. Their annual reports can be accessible online. They have details of the financial statements, opportunities and challenges. Availability of such information makes it easy for one to assess their progress.

In the opening remarks on the 2016 KOBWA Annual Report, the Chairperson of KOBWA echoed that,

> As an organisation, we charted through a challenging drought period, and, as water levels receded in the Driekoppies Dam and the Maguga Dams, we consistently engaged our Shareholders and reached an agreement on a solution acceptable to both water users and KOBWA. KOBWA is well aware that the operations and maintenance space does not mean that we rest on our laurels, the environment that we operate in is dynamic and changing daily, some changes (including extreme weather conditions) are beyond our control, and yet we must stand resolute in our drive to have fluidity and urgency in our responses that continuously position our organisation to be at the forefront of best management and preservation solutions (Ms. Nelisiwe Mabuza Chairperson of the KOBWA Board of Directors in the 2017 KOBWA Annual Report:13).

KOBWA is expected to respond to the growing or expansion of developmental agenda of the two countries and the international community. For example, South Africa's demand for water is fast exceeding the supply while at the same time the UN SDGs expect countries through their various institutions to ensure that there is access to water and sanitation for everyone (KOBWA Annual Report 2017). In the expanded mandate, KOBWA gets involved in water related issues and in areas that are beyond water as well. For example, participant 3[41] noted that the institution participates in the Orphans and Vulnerable Children (OVC), awareness programmes on pollution and net fishing. Participant 39[42] also highlighted that in the past five years KOBWA has assisted communities build toilets and help provide access to water at schools and in the community.

A good example is the KOBWA Climate Change strategy which though a work in progress is very promising and a good initiative. Climate change should look at anthropogenic factors as well. One participant in the REMCO Conference 2016, argues that,

> Anthropogenic factors contribute to climate change and we should try to practice green living for the betterment of our society. We need to change our behaviours to live a legacy for our generations. There will always be conflicts even if we do a good job. However, where there is conflict, stakeholders should consult, negotiate for lasting solutions.

However, like any other institution, there are several critiques about the establishment of KOBWA. As mentioned by Hay (2002, 2006) that we should look beyond the building of the institutions and take note of the developments that occurred after. The thesis finds positive and negative externalities when it comes to the activities of KOBWA. Among the negative externalities, I focus at the resettlement programme that happened due to the construction of Maguga dam. The main objective of the Maguga dam[43] construction was to alleviate poverty in rural areas and create employment opportunities for the rural communities. While not everyone would agree about the benefits of the dam, most respondents hailed the Maguga dam as a good initiative that has prevented extreme floods and has encouraged solidarity between the two states.

[41] Piggs Peak, Eswatini (6 February 2016)
[42] Nelspruit, South Africa (12 March 2016)
[43] Maguga dam is the fifth highest dam in Southern Africa (see http://www.gobassing.com/display.php?Countries+Eswatini+Maguga-Dam) 12 December 2017

A lot of development in one country such as construction of dams has a potential of causing tensions between the state that is making many developments and the one that those developments are likely to affect such as reducing water flows (Ho 2017). The building of the Maguga dam in Eswatini saw people resettled to different areas. Critiques of this programme argue that the governments did not prioritise the needs of the people affected. One community member in Eswatini who participated in the focus group discussion said, "Some of our fellow community members were left worse off by the resettlement programme". However, some participants were happy with the compensation that they got and the new houses built for them.

The governments of South Africa and Eswatini were however proactive. Thus in the Resettlement and Compensation Policy (1996) Document, the two agreed on the need to uplift and leave them better off after the Programme. The positive externalities that came out of the implementation of the Maguga dam project include the construction of roads, houses, schools, sanitation services, clinics etc. Interviews also confirmed that the construction of the dam, improved water supply for irrigation purposes. Participant 41[44], added that the supply of water was extended to Mozambican farmers who are downstream. Another positive externality was the creation of employment for local people. Participant three who works at KOBWA informed me of the Compensation Policy that encouraged the employment of local people. Participant 3 also talked about the Community Representative Committee whose role was to facilitate the employment of local people, and this ensured that 80% of people working around construction related were locals.

Other critiques of KOBWA argue that the bilateral arrangement ignores the fact that Incomati is a transboundary river that includes Mozambique. I find the concerns of such critiques valid. While some might argue, that Mozambique has a bilateral arrangement with both parties separately. I argue that such engagements are not popularised and functional as KOBWA to compare their effectiveness. For example, the 1991 Joint Permanent Technical Water Commission (JPTWC) between Mozambique and Eswatini was not effective (Turton 2010) while the Joint Water Commission between South Africa and Mozambique's details of its effectiveness is missing in the available literature. The 1984 Nkomati Peace Accord (NPA) between South Africa and Mozambique was a "non-aggression" instrument meant to promote peace in the water sector amid ongoing military struggles on the other sectors of the economy (Turton 2010). What becomes clear is the argument that bilateral arrangements are preferred

[44] Maputo, Mozambique (23 May 2017)

over multilateralism. For South Africa having the JWC with Eswatini (from now referred to JWC1) and JWC with Mozambique (henceforth referred as JWC 2) has become one of her strategies to maintain bilateral engagements. This followed the same fashion as the Lesotho Highlands Water Project (LHWP).

Some analysts view the missing membership of Mozambique in KOBWA as a missed opportunity. Turton (2003) argues that political ideologies can make some states miss the opportunity of being part of institutional arrangements; for instance, hegemons can bypass them when negotiating bilateral institutions with other states that are available. Mozambique missed the opportunity while they dedicated their time in the Liberation struggle and provided logistical support and training to regional guerilla fighters of negotiating a place in some institutions (Turton 2005). It was difficult to join already functioning institutions when the Liberation struggle ended. Biswas (2011) similarly describes failure to cooperate amongst India, Nepal and Bangladesh as a missed opportunity for the alleviation of poverty. The countries are struggling to move beyond the legacies of mistrust, conflicts and power. While the Incomati river basin has a history of political conflicts, mistrust and power dynamics, however, the post 2002 shows more willingness by states to cooperate. In cases where cooperation is difficult, states employ various technologies of negotiations. More so, where preferences are homogenous, states are open to work with external players.

One of the operational challenges discussed by respondents was differences amongst communities they serve. Participant 3, noted that one has to be continuously alert that they are dealing with very different communities with different values. For example, she mentioned that,

> you may think that you are talking to Swati's only but the way culture is interpreted differs, so you will find that if I have to run an event at Ekuvikelweni you may think its hundred metres apart yet it's actually two different communities; so it is that aspect of having to be continuously conscious and there are adjustments that you have to make as per the communities that you are dealing with

The communities that participant 3 is referring to are within Eswatini. I can imagine that the complexity will be even more across the borders. In her response to transboundary issues, she said that they work as one unit that includes both South Africa and Eswatini. In her words:

> When we engage the communities we engage the communities of the Incomati river basin we do not necessarily say these communities in South Africa in Mpumalanga and

> these communities in Eswatini; the reason why we do that is that we promote that sense of ownership of the resources as a basin and not as separate countries.

Similarly, participant 39 from South Africa noted that they work with KOBWA in most of their activities. For example, at the operational level, KOBWA works closely with other entities in the water sector, for example, IUCMA in Mpumalanga. The participant highlighted that,

> normally each year we hold awareness campaigns that relate to issues that have emerged during the year that need to be addressed in communities for example a river pollution campaigns a campaign that raises awareness on the dangers of river damping that has been one of the serious issues that we have had to deal with in the basin and then we have had to engage first and foremost the traditional authorities in those areas that we work in… (Participant 39)

The nature and scope of KOBWA gives it both operational advantages and disadvantages. Some of the advantages are that KOBWA is accountable to the Joint Water Commission and not the state because it is a private entity. Being a private entity implies that it has the power to attract highly skilled personnel who are able to raise funds for its projects (Dlamini not dated).

However, on the other hand, KOBWA does not have the ultimate decision-making power. Participant 33[45] notes that the decision making process depends on the nature of the problem. For example, when dealing with technical issues KOBWA liaises with the Komati Joint Operations Forum (KJOF), however, when dealing with sensitive information (political in nature) we have to consult the TPTC through the Board of Directors for a final decision (participant 33). This shows that power circulates across various organs depending on the nature of the problem.

Unlike the TPTC, KOBWA is people focused. KOBWA holds monthly meetings with water users from South Africa and Eswatini, and this has allowed the participation of local communities. According to participant 7, "at least with KOBWA you know what you are dealing with, they explain the challenges they face and allow people to discuss their needs and challenges". The differences between KOBWA and TPTC is that their responsibilities are different. I observed that KOBWA has a clearly defined mandate of managing the two dams and associated issues between South Africa and Eswatini, while TPTC's mandate is not very clear and includes a broader responsibility of managing the sharing of water amongst the three countries. KOBWA has an institution and as observed by (Dlamini. Not dated) being a

[45] Piggs Peak, Eswatini (15 February 2016)

parastatal it can attract personnel with good skills. On the other hand, the TPTC has no dedicated institution; it is a committee with different committee members selected by countries to represent their interests in multilateral discussions. While both have challenges and have to navigate various, power struggles, to me, through the two institutions, governments have managed to construct cooperative transboundary water relations.

5.5. SADC: Regional Integration

5.5.1. The *Creation* and *Evolution* of SADC Water Framework

In describing the tense relations amongst Bangladesh, India, China and Bhutan in the GBM river basin in South Asia, Barua (2008) attribute these tensions to a lack of regional principles to guide their cooperation. The "complex and challenging" (Barua 2008:60) relations amongst the four riparian states differ from the relations within the Incomati because while they are challenging, their relationship has not turned to that of hostility (at least after apartheid). The role of SADC has largely encouraged this regional integration.

Chapter two of this thesis discusses the evolution of SADC from a development coordinating conference to a development community. In this section, I pay attention to the role SADC plays through her *Revised Protocol on Shared Watercourse Systems* (2000). The Protocol is in line with the Helsinki rules and the UN Convention on the Law of the Non-Navigational Uses of international Watercourses (UNHABITAT/UNEP 2007). A recap of the main objective of the Protocol is necessary; that is to "foster close cooperation for judicious, sustainable and coordinated management, protection and utilization of shared water courses and advance the SADC agenda of regional integration and poverty alleviation (SADC Revised Protocol 2000:3). Swatuk and Fatch (2013) argue that the Revised Protocol is a symbol that the region has recovered from many years of colonial rule and is moving towards collective efforts of sharing their resources.

5.5.2. Discussion of the 2000 SADC Revised Protocol

According to (Katerere et al 2001: 8) poor management of shared resources in the SADC region can be attributed to weak policy and legal frameworks. However, there was more agreement

than disagreement among participants of this study that the SADC region has the best policy and legal frameworks. This was also an accepted conclusion in the Water Conferences I attended during this period, with most presenters citing SADC as a good example of solid regional water legislation and policy that other regions could emulate. This is not to disqualify the arguments made by Katerere et al (2001) but I argue from evidence gathered that the problem is not bad policies but rather in the implementation of those good policies. For example, most people working in national offices argued that SADC is not visible within their everyday work of managing water.

National and regional frameworks have largely adopted international laws governing river basin management in the SADC region. However, on the ground it is more complex.

> On one hand, it seems as if states agree on most of the international law principles such as equitable utilization of the resource, however, on the other hand, states do not really agree on what equitable utilization means (views from one of the participants in the Bergen Summer Research School on Water, Climate and Society)[46].

This disagreement comes out through various independent actions that each state takes contrary to what has been agreed.

More so, while SADC is meant to govern the activities of the region's river basin, the implementing agencies do not know much about the role of the SADC. Over three quarters of the interviews conducted revealed that. Participant 40[47] and participant 7 noted that

> Sometimes you hear that SADC was here just next to your office and you did not know, while you are the very person who is supposed to implement their decisions but they do not consult you to find out the real issues on the ground.
>
> You will only see SADC only on the SADC Water week (participant 7).

In a similar vein, Katerere et al (2001: 8) argues that the complexities brought by globalisation and its impact on common pool resources are likely to give birth to transboundary natural resource management initiatives that are not compatible with 'regional realities and nuances'. The thesis notes that SADC proves to be a regulated mode of power whose techniques are largely incompatible with the river basin interests and needs. I argue that water security in the

[46] University of Bergen, Norway (12 June-24June 2016)
[47] Pretoria, South Africa (30 March 2017)

region requires governments and policy makers to understand power sharing and power brokering in the region.

My analysis of SADC's role below focuses on three issues; equity, sustainability and information sharing. The choice of these is not coincidental, but it comes after the realisation that the three are reiterated in the Protocol document and the resulting policy and academic analyses. A closer look at the three also shows that the three are value laden and difficult to implement. I also use empirical findings to discuss these three aspects.

1. Advancing the sustainability[48] for the management of shared watercourses

In order for one to sustain something, there is need for adequate resources to maintain what you achieved or set out to achieve. In advancing sustainability, SADC has problems related to the capacity to implement as well as maintain her 'good' policies. The region is underdeveloped and struggles to harness the available water resources for the region's socio-economic development needs (Swatuk and Fatch 2013). Msangi (2014) argues that this shortage of resources makes it difficult for the region to meet the standards laid down in the protocol and is a constraint in the effective and efficient implementation of policies. This, calls for the need of investments from international donors (Qaddumi 2008 and Subramanian, et al 2012).

The involvement of donors questions the independence of SADC as a regional watchdog; the question is, with donor funds 'whose voice will be heard in basin level development initiatives'. This allegedly often leads to western or foreign solutions to Southern African problems. Currently, SADC is in the process of facilitating the creation of the Incomati river basin Secretariat allegedly using donors' funds. The sustainability of the Secretariat will largely depend on donor funds, if they pull out the sustainability will be in jeopardy.

Participant 43,[49] a consultant and former SADC employee defended the role of SADC. He argued that without SADC, river basins would not be where they are right now. According to him, most people are quick to judge SADC based on the challenges they face but fail to celebrate the work they have done so far. On the question of sustainability, he argued that, sustainability is a problem that affects everyone. For example, actors involved in any project has to contend with how they are going to sustain the project. He further argued that even

[48] Sustainability in this case refers to financial and/or institutional and not on water resources.
[49] Pretoria, South Africa (7 June 2017)

developed countries struggle with issues of sustainability; thus, for him, sustainability is a continuous aspect that everyone has to deal with including SADC.

I believe that when it comes to sustainability, the focus should be on states not on SADC. SADC is a regional institution meant to integrate regional activities; however, issues of sovereignty make it difficult for SADC to make decisions on behalf of independent states. As argued by Msangi (2014:31), the sovereignty and independence of states "tend to limit integration both for the development and management of water resources and more broadly for economic development". Therefore, what SADC can assist with, is to make sure capacity-building initiatives amongst states such as necessary skills and knowledge in international law, hydro politics, conflict resolution, stakeholder participation are applied across all states sharing a river basin, as advised by (Kim and Glaumann 2011).

2. Utilization of a shared watercourse in an equitable manner

The equity rule ensures that each state receives a fair share of the available water or of its benefits: a right that is as an obligation not to cause unreasonable injury to other states (United Nations 1997). The problem with the equity rule is that it is difficult to define in practice (Barret 1994). Factors such as the geographical location and economic development of individual states sharing the river make it difficult to maintain equity (Cascao and Zeitoun 2010). The geographical power or location makes it possible for an upstream state to manipulate water flows. Dellapenna (2006) argues that, the uppermost riparian state always initially claims "absolute territorial sovereignty"—often called the Harmon Doctrine—claiming the right to do whatever it chooses with the water regardless of its effect on other riparian states. However, on the other hand, position does not always matter, for example, Egypt is a downstream country yet is very dominant in the Nile basin.

More so, the level of economic development in a basin (e.g. proxied by GDP per capita) also makes it difficult for the powerful state to stick to equitable distribution of water and benefits. In general, states are welfare maximizing entities, which would only cooperate when it suits their interests. Just like in any game, players focus on how to win. In a transboundary political context, this yields to power dynamics.

Inequitable access to water benefits has led some scholars and analysts to argue that the main challenge facing countries in the sharing of water and the benefits derived from water is a governance problem and not necessarily water scarcity (Schreiner et al. 2011). The main

premise behind this conclusion is that governing water resources properly can lead to equitable distribution of the resource. Although traditionally water governance was seen as prerogatives of governments, today policy-making processes, including transboundary water processes, have embraced inputs of non-state actors such as civil society organisations etc. Since the various non-state actors have different values, visions, and interests regarding water cooperation, their interactions with state actors add to the complexity of managing shared water resources to the mutual benefit of all concerned. However, the inclusion of non-state actors allegedly does not limit the influential role government's play. This speaks to the notion of governmentality in the basin since the activities are regulated by the states concerned to achieve strategic political ends. Rose (1999) captured the above sentiment by arguing that the inclusion of non-state actors in transboundary debates symbolizes 'regulated freedom' where efforts made by these parties can be manipulated to suit the political ends of the dominant system at hand. In this case, even if weaker states are not really supporting the status quo, the lack of capacity in relation to the hegemon could maintain the status quo.

3. Information and data sharing

The SADC Revised Protocol (2000:4) encourages states to "exchange available information and data regarding the hydrological, hydro geological, water quality, meteorological and environmental condition of shared watercourses". However, Kistin (2007) argues that information sharing is very challenging; 'due to issues of data availability, compatibility and occasionally reluctance on the part of riparian states'. She further argues that although, there is a SADC's Hydrological Cycle observing System (SADC-HYCOS), access is restricted by password which limits water managers to data generated in their own country. There are also allegations of the Incomati states withholding data from each other. Mozambique has often cited language barriers when it comes to information sharing, since their official language of communication is Portuguese instead of English shared by the other two states.

The 2002 Tripartite Interim Agreement for Cooperation on the Protection and Sustainable Utilization of the Water Resources of the Incomati and Maputo Watercourses (Inco-Maputo Agreement) included the need to address information uncertainty. Klaphake and Scheumann (2006) note that Mozambique, South Africa and Eswatini were able to address information uncertainty by breaking down decision making into a sequence of decisions to be considered over time in the Inco-Maputo Agreement (Klaphake and Scheumann 2006). For instance, the decisions pertaining to the management of water flows were seen as targets to be progressively

met over time (Slinger et al 2010). According to Van der Zaag and Vaz (2003), the Inco-Maputo agreement gives an indication of hard and concrete cooperation. The reason is that the basin states not only accepted the need to utilize the Incomati and Maputo basins in a fair basis, but also managed to break down this into a measurable timeline of activities and how they will be enforced on the ground (Van der Zaag and Vaz 2003).

Some participants pointed out that information sharing among states is problematic and some even label it as a security issue. Literature also confirms this (see Schulz 1995; Turton 2008). For example, participant 31[50] narrated how South Africa and Eswatini through KOBWA is able to share information compared to Mozambique who is not part of that system. According to participant 31, this gives the two states more power than Mozambique. Participant 32[51] adds that, South Africa is economically developed and is able to conduct water related research and hire consultants who can advise them on the impacts of climate change as an example. According to participant 31, "there is nothing wrong with having money, but the problem comes when you use your money to advance developments that make you have an upper hand". Asked to give an example, the participant noted that, South Africa does not always share findings that emanate from the many studies that they do. This creates a platform for South Africa to exercise power through knowledge (Foucault 2000; Hay 2006). There are some efforts by different institutions in the Incomati river basin that are meant to share knowledge across all three countries. One of these efforts is the creation of the River and Environmental Management Cooperation (REMCO). In the next section, I analyse the role played by REMCO and the opportunities as well as its challenges.

[50] Mpumalanga, South Africa (16 February 2016)
[51] Pretoria, South Africa (12 August 2016)

5.6. River and Environmental Management Cooperation (REMCO): An All-Inclusive Terrain



Figure 4: *River and Environmental Management Cooperation (REMCO) logo*

5.6.1. The *Creation* of the River and Environmental Management Cooperation

The River and Environmental Management Cooperation (REMCO) was born in 2009 during the Transboundary Water Management Conference in Germany. REMCO is a constructed framework of cooperation between Incomati river basin implementing water management institutions and participants from Netherlands and Germany who share the Vecht River Basin. The main objective is to improve governance in the Incomati River Basin and the Vecht, shared by Germany and the Netherlands. Within the Incomati River Basin, REMCO largely works with operational sub national institutions to improve the relations between and amongst the riparian states as envisioned by the Inco-Maputo Agreement. Some of the objectives of REMCO given by REMCO Chairperson at the 2016 Conference include,

> the harmonization of actions in support the implementation of the Inco-Maputo Agreement on behalf of the TPTC, joint management of the Incomati river, exchange knowledge and skills, dialogue and build trust, for example through information

> sharing as best we can, joint project with our international partners (REMCO Conference: 26 September 2016).

Together, the participants of REMCO, strive to share experiences and knowledge on good governance of river basins (Mthimkhulu 2016). Thus, it is a "dialogue enabler" (REMCO 2016), meant to bring competing interests of the stakeholders to one attainable goal. To facilitate these dialogues, REMCO invites all the institutions involved together with interested stakeholders to their biannual conference that are conducted on a rotational basis (Mthimkhulu 2016). To date, they have conducted four conferences, in Eswatini, South Africa, Netherlands and in Eswatini. I managed to attend two conferences, one in South Africa in 2014 and the fourth one in Eswatini. The fifth REMCO conference is in Mozambique in 2019.

5.6.2. The *Evolution* of the River and Environmental Management Cooperation

REMCO is still young to make critical conclusions about their mandate. However, a few years since its inception, the institution has done many activities. Similar to the Incomati river basin that is informed by the SADC Revised Water Protocol, the Vecht river basin is informed by the EU Water Framework Directive. They have the Dutch-German Boundary Water's Commission while the Incomati has Joint Water Commissions as well.

REMCO through her Steering Committee seeks to,

> operationalise the IIMA creating an effective platform for the River Basin Authorities to exchange knowledge about operational methods and practices, to foster co-learning and to enhance cooperation between RBAs and other water management institutions through informed and consensus driven comments and recommendations (REMCO 2016:2).

Of interest to this study is the emphasis on pro-poor water governance whereby a vast number of institutions, both local and international as well as vulnerable groups work hand in hand to find lasting solutions to the water problems facing the Incomati River Basin. More so the sharing of information between the Incomati stakeholders and their German as well as Dutch counterparts.

The Dutch work with basin level institutions tasked with administrative and implementation of policies agreed at the national level. These are the Incomati-Usuthu Catchment Management Agency (South Africa), ARA-Sul (Mozambique), and Komati River Basin Authority (Eswatini). They each have country specific mandates, but the fieldwork showed an active engagement of these institutions in the overall running of basin activities. In Eswatini the Dutch Water Boards (Vechtstromen) work hand in hand with the Komati River Basin which has resulted to a twinning capacity building project and "a local hydro net system that captures and allows information sharing" (participant 4) . In Mozambique, the Dutch government has funded some activities that ARA-Sul is working on, and in South Africa through the Kingfisher Water Project, the Dutch and the South African stakeholders have implemented various water initiatives around the Incomati catchment areas and even beyond.

While governments are concerned with water as it affects all the socio-economic development of the countries concerned, these basin organs practically manage the Incomati waters. However, "the national governments remain the neck that turns the head of all activities taking place", said participant 42[52]. Asked to explain themselves, participants 42, shared the same sentiments with participant 9 that, that governments preferred to have an invisible hand when governing the running of the river basin, while in fact the powers reside there. For example, "you cannot just sign anything in these basin offices we have to get the go ahead from the head office, argued participant 42.

Below is a box explaining the REMCO logo. The explanation portrays a lot of optimism surrounding REMCO as an institution. REMCO provides a platform for multilateral engagement of all stakeholders, which is missing from KOBWA and TPTC. The use of both the Dutch and Nguni cows symbolizes an equal partnership between participants from the North and South. Although there is some skepticism about the equality of the partnership, to me this partnership shows that with commitment and sharing experiences, stakeholders can go a long way in improving water governance.

[52] Ezulwini, Eswatini (5 October 2017)

GREENERY (GRASS AND TREES)

Green, symbolizes the color of life, renewal, nature, and energy, is associated with meanings of growth, harmony, freshness, safety, fertility, and environment. Green is also traditionally associated with money, finances, and ambition

NGUNI BULL

The bull represented physical strength and power. it is also extremely masculine, and so symbolized fertility and the **power to procreate** - to extend the life of the clans. Bulls are also associated with solar energy and the female cow with earth energy. The bull was also symbolic of great luxury, wealth and provision by later Celts. Indeed, cattle were a source of income and supply in many forms

DUTCH COW

The cow is also a symbol of abundance and fertility as it represents both earth and sky. In general, cows, as producers of milk, are the symbols of the nursing Mother. it also symbolizes richness (abundance) and renewal. The unison of the two cows represents the aspired sustainability of the relationship among all partners, a great and prolonged future ahead. They also, obviously, represents the union of the North and the south in terms of the relationship that exists between the Vecht and Inco-Maputo twinning partners.

BROWN COLOUR OF THE COWS

Brown, the color of earth, wood, stone, wholesomeness, reliability, elegance, security, healing, home, grounding, foundations, stability, warmth, and honesty, is a natural, neutral color that is typically associated with the seasons of fall and winter, which can be easily translated to the drought we are facing today.

BLUE LETTERS

Blue represents both the sky and the sea, and is associated with open spaces, freedom, intuition, imagination, expansiveness, inspiration, and sensitivity. Blue also represents meanings of depth, trust, loyalty, sincerity, wisdom, confidence, stability, faith, heaven, and intelligence.

Box 1: *Description of the River and Environmental Management Cooperation (REMCO)*
Source: REMCO 2016 Conference in *Eswatini*

5.6.3. Discussion of the role played by REMCO: Voices from the Field

The theme of the REMCO Conference 2016, "a resilient transboundary catchment" reflects my argument that indeed institutions of the Incomati have shown that they are able to withstand the pressures coming against them. In her opening speech in the REMCO Conference 2016, the Minister of Natural Resources and Energy, Senator J. Mashwama, echoed that;

> We are priviledged to witness this initiative grow from a simple idea shared by a few individuals during a Transboundary conference in Germany in 2009 to the giant platform for information sharing and cooperation it is today. The high level of participation in this conference as observed today is a clear indication of the extent to which the REMCO initiative has grown.

REMCO is a good platform for participation, in that it invites different stakeholders to engage in a way that they would not without such an institution. For instance, participant 39 echoed that,

> It is difficult to get policy makers, water users, community members and technical people into one room. REMCO forces people to leave their individual duties and to come and think of solutions as a group.

REMCO is also an opportunity that can facilitate the improvement of TPTC as a multilateral institute. According to participant 12[53], TPTC could take advantage of this platform to inform people what they work on, sensitise them of the challenges they face and get support to implement their projects. However, Mthimkhulu (2016) argues that it is difficult to "measure the success of such initiatives and how they can be embraced for sustainable management of transboundary water resources at a larger scale". In some instances, institutions are structured in a way that favours some parties over others, in the process allowing inequalities to persist (Petersen-Perlman et al 2017). Other participants noted that other people dominate the discussions in the REMCO platforms. For participant 39, some people act as if they are forced, as they will not be willing to participate. While some thought South Africa was taking an upper hand, through IUCMA, others felt that this was untrue, arguing that REMCO is a fair platform which accommodate the needs of Eswatini and Mozambique as well.

A participant in the 2014 REMCO Conference said, "The thing with REMCO is that you put in what you get". According to her, if the country is benefitting from the relationship

[53] Nelspruit, South Africa (12 March 2016)

(REMCO), then the government and people will be serious in the participation because of expected gains. Mozambique might seem not keen to participate but on the other hand, they also get a lot of finance from the Dutch. Therefore, according to her, REMCO seems to be a win-win situation depending on what the governments want from such a partnership.

However, for participant 32, "REMCO remains a politically charged institution just like any institution we have seen". The argument was that it is not clear where the influence or power behind the vision comes from. The same participant noted that, "we only observe stakeholders engaging without a clear picture of the overall mandate of the systems or the governmental interests at play.

Participant 13 is skeptical about REMCO and argues,

> REMCO is too good to be true…so far countries are happy with the collaboration and assistance from the Dutch government, but to me it is only a matter of time before the cat lets out its claws

According to participant 13, the problem comes during implementation when everyone wants to achieve their own objectives. Ashton (2000) agrees with the implementation problem identified by participant 13, but he is more optimistic about institutions. As implementation bodies, decentralized agencies have a potential of bringing democratization in river basin levels, since they work closer to the community. However, biopolitical scholars are skeptical about decentralization because these institutions answer to the state (Hansson and Hellberg 2015). In most cases, the interests of decentralized agencies mirror government interests (Hansson and Hellberg 2015).

Despite the scepticism, decentralised water agencies play an important role in transboundary water governance, but they are yet to receive adequate attention (Moore 2017). In that light, REMCO fills that gap by working with decentralised water agencies across riparian states. Though still young, REMCO is indeed a unique institutional creation that empowers lower levels of governments to participate actively in a transboundary context. In relation to the fear that foreign governments could have power over the Incomati basin stakeholders, participant 42 argues, "foreign governments have no power". He explained that although the Dutch in most cases fund the water projects within the river basin, they do not have ultimate power because our governments will pay it back. The other reason was that the Dutch and Germans are prone to floods in the Vecht river basin, and the Incomati riparian states are prone to both droughts and floods. Therefore, the idea is to share experiences that encourage climate change

resilience and risk management initiatives. Sharing of experiences is largely a win-win situation for the participants who discussed the role of REMCO.

5.7. Conclusion

This chapter attempted to show how the nature of transboundary water relations amongst the Incomati river basin riparian states have *evolved* over time. The four institutions discussed in this chapter prove to be *resilient amid* global challenges such as climate change and the difficulties that are involved in bringing sovereign states in a negotiation table. The *institutional memory or ideas* informing those institutions are the glue that keep them functioning despite the challenges. The functionalism of these institutions is one of the reasons I argue that the Incomati river basin states have managed to *construct cooperative transboundary water relations*. It shows that as the Southern African region moved from colonialism and apartheid to independence and democracy, the more they made efforts to collaborate on water issues.

To me, TPTC is an *integrating mechanism* meant to iron out past political differences between and amongst the three countries. In their integration, they focus more on states and in the process ignore the needs of the populations that are not homogenous. As the first multilateral institution in the SADC region, the TPTC shows commitment to move past the tension caused by revolutionary movements in the region amongst other things. However, being the first, and considering the challenges, I define this as a multilateral attempt. To me it is a *multilateral attempt*, because in the context of conquest and conflict the chances of not surviving outweighed the chances of surviving. Although, at some stage the institution reached a political deadlock the institution has managed to revive its mandate in line with the new dynamics affecting global environmental governance. In the post-apartheid period, TPTC is working more closely with departments of water in the three countries and other institutions that are working on Incomati related issues such as climate change mitigation and adaptation.

KOBWA has been functioning for twenty-five years. KOBWA's vision of become a leading entity in water management opens a competitive space of operation. Being a parastatal, and having a clear mandate and vision makes it better able to function than TPTC. This justifies the positive influence that it has had since its inception. However, the strong bilateral ties *ignore the multilateral nature* of the Incomati River Basin. Although there are talks of

establishing a multilateral RBO, it might be difficult for Mozambique to catch up with several years of working partnership between South Africa and Eswatini.

SADC has a big responsibility in regional transboundary water governance, yet it does not have adequate resources and political support to carry those responsibilities. What I mean, is that, the good policies and vision needs a lot of financial support and political will from the countries represented. Due to economic challenges in the region, it might fail to implement all the good policies of poverty alleviation and regional integration. Empirical findings point to a lack of coordinated efforts within and between states in the region. States develop differently, and they give priority to different areas that make them develop at a different pace thereby affecting the togetherness spirit expected from SADC. There is also lack of cooperation with other sectors, for example agriculture, water, energy developing separate and are not coordinated while the international community is calling for better coordinated efforts amongst those sectors. Despite that, SADC continues to push for cooperation in the region and is one of the *progressive* regional water organisations in the world.

The post-apartheid period also witnessed the *birth of new actors*. In the Incomati, one such example is REMCO. REMCO is the youngest of the institutions assessed, yet the only one that opens participation to all stakeholders involved in the Incomati river basin. It is pro-poor oriented and evidence points to an attempt by stakeholders to share experiences and build friendships for the benefit of all those concerned. Interesting for this study, is that REMCO was an *idea* that came from individuals during a Conference in Germany. Building that idea to what it is today, shows the power of individuals in transboundary water governance. The implementing agencies in the three countries largely drive REMCO with the state not showing much visibility. Similar to biopolitical scholars, can we argue that the power that decentralised agencies have is *borrowed and controlled power* by the state? I engage with this aspect of power in the next chapter.

Although, these institutions have *withstood* the test of time, there is room for improvement. The constant interaction of the stakeholders with new global values and third parties has enabled a shift both in the present and future expectations of the water sector. The three governments should be more transparent and coordinate more with other institutions to avoid duplication. Empirical work resonate with Rizzo (2013)'s finding that in some instances stakeholders may guide and shape decision making within structures and produce knowledge based on the various activities that they would be involved in. The findings also point to the

complex relationship between structure and agency. For example, one of the participants is a former SADC employee, former TPTC member, and former government employee and currently works as a consultant in a private firm. These different experiences make it difficult to ascertain whether his views are his independent assessment of the situation or emanate from past places of employment. However, the advantage is that his contributions were informed and valid for this study.

Chapter 6: Structural and Social Power Dynamics in the Incomati River Basin- An Exploration

6.1. Introduction

> South Africa is the *mother* of the Incomati. When you mother your child, *you take care* of them when there are in need but it does not mean that they will need you for the rest of their lives. A child grows becomes independent and start making their own decisions. Even though the mother is older, and can use her power to get the child to do what she thinks is important, *she may not have the power to discipline a grown up* child. Likewise, South Africa has always *had an advantage of a good economy*, but from my own observation in the Incomati, it *nurtures the relationship with Mozambique and Eswatini* instead of controlling them…Even if they might want to discipline, we have grown up and have the *support of other countries* who can *help us* fight if we have to. The good thing is there is no such thing as fighting in the Incomati as we read about the Nile river basin… (Participant 25, emphasis added)[54]

> All things are subject to interpretation. Whichever interpretation prevails at a given time is a function of power and not truth (Friedrich Nietzsche in Chang 2006:498)

This chapter explores the social and structural power relations in the Incomati River Basin. It aims to answer the second sub question of this thesis, ***what are the social and structural power relations in the Incomati River Basin***. In his work on power, Foucault tackles ontological questions, such as, how power functions in society (Hay 2002). In a similar manner, Guzzini (2005) and Zeitoun and Allan (2008) argue that, an understanding of what power does is more important than the definition of power. In this thesis and particularly in this chapter, I extend the question from how does power function to what can we learn about power from social interactions in the river basin. This approach comes from the realisation that power, as an elusive concept might be difficult to define, but it can be easier to explain power using practical experiences. I align with scholars such as Petersen-Perlman et al (2017) who are calling for the revision of the way we think about power in shared waters.

[54] Maputo, Mozambique (5 December 2016)

We learnt from the previous chapter that institutions are social constructions where different stakeholders negotiate and renegotiate to achieve their desired end. This creates complex interactions between and amongst state, non-state and communities who are all navigating their way around the waters of the Incomati, finding possibilities that can work best for each one of them. In the Incomati river basin, the empirical narrative confirm Hay (2006)'s argument that there will always be contenders and defenders of power. The battleground for these defenders and contenders of power is not level but they is a possible intersection. This also confirms the constructivist institutionalist proposition that analysts should start from an acceptance that actors are unequal and that in their unevenness they can construct their preferred reality.

The findings reflect that while power has empowered others, some groups are disadvantaged leading to social inequalities. Findings also show that while the post-apartheid era symbolized peace and regional integration, the shadows of the past remain. The empirical accounts explored in this chapter suggest that meanings of power are context specific and that governments' efforts to decentre power are biopolitical means to govern from a distance. Some empirical findings confirm Foucault (2000)'s argument that at times stakeholders acquiesce to institutional power: that they choose to cooperate even if they would rather not because at that particular point it makes sense to cooperate rather than not to. In doing that, they create cooperative relations. In those cooperative relations, power is ubiquitous BUT not necessarily negative all the time. Moreover, the empirical narrative largely agrees that South Africa is not a *hydro-hegemon* in the Incomati River Basin.

In this chapter, I begin with a description of how some of the participants of my study define power. What incidences of the exercise of power do participants narrate and how do they interpret them? Such questions extend the agency of actors to knowledge production and contribution. The specialized knowledge that my study participants possess add value to scholarly questions, such as the ones posed here. The second section of the chapter discusses four broad themes about power that emerged in the field. These are (1) Power that Unites: A Constructed Reality (2) Power that Bleeds: Shadows of the Past (3) Power that Divides: A Disempowering Mechanism and (4) Power that Produces: Emerging issues from the field. As an exploration, there is a possibility that the arguments in this chapter are a "function of power and not truth" as Chang (2006: 498) describes the subjective nature of social interactions. The opening quote by participant 25 about South Africa being a mother of the Incomati takes different meanings for different people. The truthfulness of the statement remains subjective and it is such subjective understandings that I engage with in this chapter. The interpretation

of power in this thesis reflects the theoretical framework used as well as my role as co-participant in knowledge production.

6.2. The conception of power by participants

The discussion of power issues in the river basin was for some of the participants not easy. Some respondents felt their responses would be misinterpreted, others felt it is not safe to talk about power as it has political connotations, while others asked that their discussion on power be confidential. The unwillingness to talk about power is not new in transboundary water governance or in any environment. For example, Guzzini (2005) argues that the most powerful actors do not like discussing power because it forces them to be answerable for their behaviour. Warner and Zeitoun (2008:804) also note, "those working in consultancy rarely bite the hand that feed them". This implies that most people would not discuss the power issues that might compromise their own interests or jobs.

It was very interesting that I did not have to define power to any of the respondents. I had to define the concept of hegemon or hegemony to a few participants. However, the ignorance of the concept of hegemon(y) was only due to them not being familiar with the political concept but they knew and have heard about the allegations that some states are often perceived to be more powerful than others. The participants of the focus group discussion I conducted in Eswatini defined power in shared rivers as a state with more influence, more control, more water, more money, and more infrastructure.

When asked to name a country that fits such a description, the focus group participants mentioned South Africa. Such a description is in line with positivists' descriptions of a powerful state who often quote economic development as a measure of influence. I then went on to ask whether having more equates to a state doing whatever it wants. Their answers indicated that there is no correlation. One of them aptly stated that "only God can do what He wants; when it comes to states we can fight such controlling tendencies". I then asked what fighting means and entails. One said that, "we have people that we go to if we have problems and these people take the matter to the government and the government talks to other governments and then our situation will be resolved". These answers were of interest to the study because unknowingly the water users were joining the pieces of my research puzzle. For

example, by "fighting controlling tendencies" they contribute to the ongoing debate on countering hegemony (see Zeitoun and Warner 2006; Zeitoun et al 2014). It is important to note that in as much as power is ubiquitous; the study found out that countering power was also ubiquitous.

Below are some definitions of power by different stakeholders. Participant 15[55] notes, "If you are upstream you always have power of position because you can close up the river to the downstream countries". This speaks to geographical power discussed in the literature (see Zeitoun and Warner 2006). He also reiterated the different forms of power as listed in the hydro-hegemonic framework, that is, power of ideas, bargaining power, geographical power, and power of the economy.

Participant 2[56] shares the following sentiments about power in transboundary water governance,

> In my experiences on transboundary water governance research (almost 2 decades now), I have come to realize that they are different forms of power that states can mobilize. For example, they can have power about infrastructure development or agricultural development, and they can have power of ideas that inform the activities that happen in the river basin. However, many times we find in the work about hegemony that there is no visible exercise of power but it is more under the surface. At times, the most powerful states, stringed along the less powerful, according to what they want to do with the river and this is the kind of no war no peace no cooperation situation that you see in river Jordan or the river Nile.

The above definition shows that power is multifaceted. The interviewee highlights the intractable issues of ideas and interests. When he mentions that hegemons are able to influence less powerful states in a way that benefits them more than the less powerful ones, the interviewee is following the argument raised by Dahl of *A* having power over B, with *B* doing what she wouldn't actually do if she had a choice. I agree with his sentiments that such behavior leads to "no war no peace..." because the party that could oppose fails to do that for fear of repercussions that could disadvantage them as well.

For the same respondent, in international rivers power has always been difficult to define because it is not visible, but more under the surface. As similarly argued in his definition, Guzzini (2005) notes that the subtler power is the more effective it becomes in the domination

[55] Nelspruit, South Africa (13 March 2016)
[56] Telephonic, Netherlands (25 February 2016)

and subordination of actors. Zeitoun and Allan (2008) also contend that power in international relations works best when it is invisible.

Power takes different forms according to the level of operation. In discussing power, some respondents dismissed it as a political issue with no influence in technical or operational levels. The dichotomy of politics and administration is a long-standing debate in public administration, one that is outside of this current work. However, it is an important point to note as it has implications in understanding power. For example, when I asked about the coexistence of conflict and cooperation in relation to power, participant 1[57] shared some interesting insights,

> Very often there can be political conflict at an international political level, while at the operational level like the technical level there will be that kind of cooperation that make sure that nobody dies of thirst (participant 1)

According to participant 3[58], power only resides in the confines of politics and "in the way governments communicate with each other". She further echoes that,

> My interaction is not at a political level but it is at an operational level on the ground because we have activities that first seek to promote the use of the resource and mainly what we promote is a responsible usage when one engages the communities (Participant 3).

In elucidating their point on power being limited to politics or governmental interactions, the interviewee showed a narrow understanding of one of the most challenging problems faced in transboundary water governance. There are two possibilities that I draw from her narration. One, that participant 3 has limited knowledge of the environment she works in. Two, that participant 3 prefers not to discuss the political aspects of sharing the river basin. Whichever possibility is true, participant 3 challenges us to think about the dichotomy of politics and administration in transboundary water governance.

On the contrary, a senior engineer and a participant in the 2015 Women in Water Conference[59] argued that "power is like a fish swimming throughout the river at whatever space it wishes to". He defined these spaces to be "management level, government level, local government level, diplomatic level, groundsmen levels". To him all these spaces can harbour power. His

[57] Telephonic, United Kingdom (23 January 2016)
[58] Piggs Peak, Eswatini (6 February 2016)
[59] Nelspruit, South Africa (3 December 2015)

conception of power agrees with the ubiquity of power. The definition also resonates with the following sentiments shared by Dr Jacob Arsano at the Bergen Summer Research School in 2016[60], that "water transcends all diversities; it flows generously and faithfully without discriminating".

Some respondents of the study linked power to money and job security. For example,

> Power is getting people do things without questioning or keeping quiet even if they have questions. For years, we wake up come to work and do what we signed up to do based on our contracts. Your boss gives you a contract to sign but the *origins* of that contract *you never know* (Participant 28, emphasis added)[61]

Similarly, participant 7 argues, "Power is money". According to her,

> Give people money and they can do what you want them to do. I mean we all wake up and come to the office because at the end of the month we get paid, whether we have water or not (participant 7)[62].

The above sentiments by participant 28 and 7 show that we are always under some form of power (see Foucault 1980; Digeser 1992; Merlingen 2011; Daldai 2014). Both participants portray power as something that gets them to work on defined aspects of their job in order to and get rewards such as a salary. Although, participants are not aware where the force is located, their narrative shows that their workplaces have created a space where power produces itself as a flow of conduct.

As this thesis has already acknowledged, power is a complex phenomenon that goes beyond binary relations. Participant 16[63] alludes to these complexities, arguing that wicked problems[64], are affecting international relations. According to her, the multiplicity of causal issues have led to multiplicity of solutions as policy makers cannot rely on linear solutions. Likewise, the post-apartheid period has seen a shift from traditional international relations theories such as idealism and realism where states were predominantly the main actors. Today, in the post-apartheid era the SADC water system consists of diverse actors. The wicked problems faced

[60] University of Bergen, Norway (June 2016)
[61] Maputo, Mozambique (12 December 2016)
[62] Nelspruit, South Africa (12 March 2016)
[63] Pretoria, South Africa (3 June 2016)
[64] A wicked problem is an intertwined societal problem which cannot be properly or adequately defined because it is linked to a lot of other related problems which make it difficult for decision makers to find solutions as they will also be having conflicting values or information on the problem (Grundmann 2016)

today such as climate change impacts make those dependent on rivers vulnerable, making it everyone's interest to find lasting solutions.

Participant 24[65] explains that states are not occupied about who has power because being a "hegemon is not a title that any state or South Africa can want to hold". Similar to the above complexities involved in transboundary water governance, participant 24 did not see the importance of defining power. To him, as long as we solve the problems that we are encountering in a way that meets everyone's needs it does not matter where the power lies. The general sense was that the world is changing every day making it trivial to be worried about power issues. However, some participants alluded to the fact that the concept of 'hegemon' is useful arguing that they will always be that one state that has decisive influence over the activities of the basin (Zeitoun and Warner 2006).

Participant 1[66] felt that South Africa is a hegemon in both Africa and Southern African region. According to him,

> South Africa denies a hegemonic status but if you look at their investments in diplomatic engagements, you really see that it is really the strongest and most influential actor in the SADC region. South Africa is even using its diplomatic and economic power to influence decisions made about Africa or water resources management.

According to participant one, regional institutions have power to influence states to behave in a certain way contrary to how they would if they had a choice. In his words, "states don't want to look bad and they easily succumb to peer pressure to behave responsibly, and it has helped many regional conflicts to be solved" (Participant 1). He went further to say that in a way states can trade off their sovereignty for the sake of looking good at a regional level. The next section discusses these and other aspects of power in detail. Specifically, I draw lessons from the various narratives and interpretations of power by participants of the study.

[65] Maputo, Mozambique (10 December 2016)
[66] Telephonic, United Kingdom (23 January 2016)

6.3. Lessons about power after apartheid: Voices from the field

In this section, I share four broad themes that emanate from my fieldwork in Mozambique, South Africa and Eswatini with different stakeholders. These show different faces of power that we can learn from in the context of the Incomati River Basin.

6.3.1. Power that Unites: A Constructed Reality

> Power relations are relations of autonomy and dependence, but even the most autonomous agent is in some degree dependent, and the most dependent actor or party in a relationship retains some autonomy (Giddens 1979:93).

The SADC Hydro-Political Complex connects the economics of South Africa, Eswatini and Mozambique in the Incomati river basin and make them interdependent. The scarcity of water and climate change threats to the environment drive states to come up with coordinated solutions. These solutions largely are a series of efforts whose success depends on how each country responds to them. Therefore, while they are all sovereign nations the complexity of the challenges and opportunities faced bind them together. The above quote by Giddens underpins my discussion in this section. While, I agree with Hay (2006: xiv) that all social interactions will always have "challengers and holders of power", I add that, in instances of dependency and comparable benefits, these challengers and defenders unite.

Power might come in different forms that can unite states in transboundary water governance. The location of a state (upstream or downstream) will strongly shape the way states relate to each other (Klaphake and Scheumann 2006; Zeitoun and Warner 2006). The fixed location of a state in a river basin makes it difficult for them to manipulate the water flows to their preferred direction. The Hydro-Hegemonic Framework assumes that downstream countries are more vulnerable because upstream countries can control the flows of water. We have established through literature reviewed that such an assumption is not entirely true. Although Egypt is downstream in the Nile River Basin, she has managed to sustain power in the river basin through various mechanisms such as material power. Ashton (2000) adds that downstream countries' vulnerability increases when their economies and military capabilities are weaker than upstream countries. This could imply that Egypt's ability to sustain power is due to her economic power. The main point is that downstream countries often use alternative forms of

power to capture more water resources (Barua et al 2017). These include ideational, bargaining and material power (Zeitoun and Warner 2006).

Geographical power can unite states and not divide them as expected. As Cascao and Zeitoun (2010:29) put it, "the movement of flows across static boundaries in a sense stitches otherwise unwilling states and their political economies together". Climate change is one of the drivers of cooperation because it affects both those upstream and those downstream. Mozambique is the downstream in the Incomati river basin, while South Africa is an upstream. However, South Africa is downstream to Eswatini in the Komati catchment area (Klaphake and Scheumann 2006). Participant 17[67] links the debate on geographical power to the risks and opportunities that negotiators contend with in transboundary water governance. According to him, in the Incomati river negotiations, Mozambique presumably is concerned with securing access to waters and increasing the share of water that is available to them. He further argues that in contrast South African incentives from the technical team will be to try hold onto as much water as possible due to the increasing pressure to allocate water to new emerging farmers in the post-apartheid era. He adds,

> This is similar to the situation in the Zambezi river basin. For example, Botswana and Namibia have a very small physical space share of the river basin. They have limited access to other water resources in the region, so the Zambezi River is an opportunity that the two countries want to use to secure more water. However, if you compare to Zambia or Malawi where a large part of their territory falls within the basin, such moves by Botswana and Namibia is a risk that compromises the sovereignty of Zambia and Malawi (participant 17).

Ashton and Turton (2009) confirm the water insecurities faced by Botswana due to its geographical location as argued by participant 17. The above analysis by participant 17 is in line with the Opportunities and Risk Framework (Subramanian, et al 2012) described in chapter 3 of this thesis. Furthermore, having worked for the World Bank, participant 17 is indirectly demonstrating the ideological influence of World Bank because World Bank consultants developed the Opportunities and Risk Framework.

Geographical power was a reoccurring subject amongst participants. Participant 1 argues that being upstream, South Africa enjoys uncontested power in the Incomati river basin. One focus group participant mentions an interesting point about geographical location,

[67] Pretoria, South Africa (23 February 2016)

> We hear that South Africa owns more water because they are on top and they can do what they want with the water. Therefore, our country Eswatini has to be nice to South Africa for us to get water from them. But I have also heard through grapevine that we are better than Mozambique because Mozambique is down while sometimes we are above of South Africa so South Africa has to be nice to us too (Focus group participant 3).

The above sentiments by participant 3 in the focus group confirms the narrative that South Africa is more diplomatic when dealing with Eswatini due to her dependency on their water usage upstream of the Komati catchment (Klaphake and Scheumann 2006). In a similar manner, participant 15[68] notes that Eswatini has structural power over South Africa in the Komati catchment because it is upstream. However, the position of Eswatini and her capabilities to use that form of power is debatable. For example, one participant of the study argues that,

> There is an interesting power balance when someone is paying for something but it sits with you in your house. For example, Maguga dam sits within Eswatini but funded mostly by South Africa. I guess you need to have a level of trust and mutual respect. If I am investing in something within your property it forces us to cooperate constructively (participant 17).

The opinion of participant 17 points us to the alternative forms of power that downstream countries can use to counter balance geographical power. For instance, South Africa's financial muscle and the benefits that Eswatini derives from it, will drive them to cooperation. Similarly, participant 11[69] argues that Eswatini does not have much power and does not have technical capacity and this strengthens South Africa's position because Eswatini becomes dependent on SA's financial assistance. This however, does not mean that South Africa is a hydro-hegemon because communication and decision making is open (participant 11). Participant 5[70] argues that location in the river basin does not give one state power over other states, it only means that, "you start from a position of power when you are upstream" (participant 5). Empirical evidence also confirm participant 5's view about power; the different forms of power provide holders of power with a position in which the challengers can start negotiating better outcomes. Below I look at the question of Hydro-Hegemony and establish whether South Africa is a hydro-hegemony in the Incomati River Basin.

[68] Nelspruit, South Africa (13 March 2016)
[69] Pretoria, South Africa (14 April 2016)
[70] Mbabane, Eswatini (17 February 2016)

6.3.1.1. The Hydro-Hegemony Question

Chenje (in Furlong 2006:448) reasons that South Africa is "the only plausible SADC candidate for regional hegemonic action, given that its economy is comfortably 10 times that of the other SADC member states combined". In a similar manner, Swatuk (2015) argues that South Africa retains its position as the most powerful state even though it is water stressed compared to fellow members of the SADC. In terms of economic productivity, the recent Global Competitiveness Report, South Africa ranks 67, Eswatini 120 and Mozambique 133 out of 140 countries (World Economic Forum, 2018: xi). Cilliers (2017) generalises that South Africa is an obvious leader in the African continent. My argument is that having more money, being the most economically developed, being a political leader and having more water does not translate to decisive power on a river basin.

The theoretical construct of the Hydro-Hegemony Framework positions South Africa as a hydro-hegemon due to the economic and geographical advantages that they have over Eswatini and Mozambique (see Zeitoun and Warner 2006). Notwithstanding such a construction of hegemony, I argue for a deconstruction of such conclusions, which for me are socialized 'truths'. According to Ali (2012), societies have their own truths derived from the knowledge they legitimize. If not problematised these truths will continue to influence both theory and practice. Moreover, such truths underrate the power of non-hegemons and overrate the power of South Africa to impose decisions on other states unilaterally. Petersen-Perlman, Veilleux and Wolf (2017) show how non-hegemons have contested the hegemon in international river basins. For example, Ethiopia building Grand Ethiopian Renaissance Dam against Egypt's objection and ratifying the Cooperative Framework Agreement by upstream countries despite Egypt and Sudan objecting to it (Petersen-Perlman, Veilleux and Wolf 2017). While I cannot conclusively say whether South Africa is a hydro-hegemon or not in all SADC Rivers, however my findings in the Incomati River Basin largely show that South Africa does not exercise its power as traditionally expected (for example as depicted in the Hydro-Hegemonic Framework, see Zeitoun and Warner 2006).

In this section, I problematize the generalisation that South Africa is a hegemon in Southern Africa and therefore a hydro-hegemon in the Incomati River Basin. Power is "homogenous in its strategy (control of conduct) but heterogeneous in its manifestation and forms" (Ali 2012: 19). More so, if power is "amorphous, relative, subjectively perceived and therefore impossible

to quantify" (Hanasz 2014:98), how is it then possible for us to arrive at conclusive arguments about the phenomenon. Without taking the value of contributions from scholars who see South Africa as a hydro-hegemon, I argue that South Africa is not a clear-cut hydro-hegemon in the Incomati River Basin. Analysts should nuance the hydro-hegemon question in the pervasive nature of power and in the relationship between structure and agency.

I consider hegemony as a structure. As a structure, hegemony creates and reproduces effects in its environment. To produce those effects, hegemony is dependent on other elements within the environment such as people and knowledge. To me the dependencies created make it difficult for one actor to have decisive influence over basin activities. While I do not dispute that in some contexts there are clear hydro-hegemons, through my thesis, I seek to explore whether that is the case in the Incomati River Basin. However, in that possibility I acknowledge the coexistence of cooperation and conflict and argue that amid cooperation and conflict states may choose to build cooperative relations.

When describing SA as a hydro-hegemon, most scholars link it to South Africa's hydraulic mission (see Ashton and Turton 2009; Turton 2005, 2010). South Africa uses the Incomati water largely for industrial development (Turton 2010). Empirical evidence confirms that Mozambique and Eswatini use the water mostly for domestic purposes, as they are not industrialised as much as South Africa. The building of more dams than any state in the region bears testimony to South Africa's hydraulic mission (Turton 2005). Due to population growth, the Gauteng province in South Africa depends on transboundary water resources for survival (Ashton and Turton 2009). The current interest by Mozambique to develop her industries and to complete the Corumana and Moamba dam constructions, presents her as a challenger of South Africa's hydraulic mission.

However, the relationship between South Africa and Mozambique in the Incomati is not clear-cut. South Africa and Mozambique are trading partners, and SA has invested in the oil and gas industries in Mozambique (Orre and Rønning 2017). South Africa has also invested in sugar estates within all three countries. For example, Tongaat-Hulett and Illovo in Mozambique belong to South Africa and Mozambique, and in Eswatini, South Africa owns one of the sugar estates (Carmo vaz and van de Zaag 2003). With the South African sugar companies having interest in all the Incomati states, they have developed a mentality that "If the water cannot go their way, these companies go where the water is" (Carmo Vaz and van de Zaag 2003: 32). To me, South Africa having interests in both countries explains the constructed relations of

cooperation. Through investing in both countries and homogenous benefits, South Africa becomes a friend rather than a foe making it what some scholars define as a benevolent hegemon[71] (see Barua et al 2017).

Participant 38[72] has reservations about the hydro-hegemonic status given to South Africa when it comes to the Incomati river basin. To him, the concept of hegemony is relative in the literature as it is in Southern Africa. He narrates,

> South Africa is the most powerful state in Southern Africa but that does not mean that it is a hydro-hegemon in the Incomati river basin. South Africa could be a hydro-hegemon in the Orange Senqu river basin because SA influences and is keen of a lot of things there, compared to the Zambezi river basin where SA is only an interested party. In the Zambezi River, SA is not a hegemon because it has less ability to shape the discourse. In the Incomati River, Mozambique possesses bargaining power even though it does not have geographical power. Such bargaining power keeps South Africa in check and robs her of a hegemonic status.

According to participant 37[73], Mozambique as the downstream country "survives at the mercy of the other two countries". Her assumption confirms the narrative that downstream countries are vulnerable (see Ashton 2000) and implies that Mozambique is weak compared to other countries. Other participants, however, show a different view about Mozambique.

> I think that the capacity of Mozambique as a state entity to engage in coherent negotiation is stronger than South Africa… Personally, I feel Mozambique is more organized and consistent in the position it takes in negotiations. Sometimes South Africa is too big, for example, you have national department of water, you have local departments, and you have commissions and a whole bunch of people who represent different factions of society. This makes it a lot more difficult for them to have a clear coherent international strategy. Mozambique on the other hand is very clear about its position and they articulate that as a unified block (participant 15)[74].

[71] Barua et al (2017) defines a benevolent hegemon as a state that uses economic incentives to encourage other states to cooperate, examples are what Egypt does with Sudan.
[72] Pretoria, South Africa (13 August 2016)
[73] Nelspruit, South Africa (13 March 2016)
[74] Nelspruit, South Africa (13 March 2016)

Similarly, Participant 17[75] views Mozambique as the most progressive. In his words,

> I think that Mozambique is one of the leaders in terms of both organizing itself nationally around how it positions itself to deal with international water issues…with a dedicated unit within the Ministry that has established monitoring mechanisms to try and determine the degree of compliance with international and regional basin level agreements" (participant 17).

Participant 12 views South Africa as a restricted hydro-hegemon. The Inco-Maputo agreement restricts any country from total influence and it monitors compliance with water allocations. Taking Digeser (1992)'s argument that resistance is immanent; there is a possibility that states might resist the power of those restrictions. Similar to power, resistance is diffused and invisible so it is difficult to analyse at times (Daldai 2014). Hansson and Hellberg (2015) adds that difficulty comes when analysts confuse resistance to power and freedom of expression by the led. The logic is that what we could define as resistance could be a situation whereby those perceived weak will be questioning power and not necessarily resisting it in a negative manner.

Although structures mutually interact with agency of the players involved, empirical evidence shows stakeholders of the Incomati having internalized the Inco-Maputo Agreement ideas in a way that reproduces those ideas even in the way they interact with each other. Therefore, restrictions and the commitment to comply with the Inco-Maputo Agreement makes it difficult to have an entirely weak state in the Incomati river basin. Participant 13[76] shares my view, arguing,

> I do not think there is a state that can be said to be weak in this day and age...Even with a weak economy like Zimbabwe, they maintain their status as a sovereign nation. The problem with us observers, we think power is what we see when in fact we are not seeing a complete picture. To me, power is anyone's game and the winner is the one with who had his way despite people's expectations (participant 13).

The argument by participant 13 supports the point made by Partridge (1963) that no actor is totally powerless because in cases where *B* is powerless, they will make *A* cover the costs of implementing his plans that he would rather not pay (Partridge 1963). The following scenario

[75] Pretoria, South Africa (23 February 2016)
[76] Maputo, Mozambique (5 December 2016)

illustrates how the perceived weak can make *A* move in a way that might not necessarily be the best option for her.

Although Mozambique is leading the process of establishing Incomati River Basin Organisation, the RBO will be in Eswatini. Participant 24[77] from Mozambique echoes, "we chose to lead the process of building a RBO. It was a strategic decision that we proposed ourselves to lead such a process, because we an interested party". Participant 39[78] highlights that the other countries do not trust South African big brother mentality if they establish the Inco-Maputo Secretariat in South Africa. As the most developed country in the region, in terms of literacy levels, farming knowledge South Africa can try to control the RBO if it is in South Africa (participant 24). For South Africa, it will be cheaper if the RBO is in South Africa because they can coordinate the interests they have in the Incomati better than from a distance (participant 41)[79]. More so, Mozambique being a leader will allow her to monitor the activities of South Africa and Eswatini who have strong ties of cooperation through the Komati Basin Water Authority (KOBWA). Following the definition of a leader by participant 13 above, Mozambique through leading the process of building a RBO, is not a weak party in this context. This solidifies Schmidt (2008)'s claim that actors will calculate ways which they can strategically use to achieve objectives.

The "big brother-small brother syndrome" that Biswas (2011:668) observes in the relationship of India, Bangladesh and Nepal is largely not typified in the Incomati context. A majority of the participants agree that there is no big brother- small brother syndrome in the basin. The majority of participants feel that three countries use their differences to complement each other and this leads to cooperation. A few felt that South Africa has a big brother mentality due to her economic development. However, for participant 42[80], "South Africa's big economy allows it to lead these initiatives, with other states supporting them, not because they are bandwagoning to South African influence but because it is the most logical thing to do". A majority of participants argue that, being a big brother does not mean that the other two are victims and that cases where South Africa want to adopt the big brother mentality are less than those of cooperative engagements.

[77] Maputo, Mozambique (7 December 2016)
[78] Nelspruit, South Africa (12 March 2016)
[79] Maputo, Mozambique (23 May 2017)
[80] Mbabane, Eswatini (5 October 2017)

More recently, scholars show a move away from the traditional understanding of a hegemon as a negative issue. The ability to shape, influence and design a preference is an exercise of power (Hay 2006) but is not necessarily a negative end. This supports Foucault's argument that, power can be seen as "a productive network which runs through the whole social body, much more than as a negative instance whose function is repression" (Foucault 1980: 119). For example, Hanasz (2014) in analysing the water interactions in South Asia shows that India as a hegemon has often managed to stabilise relations with other states in South Asia. I agree that it is not always negative for an actor to influence another actor in this way. The presented findings and analysis in this section show that different forms of power in the Incomati can amount to unified preferences. As an economic powerhouse of the region South Africa's activities in the Incomati river basin qualifies her to be a benevolent hegemon. Benjamin et al (2014) provides evidence that South Africa is a supportive hegemon in SADC regional water initiatives. Overall, I argue that South Africa is a hegemon in Southern Africa BUT not necessarily a *hydro-hegemon* (as traditionally understood) in the Incomati River Basin. All of the three states have some form of power, no matter how small the degree of that power is, the three demonstrate that they can reach an intersection. Despite challenges, in that intersection they start building cooperative transboundary relations that largely have comparative benefits.

6.3.2. Power that Bleeds: Shadows of the Past

> Men make their own history, but they *do not* make it as they *please*. The *tradition* of all dead generations *weighs* like a nightmare on the brains of the living (Karl Marx in Cilliers 2017:43 emphasis added)

> Of course, history is not necessarily the best guide for the future. *Changes* in our economic and physical conditions *produce new circumstances* that could lead to increased water conflict and even war (Ho 2017:100 emphasis added)

History is important in transboundary water governance (Cascão and Zeitoun 2010; Jacobs 2012; World Bank 2017). Similarly, Lewis in Rizzo (2013) agrees about the importance of history when looking at the relationship between structure and agency. However, the extent to which history influences transboundary water relations is debatable. The two opening quotes of this section by Ho (2017) and Karl Marx in (Cilliers 2017:43) buttress the findings shared in this section.

For Karl Marx history can define the present. Scholars, who agree with Karl Marx, believe that the colonial masters thinking at the time (see Fekoua 2000) influence the way African states interact today. For example, Hussein and Grandi (2017) argue that effects of colonialism in the Nile River Basin are the key drivers of political friction between Egypt and Ethiopia. Likewise, the interactions in the Incomati River Basin point to continuities of the past in some aspects of water governance.

While history is important, equally important is that we live in an ever-changing world. International relations ideas (past or present) are contested, negotiated and renegotiated by the stakeholders involved, making it discursive[81] in nature. For Ho (2017) changes in the environment may lead to other forms of conflict. Similarly, the post-apartheid era and the evolution of institutions in the Incomati has given birth to internal strife contrary to the expectation of democratic domestic reforms. The contradictions between policy expectations and policy realities have produced what I term 'power that bleeds' because on one-hand governments have put in place pro-poor policies and on another hand they are not taking practical measures to help the vulnerable.

6.3.2.1. Good policies gone wrong

Schreiner et al. (2011) argue the solution to water problems is good governance from the people tasked to do so. Julien (2012) argues that the way states interact in transboundary water governance reflects the politics embedded in their domestic policies. While such a statement is true to a certain extent, my findings, show the opposite. Often analysts focus on the joint efforts by states to manage a river basin and ignore domestic water policies that relate to those river basins. This has led to states who portray a good external face while internally struggling to provide pro-poor services. The analysis of the implementation stage culminates from my observation that states tend to favor fair processes over fair outcomes.

According to participant 11[82], the problem in transboundary water governance is implementation and not the process. She notes that the process can run smooth and good policies come up but when it comes to implementation, one wonders what went wrong. She further questions, "what good is it when we are smiling but crying within" as an illustration,

[81] Discursive interactions are "people's ability to think and speak outside the institutions in which they continue to act (Schmidt 2008:.315)
[82] Pretoria, South Africa (14 April 2016)

how good international governance mechanisms can have a negative impact on the populace. Similarly, participant 16[83] argues, "the adoption of international prescripts of what water governance is has created countries that have a good international image while torn within". For participant 18[84], most governments take international principles such as international water resource management to the law without questioning it and place them on incompatible domestic systems. This creates contradictions in international relations. Participant 18 describes these contradictions as the "double faced nature of states". Further, participant 18 argues, international donors ignore these contradictions because "when donors come, they have their own prescriptions or agendas, such that they turn a blind eye to anything that lies outside those agendas…which is unfortunate" (participant 18).

Through various legislations and policies, governments are able to control the activities in the river basin or actors' conduct (Hay 1997). Hirji and Grey (1998) note that most institutions in Southern Africa are poorly developed and this limits good water governance. Years after colonial rule and apartheid have passed; their shadows are still haunting the way people relate to each other in modern day Southern Africa. These shadows have divided people along racial, religious, ethnic and social classes (Sebastian 2008). The colonial and apartheid governments created structures that protect the interests of the privileged minority and unfortunately, these created institutional dynamics that are not easy to dissolve (Sebastian 2008).

The grievances between previously disadvantaged groups and white commercial farmers including government resonate with Moore (2016)'s argument that some actors capture water resources in a way that deprive vulnerable groups access to water. The limits of post-colonial and post-apartheid policies is their failure to reconcile differences in domestic policies. All the three countries have policies in place that seek to transform the lives of poor farmers through irrigation initiatives. The governments focused on formulating policies and to a certain degree forgot to tailor make those policies to those who need transformation the most. This reproduces the power struggles that African countries faced during the colonial era. In so doing, those policies fell on wounded grounds. The findings show how those wounded grounds require ethics of care and equity. Below I look at some of these policy contradictions within South Africa, Mozambique and Eswatini.

[83] Pretoria, South Africa (3 June 2016)
[84] Pretoria, South Africa (26 July 2016)

6.3.2.2. Evidence from the three states

The internal politics within South Africa, Mozambique and Eswatini tell us that while we focus at a transboundary water level, there are also power issues located within, which demand our analysis. Transboundary water governance in Southern Africa has evolved from centralised systems of governance to decentralised systems of governance. In the Incomati River Basin, the three states have managed to devolve power to sub national institutions. For example, IUCMA is an agency that manages the Incomati river basin on behalf of the government for the benefit of the Mpumalanga district. In Eswatini, there is the Komati River Basin Authority. Mozambique also has decentralised agencies, with ARASul running the activities of the Incomati river basin. More so, the number of international associations have increased over the years. A good example is REMCO, discussed in the previous chapter. However, on the ground, centralisation seems to be continuing while there are mixed feelings about whether the influx of third parties is good or bad for the development of the river basin.

My interpretation is that the end of colonialism and apartheid symbolizes a shift in leadership but not necessarily a shift in governing. In the same manner, the shift has created new masters and the same victims because the poor are still discriminated across all three countries. For example, participant 30 bluntly states that,

> At sometimes I feel colonialism is better at least you will be mistreated by a stranger; there is nothing painful as being hurt by one of your own.

Mozambique

Mozambique has become more centralised contrary to the gospel of decentralisation preached both internationally and within the country (Alba and Bolding 2016). According to Alba and Bolding, the *Lei de Aguas* (Mozambican water legislation) of 1991 emphasised the need for decentralisation way before it was popularised by international calls for integrated water resources management (IWRM). FAO (2016) notes that international principles such as gender mainstreaming, sustainable development and equity inform the 2007 revised water policy in Mozambique. However, some of the fruits of these policies are poverty and inequalities with

poor people being the most affected. According to FAO (2016) and BBC (2018a), Mozambique remains one of the poorest countries in the continent.

Participants of this study highlighted an increase in corruption in the Mozambican water landscape. The government implemented a policy that one needs to provide proof of a water licence before they can access water for irrigation. This creates a gap between the wealthy and the poor populations. One of the farmers during the workshop in Mozambique notes,

> There is corruption in the water industry because when you have money like the rich farmers you can buy water but some of the poor people do not have that kind of money, worse still, you find out that poor people are unregistered as water users.

Alba and Bolding (2016), who observe that wealthy groups of people in Mozambique buy water while the vulnerable small farmers, are either unregistered or cannot afford to buy water, share these sentiments. The respondents blamed such developments to the introduction of water rights in Mozambique. For you to have access to water, one needs to be registered and registration gives you the right to buy water. Such a right is enjoyed mostly by commercial farmers from the sugar estates.

The scars of the 16-year civil war are still visible in the country. The war affected agricultural productivity, infrastructural development, and the lives of people. Landmines made it dangerous for farmers to work on land. These conditions led to displacement and migration of local people. Participants of the study show that local people have not healed from the past. Venton et al (2013) notes that, infertile soils due to war effects are some of the causes of poverty and inequality in the country. Climate change risks further exacerbate this situation. Concerning climate change, Venton et al (2013) reports that Mozambique is one of the most affected states in Africa. Amid all these challenges, the government fails to come up with sustainable solutions to the agricultural sector (Orre and Rønning 2017).

South Africa

The water policies of South Africa are one of the most progressive in the world yet the country struggles to redistribute benefits to previously disadvantaged groups (Hellberg 2014; Zikhali 2015). Denby et al (2016) accuses the post-apartheid government of reproducing apartheid policies of discrimination and inequalities. The internal politicization of water through the

Department of Water and Sanitation has attracted the call for an independent water regulator by civil society organisations (Slabbert 2019). These are the contradictions that some participants narrated as an example of policies gone wrong. For example, South Africa has internal disputes that include service delivery protests, xenophobic attacks on one hand while sealing water deals with other external stakeholders' alluded participant 15[85].

More so, South Africa has a strong international footprint through holding positions at institutions such as the Brazil, Russia, India China and South Africa (BRICS), African Union (AU), United Nations (UN), G20 as well as strategic partnership with the European Union (Cilliers et al 2015). This is an advantage as it has power to influence ideas as opposed to Mozambique and Eswatini who do not have such opportunities. The influence of such power on domestic policies is missing in transboundary water debates.

South Africa's ability to project its power beyond its borders (Turton 2005) does not necessarily equate to her ability to be in full control of her domestic issues (Jacobs 2010: 38). Jacobs (2010) describes South Africa as a fragile hegemon. Cilliers et al (2015:8) echoes,

> Underinvestment and poor management of energy, water and education, among others constrain the growth of a country that boasts a diversified economy and good infrastructure by African standards yet struggles with high levels of inequality, crime, unemployment and poverty.

On South Africa being a fragile hegemon, participant 15 bluntly notes,

> That is the problem you get when you want that sought of power where you want to be a hegemon and you say let us put a wall and isolate ourselves from everyone else and exercise power. All that it does is to unify everybody else against you and increases your fragility and you become vulnerable

More so, the Department of Water and Sanitation in South Africa is currently facing political and operational challenges. The allegations of corruption, irregular expenditures have not only made the institution less effective but it has limited potential investors (Slabbert 2019).

According to some participants, the apartheid legacy of giving advantage to whites is still alive. During a lunch meeting with one of the participants in the Women in Water Conference[86] argues, "The government is too busy worrying about international obligations while we are

[85] Nelspruit, South Africa (13 March 2016)
[86] Nelspruit, South Africa (4 December 2015)

sitting here abused by the white system that we fought so hard to end". The South African government still needs to redistribute resources fairly across racial groups, echoed one participant.

In a newspaper article with *the Citizen*, Molwantwa from the IUCMA acknowledged that the institution has not adequately addressed the plight of the previously disadvantaged groups to ensure that there is transformation amongst water users (the Citizen, 13 February 2018). Molwantwa attributes the success of IUCMA as a decentralised water institution to the "co management" that the institute has prioritised. Through co-management, IUCMA hosts catchment management forums where all relevant water users or stakeholders come together to share experiences and challenges. This has allowed the institution to prioritise urgent needs and being responsive to them.

Eswatini

Empirical evidence shows that Eswatini has good international water relations. This could be because of Eswatini's dependency on Transboundary Rivers. As highlighted in chapter 2 of this thesis, all of the rivers found in Eswatini are transboundary (State Of Environment Report for Eswatini, 2001). However, the internal dynamics are not as good as the international dynamics. Eswatini challenges include corruption, poor health services, the highest HIV infections in the world, gender discrimination, lack of technical and human capacity (Chothia (2011; BBC 2018b). According to Chothia (2011), the royal family's irregular spending contributes to the economic challenges in Eswatini. According to participant 37[87], Eswatini is an autocratic country, and the king has a stake in almost everything. More so, "at times shop owners close the shop so that the kings family can shop privately with their security guards monitoring" (participant 37).

More so, Eswatini subscribes to the international principles of decentralizing power and through that, the country has created institutions for water management. According to the Eswatini 2009 National Water Policy, decentralization and working with non-governmental actors (NGOs) will improve water management in the country. However, water institutions in Eswatini are still in the infancy stage of development (Mlilo et al 2014). The autocratic nature

[87] Nelspruit, South Africa (13 March 2016)

of the government makes the distribution of power to other levels of government difficult. The state has an ultimate responsibility to protect water resources (National Water Policy 2009).

There are allegations of the 'royal family' getting more water than poorer segments of the society. Participant 6 argues, in Eswatini "some decisions are not questioned, such as why the department of water would take banked water and give to the Royal Swazi Sugar Company while water users like us do not have water". Similarly, a representative of water users in Eswatini mentions that there are lot of internal conflicts over water. In her opinion, the problem is to a less extent an international problem, but the problem is that "we fail to share water equitable, we have had complaints from the community members that the royal family gets more water at the expense of poor farmers who are powerless to defend their rights to water".

A focus group discussion[88] conducted with six participants in Matsamo, Eswatini shows some positive domestic aspects. The participants are largely happy about the role the government played in resettling the after the construction of the Driekoppies dam. Matsamo is a town that is located at the Matsamo border between Eswatini and South Africa. The town depends on the Driekoppies dam, which is a transboundary dam, located in South Africa. The construction of the dam saw the resettlement of some of the people. However, according to the focus group discussion the government compensated people for their losses. The underlying principle for KOBWA as the implementing agency of the resettlement programme was that the social benefits and compensation outweigh social costs (KOBWA 2017).

Another participant in the discussion notes, "the relationship between us and the government is good, however problems are part of human life, we have a way of dealing with them". Another participant in the group echoes, "It is not much in other people's eyes but to us it is everything". All the participants agreed that the benefits outweigh the costs and they described the compensation they received. For instance, in terms of loss of grazing land, KOBWA gave us land and supported us with fencing of those grazing lands, says one participant. Another participant notes that KOBWA encouraged us to engage in vegetable gardening. For the houses, they lost, one of the participants' highlights,

> The government assessed affected homestead structures and valued at replacement cost prior to resettlement. We moved to an area of our choice. KOBWA also subsidized the electrification of all houses.

[88] Matsamo, Eswatini (8 April 2016)

The vision of Eswatini is to improve socio-economic development in the country. According to the National Water Policy (2009:9),

> By the year 2022, the Kingdom of Eswatini will be in the top 10% of the medium human development group of countries founded on sustainable economic development, social justice and political stability

Contrary to the provision in the Eswatini national water policy framework, voices from community members largely show discontentment and scepticism. I discuss the issues of discontentment in the next section titled 'power that divides'.

6.3.3. Power that Divides: A Disempowering Mechanism

> Water no longer flows downhill; it flows towards money (Robert F Kennedy Jr in Swyngedouw 2009:56)

Contrary to Hansson and Hellberg (2015:25)'s finding that at times it is difficult to separate the agency of actors from the governing logistics because they often correspond with each other. My findings show a lack of correspondence between national and local water narratives. Where correspondence existed, it was with a few officials when they discussed sensitive issues, but a majority of participants expressed dissatisfaction with government policies that have left the poor people even poorer. The reoccurring point of this dissatisfaction demonstrates that there is a social divide between the haves and the have-nots. I describe this as a power that has a disempowering mechanism because of the discontentedness expressed by participants.

Institutional ideas affect social relations differently, favouring one group on one hand while disadvantaging other groups (Hay 2006; Rizzo 2013). Swyngedouw (2009) calls for a research approach that engages with how structures legitimize these social inequalities. International principles talk about economic efficiency and this has driven states to be profit oriented. Water has moved from entirely a human rights issue but something that can generate revenue if efficiently used. Swyngedouw (2009) adds that this hegemonic neoliberal mentality adopted by governments has affected the poor populations who cannot compete with commercial interests. In a similar manner, Hellberg (2014) advocate analysts to problematize international principles of progressive realisation of water access in relation to its effects on poverty and inequality. In this section, I focus on three social divides: social class, rich and poor; racial, white and black; as well as the gender divide, male and female.

6.3.3.1. Evidence from the field

Empirical evidence shows that some forms of power manifest within the local populace. According to Partridge (1963), social scientists have a tendency to look at some aspects of power while minimizing other forms of manifestation. In line with that, I have observed that the available literature on transboundary water governance tend to focus more on state interactions and not the effects of those transboundary water interactions or policies to stakeholders at the bottom level. For example how these policies affect small-scale water users such as communal farmers, and vulnerable groups such as women and children.

Furlong (2006:454) argues, the "obfuscated daily realities of what water cooperation or conflict between states means for those dependent on the waters in question are far too important to be ignored". Swatuk and van der Zaag (2016), agree with the above, noting that, transboundary water governance discourses often neglect human security issues at grassroots levels. Ignoring issues such as power distribution has a high likelihood of reproducing poverty and inequalities amongst the vulnerable populations (Zeitoun et al 2016). This poverty and inequality can manifest through gender, class, and race lens.

Turton (2000: 39) talks about the structural inequality discourse as an issue that rises when a nation is largely unequal with some groups of the community getting preferential treatment concerning water while others are discriminated against leading them to becoming "victims of a political economy". According to Turton (2000), actors such as farmers should be included in the analysis of conflicts and cooperation. Participant 14 argues that the South African water policies discriminate against previously disadvantaged groups. For example,

> What the government is doing is to pretend as if they want to help the poor people, while in fact they prefer land to be in the hands of white commercial farmers because they believe this will prosper the economy. That is why poor people are getting social grants and this is problematic (Participant 14)[89]

In a similar manner, participant 7 and 15 agree that the strategy of white commercial farmers is to keep water rights even when they sell their land, and in so doing "they cling on to their power" (participant 15). According to participant 14, government policies favour white commercial interests because of their contribution to economic development. He notes the

[89] Nelspruit, South Africa (12 March 2016)

policy rhetoric "without endangering the economy" as an excuse by government to keep water rights and land in the hands of "rich people" while poor people are made to believe that social grants can sustain them. Participant 30 shares his perceptions of why people are afraid to contest issues that work against them, such as social grants. He argues,

> Most poor people believe that you cannot bite the hand that feeds you, when in fact there is no hand feeding you, that hand is manipulating the submissive nature of poor people making them poorer while they get richer (participant 30)

Some of the participants felt that the African National Congress (ANC) had a difficult task of undoing the institutionalised past. The inherited systems had invested a lot in setting divisions between white and black. For example,

> The post-apartheid government of South Africa had a huge responsibility of reversing the harm caused by *almost 50 years of institutionalized racism* and *over 300 years of colonial influence*. In the water context, one of the aims of the government was to take almost 60000 commercial, mostly white farmers and tell them of the need to *redistribute* land and *transform* the lives of rural black people who had nothing (Participant 10[90], emphasis added).

The above quote shed light on the big task that the government had together with the expectations that the previously disadvantaged groups had. Due to experiences, participants expressed scepticism about transformation. For instance,

> The government has good intentions but our past has defined us in a way that we cannot trust one another. I am sure white farmers are genuinely not trusting government to implement redistributive policies that will not leave them worse off and black people are also genuinely not trusting government to implement policies that will see them better off (Participant 7).

Participant 15 notes that the government should educate historically disadvantaged individuals (HDIs) on transboundary water because they think water is infinite and use it without considering people on the other side of the border. According to a study done by Denby in Denby et al (2016:486), black farmers in Nkomazi felt that stakeholder forums "offered the farmers little benefit beside a free lunch". It will be interesting for future studies to see how the

[90] Johannesburg, South Africa (3 March 2016)

South Africa's plan to expropriate land without compensation will feed into these challenges expressed by farmers.

The issues of race were common in South Africa. Participants 30 highlights that in Mozambique and Eswatini race issues are not complicated as in South Africa. He echoes,

> Issues of race were big before but not anymore since blacks are occupying most influential positions now. In South Africa, whites seem to be enjoying the privileges. In our side, its blacks fighting each other and in the process killing their own brothers in poverty (participant 30)

Participant 30 further notes that amongst the blacks they are also divisions with one group suffering due to water shortages and other factors. For example, he notes that in Mozambique most of the water from the Incomati is salty. This affects the livelihoods of those who depend on flora and fauna, which unfortunately are not tolerant to salt water (Carmo vaz and van der Zaag 2003). This social divide of those people who are affected by salt water and those not affected by salt water, as well as the divide between poor and rich works in the governments favour (participant 30). Divide and rule benefits the government because the population is not going to participate in combined protests, so dealing with one group at a time is manageable.

Another divide that the study observes is the gender divide. Earle and Bazilli (2013) talk about the masculinity of transboundary water governance processes. In their analyses, such masculinities have managed to leave out the needs of vulnerable groups in the society such as women and water users. The Global Water Partnership 2010 in Earle and Bazilli (2013) notes that institutions do not reflect the needs of women, despite women playing an influential role in providing and protecting water. One presenter at the 2016 REMCO Conference notes that the water sector is male dominated and that there is need to mainstream gender in all water activities. An example of Kenya was given on how restricting women to the care economy (for example fetching water for the household) has excluded women in water policymaking processes. The restriction of women to the care economy validates (UN Chronicle 2018)'s finding about the discriminatory water policies in developing countries.

Moreover, Participant 6 argues, "Gender is not about women only and therefore discussions on gender equality and gender mainstreaming in institutions should be taken seriously by all stakeholders including men". In the same manner, participant 7 argues, "We should not sugarcoat issues such as gender and race…at the moment we have women and black people who are cosmetic representations". Participant 11 echoes the same sentiments as participant 7

about gender. My observation is that female participants of this study problematize gender issues largely. Out of the 43 in-depth interviews I conducted, only six out of 32 males touched on gender.

According to FAO (2016), women in the Incomati river basin are less involved in the management sectors and access to water though they work on the land. This includes other vulnerable groups such as migrants. The good news, however, is that the Incomati river basin through for example, REMCO is moving towards the mainstreaming of gender in all projects. Regionally, the SADC Gender Protocol (2008), SADC Policy Framework for Gender Equality and the Gender Mainstreaming initiative under the Transboundary Water Management Project are some of the initiatives that seek to empower women. The extent of its effectiveness will depend on the states implementation capabilities.

6.3.4. Power that Produces: Emerging themes from the field

6.3.4.1. The Role of Individuals: Expert and Referent power

> People are better than structures because structures depend on people for their survival. Structures are rigid but people have got blood flowing so if you treat them well, feed them well, that blood would flow and feed the environment (participant 24)[91]

> It all comes down to individuals, and if you have good personal relationships between and amongst technicians across states, the more likely for cooperation to take place and that is the case in Southern Africa. The water spaces have created friendships that continue beyond the formal call of duty to include informal phone calls, meetings that have created cooperative solutions (participant 17)[92]

Ignoring the active role played by actors in social settings is problematic (Giddens 1979). It is problematic because it reduces them to lay participants who are unable to contribute meaningfully to policymaking (Giddens 1979). Agency just like structures manifests itself differently in space and time (Emirbayer and Mische 1998; Connor 2011). As 'embodied units', actors can choose how to behave in space and time (Giddens 1976:75).

[91] Maputo, Mozambique (7 December 2016)
[92] Pretoria, South Africa (23 February 2016)

This study contributes the aspect of referent and expert power whose deficiency is noticeable in ongoing transboundary water debates. Experts are people with scarce skills celebrated within the Incomati river basin and the SADC region. I define them as "the go to person" because these people believe that they have answers to specific problems. Referent power is the capacity that an individual or group of actors have to influence others. Their work, charisma and expert skills has given birth to regional water role models. If used effectively, such forms of power help to construct cooperative water governance.

Knowledge can sustain power (Foucault 1980). In the Incomati River Basin, I observe that there are individuals or a collective group of people who define water governance. The knowledge that these people have accumulated over the years sustains their power and influence. Ho (2017) defines individuals as non-state actors in transboundary water governance. However, in this study, I consider the role played by individuals and states to be interactive. Sibeon (1999) validates Giddens claim that actors play an interactive and important role in policymaking. In some instances, these individuals reproduce themselves as structures. In a similar manner, Hay (2002:166), notes

> Conduct of political subjects is crucial to the reproduction or transformation of existing social, political and economic structures and institutions. Agents acting in a routine manner will tend to reproduce existing structures and patterns of social and political relations over time, while actors rejecting norms and conventions will tend to transform existing institutions and practices.

The "subordination of agency (action) to structure (rules)" is a mistake that other institutionalist make because in so doing they make stakeholders "unthinking actors" (Schmidt 2008:314). Using their daily experiences, individuals have managed to construct useful narratives surrounding water governance in their context. According to participant 10, cooperation prevailed during apartheid because technicians knew each other. He mentions that politicians knew that water and politics do not mix so they allowed us to do our job. He continued to say that some political analysts make it a big issue and assume that states are always fighting over water without understanding how the process works. Participant 17 agrees with the above sentiments, adding that, the change in human resources within departments or ministries of water was strategic because they employed technicians who would focus on the technical aspects of water and not politics.

Participant 26 adds another angle to the role of technicians. He argues, “Technicians can be narrow minded at times, politics goes beyond technical agreements”. However, this does not disqualify the value of individuals or collectives because politicians are also individuals who have created a relationship amongst each other. The continued stay in power of the ruling political parties in Eswatini, South Africa and Mozambique solidifies this kind of relationship. The continued stay in power resonates with Sebastian (2008) finding that having same ruling parties in the region develops a shared interest of retaining power.

For Constructivist Institutionalists it is important to analyse how institutions develop and change over time, paying particular attention to the implications of those changes (Hay 2002; Hay 2006; Schmidt 2008; Carstensen and Schmidt 2016). Likewise, the changing dynamics in the SADC transboundary water terrain have given more room to people as key stakeholders who have the power to define the structure as well as the behaviour of other actors. For instance, a conversation between two colleagues that I engaged with during a lunch break at the REMCO Conference 2014 revealed the following dynamics,

> There are some people you trust more than the government because of the level of experience they have and because government depends on their expertise. I mean they have been working here for decades. Therefore, those people light the torch for us (Colleague 1).

However, colleague 2 notes that, although these are important, “they die and when they die institutions remain”. She went on to say that, “once the government is done with you they will show you who is the boss by shifting position as if you were never friends”. What this participant was alluding to was the issue of interests and not having permanent friends. Therefore, though these individuals have power, their power dissolves either when they retire, or when they move to other institutions . However, for colleague 1, “even if you die your contribution lingers on”. He mentioned that Nelson Mandela may have died but his spirit continues to influence the policies of today. During our conversation, Participant 43 proudly echoes, if you have spoken to me about the Incomati, there is no need for you to talk to someone else”. This implies that participant 43 is very knowledgeable about the Incomati River Basin system in a way that I argue makes him a structural construct as his views are intertwined with the system in a way that makes it difficult to separate agency from institutional norms. He was indeed knowledgeable and our conversation was almost 2 hours and 30 minutes in total.

Alba and Bolding (2016) argue that a small group of elite people influence the water policy framework in Mozambique. The scholars add that the elite group is "nurtured by international donors" (Alba and Bolding 2016:549). The synonyms of nurture include, caring for, to support, to foster, look after, and provide for. The question is how do international donors nurture these elites in an environment where according to Kim and Glaumann (2012), there is mistrust amongst actors. To me, you can nurture someone but that does not mean that the person nurtured is passive. It is possible that the nurtured person benefits from such a relationship. It could be a question of homogenous opportunities (Hay 2006).

In the opinion of Alba and Bolding (2016),

> These emerging water elite over time spread its wings, rotating offices of important state institutions in the water sector and at the Eduardo Mondlane University, whilst diversifying into consultancy companies making use of the burgeoning bilateral aid networks affiliating themselves with the water sector. This reveals a rather exclusive policy process where the 'power to define' (Shore and Wright, 1997) the content and the terms of reference of the reforms is concentrated in the hands of a few well-positioned and well-connected actors (Alba and Bolding 2016:564).

The argument above has a bearing on the argument that this thesis is advancing: the power of agency. However, the interpretation of the scholars contradicts some of my findings. Not everyone sees the so-called "important state institutions" as important. I had a privilege of talking to various employees of the state organs who fit the category of 'elite' described by Alba and Bolding (2016). Not everyone enjoys rotating offices as assumed by the authors. One of the participants echoes,

> I was enjoying myself at ARASul, but I was moved back here at the national level. I am not happy because the salary is too low and there is a lot of bureaucracy that I did not have to be busy with in my previous post (participant 25)[93]

The second part of the above quote by Alba and Bolding (2016) resonates with my findings. I also observe the exclusivity of the policy making process and the power of actors to define the process. This shows an active role that actors play in transboundary water governance. The argument fits into Schmidt (2008:314)'s "communicative logic" whereby actors see beyond the factors constraining them and discuss whether to maintain or improve issues at play.

[93] Maputo, Mozambique (5 December 2016)

Moreover, the arguments resonate with Bourdieu's (1980) "logic of practice". Through the logic of these actors, institutions reflect normative realities of transboundary water governance.

The dynamic nature of agency at times produces structures in such a way that there is no clear distinction between a structure and an agent (Emirbayer and Mische 1998; Schmidt 2008; Hansson and Hellberg 2015). In some instances, during fieldwork it was difficult to separate agency and structure. Other individuals or group of individuals have worked in the Incomati system for such a long time that it becomes difficult to separate their views (as agency) from the institutional voices which they represent (structure). For example, an interview with participants 26[94] and 43[95] revealed such complexities. Both of them have worked in different capacities within SADC and in the Incomati River Basin. It was difficult to distinguish structural perspectives from agential perspectives. In our conversations, I could feel the nostalgic views about the collaboration that took place in the Inco-Maputo Agreement and the sense of pride of having previously colonized states coming together to construct solutions. This I felt was an agential perspective. It also confirms Dodds (2013) and Hansson and Hellberg (2015) that actors can engage in social issues independently.

However, when they discussed the challenges faced in negotiations, they removed themselves from the problem. For example, when narrating positive aspects of negotiations, participants used "we" and when describing the problems faced in negotiations, participants used "they". Putting blame on others or institutions was a recurring aspect amongst my interviewees. I think the answer to our problems lies in defining "they". For example is "they" actors or its institutions. My understanding of the interactive process between the two tells us that "they" can be either institutions or people. To advance knowledge, I would say institutions produce themselves as either people or social practices. When there are problems, it is easy for people (who are visible) to blame social practices (which are invisible).

Some participants had a different view about the influence of individuals. The power is in water and not in people, says participant 30. According to him,

> Water is power. Power that states abuse. Water brings light to our houses, feeds our industries and we drink it for survival. It can do a lot for a nation, for example, look at how Egypt has used water to enhance its power around the Nile, water was a source of transport and trade grew but some people have suffered. Look at Europe, they

[94] Maputo, Mozambique (6 December 2016)
[95] Pretoria, South Africa (7 June 2017)

> revolutionised and industrialised their water in a way that has yielded power for them and their people (Participant 30)[96] .

Without discrediting the views of participant 30 above, I point out that his narration speaks to the interactive processes of structure and agency. Therefore, unknowingly he is reflecting on the important role of individuals and structures. In chapter 2 of this thesis, I highlighted the important role that the Nile river basin state leaders play in the regional water narrative. In defining the concept of power, Cilliers (2017) adds the importance of leaders, for example, how different presidents, can have an impact on the relations with other states. These leaders as observed by Hay (2002) above have the power to either transform or maintain existing practices.

As I mentioned in the introduction of this thesis, water is a mobile technology that invites interested stakeholders to construct ways in which its mobility can serve all concerned. Thus, water as a separate entity is wrapped into these discussions in such a way that its part of the interactive processes (see Swyngedouw 2009; Tvedt 2015). Participant 30's view about the power of water introduces the next section, where I discuss the value and power of natural sciences (in this case water being a natural science) and structures and agency falling in the social sciences category.

6.3.4.2.The Battle between Social Science and Natural Sciences

> Water is a classic common property resource. No one really owns the problem. Therefore, no one really owns the solution (Ban Ki-moon, UN Secretary General 2008)[97]

Similar to the above discussion on the role of individuals in transboundary water governance, this section discusses how different forms of power can produce knowledge. We need to understand that power uses knowledge to acquire its desired end and knowledge can in turn reproduce power. Thus, power and knowledge can be mutually reinforcing, with knowledge being a useful instrument that power holders can depend on. I use social sciences and natural

[96] Maragra, Mozambique (15 December 2016)

[97] http://www.un.org/apps/news/story.asp?NewsID=25527#.WZ7IAylBvIV UN News Centre Ban Ki-moon warns that water shortages are increasingly driving conflicts, 6 February 2008, accessed 24 August 2017.

sciences as examples of how their influence in transboundary water governance can teach us about power-knowledge nexus. I consider how participants perceive the contributions made by social scientists and natural scientists in their daily activities.

Ostensibly, people consider both natural and social sciences as authoritative forms of knowledge (Armitage et al 2015). Social science researchers analyse people and their social interactions within their environment. Natural science researchers focus more on nature and the physical world. For social scientists, the world is subjective while natural scientists the world is objective and understood by experiments. Natural scientists such as engineers and hydrologists dominate the practice of transboundary water governance. This impacts the development and management of water resources.

Although social science research is growing, my fieldwork observations confirm the dominance of natural sciences in the water sector. The authority given to traditional sciences ignores the value of other forms of knowledge such as indigenous and bureaucratic knowledge (Armitage et al 2015). According to Armitage et al (2015), decision makers need to prioritize multidisciplinary approaches to water governance. There is an anticipation for government to move from controlling knowledge generation/production to facilitating the flow of knowledge in a productive and inclusive manner (Armitage et al 2015). Here, I explore, whether, natural science dominance produces engineered solutions that are not in line with the societal needs? It is an exploration, with implications for future studies.

I agree with Ban Ki-moon (2008)'s statement that no one has a solution for water problems and add that, both social scientists and natural scientists should work hand in hand to finding solutions. International development initiatives do not produce social science knowledge in their formal documents. For example, the Sustainable Development Goals (SDGs) fail to incorporate social aspects when looking for solutions in water governance. Wiegleb and Bruns (2018) observes that the SDG Water Goal 6 neglects social science inspired solutions to challenges facing the water sector. By focusing on hydrology and the physical world, policy makers forget that power goes beyond distributive effects as observed by Partridge (1963) and includes social norms and culture (Wiegleb and Bruns 2018). As I mentioned in the introduction of this thesis, water is a mobile technology that attracts the interested stakeholders to construct ways in which its mobility can serve all concerned. Therefore, we cannot separate water from the influence of those who govern it (Swyngedouw 2009; Tvedt 2015; Wiegleb and Bruns 2018).

In the table below, Wiegleb and Bruns (2018) present the differences between state-hydraulic and socio-hydraulic approaches using their reading of the Earth System Governance project by Biermann et al 2009. They divide these differences according to knowledge, norms, power issues and scale.

	Modern water: state-hydraulic paradigm	**Socio-hydrological perspective**
Framings/norms	Hydrology as natural science Water as a resource (H2O) to be managed and controlled	Hydro-social cycle as a socio-natural process Water as an element that is inherently political, historical, and cultural
Knowledge	Expert knowledge (mainly from the natural and engineering science domains) Unilateral knowledge transfer	Co-production of knowledge that spans different societal domains and types of knowledge (including indigenous, civil society, social sciences)
Scale	Administrative unit (local, national)	Cross-scale interactions (local, global) and regionally differentiated approach
Power	IWRM: hydrological units/river basin State actors	Putting people and politics in the centre

Table 6: *Differences between State-hydraulic and Socio-hydraulic Water Governance Approaches*
Source: Wiegleb and Bruns (2018:1157)

The study of water governance is complex and benefits from both social and natural sciences (Elhance 1999). In the introductory part of this thesis, I mention the dominance of natural sciences in transboundary water governance. The extent of the impact of social sciences in transboundary water policies is debatable. While I cannot generalise to other river basins, I argue that in the Incomati River Basin the natural science discipline is more prevalent than social sciences. A scan of the Inco-Maputo Agreement and other agreements in the river basin shows a language of distribution and quantities linked to the physical aspects of sharing water (Inco-Maputo Agreement 2002). Social aspects such as gender and women empowerment look like a tick box exercise, as the Agreement does not define how states should monitor gender and women empowerment.

Earle and Bazilli (2013)'s study on gender issues in the Okavango River Basin Water Commission and the Orange-Senqu River Commission, found the respondents housed in the institutions visited to be largely technical and having limited knowledge on social issues. According to participant 4[98], "Gender has become so fashionable that governments do not hesitate to include in every document without paying attention to the implications of the word". Another participant in the Women in Water Conference[99] participant echoes, "Water governance has become a game of numbers, with governments worrying about how many women are there in institutions without any concern of the roles that these women play". This implies that aspects such as gender are not adequately conceptualised. Understanding issues such as gender would require a social scientist who might be able to discuss the subjectivities involved in both theory and practice.

Participant 5[100] argues that knowledge is knowledge and policy players appreciate both natural and social sciences. He notes that the problem is not governments; the problem is with academics because their focus is on publishing and not feeding their work into policymaking. He accuses academics for not being ethical researchers, noting that,

> Our voices are ignored; sometimes we are surprised by what we read from academics and wonder where they are getting their information. The problem is that they worry about how many papers they publish and that compromises the quality of their findings. I do not blame them though because that is how they make money (Participant 5).

Similarly, participant 15, shares the same sentiments. He notes, "Academics come to our offices and interview three or so people and then write a paper; that's the only way they stay relevant in their field". Participant 5 and 15 argue that while academics, especially social scientists prefer writing for publishing, technicians and water managers who are mostly natural scientists define the water context.

There is no evidence that government deliberately employs natural scientists compared to social scientists. However, from that observation we can draw a conclusion that policy outcomes reflect the knowledge of people who are managing water. If engineers are managing water, solutions driven by experiments and the physical world will be visible, as it is the case now. Moreover, the employment of natural scientists as managers of water could be a deliberate

[98] Mbabane, Eswatini (17 February 2016)
[99] Nelspruit, South Africa (5 December 2015)
[100] Mbabane, Eswatini (17 February 2016)

move by governments. It can be a deliberate move because contrary to social scientists who would focus on the problemshed of water, natural scientists will focus on the watershed aspects of water. If technicians or water managers are focusing on the watershed then there is a likelihood that they will miss problemshed questions such as power. The employment of natural scientists also produces them as superior to social scientists as observed during fieldwork. There is a possibility to analyse whether employment of people in the water sector is part of governmental machinery to control the water narrative. In controlling the water narrative, politicians sustain their power while pushing away issues that might endanger their legitimacy. The important question is how we turn the valuable work that social scientists are publishing into policy digestible knowledge.

To me the issue of disciplines is not supposed to be a battle of who is wrong or who is right. The two should complement each other in a way that will be useful to fight the problems faced such as poverty and inequalities. I agree with the sentiments shared by Zeitoun et al (2016) below,

> Water Security must remain a term that constantly reminds us that in tackling complex challenges at the interface of water, society and climate there is no single response, no irrevocable scientific truth, no easy unifying narrative. Instead, there is a critical need to be flexible, to ensure adaptability, and most all to ensure that water-society-climate research and policy always keep in sharp focus those for whom water insecurity is an everyday struggle (Zeitoun et al 2016:151)

6.4. Conclusion

The four broad themes emanating from the research findings show *not only how power functions* but also contributes to the ongoing debates about power in hydro-politics. Not only is power *immanent* but it *produces* different faces in space and time in accordance to the processes at play. The production of different faces makes it less important to define who has power and more important to analyse the *implications of the products of power*. Such a research endeavor has created arguments that agree with some of the existing knowledge, arguments that dispute the existing knowledge as well as arguments that are a product of new knowledge attained.

This chapter has shown that though power is important in understanding transboundary water governance, it should not be restricted to *structures*. The Southern African region has *matured* from the colonial era, Cold war era and the apartheid era where in most cases units of analysis were states. International relations are evolving in response to the growing challenges facing the water governance sphere and general development challenges facing the globe. I argue that the question of power should filter into some aspects neglected in the writings of transboundary water governance. Rarely, have I come across literature that discusses transboundary water governance and how power plays *manifest* in areas such as gender, race, individuals, and academic disciplines.

Power in the post-apartheid era focuses on *rebuilding* regional relations and mending socio-economic divisions within states. This encourages *discursive forms of power* between non-state and state actors. However, the discursive interactions also face challenges. The shadows of the past still linger on and this has led to discontentment amongst poor communities in all three countries. While the three governments have put in place democratic reforms on the ground, however, practically, they have not implemented the policies to the satisfaction of everyone. There *is constructed unity* amongst the three states, due to international and regional instruments that guide their interactions. This in turn has created societies divided across class, race and gender within countries.

At the beginning of this chapter, I brought Hay (2002)'s concern whether it is possible to *liberate* ourselves from the influence of power. To me, this would be impossible because the constant interaction amongst different individuals who in most cases have differing interests will always produce uneven outcomes. However, I argue that the influence by power *does not mean imprisonment* by it. Instead, this could mean that at some point we *acquiesce to power* when opportunities bring peace and stability. In those circumstances, we should note that the produced peace and stability are by design. This design makes transboundary power relations complex but not empty as Latour (1986) argues. The complex relations are useful in this qualitative case study because through evidence generated we can be able to draw lessons about the issues of power, and perhaps find *ways to sustain the constructed cooperative relations*. The usefulness of power in empirical studies cements Bourdieu (1990) and Luke (2005)'s argument that power is not empty.

Chapter 7: The Role of Third Parties in the Incomati River Basin

7.1. Introduction

> Not only do market forces threaten to colonise society, the state too threatens to devour society. Free markets are not a solution for poverty; they are one cause of modern poverty. State sovereignty is not a guarantor of freedom; it threatens to undermine social freedom. The challenge is not how the state can regulate the market, but how society can regulate both the state and the market (Mamdani, 2012 in Khan et al 2016: ix)

> The problem is not water the problem is political. There are still things that we have to address. Colonialism robbed us of many things. To see these people come in our territories and claim that they have our best interests is confusing to me. How do we know if this is not another form of colonialism? (Participant 30)[101]

Mamdani (in Khan et al 2016: ix) questions how society can manage the activities of the states and market forces in a way that leads to poverty alleviation. According to Turton (2000), third parties add different opinions and interests in an already contested transboundary area. Water as a commodity is allegedly the flagship of many donors, who advocate for sustainability and solutions that are economically efficient. On the other hand, the states would want to advocate for water as a human right while on the other side, they are also dependant on donors for projects, which could help feed their poor populations. How then do you make a compromise between standing up for sovereignty and independence while on the other hand subject to the conditions tied to external aid? While both donors and the state would claim that their objectives are to alleviate poverty, a deeper understanding of the motives may prove otherwise. I argue that the activities of the state, foreign governments, regional institutions and international financial institutions need to be accountable to the public. This means that we need global social accountability institutions that will manage the activities of those who govern within river basins.

[101] Maragra, Mozambique (11 December 2016)

We have now established through constructivist institutionalism that power is within the triad of structure, agency and ideas. We have also established through empirical evidence that the Incomati River Basin states have constructed cooperative relations through various mechanisms. We have established that power functions differently in relation to space and time. In some circumstances, we saw how states unite when benefits are comparable, how an international focus of transboundary water governance by states has had negative impacts on domestic policies, how power divides society into winners and losers, how the shadows of the past persist in the region and influence the manner which resources are governed. We also identified emerging issues about power for example the battle between social sciences and physical sciences as well as the role played by individuals in transboundary water governance. This chapter addresses the third sub question of this thesis, **what is the role of third parties in reinforcing or neutralizing the existing power configuration in the basin?**

Globalization and governance literature has seen an emphasis on the increasing role of non-state actors and a shrinking power of the state (Fauconnier et al 2017; Hanasz 2017; World Bank 2017). Of interest to this study, is whether these third parties encourage or discourage cooperation amongst states sharing a river basin? Specifically, what do interactions that involve third parties in the Incomati River Basin tell us about questions of power after apartheid? First, I provide an overview of the role of third parties in transboundary water governance. Second, I discuss the role of four third parties in the Incomati River Basin. These are International Financial Institutions, Foreign Governments, Southern African Development Community (SADC), and the state, perceived by some as a third party. Understanding their roles is crucial for the subsequent analysis of the changes in power relations and the lessons about the nature of power and hydro politics in SADC.

The findings show that the role of the state and third parties is constitutive and their relationship affect project outcomes. Empirical evidence shows that the constructed relationship between third parties and the state yields both negative and positive outcomes. On the positive side, third parties in the Incomati River Basin counterbalance the power dynamics and lead to cooperative solutions. However, the negative is that the citizens of the countries concerned are not consulted leading to top-down approaches which may be incompatible with people's needs.

7.2. Who are the Third Parties? An overview

> The ground will never be level…whether external players participate or not. We found it like this and that is how we will leave it (Participant 42)[102]

Third parties play a crucial role in facilitating cooperation amongst competing interests and parties (Qaddumi 2008; Kehl 2011; Subramanian et al 2012; Benjamin et al 2014; Ho 2017; Petersen-Perlman et al 2017). The evolution of transboundary water interactions between state and non-state actors shows a turn in the way people perceive the role of third parties. Previously, people would perceive third parties as agents of colonialism (Petersen-Perlman et al 2017). More recently, people consider third parties as essential ingredients for democracy (Sadoff et al 2008; Biswas 2011).

Participant 42's blunt statement confirm Hay's (2002, 2006) notion that in social interactions actors are not equal. The argument by participant 42 is that third parties do not bring any visible changes to the power configuration in the river basin. Although this might be true, however, the aim of this piece of work is to explain what those unequal interactions teach us about power and hydro-hegemony. As mentioned earlier, I consider power as an *explanandum* and not as *explanans*.

Petersen-Perlman, Veilleux and Wolf (2017) see third parties as actors who have an external influence on the decision-making processes in an international river basin. The presence and interests of third parties in river basins varies. For example, the Nile River Basin has a significant number of third parties. These include, the World Bank, Food and Agriculture Organisation (FAO), African Development Bank (AfDB), SADC, Economic Commission for Africa (UNECA), United Nations Development Programme (UNDP), United Nations Environmental Programme (UNEP), Centre for Environment and Development for the Arab Region and Europe (CEDARE) amongst other 19 players present (Kim and Glaumann 2012:13).

The mentioned third parties play different roles, some complementary but the question of whether they reinforce or neutralise power dynamics is not straightforward (Kim and Glaumann 2012; Benjamin et al 2014). What is clear is there is a shift in the way people perceive the role of third parties in Africa. The understanding of third parties as agents of

[102] Mbabane, Eswatini (5 October 2017)

colonialism is moving to an understanding that see them as a "guise of a neighboring country's assistance, a Western country's consultation, or an international organisation's mediation" (Petersen-Perlman, Veilleux and Wolf 2017:10).

For Furlong (2006:449), third parties such as the United Nations Environment Programme and World Bank give "life to the notion of hegemonic ideologies". Shikhani (2012:7) argues globalisation has given birth to a "crisis of values" in Mozambique. In his description of the crisis, Shikhani (2012) notes that globalization has brought individualism contrary to the collectivism that defines most African societies. This according to him has led to the erosion of the significance of traditional institutions within the country.

Participant 1[103] of this study observes that there is limited literature that gives a critical understanding of non-state actors in transboundary water governance. I concur with this observation. Further empirical studies should consider the following questions: what is the role-played by international banks? What is the role-played by companies contracted to build dams in international rivers? What is the role-played by activist NGOs such as Friends of the Earth? What is the role-played by foreign governments in post-colonial era in African river basins. These questions should move beyond the interests and include the perceived benefits and costs of such engagements. My study partly answers some of these questions. The limitation is that the aspect of third parties was secondary. However, my findings are a launching pad for more explorative studies. Below are opinions on third party influence in transboundary water governance shared by some of the participants of this study.

> It is a complicated relationship because on one end, you wish that you are completely independent but on the other hand, you do not have the money to survive on your own. Therefore, it is not a matter of good or bad it is just a matter of survival… (Participant 24)[104]

> The problem with some third parties is that they think they know better and they forget that we have indigenous knowledge that is equal if not more important (Participant 22)[105]

[103] Telephonic, United Kingdom (23 January 2016)
[104] Maputo, Mozambique (7 December 2016)
[105] Maputo, Mozambique (7December 2016)

> Third parties need state buy in in their projects and this gives states power over the activities that third parties will be doing (Participant 27)[106]

> Third parties are gap fillers, they do not influence power relations amongst countries, and if we were speaking about power then I would say their effect is directly on the countries where they are directly working in (Participant 18)[107]

A gap filler according to participant 18 is an actor who fills an identified gap. Thus for him, third parties such as the World Bank come with the expertise that is needed or the money that is needed in a specific country. They also come after the states have negotiated and agreed that bringing a third party would be the best option. A combined assessment of the above quotes show that the role of third parties is relative and complex. In the next section, I discuss four third parties that are present in the Incomati River Basin.

7.3. Third parties in the Incomati River Basin

7.3.1. International Financial Institutions: *the case of the World Bank*

Peters (in Benjaminsen et al 2002) notes that the unfortunate side effects of donor involvement are the prioritization of their key areas of interest, for example, protecting the environment at the expense of pro-poor agricultural development. World Bank emphasises water as an economic good, and principles such as water pricing, stakeholder participation and decentralisation (World Bank 1994). Some respondents felt that third parties only get involved when there is a strategic need to be part of the development process. In the words of participant 34,[108] "I don't think the Incomati has anything to offer for the World Bank now; these organisations are seen here when there is no order, but at the moment everything is running smooth". The participants had mixed sentiments about the role of the World Bank in the Incomati River Basin.

[106] Maputo, Mozambique (8 December 2016)
[107] Pretoria, South Africa (26 July 2016)
[108] Piggs Peak, Eswatini (15 February 2016)

According to participant 17[109] as an official working for the World Bank,

> We focus on cooperation, for example, institutional building and maintenance. More importantly, we provide mechanisms to try to help the countries move forward with cooperative joint actions as we have done in the Lesotho Water Highlands Water Project and with the Zambezi Water Commission (ZAMCOM)[110].

To me when Participant 17 says, "try to help the countries move forward" the implication is that they manage conflict and not resolve issues. This agrees with the argument that at times focusing on cooperation leads to conflict management and not conflict resolution (Warner et al 2013).

The findings show that soft power is used compared to hard power in the post-apartheid era. This has given rise to many closed-door meetings, especially when discussing sensitive issues. Participant 17, narrates that,

> States *are not going to ask you to help* them *if* they think that you are going to take that information and *put it up in the public domain*. I have three clear examples where I was involved in and we have had to resolve issues between states who had failed to solve their problems for years. We came in, did a bit of analysis, facilitated a process behind the scenes and we were able to solve the problem. The solution benefits not just the countries involved but also the entire river basin. We *built trust* and that trust was based on the understanding that *we are not going to disclose the information*, we were not going to publish the paper, we were not going to put it in our website and wave our flag saying this was *us* (participant 17, emphasis added).

To me the above quote shows the power of agency. It manifests itself within the black box (hidden interactions) and comes out as a structural output. This is similar to the influence of World Bank in the Indus treaty that I discussed in chapter 2 of this thesis. The former World Bank President through his charisma and dedication to cooperation worked together with the Presidents of India and Pakistan to bring out a cooperative engagement (Biswas 2011). The narration given by participant 17 therefore solidifies Biswas (2011) claim that third parties can successfully play a brokering role in transboundary water governance. It also shows how soft power minimizes or manages conflicts as described by Warner et al (2013).

[109] Pretoria, South Africa (23 February 2016)

[110] ZAMCOM is an intergovernmental river basin Organisation (RBO) that governs the Zambezi river basin shared by Zimbabwe, Zambia, Tanzania, Namibia, Mozambique, Malawi, Botswana, and Angola.

The above sentiments also reveal the complexities of identifying conflicting situations within constructed cooperative arrangements. At times, there can be negative peace scenarios (Delbourg and Strobl 2014) where there is no visible collaboration happening while behind the scenes actors are satisfied with the current situation. On the other hand, states prefer to deal with sensitive information behind doors, because they would want to maintain an external face of cooperation while they manage conflict outside of the public domain. Similarly, participant 22 asserts, that in some circumstances, governments will solve water issues in a different ministry for security purposes. For instance, the assistance from the World Bank to install floodgates in the Corumana dam is largely a diplomatic conversation that goes beyond water (participant 22). For participant 26, benefits that are beyond water can help negotiations create cooperative outcomes. For example, South Africa as a trading partner to Mozambique drives them to cooperate in the Incomati River as well (participant 26).

Participant 1[111] argues, while third parties such as the World Bank bring development to the communities they work in, they can also contribute to conflicts within states. Participant 1 quotes the Nile river basin as an example and mentionf,

> The World Bank will not invest in a conflicted river, so it needs minimum cooperation or acceptance between and amongst neighbouring states to a certain degree to engage in the building of infrastructure. Therefore, what they do is to get some projects for a joint benefit to bring the states together. However, these projects are often controversial; displacing some people due to river works and brings controversy or conflicting interests there with other social and environmental NGOs working there (Participant 1).

Petersen-Perlman et al (2017) suggests that the World Bank will get involved only if all the riparian states agree. According to participant 2[112], the World Bank is

> All about money, so they are not here to talk about politics because politics will be destructive to the programmes and that is not what they want so am no trying to protect the World Bank from taking a political approach, but I wouldn't say they naturally take a political or negative approach.

[111] Telephonic, London (23 January 2016)
[112] Telephonic, Netherlands (25 February 2016)

With respect to the claim by scholars such as Klaphake and Scheumann (2006), and Petersen-Perlman et al (2017) that, the World Bank does not operate in areas where there is no consensus amongst states, participant 17 disagrees. He argues that,

> It is not straightforward to say that we would not get involved if there is no consensus as this depends on the nature of the investment and the type of concerns on the table. We do operate in spaces where there is not necessarily consensus or agreement. Again, we would not operate in direct defiance or formal objection from another country. For example, we work closely with all the countries of a river basin. This includes countries outside the investment we will be working. This is so that we address their concerns and that what we are doing is in line with international and regional instruments of cooperation.

In chapter 2, I highlighted the brokering and financial role played by the World Bank in the construction of Maguga dam. Prior to the World Bank giving funds to Eswatini for the development of Maguga dam project, there was a need for compliance from Mozambique, who at the time was contesting the unfair distribution of water in the river basin (van der Zaag and Vaz 2002). The World Bank role managed to neutralise the power dynamics and led to the construction of Maguga dam in Eswatini, Driekoppies dam in South Africa and the Corumana dam in Mozambique. While the Maguga and Driekoppies dams were completed, the political interference of RENAMO interrupted the construction of the Corumana dam.

The Corumana dam construction project began in 1983 and was interrupted by the civil unrest at that time between RENAMO and FRELIMO. At that time, South Africa was still under apartheid and aligned with the RENAMO, which created tensions in the region. The lack of funding, probably due to uncertainties within Mozambique and the region made completion of the dam impossible. In the post-apartheid era, the completion of the dam is a priority through the Inco-Maputo Agreement. The Joint Water Commission (JWC2)[113] discuss the developments in the Corumana dam project in their meetings that happen twice a year (Participant 25). Concerning the interruption of the construction of the dam by RENAMO, participant 41[114] argues,

[113] Bilateral Agreement between South Africa and Mozambique on the Incomati waters
[114] Maputo, Mozambique (23 May 2017)

> Some of the problems you really wonder where they come from. A war between RENAMO and FRELIMO can stop development that can benefit people. We are talking about people from the same country who are just preoccupied about grabbing power from each other while our people are suffering. These politicians do not suffer amid crisis because they have money. However, our people fail to get access to water because of a disruption of the Corumana dam construction by a rebel movement RENAMO. Some of these problems are not external; donors have nothing to do with that; however, our people choose to focus on things that are not important.

The initial funder of the Corumana dam was Italy and the Mozambican government has been seeking finances to complete installing floodgates in the dam. Currently, the World Bank has committed to finish and putting floodgates in the Corumana dam. The World Bank is funding the completion of the Corumana dam over a period of 1 year, 3 months with an estimated budget of US$25 million (Club of Mozambique 2018). The complete Corumana dam will have a storage capacity of 1.24 billion cubic meters and it will lead to a food secure SADC through irrigation in the Incomati river basin (Club of Mozambique 2018). The government plans to resettle a total number of 132 families and to construct houses for the affected families (Club of Mozambique 2018). According to participant 22, if the dam is completed the problem of salt water in the Incomati river will be contained and will bring water security in their cities. A follow up conversation with participant 22[115], highlighted that the completion of the Corumana dam is part of the sanitation and water initiatives by World Bank in Mozambique. He adds these projects are approximately US $600 million in value.

The funds that Mozambique receives for the construction of Corumana dam and the recent Moamba dam (which I will discuss in the next section) together with the World Bank funds that participant 22 above highlighted show the high dependence on external funds. This solidifies claims by Shikhani (2012) that out of Mozambique's national budget, 51% comes from external funds. With such dependency, it will be interesting to find out what the influence is that donors have on domestic affairs. The government often defends their sovereign status arguing that foreign actors do not interfere with domestic affairs (Shikhani 2012). Participant 17 confirms that governments do not allow World Bank or any other third party to control them. He argues that, "we do not have power to make decisions, I mean these are sovereign

[115] Telephonic, Mozambique (7 July 2018)

states who exercise their sovereignty decisions…again we serve at the pleasure and discretion of sovereign states". Participant 17 reiterates that the role of the World Bank is to advise governments in terms of good investments and poverty alleviation initiatives as shareholders of the bank.

7.3.2. Foreign Governments: the case of Brazil and China

> You cannot have a party while your neighbor is having a funeral we need to help each other…instead of fighting other riparian countries, in Mozambique, we need to build more dams as well to sustain us, and constructing the Moamba dam is a good step (participant 20[116])

My analysis of foreign governments' as third parties validates Hay (2006) and Klaphake and Scheumann (2006)'s argument that actors cooperate when opportunities are homogenous. Participant 12[117] aptly states that the role of foreign governments is to facilitate cooperation that leads to improved outcomes in terms of protecting economic development prospects and regional stability. In this section, I analyse the involvement of Brazil and China in the construction of Moamba dam in Mozambique. I choose this case study to demonstrate the role of foreign governments because it is the most recent case of dam construction in the Incomati river basin. Sentiments by participant 20 above show the expected gains from the dam that Mozambicans are building. More so, it offers us an opportunity to learn about the social interactions at a developmental phase.

Foreign governments such as China have shown an interest in financing hydraulic infrastructure development in Africa. Hydraulic projects such as dam constructions are some of the ways used for political patronage by states (Mirumachi 2015). Similarly, Klaphake and Scheumann (2006) argue that at times governments engage with third parties with a rent-seeking attitude that does not necessary support the needs of its citizens. Zikhali (2015) also notes how dam constructions as a supply-oriented approach to water governance often lead to policies that are not pro-poor and sustainable.

[116] Maputo, Mozambique (10 December 2016)
[117] Nelspruit, South Africa (12 March 2016)

Accumulated evidence from the participants of this study points to the perception that foreign governments do 'better' than international organisations such as the World Bank. Better, in this context means satisfactory or more desirable: thus, they believe that foreign governments bring satisfactory outcomes compared to the World Bank. Participant 4[118] argues,

> the good thing about foreign governments such as the Netherlands, Switzerland, and Sweden is that they do not have overpowering economic interests, so they get to be seen as honest brokers in bringing knowledge and that they provide safe space for diplomatic negotiations.

Participant 4 gives an example, of how Sweden has an interest in peace making while World Bank is interested in economic investments. However, participants such as number 25 are optimistic of the role of World Bank and believes that their involvement in projects is a guarantee that the project will be taken to completion. For participant 22, the difference between foreign governments and World Bank is the same, "at the end of the day to me, they are both foreign parties who might have a hidden agenda".

Participant 19[119], points out that Mozambique is planning to build Moamba dam by 2020, funded by Brazil. In building this dam, Mozambique had to inform South Africa and Eswatini in line with the Inco-Maputo Agreement (Participant 19). The dam will supply water to Matola, Ressano Garcia, and Maputo and for hydropower generation. Brazil was going to finance the construction of Moamba dam through a loan. However, in 2016, Brazil suspended the dam construction project due to corruption allegations of Brazilian companies including their company Andrade Gutierrez working on the Moamba dam. By the time the construction was suspended they had spent a lot of money in Environmental Impact Assessments and other studies (Participant 25[120]). This case teaches us about uncertainty, and validates constructivist institutionalism proposition that states often make decisions under uncertainty. For example, Mozambique did not anticipate the suspension of the dam construction by Brazil.

The good news is that the construction of the Moamba dam will now resume. A follow up conversation with participant 19 reveals that the Brazilian company Andrade Gutierrez received financial assistance from China and they are going to partner to complete the construction of Moamba dam. Therefore, we can note two new changes, first, China as a new

[118] Mbabane, Eswatini (17 February 2016)
[119] Maputo, Mozambique (8 December 2016)
[120] Maputo, Mozambique (5 December 2016)

funder in the project and second, the project has now been refined to cater for the current water supply needs. The suspension of construction and China coming on board has attracted media interest, with many local newspapers covering the developments. However what I find missing in those public debates are the interests of China and Brazil in building the dam. What is clear is that Brazilian funds to Mozambique were part of the US$4.7 billion budget committed to African countries (Club of Mozambique 2018). Concerning China my assumption is that their involvement is part of the long-term interests of strengthening ties with African states through the Forum on China-Africa Cooperation (FOCAC) established in 2000.

To me the involvement of China is interesting. It is interesting because China has not ratified the United Nations Convention on shared waters (Benjamin et al 2014). Thus, I question the interests of China in Mozambique's dam construction. Does this mean that their interests are not in water but in building political relations with Mozambique? While no clear answer is available, I turn to constructivist institutionalists argument that interests do not matter, what matters is the converging of preferences. In the case of building the Moamba dam, I speculate that China could want to consolidate her power in the Africa as part of her foreign policy while Mozambique is in need of financial resources. The partnership between China and Brazil also aids Brazil to complete the project they started with shared costs. Thus, the relationship among the three countries creates cooperative relations, with homogenous preferences but not necessarily comparable benefits and interests.

7.3.3. Regional Institutions: the case of the SADC Water Division

The role of transboundary water resources is gaining increasing importance in the region considering climate change impacts that have led to droughts in some parts and flooding in others. As a result, states are continually considering creative ways to minimise the adverse impacts including collaborating with external stakeholders. According to Turton et al (2006) and Benjamin et al (2014), water cooperation can promote integration in the Southern African region. Thus, SADC encourages cooperation amongst state to ensure that there is water security[121] in the region. As mentioned, through the Revised SADC Water Protocol, SADC

[121] Water security is "the capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water related disasters and for preserving ecosystems in a climate of peace and political stability" (UN-Water in Zeitoun et al (2016:144).

seeks to pursue its agenda of integrating states and alleviating poverty (SADC Revised Protocol 2000).

The role of SADC as a third party is to guide the riparian states on the principles for equitable access and distribution of water. For a majority of the participants, SADC as regional organ is doing well in carrying out their mandate; however, there is room for improvement. In improving SADC should invest in researching the governance structures of the countries in a way that reveals the weaknesses and strengths of each country. This will create room for more compatible solutions contrary to the allegations of SADC not representing the needs of a majority of the Southern African population.

SADC counterbalances the power dynamics through their policy and legislative frameworks that states have to practice. Though others might argue that states do not always follow the SADC framework and as sovereign powers states are not obliged to comply, however, the constructed cooperative relations of the Incomati largely benefit from these frameworks. According to participant 26,[122] "we need rules for order and SADC as well as international principles help maintain the order because countries have different needs". According to participant 20[123], the SADC Revised protocol is the "bible" which guides us towards a vision of peace and security in the region. For some participants the vision of the SADC water framework is cooperation and therefore, they (SADC) will be interested in neutralizing any power dynamics. In the same line, participant 34 notes,

> SADC mirrors cooperation and just like what people say, you are what you believe. SADC believes that they can fulfil their vision and so do the states. *Such beliefs channel us to cooperation* no matter what difficulties we face (Participant 34, emphasis added)[124]

The role that SADC played in the Orange-Senqu river basin validates the above point by participant 34. For example, SADC managed to facilitate the inclusion of Botswana and Namibia in the negotiations designed by South Africa and Lesotho to exclude them while impacted by the planned developments (Benjamin et al 2014).

For participant 13[125], "SADC is the best thing that has ever happened to the regional water sector, with finances it can even do much better". The lack of funds challenges the

[122] Maputo Mozambique (6 December 2016)
[123] Maputo, Mozambique (10 December 2016)
[124] Piggs Peak, Eswatini (15 February 2016)
[125] Maputo, Mozambique (5 December 2016)

independence of SADC because of dependence on donor funds. Some third parties see SADC as a useful point of entry to provide financial assistance. According to participant 12, putting money through SADC minimizes the risk of one country controlling how the funds are distributed and balances power amongst states. However, there is a possibility of third parties influencing how SADC distributes the money. For example, SADC facilitates the construction of a new Incomati RBO that is according to most participants funded largely by Netherlands. This kind of relationship implies that the sustainability of the RBO will depend on foreign funds. The inclusion of ideas of those donors in the development of the RBO is a possibility.

Participant 16 notes the complexity of power in the SADC region. She argues,

> Power is everywhere and nowhere. It is messy. Post 1994 we saw a shift in SADC transboundary water relations. There is a lot of agency in the system than before, due to many actors with different interests so it is a constant give and take situation…

Many actors and interests in the region complicates the role of SADC. For example, working in silos by institutions working on related issues such as food, water and land is a challenge (Denby, et al 2016). Biswas (2011) suggests that the integrated management of water with related industries could improve governance of water. The SADC Water Division advocates for coordinated planning between water and other related sectors. There is progress, for example, the growing promotion of water-food-energy nexus. However, evidence from the field shows that stakeholders still work in silos. For instance, some local water institutions do not understand the scope and mandate of SADC. Participant 15 highlights that at times they learn at a later stage that there was a SADC meeting without invitation while they are the ones who lead implementation.

The problem of having so many activities in the river basin is that not everyone will know what is going on. In the previous chapter, I highlighted the complaints by small-scale farmers that they are not aware of SADC activities. However, the proceedings of the 2016 REMCO Conference revealed that at times REMCO participants do not share project information with SADC and the TPTC. According to participant 5, sharing of information would add value to the work of SADC, as they will be able to plan better. However, for some participants, coordination was difficult in an African context. For example,

> All the three countries have their national strategies of dealing with problems. Unfortunately even if coordination is encouraged but in an African context, different administrative levels and capacities it becomes next to impossible to have typical good

> governance systems. Therefore, each country will implement what works best for them (Participant 28).

My conversation with participant 40[126] reveals interesting dynamics. Participant 40 narrates how the SADC region has evolved over the years and how institutions such as SADC need credit for "making a way where it used to be impossible to do so". She further notes that, SADC is an instrumental institution because it makes states accountable to their actions based on the principles of the SADC Revised Protocol and attempts to iron out the legacy of the past. In our conversation, I picked out that we need *not forget the African context*. The African context of colonialism and liberation movements together with efforts of new independent states to rebuild the region explains the pace and colour of transboundary water governance in SADC. For participant 40, we are still "reaping the sins of our former masters". Mozambique is still rebuilding the infrastructure destroyed by several years of a civil war; South Africa is still a young democracy struggling to redistribute wealth from the beneficiaries of apartheid to the poor black communities. Eswatini is under autocratic rule, which blinds us to the internal politics that have a likelihood of disempowering local citizens while empowering the royal family.

7.3.4. An Unexpected finding: The State as a third party

The state plays a central role in global environmental governance despite a plethora of factors that influence relations (Matthews 1991 in Vogler and Imber 2005). Despite the changing role of the state, natural resources are still positioned within state boundaries; *de jure* sovereignty accords states with certain rights and responsibilities (du Preez in Grant et al 2015:27). Although governments are still at the centre of the policy-making processes, its role can be nomothetic (Davidson and Frickel 2004). There is need to critically engage with the structural systems of interaction that have changed in a fundamental way (Vogler and Imber 2005:16).

According to Ndlovu-Gatsheni (2015), these structural systems of interaction reflect coloniality. Coloniality relates to "long-standing patterns of power that emerged as a result of colonialism, but that define culture, labor, intersubjective relations, and knowledge production well beyond the strict limits of colonial administrations" (Maldonado-Torres 2007: 243 in Ndlovu-Gatsheni 2015:15). The neoliberal turn to development has seen states pushing a

[126] Pretoria, South Africa (30 March 2017)

capitalist agenda at the expense of society (Mamdani, 2012 in Khan et al 2016: ix). In trying to discredit state focused analyses, some scholars have "promoted, albeit inadvertently, a fairly superficial analysis of the African state as being somewhat dysfunctional, collapsed, weak and somehow more imagined than Western states" (Gibb 2009:713).

The empirical work of this thesis reveals that for a few participants the state is a third party in the Incomati River Basin. This was is an unexpected finding because in my conversation with the participants, I explicitly explained the definition of third parties and it did not include the state. I considered the state as one of the primary actors in transboundary water governance. However, some participants describe states as third parties. This view relates to the theme 'power that divides' that I shared in chapter 6 of this thesis. The disempowering and decentreing aspects of power and governance respectively, result in the perception that the state separates itself from the majority of the population. Through a lunch break conversation with a small-scale farmer, I learnt that some of the local people think the government is not playing an active role in their affairs. The farmer echoes, "we don't see them… they are clueless of our needs". He went on to say that as small-scale farmers, they do not have the privilege to interact directly with those in power. For example it is us on one hand and on the other hand its local institutions we meet during stakeholder meetings…and the government acts as if they are independent of us".

Participant 7[127] cements this view of indirect participation, as one of the complaints that previously disadvantaged groups complain about during community meetings between decentralized agencies and some local stakeholders. For participant 35[128], the responsibilities of many institutions that are involved in transboundary water governance confuse people at the grassroots. According to participant 35, it is confusing to them, how decentralized institutions cannot answer all their concerns and keep referring them to the government. The question that participants who see the state as a third party ask include, why do states create representations on the ground that cannot solve all their problems, if the state makes decisions why don't they want to interact with the people directly? What is the state and what does it do?

[127] Nelspruit, South Africa (12 March 2016)
[128] Mhlume, Eswatini (18 February 2016)

7.4. Conclusion

"When the elephants fight the grass suffers"

The above African Proverb sums up my understanding of the relationship between state and non-state actors. The findings depict the role of the state and third parties to be *mutually constitutive*. Any misunderstandings between the two affect citizens and if the two work together, the likelihood of socio-economic development for the citizens is more. Such a relationship, as empirical evidence highlights is a *continuous negotiation* between the state and donors of how to turn challenges into opportunities that benefit all groups concerned. This again, is not without challenges. The negotiation and renegotiation of issues gives room to all actors to contest and compromise where needed. Though it is undeniable that some actors will have more advantage than others, this does not mean that those with less advantage are completely powerless. As shown in chapter six of this thesis, at some point power can unite stakeholders.

The extent to which third parties influence power dynamics was not clear from the empirical evidence. This is largely because third parties deal with people at high political levels and in particular, the foreign affairs departments. The problem with that for some participants was that the people who sign these agreements would not be knowledgeable of the water dynamics. My assessment of the role of these third parties relies on secondary literature as well as the descriptions given by the stakeholders of the Incomati interviewed in this study. I note the limitation of not incorporating the views of high-level diplomatic officials who negotiate agreements with third parties. However, experience has shown that there are some information that states will not share with the public. The information that they consider being politically sensitive to expose. *Exposing it could endanger their sovereignty*. Participant 17 who narrates how some governments instruct third parties not to publish their private discussions confirmed this earlier in this chapter.

Despite the described shortfall, participant's narratives and literature reviews taught us that the third parties in Incomati *largely play a counterbalancing role*. They are *gap fillers* as described by one participant. However, their gap-filling role attracts *mixed views* from participants. Some participants see third parties as a financer for development while others see them as another form of colonialism. For example, the construction of the Corumana dam in Mozambique, where World Bank is currently financing the completion of that dam. Those who see them as

a form of colonialism accuse third parties of having ulterior motives, such as *imposing their knowledge* on the riparian states. Their knowledge is largely incompatible with the needs of the people on the ground. Overall, I argue that third parties are *a regulated mode of power* that serve the interests of power holders. The invisible power holders are the ones who know their interests while curious analysts (such as researchers) can only assume. Revealed or not these interests do not matter for constructivist institutionalists, what matters is what we see on the ground. Concisely, the chapter has shown that *homogenous preferences matter***.** My observation is that this regulated power is *fluid* and works differently in space and in time.

Chapter 8: The End yet the Beginning- Conclusion

> There are known knowns; there are things we know that we know. There are known unknowns; that is to say there are things that we now know we do not know. However, there are also unknown unknowns-there are things we do not know we do not know (Donald Rumsfeld, former Secretary of Defense, USA in Kula 2015).

This chapter marks the end of my research on *Power, Hydro-Hegemony and the Construction of Cooperative Transboundary Water Relations in the Incomati River Basin*, yet the beginning of other possibilities of researching the socio-political dynamics of sharing international rivers. The quote above taken out of context reflects the complexity involved in trying to understand transboundary water governance. In a similar vein, Zeitoun et al (2016:150) cautions that there is need for "broadened, precautionary and more humble approaches in the face of unknown unknowns". The conversations with participants and my observations confirmed some of the knowledge I had, refuted some of the knowledge I had while teaching me some aspects I didn't know and leaving me with the possibility that there is still more to be explored in the field of transboundary water governance. This makes Hesse-Biber and Leavy (2011)'s claims that a case study allows researchers to expose some of the underlying issues that are significant for future studies.

The principal argument of my study is that transboundary water relations are a social construct whereby different stakeholders contend with different forms of power. The stakeholders can resist, accept or acquiesce to power differently in space and time. Contrary to expectations, the Incomati River Basin proved to be a site where cooperative engagements are constructed. These engagements have produced both positive and negative effects within and across borders. The key contribution to knowledge is the role of agency in the development and evolution of institutions and policymaking processes. State and non-state actors individually or collectively are the active participants in the power struggles and in some circumstances, they have the ability to define or redefine the course of events in a way that the current literature does not engage.

The chapter proceeds as follows. First, I will give a brief overview of the study. This includes restating the research objectives, questions, problem statement, significance and the methods that I used. Second, I give a critical and synthesized discussion of the main findings of this research. This mainly addresses the sub questions posed in the study. Last but certainly not least, I discuss the study's implications for theory and practice. In the study implications section, I also suggest areas for further research.

8.1. Overview of the Study

Scarcity and asymmetrical distribution of water typify Southern African water resources. At the same time, the socio-economic development of the different countries within the region varies widely; perennial rivers and the economic significance of the common pool resources in the region have made transboundary water resources critical. The interdependencies created by these common pool resources makes transboundary water governance important and contested by all the stakeholders that either depend on water or derive benefits from water. Although transboundary water interactions differ in international river basins, however, power asymmetries exist in all of them. Thus, the question should not be 'what are the challenges faced in transboundary water governance'. Instead, we should seek to explain the causes of the challenges in a way that advances policymaking. In that respect, I moved from the questions that seek to define power, and moved to normative aspects of what could empirical evidence teach us about socio-political issues (specific to my case power and hydro-hegemony).

Thus, my aim in this study was to explore the evolution of transboundary water interactions in the Incomati River Basin, focusing on the power and hydro-hegemonic issues. I defined transboundary water interactions as the coexistence of cooperation and conflict. The coexistence of conflict and cooperation has birthed what I call constructed cooperative relations in the Incomati River Basin. I consider them constructed because amid power dynamics and an expectation of disputes amongst riparian states, South Africa, Mozambique and Eswatini have chosen to cooperate over water. Empirical evidence shows that their cooperation manifest in various forms in space and time. Analysing the changes involved in transboundary water governance addresses a research deficiency observed in current readings of the subject (see Jacobs 2010, 2012).

Located in Southern Africa, the Incomati River Basin is a case study to understand the development of transboundary water relations in the post-apartheid period. During apartheid, the Southern African Development Community (previously a coordinating committee) focused on preventing South Africa's hegemony in the region and ending apartheid. However, in the post-apartheid era, SADC allegedly continues to guard against South Africa's influence. Does South Africa's influence extend to regional water governance? Evidence from the Incomati River Basin shows otherwise and teaches us that power can reproduce itself differently in some contexts. My research results are not generalizable to other River Basins in the region, but they are significant in that they introduce new knowledge that has implications for future studies. For example, the specific focus on agency, space and time is a useful attempt to move from abstract understandings of what power is, to interpret how active voices from the people working in the area relate to theory and how they feed to our current understanding of power and hegemony.

I limit my study to seven structures in the river basin. This includes, the productive effects of power emanating from the interactions between state and third parties. Institutions are not endogenous. The ideas behind why actors behave in a certain way are not entirely dependent on the institution that they work for; instead they reflect a "normative (indeed moral, ethical and political) orientation towards the context in which they have been realized" (Hay 2006:63-64). This means that transboundary water governance involves different subjective understanding of possibilities that affect the management of the river basin. These include normative approaches of what seems ideal for actors concerned.

To understand the subjectivities involved, I use a methodology that analyses the intricate relationship between structure and agency as well as the independent characteristics likely to exist between the two. In so doing, I go against the dominance of structural analyses in transboundary water governance. According to Emirbayer and Mische (1998) and Connor (2011), structural based analyses of social processes omit the dynamic nature of agents involved. In so doing, I made use of 43 semi-structured interviews, informal conversations, participatory observations, a focus group discussion and document analysis. My analysis includes all the three countries, focusing on both the domestic and their foreign policies.

Five Constructivist Institutionalism propositions about social interactions undergird the analysis of the study. These are, (1) Actors are not equally equipped (2) Interests are not static and there are difficult to define (3) Actors operate in uncertain conditions 4) Ideas matter (5)

Analysis of post institutional creation (changes) is important. At the end of this research project, I provided a qualitative and critical overview of the evolution of institutions, analysed the social and structural forms of power, established the relationship between state and third parties, and learnt how all of these issues add or refute some knowledge of power in transboundary water governance.

The complex web of interactions in the Incomati River Basin shows power as relational and not held. For example, it does not always come from the centre (state) in some instances there are pockets of power either amongst third parties or from the bottom-up. The shrinking role of the state is debatable with some participants seeing states as the power holders while others locate power with third parties who finance state hydraulic projects. To me, the state still holds the ultimate power because states regulate the pockets of power in other areas and these power dynamics often mirror state preferences.

Some of my findings show that power is omnipresent and not always negative. They confirm Hay (2006)'s argument that social actors will cooperate where preferences are homogenous regardless of interests and inequalities involved. Concisely, transboundary water actors have agency and they can express themselves publicly or privately in a way that leads to change or continuity through coordinated efforts. The coordinated outcomes illustrate constructed cooperative relationships, in the sense that, actors are not ignorant of the environment that they operate in but they are also producers of knowledge.

Through Constructivist Institutionalism as a theoretical framework, I suggested the triad of structure; ideas and agency as well as its intersection with power in foreign policies (see Hay 2002, 2006; Schmidt 2008; Oz 2011; Carstensen and Schmidt 2016). This is because the effects of power are visible within social activities and interactions (Giddens 1984; Jessop 1982; Bourdieu 1990; Gramsci 1992; Sibeon 1999; Hay 2006). My argument is that, we cannot understand power without understanding the interrelatedness of structure and agency. A combined analysis of structure, agency and power led to a discovery of four aspects of power in the Incomati River Basin. These are, power that divides, power that unites, power that bleeds and power that produces (see chapter 6).

8.2. Summary of Main Findings

This section addresses the findings to the main question of this study. The main question is *what do the transboundary water interactions in the Incomati International River Basin tell us about the nature of power and hydro hegemony in Southern Africa after apartheid?*

8.2.1. The Development and Evolution of Institutions

In understanding how transboundary water interactions amongst the Incomati River Basin states evolved, I considered different governance structures. The states construct their relations around water as a mobile technology. As a mobile technology, water invites all interested state and non-state stakeholders within and across borders into an interactive process. Within that interactive process, there are challenges of how to govern the river basin in a way that yields equitable benefits to all. The post-apartheid and post-colonial period, tasked the governments of Mozambique, Eswatini and South Africa with redressing the perennial problems of poverty and inequality. This included rebuilding their international relations affected by the past volatile political environment.

The rebuilding phase saw moves by the South African and Eswatini governments to mend their multilateral engagements with Mozambique (see chapter 2). Mozambique's 16-year-old civil war and the first multi-party elections held in 1994 also created space for cooperation with other states in the region. These movements and others have contributed to discursive forms of power where different types of stakeholders can participate. Despite such progressive measures, challenges persist. What is interesting with these challenges is that states have maintained cooperative relations. These relations as have been shown are by design.

The complexities with designed cooperative relations is that they are two faced. The first face is the consolidation and sustenance of power within states. As mentioned, the same political and liberation movements continue to rule the three states under study. The second face is that the same political parties and systems have reproduced the past power struggles where the poor were discriminated against. Thus, empirical findings show cooperative governance at an international level, between and amongst the three states, without analysing the contestations

that happen within borders of the three state. This has created social injustices and divisions across gender, race and class.

Overall, the transboundary water institutions examined in this study prove to be resilient. This resilience is arguably due to the institutional ideas that define them as well as committed individuals and groups of people dedicated to equitable utilization of water. These factors have driven the Incomati River Basin to construct cooperative transboundary water relations. Through an analysis of the Tripartite Permanent Technical Committee (TPTC), we learnt how the states moved from tense relations during apartheid, to a political impasse which nearly threatened the existence of the institution and how the post-apartheid period created an avenue for states to rebuild their relationship.

The 2002 Tripartite Interim Agreement between Mozambique, South Africa and Eswatini for cooperation on the Protection and Sustainable Utilization of the Water Resources of the Incomati and Maputo Watercourses (Inco-Maputo Agreement) tasked TPTC with the implementation of agreed initiatives. Over the years, it has worked with third parties and extended its mandate to current challenges such as climate change. Evidence shows that the TPTC is an integrating mechanism, which provides a multilateral platform for the Incomati River Basin states who do not yet have a River Basin Organisation (RBO). The shortcomings that I observed with the TPTC is its focus on state relations and forgetting the poor populace within those states. Perhaps this could be the reason why there are accusations of social injustice cries in the domestic affairs across all states.

The analysis of the Komati Basin Water Authority (KOBWA) taught us about the advantages and disadvantages of bilateral engagements. As mentioned earlier, KOBWA is the product of the 1991 Development and Utilisation of the Water Resources of the Komati River Basin Treaty and the 1992 Joint Water Commission between the government of South Africa and Eswatini. Contrary to the political environment that gave birth to TPTC, KOBWA developed in the 1990s when the SADC region was moving towards the democratic wave. Therefore, the environment was conducive for South Africa and Eswatini to cooperate in KOBWA compared to TPTC.

Other advantages that KOBWA has over the TPTC include, first, a clear mandate, which is to manage the Driekoppies and Maguga dams in South Africa and Eswatini respectively while TPTC has a broad mandate of advising all the three states about the development of the

watercourse. Second, as a parastatal KOBWA enjoys some degree of freedom in their operation while TPTC does not have a formal structure and it consists of individuals who are selected to represent their country at a multilateral level.

Despite being an effective institution, KOBWA ignores the multilateral nature of transboundary water resources as developments in the two states have sidelined Mozambique. Turton (2004) argues that attempts by the three states to renegotiate water allocations will be thorny due to insufficient water flowing into Mozambique. Currently, the three states are negotiating the implementation of a RBO that will manage the Incomati River Basin as a multilateral arrangement (and not bilateral). We are yet to see how the thorny issues predicted by Turton (2004) will play out.

The evolution of transboundary water relations in the Incomati River Basin also extended my analysis to external players. In chapter 5, I discuss the Southern African Development Community (SADC) as well as the River and Environmental Management Cooperation (REMCO). Through the Revised Protocol on Shared Watercourse Systems (2000), SADC has facilitated cooperation in transboundary water resources. We learn that the shadows of the past also follow SADC even after apartheid. During apartheid, SADC's role was to end apartheid and to stop the hegemonic influence of South Africa in the region (Turton 2004). Empirical evidence suggests that SADC mistrust of South Africa's influence lingers on. For some the mistrust of South Africa by SADC and other states in the region keeps the influence of South Africa monitored and prevents the country from decisive influence. Despite other operational challenges such as lack of coordination, and capacity constraints the world celebrates SADC as one of the most progressive regional water institutions in the world. The progressive nature of SADC might be one of the driving forces of cooperative water relations in the Incomati River Basin.

REMCO is still a young institution in the Incomati River Basin. Born in 2009 out of an idea by some of the participants during a conference in Germany, REMCO is a constructed framework of cooperation between decentralized agencies in the Incomati and international partners from Netherlands and Germany. The advantage of REMCO is that it invites all the formal and informal stakeholders in the river basin. Most participants agree that REMCO is pro-poor oriented since it does not discriminate in relation to who can participate in the deliberations. The friendships built around REMCO sustain the commitment of all stakeholders to cooperate.

The disadvantage however, is that these friendships operate as an informal structure, which to me can influence policies to a limited extent. I define the active role of decentralized agencies in the activities of REMCO as borrowed power. This borrowed power works in both the decentralized agencies within the Incomati River Basin and the representatives from Germany and Netherlands. The governments of all participants regulate the activities of REMCO from a distance; however, even from a distance they produce outcomes in line with the vision of their central governments. Hansson and Hellberg (2015) describes the aspect of decentralizing power to an extent that it reproduces the state as biopolitical.

8.2.2. Social and Structural Power Relations in the Incomati River Basin

The thesis touches on different aspects of power in all the preceding chapters. Chapter 6 takes an extended discussion of power and draws out various themes that inform the current debates on power in transboundary water governance. A detailed analysis of the transboundary water relations in the Incomati River Basin, show the prevalence of soft power amongst actors. Contrary to held power, empirical evidence prove that power is relational and dynamic. As power manifests in different areas, its effects have implications on both structures and actors. For example, the practical experiences of stakeholders explain the intricate relationship between structure and agency. This intricacy challenges scholars to revisit the conceptualization of power in international rivers. To me hegemony is a structure that comes alive through interactions of actors defined by it. This brings about the important role of agential power. The study confirms that individuals have a significant role in transboundary water governance. Their agency as experts in the water sector has produced them as structure equivalents.

Though power is immanent, it is not necessarily negative. Hay (2002) questions if it will ever be possible to liberate ourselves from the influence of power. The findings shows different forms of power, the ones where we can liberate ourselves and the ones that define us. However, the forms of power that seem impossible to liberate ourselves from are within borders, while outside their borders the riparian states of the Incomati have demonstrated freedom from central influence. Internally, findings show decentralized power as a biopolitical instrument used by states to regulate policies that reproduce their ideas. As mentioned above, the intricate relationship between structures and actors puts the freedom demonstrated in international levels

in question as well. At some point, actors acquiesce to ideological and institutional power when the incentives of cooperation outweigh those of not cooperating.

The study problematized the hydro-hegemonic assumption placed upon South Africa in SADC river basins. Empirical findings show that such an assumption is relative. South Africa might be a hydro-hegemon in other river basins such as the Orange-Senqu but participants of the study disagree with South Africa having decisive influence in the Incomati River Basin, and other basins such as the Zambezi River. There was consensus that as an interested party in the Incomati River Basin South Africa, has shared interests with the other riparian states. For example, South African sugar industries are present in both Mozambique and Eswatini. South Africa also sits downstream of Eswatini in the Komati catchment, which affects her water flows. Mozambique and South Africa are trading partners. These and other commonalities tie the states together. The homogenous preferences have led to some participants defining South Africa as a benevolent hegemon, while some see cooperative relations as strategic move by South Africa to fulfil its hydraulic mission.

The unevenness of the three countries have produced unity rather than division. Although weak in some aspects, all of them have managed to use a combination of bargaining, geographical, economic and ideational power to level the playing field. For some participants, the playing field can never be level. I agree with the participants, but add that an uneven playing ground is inherent and thus should be the starting point of research and not the conclusion. My argument is that being the most economically developed country or having more water than others does not translate to having decisive power. There is a possibility that those who do not have power are not as weak as perceived. Instead, through negotiations and bargaining they might get what the powerful country did not want to part with. Thus, the conception that A has power over B in such a way that B would do what he would not have done works both ways in this context.

More so, through hegemonic ideas, power has produced knowledge. In this research, I observe a battle between social sciences and natural sciences. Largely, natural scientists influence transboundary water policies. Zeitoun et al (2016) also observes a tendency by policy makers to downplay socio-political issues when finding solutions to water governance problems. This has reproduced solutions that are more technical in nature. The evidence is in the deficiency of social science influence in the solutions proposed within the Sustainable Development Goals (SDGs), and the Inco-Maputo Agreement, which is too technical according to most participants of the study. In the same manner, Wiegleb and Bruns (2018) criticize exclusion of socio-

political issues in water governance within the SDGs. Due to the pressing challenges of water, the UN General Assembly called for 2018-2028 to be a decade of finding coordinated solutions to water insecurities (UN Chronicle 2018). Coordinated solutions that include both natural sciences and social sciences will be valuable.

Empirical evidence also highlight the negative impact of hegemonic neoliberal governmentality, which proves to divide the society between the haves and have-nots. The influence of third parties has brought an economic complex, which hinges on access and efficiency. While third parties such as international financial institutions promote efficiency, regional institutions and states might want to prioritize access. The complexity is that both third parties and states do not put their cards on the table. For example, all these structures publicly proclaim poverty alleviation while their interactions produce solutions that affect vulnerable groups of society. Scholars such as Swyngedouw (2009) question how these structures legitimize poverty. There was a reoccurrence of discontentment amongst the poor in all three countries. The narratives associated with discontentment teach us that transboundary water relations after apartheid reproduce the past because of inherited systems of government. The new governments need to treat the social divide with sensitivity and an ethics of care.

8.2.3. The Role Played by Third Parties

I closed my analysis of the role of third parties in the Incomati River Basin with an African Proverb that "when the elephants fight the grass suffers". In this research context, the elephants are states and third parties as power holders against almost 2million people dependant on the Incomati River Basin. Empirical findings show that the relationship between the states and third parties reviewed in this study are mutually constitutive. The two parties collaborate in solving the problems affecting transboundary water governance. The challenge is to turn their deliberations into policies that benefit everyone within and across borders. Empirical evidence shows that where preferences are homogenous between state and third parties cooperation occurs. However, there is limited evidence on social justice.

There has been a shift in the way we perceive third parties, from being seen as instruments of colonialism (see Petersen-Perlman, Veilleux and Wolf 2017) to contributors in development. For some scholars such as Furlong (2006) third parties are the carriers of hegemonic structures. In those structures, third parties allegedly contribute to the erosion of indigenous knowledge.

Some participants argue that new knowledge is often not compatible to the cultural practices around the river basin. This results in discontent and resistance from the bottom. Similar to my analysis of structural and social power in chapter 6, third parties are able to balance state activities at an international level, while the bottom levels are left out in both the discussions and implementation.

We learnt that third party involvement is high-level politics, with most discussions not shared publicly. Evidence presented show how states in some instances can ask third parties such as the World Bank to assist them behind closed doors. The black box policymaking mentality hides some useful information with implications for policy analysis. On that background, my assessment of third parties reflects the views of stakeholders who participated in my study, participatory observations and document analyses. The secrecy of interactions in transnational governance is not new. The situation in the Incomati River Basin therefore confirms such. One of the arguments for secrecy by states is the need to preserve their sovereignty. Despite, the lack of access to confidential discussions, the study remains valid in that it enlightens us about the situation and attracts more engagement from scholars who may want to look for other ways of researching top-level politics.

There was also an unexpected finding, with some participants defining the state as a third party. In my study, I define third parties as non-state actors who are external to the river basin. For example, regional institutions, foreign governments, Non-Governmental Organisations, Multi-National Corporations, United Nations Agencies, International Financial Institutions. Some of my participants accuse governments of having laissez-faire mentality when it comes to community development. Such a mentality presumable leaves vulnerable groups in society having to find solutions for their problems while the government turns a blind eye. For some participants, government's role in transboundary water governance is shrinking due to an increase in third parties. The question is what the role of the state is in a changing world. Although the shrinking role of the state is true to some extent, I argue that states through various mechanisms have regulated power in a way that still reflects their needs. My analysis, however, shows that this regulated power varies in space and time.

Overall, third parties play an influential counter-balancing role amongst states sharing a river basin. There was agreement amongst participants that foreign governments, regional institutions and international financial institutions are gap fillers. For example, the World Bank was a gap filler in the completion of the Corumana dam in Mozambique after political

disruptions by RENAMO caused the delay of floodgates installation in the dam originally funded by Italy. After years of seeking financial assistance, the World Bank filled the gap.

China has also filled the gap in the construction of Moamba dam also in Mozambique. Due to corruption allegations, Brazil temporarily stopped the Brazilian company tasked with building the dam while they were investigating. More recently, China has jumped in and co-financed building the dam with Brazil. Missing in the role of third parties as gap fillers is their interests. China is not a signatory of the United Nations International Convention on Shared watercourses, meant to guide all states towards equitable utilization of water. Their interests are therefore questionable. For constructivist institutionalism, interests do not matter; parties will converge when they have comparable preferences (Hay 2006). In that line, I argue that perhaps China's involvement in the Incomati River basin is compatible with its global agenda of building cooperative relations with African states through FOCAC[129].

8.3. Study Implications and Future Research

> It is "understanding rather than perfection that is the goal of scholarship, and we must continue to re-formulate and assess problems with new data in hand" (Waterbury, 2002: 2).

I draw the implications of my study from the problem that I set out to investigate and the empirical findings. The solution to the problem lies in answering the following questions; how do states construct cooperative transboundary water relations amid power and hydro hegemonic dynamics? What are the effects of constructed cooperative transboundary water relations? In addition, what lessons about power can we draw from those constructed relations? As Waterbury (2002) advises in the opening quote of this section, my aim was to understand the issues I set out to investigate and I do not claim perfectionism. My understanding of power and hydro-hegemony in the Incomati River Basin has implications for both practice and theory. In narrating these implications, I will also highlight some areas that would benefit from further analysis in the future.

[129] Forum on China-Africa Co-operation (FOCAC)

8.3.1. Practical Implications: Double Faced Interactions

Every country's drinking water supply, food production, energy supply and industrial development hinge on water availability. This makes water a vital strategic resource for all economies concerned, yet approaches to analyse the resource in relation to its governance are often not comprehensive. With a vision of not leaving anyone behind, the Sustainable Development Goals (SDGs) seek to guide the international community towards a water secure world. This has implications on how states govern transboundary water resources. The starting point will be to include an analysis of socio-political factors when coming with solutions. This will address the existing deficiency in the current water policy narrative. Through, my thesis, I use empirical evidence to contribute to an understanding of power in transboundary water governance.

The growing literature on the socio-political dynamics of power in international rivers acknowledges inequalities as well as inequities between and among states. To that body of knowledge, I add that amid those inequalities and inequities some river basins, in this case the Incomati River Basin can construct relations that lead to cooperative state interactions. On the other hand, these constructed relations can have negative effects on other groups of society not consulted. Through my conversations with different stakeholders across states and within states, I produced a narrative that is often missing in transboundary water governance. The norm are one-sided analyses that might include studying a river basin from a one-country perspective, studying state relations or investigating a single issue. In this study, my participants are from the top to the bottom levels of state and non-state actors, and include the often-neglected water users and community members. This allowed me to reveal some factors that single focused studies have not covered. One of these factors is the double-faced nature of transnational cooperation.

To illustrate the double-faced nature of transnational cooperation and its implications for future research, I use the constant contradictions observed in the findings.

1. The wounds from the past remain

The scars of colonialism, the cold war and apartheid are visible in modern day Southern Africa (Turton 2004). Sebastian (2008) refers to these historic challenges to shadows of the past because the inherited structures reproduce inequalities. For some participants the scars remind

them that they have survived the worst, while for some it reminds them of the mistakes made in moving forward. Largely, the wounds of discrimination and war have not healed amongst the vulnerable populations dependent on the Incomati River Basin.

There was agreement amongst participants that the transformative policies across states are a fait accompli. This is because governments did not consult recipients of development adequately. Instead, community members are not passive recipients and they prefer informed consent with respect to the development issues that affect them. There is need to research further the wounds from the past from the point of view of vulnerable groups. The current narrative focuses on how states have moved from past issues and found creative ways of working together. Missing is how community members, affected by past issues such as border demarcations, racism, and class differences have navigated the water landscape. How have inherited transboundary water institutions affected the lives of poor people across international river basins? Such questions will benefit from future studies. Going forward, we need more internally focused solutions for healthier global solutions. These solutions should be tailor made to suit global and local needs as the two are not homogeneous.

2. New Wine in Old Wine Skins

The countries of the Incomati are still under the leadership of the same political parties. While this is not entirely wrong, however, it has created continuity in some areas where some groups of society need change. States implement new international principles such as integrated water resource management in old systems not designed for such. This according to respondent nine (9) is like oil and water mixture, where oil will always be visible no matter how much water you pour. Likewise, it will be difficult to implement foreign imposed concepts in an environment that prefers the old way of doing things.

The principle of non-interference and sovereignty protects states to implement only the changes they deem necessary in their places while ignoring international principles that could offset their power. For example, Eswatini, under the leadership of King Swati who authoritatively defines the politics of the country, largely shows inconsistencies between domestic and international policies. The irony is that amid evidence of autocratic leadership within, Eswatini is a signatory of the SADC Revised Water Protocol and other international instruments which emphasis democratic principles of governance. What is interesting is that there is evidence of

respect for international obligations, for example, their relationship with South Africa and Mozambique in the Incomati River Basin.

To me the contradictions that we see between domestic and foreign policies in Eswatini is an example of putting new wine in old wine skins. For example, the autocratic culture of governance cannot contain the new international development principles in a practical manner. There is need for further analysis of the relationship between transboundary water governance and political regimes. Should democratic and authoritarian governments be analysed in the same manner in transboundary water governance? Is there a correlation between political regimes and cooperation over water?

3. Losers versus winners

Swatuk and van der Zaag (2016) confirm that colonialism has helped perpetuate the inequality divide of haves and the have nots as the poor communities are left out in most developmental issues. Empirically, apparent cooperation may hide huge amounts of conflict and power inequalities within local communities. For small-scale water users who participated in this study, government implements decisions that put the country on a positive global outlook while ignoring their needs. So they [water users] define themselves as *losers* in a game that is won by the 'the key holders'.

With a few exceptions, scholars do not examine power dynamics within countries sharing river basins (Furlong 2006). This is most important during times of water scarcity as decisions on access to water and allocations become highly politicized within borders (Rathgeber 1996 in Furlong 2006). Warner and Zeitoun (2008), argue that international relations theories are better at understanding international decision-making scenarios. For example, Furlong (2006:453) argues that IR theories failed to unmask the skewed distribution of costs of benefits for the Lesotho Highlands Water Project leaving poor and marginalized citizens in Botswana and South Africa worse off.

Moreover, the findings of my study allow for a reformulation of transboundary water problems. Significant here are additional units of analysis that researchers can explore when engaging with power dynamics. In chapter 6, I shared some of these to include, gender, race, class, academic disciplines, individuals etc. Studies that focus on such issues will contribute to

knowledge as a critical engagement with these aspects are currently lacking in transboundary water literature.

8.3.2. Implications for Theory

Bernauer (2000) shares a concern of transboundary water studies lacking theoretical grounding. Although we have seen an improvement over the years (Furlong 2006; Zeitoun and Warner 2008; Zeitoun et al 2016), the role of theory in transboundary water governance remains contested. Speaking on the controversies and effectiveness of theorizing, Nardin in Burchill et al (2009: 284-285) note that "because the aims of theorizing are different from the practical aims of making decisions and taking actions, the theories that are most relevant to practice may be the least genuinely theoretical". This could be attributed to the growing trend on the policy-science interface with many policy makers claiming that at times, science, does not realistically address the urgent needs that policy making requires. Chomsky (1994:120) argues that when it comes to relations amongst states, "historical conditions are too varied and complex for anything that might be plausibly be called 'a theory' to apply uniformly".

Problem solving theories such as realism and idealism take the world as it is (du Plessis 2000) and are not critical enough (Vogler and Imber 2005; Burchill 2009). Taking the world as one finds it and not questioning it brings some form of legitimacy to power and inequality or injustices that exist in the world (Burchill and Linklater 2009). Scholars such as Swyngedouw (2009) question the legitimatization of inequalities by powerful forces. More so, problem-solving theories erroneously see states being unable to manage their interdependencies due to the anarchic system of international relations (Vogler and Imber 2005:8). For Keeley (1990) the weakness of liberalism is that it overlooks that state relations are not only about cooperation but they are a site of contestations. These contestations include power, resistance and disputes (Keeley 1990). Similarly, in this study, I consider transboundary water governance as a site of contestation, and in analyzing those contestations; I add the mutually reinforcing relationship between structure and agency.

I identify with Donnelly (2009:41)'s assertion that "whether a 'good theory', in the sense of rigorous logic of interaction, is a good theory to apply in any particular case depends not on the theory but on contingent facts about the world". For example, structural realism assumption

that states would prefer to balance instead of bandwagoning would be true in the World War two episodes, where the United States of America and the then Soviet Union balanced their power to fight Germany under Hitler and immediately afterwards went back to being rivalries (Burchill et al 2009).

Against that backdrop, my study chose a theoretical framework that best addresses the research gaps identified and defined. Constructivist Institutionalism contributes to an understanding of change (space, time) and agency in transboundary water governance. Transboundary water actors working in different aspects of governance prove to be active participants in policymaking processes and conversations with them show that they are producers of knowledge that most scholars fail to utilise.

Do we need a new institutionalism theory to explain change?

In his analysis of structure and agency in community development, Connor (2011:98) poses this question "Rediscovering agency or neglecting structure?" This has preoccupied critics of Constructivist Institutionalism. The critics also question if there is a need for a new institutionalism theory to explain change Such questions are important to reflect on in this thesis, because, in as much as I am bringing back agency into transboundary water debates, it does not mean that actors in transboundary water governance do not have agency already. My argument is that researchers have not used lived experiences of stakeholders adequately, particularly, in relation to the structures that govern them. The empirical evidence of my research prove that Constructivist Institutionalism as a new institutionalism theory is valid and therefore needed to explain post creation phase of institutions.

Taking into account the controversies of theorizing, the discursive approach adopted in the thesis provides different tools for understanding transboundary water interactions in a critical way. Such an approach encourages one to "investigate rather than ignore or leave unchallenged" theoretical assumptions (Burchill and Linklater 2009:3). For example, constructivist institutionalism does not reduce agency to subordinates of structure, but see stakeholders as thinking actors who have an active voice in the activities around them (Schmidt 2008). On the role of actors, Hay (2002) argues that; "it is agents who make history" …while

contexts present opportunities to actors, it is the conduct of these actors which determines the extent to which such opportunities are realized" (Hay 2002:165-166).

Constructivist Institutionalism is a launching pad for further analysis of changes and agency in transboundary water governance. The discursive nature and the location of power in the triad of structure, agency and ideas, make Constructivist Institutionalism better able to understand change in institutional development in a way that other institutional analysts may fail to conceptualize.

References

Journal Articles

Agnew, J. (1994). The Territorial Trap: The Geographical Assumptions of International Relations Theory. *Review of International Political Economy* 1(1):53-80.

Alba, R., and Bolding, A. (2016). IWRM Avant la Lettre? Four Key Episodes in the Policy Articulation of IWRM in Downstream Mozambique. *Water Alternatives* 9(3). 549-568.

Ali, Z (2012). Birth and Rise of Management Science. Power and Knowledge Nexus. *The Dialogue* VII (1), 15-34.

Armitage, D., de Lo¨e, R. C., Morris, M., Edwards, T. W. D.,; Gerlak, A. K., Hall, R. I., Huitema, D., Ison, R., Livingstone, D., MacDonald, G.,Mirumachi, N., Plummer, R., and Wolfe, B. B. (2015). Science–policy processes for transboundary water governance. *Ambio* 44 (5), 353–366.

Aronson, J. (1994). A Pragmatic View of Thematic Analysis. *The Qualitative Report 2* (1), 1-3.

Ashton, P. J., and Turton, A.R. (2009). Water and Security in sub-Saharan Africa: Emerging concepts and their implications for effective water resource management in the Southern African region. *Springer*, 665-678.

Avenier, M. J., and Thomas, C. (2015). Finding one's way around various methods and guidelines for doing rigorous qualitative research. A Comparison of four epistemological frameworks. *French Journal of Management Information Systems* 20(1).

Barrington, D. J., Dobbs S., and Loden D. I. (2012). Social and Environmental Justice and Communities of the Mekong River. *International Journal of Engineering Social Justice and Peace* 1(1) 31-49.

Barua, A., Vij, S., and Rahman M, Z. (2017). Powering or sharing water in the Brahmaputra River basin. *International Journal of Water Resources Development* 1-15.

Barua, A. (2018). Water diplomacy as an approach to regional cooperation in South Asia: A Case from the Brahmaputra basin. *Journal of Hydrology* 567, 60–70.

Bell, S. (2011). Do we really need a new 'Constructivist Institutionalism' to Explain Institutional Change*? B.J.Pol.S* 41, 883-906 Cambridge University Press.

Berger, R. (2013). Now I see it, now I don't: Researcher's Position and Reflexivity in Qualitative Research. *Qualitative Research,* 0 (0), 1–16.

Biswas, A. K. (2011) Cooperation or conflict in transboundary water management: case study of South Asia. *Hydrol. Sci. J.* 56(4), 662–670.

Blyth, M. (2003). Structures do not Come with an Instruction Sheet: Interests, Ideas and Progress in Political Science,' Perspectives on Politics1 (4) 695-703.

Cardwell, H.E., Cole, R.A., Cartwright, L.A., and Martini L.A. (2006) Integrated water resources management: Definitions and conceptual musings. *Journal of Contemporary Water Research and Education* 13, 8-18.

Carstensen, M B., and Schmidt VA. (2016). Power through, over, and in ideas: Conceptualising Ideational Power in discursive institutionalism. *Journal of European Public Policy* 23 (3), 318-337.

Cascão, A. E., and Zeitoun, M. (2010). Power, hegemony and critical hydro politics. *Transboundary Water Management. Principles and Practice* 2 (1): 27-42, 180-193.

Connor, S. (2011). Structure and agency: A debate for community development? *Community Development Journal* 46 (2) 97–110.

Davidson, D., and Frickel, S. (2004). Understanding Environmental Governance. A Critical Review. *Organisation and Environment* 17(4), 471-492.

Denby, K., Movik, S., Mehta, L., and van Koppen, B., (2016). The 'trickle down' of IWRM: A case study of local-level realities in the Inkomati Water Management Area, South Africa. *Water Alternatives* 9(3), 473-492**.**

Earle, A., and Bazilli, S. (2013) A gendered critique of transboundary water management, *Feminist review* 103, 99-119.

Emirbayer, M., and Mische A. (1998). What Is Agency? *American Journal of Sociology* 103 (4). 962–1023.

Furlong, K. (2006). Hidden theories, troubled waters: International relations, the 'territorial trap', and the Southern African Development Community's transboundary waters. *Political Geography* 25: 438-458.

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

Gerring, J. (2004). What Is a Case Study and What Is It Good for? *American Political Science Review*, 341-354.

Gibb, R. (2009) Regional Integration and Africa's Development Trajectory: meta- theories, expectations and reality. *Third World Quarterly*, 30 (4): 701–721.

Gill, S., and Law, D. (1989). Global Hegemony and the Structural Power of Capital. *International Studies Quarterly* 33(4), 475-99.

Gleick, P. (1993). Water and Conflict: Fresh Water Resources and International Security. *International Security* 18 (1), 79 – 112.

Gluckman, M. (1961). Ethnographic Data in British Social Anthropology. *Sociological Review* 9 (1), 5–17.

Grundmann, R. (2016). Climate change as a wicked social problem. *Nat. Geosci* 9, 562–563.

Guzzini, S. (2005). The Concept of Power: a Constructivist Analysis. *Millennium - Journal of International Studies 33* (3), 495–521.

Haggard, S., and Simmons B A. (1987). Theories of International regimes. *International Organisation* 41(3), 491-517.

Hall, P. A., and Taylor R. C. (1996). Political Science and the Three New Institutionalisms. *Political Studies*. 44 (5), 936-957.

Hanasz, P. (2017). A Little Less Conversation? Track 11 Dialogue and Transboundary Water Governance. Asia & the Pacific Policy Studies 4(2), 296-309.

Hanasz, P. (2014). Power Flows: Hydro-hegemony and Water Conflicts in South Asia. *Security Challenges* 10(3), 95-112.

Hanasz, P.. (2013) Conflict, Cooperation and Complexity: Understanding Transboundary Water Interactions. *Global Dialogue* 15(2).

Hay, C (1997). Divided by a Common Language: Political Theory and the Concept of Power. *Politics*. 17(1), 45-52.

Hay, C. (2011). Interpreting Interpretivism Interpreting Interpretations: the new hermeneutics of public administrations. *Public Administration* 89(1), 167-182.

Hardin, G. (1968). The tragedy of the commons. *Science* 162, 1243–1248.

Hellberg, S. (2014). Water, Life and Politics: Exploring the Contested Case of eThekwini Municipality through a Governmentality Lens. *Geoforum* 56, 226–236.

Ho, S. (2017) Introduction to 'Transboundary River Cooperation: Actors, Strategies and Impact', *Water International*, 42 (2), 97-104.

Holsti, K J. (1964). The Concept of Power in the Study of International Relations. *Background* 7 (4), 179-194.

Homer-Dixon, T. (1995). The ingenuity gap: Can poor countries adapt to resource scarcity? *Population and Development* (21) 3, 587-612

Homer-Dixon, T. F. (1994). Environmental scarcities and violent conflict: evidence from cases. *International security*, 5-40.

Hussein, H., and Grandi M. (2017). Dynamic political contexts and power asymmetries: the cases of the Blue Nile and the Yarmouk Rivers. *Int Environ Agreements*, Available at https://ueaeprints.uea.ac.uk/63149/1/HussamHussein_2017.pdf.

Kistin, E. (2012). Critiquing Cooperation: Transboundary Water Governance and Adaptive Capacity in the Orange-Senqu Basin. *Journal of Contemporary Water Research and Education*. 149, 41-55.

Kitzinger, J. (1994). The methodology of focus groups: The importance of interaction between research participants. *Sociology of Health & Illness* 16 (1), 103-121.

Ikenberry, J., and Kupchan, C. (1990). Socialization and Hegemonic Power. *International Organization*, 44 (3), 283-315.

Julien, F. (2012). Hydropolitics is what societies make of it (or why we need a constructivist approach to the geopolitics of water). *International Journal of Sustainable Society* 4, 45-71.

Kaiser, K. (2009). Protecting Respondent Confidentiality in Qualitative Research. *Qual Health Res.* 19(11), 1632–1641.

Katzenstein P, J., Keohane R, O. and Krasner S D. (1998).International Organisation and the Study of World Politics. *International Organisation* 52 (4), 645-685.

Keeley, J F. (1990). Toward a Foucauldian Analysis of International Regimes. *International Organisation* 44(1), 83-105.

Kehl J, R. (2011). Hydropolitical Complexes and Asymmetrical Power: Conflict, Cooperation, and Governance of International River Systems, Department of Political Science. Rutgers University-Camden. *American Sociological Association* 17(1), 218-235.

Kistin, E J., Ashton P J., Earl A., Malzbender D., Patrick M J, Turton A R. (2009). An overview of the content and historical context of the international freshwater agreements that South Africa has entered into with neighbouring countries. *Int Environ Agreements* 9, 1-21.

Kitzinger, J. (1994). The methodology of focus groups: The importance of interaction between research participants. *Sociology of Health & Illness* 16 (1), 103-121.

Kliota, N., Shmuelia D., and Shamirb, U. (2001) Institutions for management of transboundary water resources: their nature, characteristics and shortcomings. *Water Policy* 3, 229–255.

Koremenos, B., Lipson C., and Snidal D. (2001). The Rational Design of International Institutions. *International Organisation* 55 (4), 761-799.

Lautze, J., and Giordano, M. (2005). Transboundary water law in Africa: Development, nature, and geography. *Natural Resources Journal* 45(4), 1053–1087.

Lebel, L., Garden, P. and Imamura M. (2005). The politics of scale, position, and place in the governance of water resources in the Mekong region. *Ecology and Society* 10(2), 18.

Mckee, K. (2009). Post-Foucauldian Governmentality: What does it offer critical social policy analysis? *Critical social policy* 29, 465.

Menga, F. (2016). Domestic and International dimensions of Transboundary Water Politics. *Water Alternatives* 9(3), 704-723.

Merlingen, M. (2011). From Governance to Govermentality in CSDP. Towards a Foucauldian Research Agenda. *Journal of Common Market Studies* 49 (1),149-169.

Mirumachi, N., and 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*, 9–15.

Mirumachi, N., and Van Wyk E. (2010). Cooperation at Different Scales: Challenges for local and international water resource governance in South Africa. *The Geographical Journal 176* (1) 25-38.

Mollinga, P., (2001) Water and Politics: Levels, Rational Choice and South Indian Canal Irrigation, Futures 33 (8), 733.

Moore, S M. (2017). The dilemma of autonomy: decentralization and water politics at the subnational level. *Water International* 42(2), 222-239.

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). 3-17.

Navarro, Z. (2006). In Search of Cultural Interpretation of Power. *IDS Bulletin* 37(6), 11-22.

Ndlovu-Gatsheni, S. J. (2015). Genealogies of Coloniality and Implications for Africa's Development. Africa Development, XL (3),13-40.

Odell, J S. (2001) Case Study Methods in International Political Economy. *International Studies Perspectives.* 2, 161-176.

Partridge, P. H. (1963**).** Some Notes on the Concept of Power. *Political Studies* XI (2). 107-125.

Petersen-Perlman, J, D., Veilleux, J C., and Wolf, A T. (2017) International water conflict and cooperation: challenges and opportunities. *Water International* 42 (2), 105-120.

Petersen-Perlman, JD., Wolf A T. (2015). Getting to the First Handshake: Enhancing Security by Initiating Cooperation in Transboundary River Basins. Journal of the American Water Resources Association 51(6), 2–5.

Pfeiffer E., and Leentvaar J. (2013) Knowledge leads, policy follows? Two speeds of collaboration in river basin management, *Water Policy* 15 282–299.

Piatteni, S. (2009) Multi level governance: A Historical and conceptual analysis. Journal of European Public Policy 31(2) 163-180.

Rahaman, M M. (2009) Principles of Transboundary Water Resource Management and Ganges Treaties: An Analysis. *Water Resources Development* 25 (1) 159-173.

Rizzo, F. (2013). Leader Policy Practices and Landscapes in the light of the agency-structure debate: Evidence from leader local action groups in Italy and Finland. *Europe Countryside* 3. 232-250

Rose, N. (1996). The death of the social? Re-figuring the territory of government. *Economy and Society*, 25 (3), 327–356.

Ross, K. (2017). Making Empowering Choices: How Methodology Matters for Empowering Research Participants. *Forum: Qualitative Social Research* 18 (3), Art. 12, http://dx.doi.org/10.17169/fqs-18.3.2791.

Sadoff, C W., and Grey D. (2002). Beyond the river: the benefits of cooperation on international rivers. *Water Policy* 4, 389-403.

Schmidt, V A. (2010). Taking ideas and discourse seriously: Explaining change through discursive institutionalism as the forth-new institutionalism. *European Political Science Review* 2 (1), 1-25.

Selby, J. (2003). Dressing up Domination as Cooperation: The Case of the Israeli-Palestinian Water Relations", *Review of International Studies* 29, 121-138.

Schmidt, V. A. (2008). Discursive Institutionalism: The Explanatory Power of Ideas and Discourse. *Annual Review Political Science* 11, 303–26.

Schmidt, V. A., (2010) Taking ideas and discourse seriously: explaining change through discursive institutionalism as the fourth 'new institutionalism'. *European Political Science Review* 2 (1), 1-25.

Schmidt, V. A. (2012). A Curious Constructivism: A Response to Professor Bell. *British Journal of Political Science*, 42 (3), 705-713.

Sibeon, R. (1999). Agency, Structure, and Social Chance as Cross Disciplinary Concepts. *Politics* 19 (3), 139-144.

Slinger, J. H., Hilders, M., and Juizo D. (2010). The practice of transboundary decision-making on the Incomati River: elucidating underlying factors and their implications for institutional design. *Ecology and Society* 15 (1).

Schreiner, B., and. Van Koppen, B. (2002). Catchment Management Agencies for poverty eradication in South Africa. *Physics and Chemistry of the Earth* 27 (11-22), 969-976.

Swatuk, L.A. (2002). 'The New Water Architecture in Southern Africa: reflections on current trends in the light of Rio +10', *International Affairs*, vol. 78 no. 3 (July): 507-30.

Swatuk, L.A., and Fatch, J. (2013). Water Resources Management and Governance in Southern Africa. Towards regional integration for peace and prosperity. *Global Dialogue* 5(2).

Swatuk, L., and van der Zaag P (2016). River Basin Security: Theory and Practice in the Save and Pungwe River Basins of Zimbabwe and Mozambique. *International Environmental Law Review* 21, 705-731.

Swyngedouw, E. (2009). The Political Economy and Political Ecology of the Hydro-Social Cycle. *Journal of Contemporary Water research & education* 142, 56-60.

Turack, D.C. (1984). *International Law and the New States of Africa by Yilma Makonnen. Maryland Journal of International Law* 8 (2), 303.

Turton, A. R., Patrick, M. J., and Julien, F. C. (2006). Transboundary Water Resources in Southern Africa: Conflict or Cooperation? Thematic Section. *Development 49* (3), 22-31.

Turton, A. R., Patrick M J., and Rascher J. (2008). Editorial: Setting the Scene-Hydropolitics and the Development of the South African Economy, *International Journal of Water Resources Development.* 24 (3), 323-327.

Turton, A. R. (2001) A hydro political Security Complex and its Relevance to SADC. *Conflict Trends*. 21-23.

Turton, A.R., Patrick, M.J., and Julien, F. (2006) Transboundary water resources in Southern Africa: Conflict or cooperation? *Development* 49 (3), 22-31.

Turton, A. (2008). A South African perspective on a possible benefit-sharing approach for transboundary waters in the SADC region. *Water Alternatives* 1 (2), 180-200.

Van der Zaag P., and Savenije, H. H. G. (2000). Towards improved management of shared river basins: lessons from the Maseru Conference. *Water Policy* 2. 47-63.

Warner, J F,. and Zeitoun M. (2008). International relations theory and water do mix: A response to Furlong's troubled waters, hydro-hegemony and international water relations. *Political Geography* 27, 802-810.

Wiegleb, V., and Bruns A. (2018). Hydro-social arrangements and paradigmatic change in water governance: an analysis of the sustainable development goals (SDGs). *Sustainability Science* 13, 1155–1166.

Wiering, M., and Verwijmeren J. (2012) Limits and Borders: Stages of Transboundary Water Management, *Journal of Borderlands Studies*. 27 (3), 257-272.

Withanachchi, S. S. (2012). The study of Transboundary Groundwater Governance in the notion of Governmentality: in the case of Guarani Aquifer. *Aqua mundi* Am05039, 9-14.

Wonddwossen, T. B. (2008). Transboundary Water cooperation in Africa: The case of the Nile Basin Initiative." *Turkish Journal of International Relations* 7(4), 34-43.

Wolf, A T. (1999) The Transboundary Freshwater Dispute Database Project, Water International, 24 (2), 160-163.

Zeitoun, M., Lankford B., Krueger T., Forsyth T., Carter R., Hoekstra A.Y., Taylor R., Varis O., Cleaver F., Boelens R., Swatuk L., Tickner D., Scott C A., Mirumachi N., and Matthews N. (2016). Reductionist and Integrative research approaches to complex water security policy challenges *Global Environmental Change* 39, 143-154.

Zeitoun, M. (2013). Global Environmental justice and international transboundary waters: an initial exploration. *The Geographical Journal* 179 (2), 141-149.

Zeitoun, M., and Mirumachi N. (2008) Transboundary water interaction I: reconsidering conflict and cooperation. *Int Environ Agreements* 8, 297-316.

Zeitoun, M., and Allan J, A. (2008). Applying hegemony and power theory to transboundary water analysis. *Water Policy* 10 (2), 3-12.

Zeitoun, M. and Warner, J. (2006), "Hydro-hegemony: A Framework for Analysis of Trans-boundary Water Conflicts", *Water Policy*, 8. 435-460.

Van der Zaag P., and Savenije, H. H. G. (2000). Towards improved management of shared river basins: lessons from the Maseru Conference. *Water Policy* 2, 47-63.

Books and Book Chapters

Achebe, C. (1984). *The Trouble with Nigeria*. Oxford. Heinemann.

Allan, J. A., and Mirumachi, N. (2010). *Why Negotiate? Asymmetric Endownments, asymmetric power and the invisible nexus of water, trade and power that brings apparent water security*. In Earle, A., Jägerskog, A. and Öjendal, J (eds).Transboundary Water Management: Principles and Practice. Earthscan.13-26.

Archer, A. (1996). *Culture and Agency: The place of Culture in Social Theory*. Revised Edition. Cambridge. Cambridge University Press.

Ashton, P. (2000). *Southern African Water Conflicts: Are they Inevitable or Preventable*. In Solomon, H. and Turton, A. (2000), eds. Water Wars: Enduring Myth or Impending Reality. African Dialogue Monograph Series No. 2. Midrand: ACCORD.

Aston, B. (not dated). *What is Structure and Agency? How does this Framework help us in Political Analysis? Approaches to Political Analysis*. https://www.scribd.com/document/140920679/Aston-What-is-Structure-and-Agency-How-Does-This-Framework-Help-Us-in-Political-Analysis-Approaches-to-Political-Analysis

Babbie, E. (2011). *Introduction to Social Research*. Fifth edition. Wadsworth Cengage Learning. United States of America.

Babbie, E. and Mouton, J. (2001). *The Ethics and politics of social research*. In Babbie. E. and Mouton, J. *The Practice of Social Research.* (South African edition). Cape Town: Oxford University Press.

Benjaminsen, T, A., Cousins B and Thompson L (ED) (2002). *Contested Resources. Challenges to the Governance of Natural Resources in Southern Africa. Programme for Land and Agrarian Studies* (PLAAS), School of Government. University of Western Cape. South Africa. ISBN 1-86808-537-6.

Blaikie, N. (1993). *Approaches to Social Inquiry*. USA Cambridge: Polity.

Bourdieu, P. (1980). *The Logic of Practice*. Stanford, Stanford University Press.

Bourdieu, P. (1984). *Distinction: A Social Critique of the Judgement of Taste*. London, Routledge.

Bourdieu, P. (1986). '*The Forms of Capital'. Handbook of Theory and Research for the Sociology of Capital*. J. G. Richardson. New York, Greenwood Press: 241-58.

Bourdieu, P. (1990). *In Other Words: Towards a Reflexive Sociology*. M. Davidson (Translation). California: Stanford University Press.

Brewer, J. & A. Hunter. 2006. *Foundations of Multimethod Research: Synthesising Styles.* (Second Ed). Thousand Oaks. Sage.

Burchill, S, Linklater A, Devetak R, Donnelly J, Paterson M, Reus-Smit C and True J. (2009). *Theories of International Relations*. Third edition. United Kingdom and United States of America. Palgrave Macmillan.

Buzan, B. (1991). *People, States and Fear. An Agenda for International Security Studies in the Post-Cold War Era*. London: Harvester Wheatsheaf.

Cascão, A. E., and Zeitoun, M. (2010). *Power, Hegemony and Critical Hydropolitics in Transboundary Water Management Principles and Practice*, edited by Earle, A., Jägerskog,A. and Öjendal, J.. Earthscan.

Chatterjee, P. (2004). *The Politics of the Governed: Reflections on Popular Politics in Most of the World*. New York: Columbia University Press.

Christiansen, T, Jorgensen, K. E, and Weiner, A. (1999). *The Social Construction of Europe.* London Sage Publications.

Cook, M. (2015). *The Nile River Basin: A Case study in International Conflict Resolution.* Water Resources Planning and Management. Colorado State University.

Craig, D.V. (2009). *Action Research Essentials*. New York: John Wiley.

Denzin, N., and Lincoln, Y. (Eds.) (2005). *Handbook of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.

Dlamini, E. (2006). *Local action for a global challenge-the case of the Komati River Basin*. In Earle, A., and Malzbender, D. (Eds). Stakeholder Participation in Transboundary Water Management-selected case studies. Cape Town, South Africa. African Centre for Water Research.

Dodds, A. (2013). *Comparative Public Policy*. Palgrave MacMillan.

Du Pisani, A. (2001). *New Sites of Governance: Regimes and the future of Southern Africa.* In: P. Vale, L.A. Swatuk and B. Oden, eds, Theory, Change and Southern Africa's Future. London: Palgrave, pp. 195-218.

Du Plessis, A. (2000). *Charting the course of the water discourse through the fog of international relations theory*. In Solomon H, and Turton A (Eds), *Water wars: Enduring myth or impending reality. Africa dialogue series,* 2:9-34. Durban/Pretoria: ACCORD, Green Cross International and the Water Issues Research Unit.

Durkheim, E. (1964). *The Rules of Sociological Method*. London. Collier-Macmillan.

Earle, A, Cascão AE, Hansson S, Jägerskog A,Swain A, Öjendal J. (2015). *Transboundary Water Management and the Climate Change Debate*. Earthscan Studies in Water Resource Management. Abingdon. Routledge.

Elhance, A.P. (1999). *Hydro politics in the Third World: Conflict and Cooperation in International River Basins*. United States Institute of Peace. Washington D.C. United States of America.

Foucault, M. (1977 [1975]). *Discipline and Punish, the Birth of the Prison*. London: Penguin.

Foucault, M. (1980). *Power/Knowledge: Selected Interviews and Other Writings 1972-1977.* (edited by Colin Gordon), Brighton: Harvester Press.

Foucault, M. (1988). *Technologies of the Self,* in L.H. Martin, H. Gutman and P.H. Hutton

(eds) Technologies of the Self, Amherst, MA: University of Massachusetts Press.

Foucault, M. (2000). *Power. Essential Works of Foucault, 1954–1984.* Vol. 3, ed. JD Faubion. New York: New Press.

Gibson, J. G. and Brown, A. (2010). *Working With Qualitative Data*. London: Sage.

Giddens, A. (1976). *New rules of sociological method*. London. Hutchinson.

Giddens A. (1979). *Central Problems in Social Theory: Action, structure and contradiction in social analysis.* Macmillan Press Ltd. London and Basingstoke.

Giddens, A. (1984). *The Constitution of Society*. Cambridge. Polity Press.

Giddens, A. (1993). *New Rules of Sociological Method*. Second edn. Cambridge. Polity Press.

Glaser, B.G., and Strauss, A.L (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. AldineTransaction. United States of America.

Goodin, R. E, Rhodes, R A W, Rockman B A, Binder, S. A. (2006). *Constructivist Institutionalism.* The Oxford Handbooks of Political Science. Oxford University Press.

Gramsci, A. (1971). *Selections from the Prison Notebooks of Antonio Gramsci*. New York, International Publishers.

Grant, A.J., Nadège Compaoré, W.R. & Mitchell, M. I. (Eds.) (2015). *New Approaches to the Governance of Natural Resources: Insight from Africa*. London & Toronto: Palgrave Macmillan**.**

Guest, G., MacQueen, K. M. and Namey, E. E (2012). *Introduction to applied thematic analysis.* In Guest, G., MacQueen, K. M. & Namey, E. E. *Applied thematic analysis* (pp. 3-20). Thousand Oaks, CA: SAGE Publications Ltd.

Hansson, S., and Hellberg, S. (2015). *Power, freedom and the agency of being governed*. In Hansson, S, Hellberg S and Stern M (eds). *Studying the Agency of being governed: Interventions.* Routledge. London and New York.

Hansson, S, Hellberg S and Stern M (2015). *Studying the Agency of being governed: Interventions.* Routledge. London and New York.

Hay, C. (1995). *Structure and Agency*, in D. Marsh & G. Stoker (eds), Theory and Methods in Political Science, Macmillan.

Hay, C. (2002). *Political Analysis: Contemporary Controversies: A Critical Introduction*. New York. Palgrave.

Hay, C. (2002). *Political Analysis: A Critical Introduction*. Political Analysis Series. New York. USA. Palgrave.

Hay, C. (2006). *The Oxford Handbook of Political Institutions. Chapter 4: Constructivist Institutionalism*. Oxford. Oxford University Press.

Harvey, D. (1996). *Justice, Nature, and the Geography of Difference*. Oxford. Blackwell.

Hesse-Biber, S. N. and Leavy, P. (2011). *The Practice of Qualitative Research*. Second edition. United States of America. SAGE Publications.

Heyns, P. (2003). *Water Resources Management in Southern Africa*. In Nakayama, M (ed). International Waters in Southern Africa. Water Resources Management and Policy Series. New York: United Nations University Press. 5-37.

Heywood, A. (1994). *Political Ideas and Concepts: An Introduction*. London. Macmillan.

Hofstee, E. (2006). *Constructing a Good Dissertation. A Practical Guide to Finishing a Masters, MBA or PhD on Schedule*. Johannesburg, South Africa: EPE.

Keohane, R. O. (1984). *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton, NJ: Princeton University Press.

Keohane, R.O. and Ostrom, E, (1995) *Local Commons and Global Interdependence: Heterogeneity and Cooperation in Two Domains*. London: Sage Publications.

Kvale, S. (1996). *Interviews: An Introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.

Jacobs, I., M. (2012). *The Politics of Water in Africa: Norms, Environmental Regions and Transboundary Cooperation in the Orange Senqu and Nile Rivers*. Bloomsbury Publishing Inc. ISBN: 9781-6289-2290-5.

Jessop, B. (1982). *The capitalist state: Marxist theories and methods*. Martin Robertson & Company Ltd. Oxford.

Katerere, Y., Hill, R., and Moyo, S. (2001). *A Critique of Transboundary Natural Resource Management in Southern Africa.* Paper no.1, IUCN-ROSA Series on Transboundary Natural Resource Management.

Khan, F, Grundling E, Ruiters G, Ndevu Z and Baloyi, B. (2016). *State, Governance and Development in Africa.* University of Cape Town Press. South Africa.

Krasner, S. D. (1983). *Structural Causes and Regime Consequences: Regimes as Intervening Variables*. In International Regimes, edited by S. D. Krasner. Ithaca, NY: Cornell University Press.

Kvale, S. (1996). *Interviews: An Introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.

Lasswell, H. (1936). *Politics: Who gets what, when, how*. New York, NY. McGraw-Hill Book Co.

Latour, B. (1986). *The Powers of Association*. In Law, J. (ed.) Power, Action and Belief: A New Sociology of Knowledge. London: Routledge & Kegan Paul.

Leedy P. D and Ormrod J. E (2010). *Practical Research: Planning and Design*. Ninth edition. Pearson Education International. New Jersey.

Lukes, S. [1974] (2005). *Power: A radical view.* London: Macmillan.

Meissner, R (2000). *Hydropolitical Hotspots in Southern Africa: Will there be a Water War. The Case of Kunene River.* In Solomon, H. and Turton, A. (2000), eds. Water Wars: Enduring Myth or Impending Reality. African Dialogue Monograph Series No. 2. Midrand: ACCORD.

Milner, H. (1998). *Regional economic co-operation, global markets and domestic politics: a comparison of NAFTA and the Maastricht Treaty*. *In* William D. Coleman and Geoffrey R. D. Underhill, eds., Regionalism and global economic integration: Europe, Asia and the Americas. London: Routledge.

Molle, F, Foran, T and Floch, P (2009). *Introduction: changing water scapes in the Mekong region-historical background and context*. In Molle F, Foran T and Kakonen M eds Contested waterscapes in the Mekong region: hydropower, livelihoods and governance. London Earthscan.

Nakayama, M. (2003). *International Waters in Southern Africa*. Water Resources Management and Policy Series. New York: United Nations University Press.

Ostrom, E. (1990). *Governing the commons. The evolution of institutions for collective action*. Cambridge: Cambridge University Press.

Parker, I., and Burman, E. (1993). *Against Discursive Imperialism, Empiricism and Constructionism: Thirty-two Problems with Discourse Analysis*. In: E. Burman (ED.). Discourse Analytic Research: Repertoires and Readings of Texts in Action, (pp. 155-172). London: Routledge.

Peters, P. E. (2002). *Grounding Governance: Power and Meaning in Natural Resource Management*. In Benjaminsen, T.A, Cousins B, Thompson L (2002), Eds. Contested resources: Challenges to the governance of natural resources in southern Africa. Cape Town. Programme for Land and Agrarian Studies (PLAAS).

Popper, K. (1966). *The Open Society and its Enemies*. Volume 2. London. Routledge.

Punch, K. F. (2014). *Introduction to Social Research: Quantitative and Qualitative Approaches*. London. Sage Publications.

Rahim, A and Zikhali, P. (2015). *Cooperation over Transboundary Water Resources Management in the Middle East.* In Kessler, R., Sommerfeld, W., & Tramontini, L. (2016) ed. *State formation and state decline in the near and Middle East*. Wiesbaden: Harrassowitz.

Rose, N. (1999). *Powers of freedom: Reframing political thought*. Cambridge, UK. Cambridge University Press.

Schulz, M. (1995). *Turkey, Syria and Iraq: A Hydropolitical Security Complex*, in L. Ohlsson (ed.), Hydropolitics: Conflicts over Water as a Development Constraint. London. Zed Books.

Solomon, H., and Turton A. (2000). *Water wars: Enduring myth or impending reality.* Africa dialogue series, 2:9-34. Durban/Pretoria: ACCORD, Green Cross International and the Water Issues Research Unit.

Stiles, K. (2009). *Introduction: Theories of non-hegemonic cooperation*. In Brem, S, and Stiles, K. (Eds.), Cooperating without America: Theories and case studies of nonhegemonic regimes (pp. 1-20). London: Routledge.

Turton, A. R. (2004). *The Evolution of Water Management Institutions in select Southern African International River Basins.* In Biswas, A.K., Unver, O and Tortajada, C. (Eds) Water as a focus for regional development, 251-289. London: Oxford University Press.

Vas, A.C. and Pereira, A.L. (1998). *The Incomati and Limpopo international river basins: A view from downstream*. In Savenije, H.G. and van der Zaag, P. (Eds). The management of shared river basins. Experiences from SADC and EU, 112-124. The Hague: Ministry of Foreign Affairs.

Vogler, J., and Imber, M. (2005). *Environment and International Relations. Theories and Processes*. Routledge.

Young, O. R. (1989). *International cooperation: building regimes for natural resources and the environment*. Ithaca: Cornell University Press.

Other Sources: Dissertations, Reports and Popular articles

Adichie, C. N. (2009). *The danger of a single story*. TED Global, July 2009, Oxford, United Kingdom. At, https://www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story?language=en 7 September 2016.

African National Congress. (1994). *Reconstruction and Development Programme*. Johannesburg Umanyano Publications.

Amestrand, M and Hanson, G. (1993). *Management of scarce water resources in Southern Africa. Main Report*. Sustainable Use of Water Resources Report No. D3. Stockholm. Royal Institute of Technology

Arsano, J. (2016). *A Hydro-diplomacy in North-eastern Africa: A Trajectory for Regional Integration*. A Keynote Lecture at the Bergen Summer Research School. Norway. University of Bergen.

Ashton, P. (2003). *Southern African Water Conflicts: Are they inevitable or Preventable?* Viewpoint- Shared watercourses. *The Water Wheel*. The African Dialogue Lecture Series - 24 February 2000. South Africa. Pretoria University.

Bacalso, C. (2010). *Engaging with Sociological Institutionalism: Addressing the gaps and silences*. A Research Paper in partial fulfilment of the requirements of Master of Arts in Development Studies. International Institute of Social Studies. The Hague. Netherlands.

Barret, S. (1994). Conflict and cooperation in managing international water resources," Policy Research Working Paper Series 1303, The World Bank.

British Broadcasting Corporation (BBC). (2018a). Mozambique country profile. 30 July 2018. https://www.bbc.com/news/world-africa-13890416. 16 November 2018.

British Broadcasting Corporation (BBC). (2018b) Eswatini country profile https://www.bbc.com/news/world-africa-14095303 17 November 2018.

Benjamin, P., Carius A., Conca K., Dabelko, G.D., Kramer A., Michel D., Schmeier S., Swain A., and Wolf A. (2014). *The Rise of Hydro-Diplomacy. Strengthening foreign policy for transboundary waters.* Climate Diplomacy Report. Berlin: Adelphi.

Brels, S., Coates, D., and Loures, F. (2008). *Transboundary water resources management: the role of international watercourse agreements in implementation of the CBD*. CBD Technical Series no.40, 48 pages. Secretariat of the Convention on Biological Diversity, Montreal, Canada.

Carmo Vas, A., and van der Zaag, P. (2003). *Sharing the Incomati Waters: Cooperation and Competition in the Balance, UNESCO*. Technical Documents in Hydrology, PC-CP series No. 14 (SC-2003/WS/46).

Centre for North East Studies. (2014). *The Case for Water Diplomacy for South Asia. Ganges-Brahmaputra-Meghna Basin.* https://www.c-nes.org/2435/the-case-for-water-diplomacy-for-south-asia-ganges-brahmaputra-meghna-basin/ 13 February 2017.

Chang, L. (2006). *Wisdom for the Soul. Five Millennia of Prescriptions for Spiritual healing*. Washington DC, United States of America. Gnopophia Publishers.

Chapeyama, O., and Mhlanga-Ndlovu, N. (2016). *Adapting National and Transboundary Water Resources Management to Manage Expected Impacts of Climate Change in Eswatini. Terminal Evaluation. Final Report*. United Nations Development Programme Special Climate Change Fund. Eswatini.

Chenje, M., and Johnson, P. (1996). *Water in Southern Africa*. Harare/Maseru. SARDC/SADC.

Chothia, F. (2011). *Eswatini: A kingdom in crisis. BBC African Service.* https://www.bbc.com/news/world-africa-13963463 29 November 2018.

Cilliers, J., Schunemann, J., and Moyer, J.D. (2015). *Power and influence in Africa: Algeria, Egypt, Ethiopia, Nigeria and South Africa. Africa Futures Paper 14*. Institute for Security Studies.

Club of Mozambique. (2018). *Works on Corumana dam will nearly double Maputo water supply*. 17 sept 2018. https://clubofmozambique.com/news/works-on-corumana-dam-will-nearly-double-maputo-water-supply/ 10 January 2019.

Delbourg, E., and Strobl, E. (2014). *Water conflicts and cooperation up and down African rivers.* Department of Economics. Ecole Polytechnique. France.

Dellapenna, J.W. (2006). *The Berlin Rules on Water Resources*: *A New Paradigm for International Water Law.* World Environmental and Water Resources Congress, May 21-25, 2006. Omaha, Nebraska, United States.

de Loë, R.C. (2009). *Sharing the Waters of the Red River Basin: A Review of Options for Transboundary Water Governance*. Prepared for International Red Rivers Board, International Joint Commission. Guelph, ON: Rob de Loë Consulting Services.

DFID (Department for International Development, Government of UK) and WWF (World Wide Fund for Nature). (2010). *International Architecture for Transboundary Water Resources Management. Policy Analysis and Recommendations*. Final draft. http://awsassets.panda.org/downloads/wwf___intn_l_water_architecture___policy_recommendations__2010_.pdf

FAO. (2016). *FAO's Information System on Water and Agriculture*. Mozambique. AQUASTAT. Food and Agriculture Organisation. http://www.fao.org/nr/water/aquastat/countries_regions/MOZ/

Fauconnier, I., Demilecamps, C., and Azza, N. (2017). *Transboundary Water Governance*. A PowerPoint Presentation At https://www.unece.org/fileadmin/DAM/env/documents/2017/WAT/05May_16-18_Workshop_Kisumu/4.1_Fauconnier___Demilecamps___Azza_Transboundary_Water_Governance.pdf 12 December 2017.

Flintan, F., and Tamrat, I. (2007). *Spilling Blood over Water? The Case of Ethiopia*. Human Security and Development. Pretoria. University of South Africa.

Frenken, K. (1997). *FAO land and water bulletin 4: Irrigation potential in Africa*. Rome, Italy: Food and Agriculture Organisation of the United Nations.

Gartzke, E., and Weisiger, A. (2012). *Permanent Friends? Dynamic Difference and the Democratic Peace*. International Studies Quarterly 1–15. University of California and University of Pennsylvania.

Gaventa, J. (2003). *Power after Lukes: a review of the literature*. Brighton. Institute of Development Studies.

Gaventa, J. (2006). *Finding the Spaces for Change: A Power Analysis*. Institute of Development Studies. IDS Bulletin. 37 (6).

Global Water Partnership. (2000). *Towards Water security: a framework for action*. Global Water Partnership, Stockholm.

Grandi, M. (2016). *Hydropolitics in Transboundary Water Management Conflict, Cooperation and Governance along the Nile River*. A dissertation submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy PhD Programme in Politics, Human Rights and Sustainability. Sant'Anna School of Advanced Studies Pisa. Italy.

Hay, C. (2006). *Constructivist Institutionalism: or why interests into ideas dont go*. Paper presented at the annual meeting of the American Political Science Association. Marriott, Loews Philadelphia, and the Pennsylvania Convention Centre, Philadelphia, PA, Aug 31, 2006. http://citation.allacademic.com/meta/p152815_index.html

Hirji, R., and Grey, D. (1998). *Managing International Waters in Africa: Process and Progress*. In Salman S.M.A and Chazournes L.B (ed) International Watercourses: Enhancing Cooperation and Manging Conflict. World Bank Technical Paper No. 44 the World Bank. Washington DC.

Jägerskog, A., and Zeitoun, M. (2009). *Getting Transboundary Water Right: Theory and Practice for Effective Cooperation*. Report Nr. 25. SIWI, Stockholm.

Katerere, Y., Hill R., Moyo, S. (2001). *A Critique of Transboundary Natural Resource Management in Southern Africa.* Paper no 1. IUCN-ROSA Series on Transboundary Natural Resource Management.

Kistin, E. (2007). *Transboundary cooperation in SADC: from concept to implementation.* Warfsa- Waternet Symposium Proceedings. Harare: Waternet.

Kim, K., and Glaumann, K. (2012). *Transboundary Water Management: Who does What, Where? Analysing the Data in SIWI's Transboundary Water Management Database*. Swedish Water House. Sweden.

Kistin, E. (2007). *Transboundary cooperation in SADC: from concept to implementation.* Warfsa- Waternet Symposium Proceedings. Harare: Waternet.

Klaphake, A., and Scheumann, W. (2006). *Understanding transboundary water cooperation: Evidence from Africa.* Working Paper on Management in Environmental Planning 014/2006. Berlin: Technical University of Berlin.

Komati Basin Water Authority (KOBWA) Annual Report (2016 & 2017). at, www.kobwa.co.za/index.php/about-us/key-documents/annual-reports. 2 January 2018.

Kula, D. (2015). *I Am Pregnant: Business, leadership and life lessons from the phenomenal journey of pregnancy.* First Impressions. South Africa.

Lindemann, S (2005). *Explaining success and failure in international river basin management-Lessons from Southern Africa*. The sixth Open Meeting of the Human Dimensions of Global Environmental Change Research Community: Global Environmental Change, Globalization and International Security: New Challenges for the 21st Century. University of Bonn, Germany, 9-13 October 2005.

Lukasiewicz, A. (2010). *Equity and Social Justice in water resource management in Bangladesh*. University of Canberra.

Lukaisiewitz, A. (2013). *Incorporating justice and fairness into water planning: A comprehensive Social Justice Framework for Water and Natural Resource Management*. University of Canberra.

Matthews, T. (2017). *Within its available resources –An assessment of South African Government spending on socio-economic rights from 2008/09 to 2017/18.* Occasional Paper by the Studies In poverty and Inequality Institute (SPII).Available at: http://www.spii.org.za/occasional-paper/ 15 December 2018.

Mayers, J. (2005). *Stakeholder Power Analysis*. International Institute for Environment and Development.

McEwen, T. (2008). *Ganges-Brahmaputra-Meghna/Barak Basin*. CE 397-Transboundary Water Resources.

Mirumachi, N., and Allan, J.A. (2008) *Revisiting Transboundary Water Governance: Power, Conflict, Cooperation and the Political Economy*. http://www.newater.uni-osnabrueck.de/caiwa/data/papers%20session/F3/CAIWAFullPaperMirumachiAllan25Oct07submitted2.pdf 3 June 2014.

Mlilo, P., Mhlanga, N. B., Senzanje, A. (2014). *Emerging Issues in Water Resources Management in Eswatini*. https://www.researchgate.net/publication/42761079 13 November 2018.

Msangi, J.P. (2014). *Managing Water Scarcity in Southern Africa: Policy and Strategies. Combating Water Scarcity in Southern Africa*. Springer Briefs in Environmental Science.

Mthimkhulu, S. (2016). *The value of partnerships, twinning and collaboration: Evidence from the REMCO Initiative*. International Water Security Network, 17 October 2016. http://www.watersecuritynetwork.org/the-value-of-partnerships-twinning-and-collaboration-evidence-from-the-remco-initiative/, 3 February 2018.

Monjane, B. (2018). *How is Mozambique doing, 43 years after its political independence? Pambazuka News,* 29 June 2018, https://www.pambazuka.org/democracy-governance/how-mozambique-doing-43-years-after-its-political-independence 20 November 2018

Moore, S. M. (2016). Rethinking Conflict over Water. Oxford Research Encyclopedia of Environmental Science. http://oxfordre.com/environmentalscience/view/10.1093/acrefore/9780199389414.001.0001/acrefore-9780199389414-e-104?print=pdf 6 March 2019.

Motsoeneng, M. (2016). *Monitoring and Evaluating the Progressive Realisation of the Right to Water and Sanitation in South Africa Peoples' Guide.* Studies In poverty and Inequality Institute (SPII). http://www.spii.org.za/research-and-advocacy/the-socio-economic-rights-monitoring-tool/the-right-to-water-and-sanitation/ 15 December 2018.

National Water Policy Final Draft (2009). Ministry of Natural Resources and Energy. Eswatini Government. Eswatini. 29 June 2009.

Oden, B. (1996). *Southern Africa after apartheid: Regional Integration and External Resources*. The Scandinavian Institute of African Studies. Seminar Proceedings No 28. Sweden.

Orre, A., and Rønning, H. (2017). *Mozambique: A Political Economy Analysis*. Report commissioned by the Norwegian Ministry of Foreign Affairs. Norwegian Institute of International Affairs. Oslo. Norway

Oz, H. (2011). *Constructing Crises, (in) securitizing terror: the punctuated evolution of EU counter terrorism policy*. At http://www.tandfonline.com/doi/abs/10.1080/09662839.2010.526935 13 November 2018.

Pantazidou, M. (2012). *What Next for Power Analysis? A review of Recent Experience in the Powercube and Related Frameworks*. Institute of Development Studies. UK.

Pickaver, A., and Sadacharan, D. (2007). *The Benefits of Inter-linking Coastal and River Management, Twenty case studies world-wide indicate opportunities and constraints.* Coastline Reports 10. EUCC-The Coastal Union.

Phakathi, B. (2018). *Auditor-General details tender deviation spree under Nomvula Mokonyane.*Business Day. https://www.businesslive.co.za/bd/national/2018-03-28-auditor-general-details-tender-deviation-spree-under--nomvula-mokonyane/ 28 March 2018

Pope, C., and Mays, N. (2009). *Critical reflections on the rise of qualitative research*. BMJ 339 B3425.

Poulsen, U. (2001). *River Basin Management- the Incomati as a case study*. MA Dissertation. Geography Department, SOAS. University of London.

Rahman, M. A. (2013) The Geopolitics of Water in the Nile River Basin. Global Research, http://www.globalresearch.ca/the-geopolitics-of-water-in-the-nile-river-basin/25746

Ramoeli, P. (2002). *SADC Protocol on Shared Watercourses: Its History and Current Status.* in A.R. Turton and R. Henwood (ed.), Hydropolitics in the Developing World: A Southern African Perspective. Pretoria. African Water Issues Research Unit (AWIRU).

Ramoeli, P. (2002). *The SADC Protocol on shared watercourse: history and current status*. In Turton, A. and Henwood, R., (eds), Hydropolitics in the developing world: a southern African perspective, Pretoria, Centre for International Political Studies.

REMCO Conference (2016). *A Climate Resilient Transboundary Catchment*. 4th International REMCO Conference. 25-28 September 2016. Royal Swazi Spa Resort. Eswatini.

Revised Protocol on Shared Watercourses in the Southern African Development Community (SADC Revised Protol) (2000). Available on the SADC website.

RSA, Republic of South Africa. (1996). Constitution of the Republic of South Africa, Act 108 of 1996. Pretoria. Government Printer.

RSA, Republic South Africa. (1997). Water Services Act, No. 108 of 1997. Government Gazette, Pretoria.

RSA, Republic South Africa. (1998). National Water Act, No. 36 of 1998. Government Gazette, Pretoria.

Sadoff, C., Greiber, T, Smith, M. and Bergkamp, G. (2008). *Share – Managing water across boundaries*. Gland, Switzerland.

Scheuman, W., and Neubert, S. (2003). *Transboundary Water Management in Africa. Challenges for Development Cooperation*. German Development Institute.

Schreiner, B, Mtsweni A, and Pegram G (2011). *An Institutional Framework for Stakeholder Participation in Transboundary Basins*. South Africa. Water Research Commission.

Schmidt, V, A. (2006). *Give Peace a Chance: Reconciling Four (not three) "New Institutionalisms"*. Paper prepared for presentation for the Annual Meetings of the American Political Science Association. PhilBenjamin et ala, PA. 31 August- 3 September 2006.

Sebastian, A.G (2008). *Transboundary Water Politics: Conflict, Cooperation, and Shadows of the Past in the Okavango and Orange River Basins of Southern Africa.* A Dissertation submitted to the Faculty of the Graduate School of the University of Maryland, College Park, in partial fulfillment of the requirements for the degree of Doctor of Philosophy. https://drum.lib.umd.edu/bitstream/handle/1903/8758/umi-umd-5777.pdf;sequence=1 16 November 2018.

Shikhani, R. (2012). *Mozambique: Post-war socio-economic and political challenges*. Institute for Security Studies. Situation Report, 24 April 2012. Pretoria. South Africa.

Shongwe, T. (2016). *Tripartite Permanent Technical Committee Matters*. A Presentation delivered at the 4th REMCO Conference 2016. 26 September 2016. Royal Swazi Sun. Eswatini.

Slabbert, A. (2019). *Wanted: A Nersa for water 'Certainty will unlock much-needed investment'*. Available at: https://www.moneyweb.co.za/news/south-africa/wanted-a-nersa-for-water/ 18 January 2019.

State Of Environment Report for Eswatini. (2001). https://wedocs.unep.org/bitstream/handle/20.500.11822/9073/State%20of%20the%20Environment%20Report%20%202001%20%20Eswatini2001State%20of%20the%20Environment%20Report-2001Eswatini.pdf?sequence=3&isAllowed=y 13 September 2018.

Swatuk, L. A. (2005). *Geographies of Cooperation: water resources management in sub-Saharan Africa*. Paper prepared for presentation at the 6th WaterNet/Warfsa meeting, Mbabane, Eswatini, November 2005.

Swatuk, L.A. and Wirkus, L. (2009). *Transboundary water governance in southern Africa: Examining underexplored dimensions.* Baden-Baden: Nomos Verlagsgesellschaft.

Subramanian, A., Brown B., and Wolf, A. (2012). *Reaching Across the Waters: Facing the Risks of Cooperation in International Waters*. Water Papers. The World Bank.

Swatuk, L.A. (2015) *Water conflict and cooperation in Southern Africa*. Wiley Periodicals. Inc.

Szalkai, K. (2012). *Water Issues are what states make of them: A Constructivist Approach to conflict and cooperation over transboundary waters*. Master of Arts thesis in International Relations and European Studies. Central European University. Budapest, Hungary.

The Citizen. (2018). *How IUCMA managed water flow into three countries during a drought*. https://citizen.co.za/news/1817535/a-water-entity-that-successfully-manage-flow-of-water-into-three-countries-lessons-during-water-crisis/, Gosebo Mathope. 13 February 2018. Accessed 14 February 2018.

Tauacale, F. (2002). *Water Resources of Mozambique and the situation of the shared rivers*. A paper presented in Kenya at the River Basin Information Systems Meeting. Eduardo Mondlane University. Mozambique.

Turton, A. (2003a). *Post-Apartheid Institutional Development in South African International River Basins*. University of Pretoria. Pretoria, South Africa.

Turton, A. R., (2003b). *The political aspects of institutional developments in the water sector: South Africa and its international river basins*. Submitted in partial fulfillment of the requirements for the degree Doctor Philosophiae (International Politics) in the Faculty of Humanities University of Pretoria

Turton, A. R. (2005). *Water as a Source of Conflict or Cooperation: The Case of South Africa and its Transboundary Rivers*. CSIR Report No: ENV P CONF 2005-002 At, http://www.awiru.co.za/pdf/6Turton%20Tufts_water%20as%20a%20source%20of%20conflict%20or%20cooperation.pdf.

Turton, A. (2005). *Hydro Hegemony in the context of the Orange River Basin*. Workshop on Hydro Hegemony hosted by King College and School of Oriental and African Studies. London.

Turton, A. (2010). *New Thinking on the Governance of Water and River Basins in Africa: Lessons from the SADC Region*. SAIIA Research Report 6. Governance of Africa's Resources Programme. South Africa.

Turton, A.R., Earle, A., Malzebender, D and Ashton, P. (2006). *Hydrological vulnerability and resilience along Africa's International waters*. In Wolf, A.T. (Ed). Hydrological vulnerability and resilience along International waters. Africa 19-67. Nairobi. United Nations Environment Programme.

Turton, A. R., and Ashton, P.J. (2004). *An assessment of strategic issues in the policy field relating to water resource management in Southern Africa.* Proceedings of the workshop on 'Water and politics: Understanding the role of Politics in Water Management', Marseilles, 26-27 February 2004, Marseilles. World Water Council. 51-70.

Turton. A., Ashton, P., and Cloete, E. (2003). *Transboundary Rivers, Sovereignty and Development: Hydro-political drivers in the Okavango River Basin*. African Waters Issues Research Unit and Green Cross International.

UN Chronicle. (2018a). *Coming to Grips with Water Security in the Face of Climate Change. The Magazine of the United Nations* LV (1). https://unchronicle.un.org/article/coming-grips-water-security-face-climate-change 2 April 2018.

UN Chronicle. (2018b). R*emarks at the Launch of the International Decade for Action, "Water for Sustainable Development", 2018-2028. The Magazine of the United Nations* LV (1). https://unchronicle.un.org/article/remarks-launch-international-decade-action-water-sustainable-development-2018-2028 19 November 2018.

UNHABITAT/UNEP. (2007). *Limpopo Basin Strategic Plan for reducing vulnerability to floods and droughts. Draft for Discussion with Riparian Governments*. 23. http://www.limpopo.riverawarenesskit.org/LIMPOPORAK_COM/_SYSTEM/DMSSTORAGE/3471EN/UNEP_UN_HABITAT_GEF2007_LIMPOPO.PDF

UN-Water. (2014). *A Post-2015 Global Goal for Water: Synthesis of key findings and recommendations from UN-Water.* http://www.un.org/waterforlifedecade/pdf/27_01_2014_unwater_paper_on_a_post2015_global_goal_for_water.pdf

UNWater. (2008). *Transboundary Waters: Sharing Benefits, Sharing Responsibilities*. Thematic Paper. United Nations.

Venton, C. C., Coulter L., and Schmuck, H. (2013). *The Economics of Early Response and Resilience: Lessons from Mozambique*. TEERR. Mozambique. https://assets.publishing.service.gov.uk/media/57a08a0d40f0b649740003ca/61114_Mozambique_Report.pdf 16 November 2018.

Vollmer, R., Ardakanian, R., Hare, M., Leentvaar, S. C., and Wirkus. (2010). *Institutional Capacity Development in Transboundary Water Management. UN Water Decade Programme on Capacity Development (UNW-DPC)*. Germany. United Nations University.

Warner J., Zeitoun, M., and Mirumachi, N. (2013). *How 'soft' power shapes transboundary water interaction.* Wageningen University, Netherlands, University of East Anglia, UK, and King's College London, UK.

Whittington, D., Waterbury, J., and Jeuland, M. (2014). *The Grand Renaissance Dam and Prospects for Cooperation on the Eastern Nile*. University of North Carolina.

WHO/UNICEF. (2012). *Joint Monitoring Programme for water supply and sanitation, progress on drinking water and sanitation 2012*. USA. Update.

Waterbury, J. (2002). *The Nile Basin: National Determinants of Collective Action*. Yale University Press, New Haven.

World Bank. (1994). *Water resources management*. Policy Paper No.12335). Washington, DC: World Bank.

World Bank. (2014). *Ganges Strategic Basin Assessment: A Discussion of Regional Opportunities and Risk*s. Report no. 67668-SAS, p. 32. Washington DC. The World Bank.

World Bank. (2017). *Political Economy Analysis for Transboundary Water Resources Management in Africa: Practical Guidance.* Washington DC. World Bank.

World Bank (2019). World Development Indicators. https://data.worldbank.org/indicator/SP.POP.TOTL?view=chart. 6 August 2019.

World Economic Forum. (2016). *The Global Risks Report 2016*, 11th ed. (Geneva, Switzerland, 2016). http://www3.weforum.org/docs/GRR/WEF_GRR16.pdf.

World Economic Forum. (2018). *The Global Competitiveness Report 2018: Insight Report.*. Geneva. Switzerland. World Economic Forum.

Worldometers (2018). *Elaboration of data by United Nations*. Department of Economic and Social Affairs. Population Division. http://www.worldometers.info/world-population/southern-africa-population/ 23 November 2018.

Zikhali, T. (2015). *Factors affecting the effectiveness of pro-poor urban water service delivery in post-apartheid South Africa*. In Steyn Kotze, J (ed)**,** South Africa's Democracy @20: Diagnosis and Prognosis. Published Conference Proceedings of the 2014 Biennial Conference of the South African Association of Political Studies. ISBN: 978-0-620-62990-4.

Appendices

A. The Incomati River Basin Map



Source: Slinger et al (2010)

B. Research Ethics Clearance Certificate

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Zikhali

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H15/02/33**
PROJECT TITLE	Power and hydro-hegemony: understanding the dynamics of transboundary water interactions in the Inkomati international river basin
INVESTIGATOR(S)	Ms T Zikhali
SCHOOL/DEPARTMENT	Social Sciences/Political Studies
DATE CONSIDERED	20 February 2015
DECISION OF THE COMMITTEE	Approved unconditionally
EXPIRY DATE	23 February 2017

DATE 24 February 2015 **CHAIRPERSON** (Professor T Milani)

cc: Supervisor : Dr A Veriava

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.

I/~~We~~ fully understand the conditions under which I am/~~we~~ are authorized to carry out the abovementioned research and I/~~we~~ guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

Zikhali
Signature

05, 03, 2015
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

C. Participation information sheet and Consent Form

A study to understand and analyse the dynamics of transboundary water interactions in the Incomati international river basin

Good Morning/Good Day, my name is ***Thobekile Zikhali*** and I am a PhD student in the Department of Political Studies at the University of Witwatersrand.

I am conducting a research on transboundary water governance in Southern Africa. My case study is the Incomati International River Basin shared by Mozambique, South Africa and Eswatini. The objective of my study is to understand the socio-political dynamics of transboundary water interactions and what these interactions tell us about the issues of power and hegemony in the Southern African region after apartheid. Specifically, I want to learn and understand the process of communication or negotiations on matters that relate to the management of the river basin. For example, who sets the agenda, how decisions are reached, how policies are implemented, who is in charge of the implementation and/or monitoring the policies etc. The aim of the study is not only to detail the nature of these interactions but also to explore how they impact on cooperation, development, peace and security in the Southern African region.

I am inviting you to participate in the research study. You are receiving the invitation to participate in this study because of your experiences and knowledge in transboundary water governance in Southern Africa. May you kindly allow me to conduct one interview with you about the knowledge you have in relation to my study objectives and aims. Should you give consent to participation; the interview will take approximately one hour.

Please understand that **your participation is voluntary** and you are not being forced to take part in this study. The choice of whether to participate or not, is yours alone. If you choose not to take part, you will not be affected in any way whatsoever. If you agree to participate, you may stop participating in

the research at any time and tell me that you don't want to continue. You will also not have to answer the questions that you are not comfortable with. If you do this, there will be no penalties and you will not be prejudiced in any way.

All identifying information will be kept in safe storage within the University buildings and will not be available to others unless otherwise indicated and will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the ethics committee at the University of Witwatersrand (All of these people are required to keep your identity confidential.) Otherwise, records that identify you will be available only to me, unless you give permission for other people to see the records. I will also keep your name confidential in all my writing about the study and I will maintain your individual privacy in all published and written data resulting from the study.

I am asking you, where required, to give me permission to tape-record the interview so that I can accurately record what is said. I will lock away all transcripts and audio tapes in a lockable cabinet in a lockable office at the university and I will shred paper and delete all electronic data within 3-5 years of completion of the study.

Your answers will be stored electronically in a secure environment and used for academic purposes now or at a later date in ways that will not reveal who you are. All future use of the stored data will be subject to further Research Ethics Committee review and approval.

I will not record your name anywhere and no one will be able to connect you to the answers you give should you request non-disclosure of your identity. Your answers will be linked to a fictitious code number or a pseudonym (another name) and I will refer to you in this way in the data, any publication, report or other research output.

There are no known risks in this project beyond those encountered in everyday life.

Please note that there are no immediate benefits to you from participating in this study. However, this study might help influence the Southern African Development Community (SADC) transboundary water management policies. It might also result in intervention by policy makers from countries sharing river basins in terms of cooperation and managing water related conflicts.

If you would like to receive feedback on my study, I will record your phone number on a separate sheet of paper and can send you the results of the study when it is completed sometime after December 2016.

This research has been approved by the University of Witwatersrand Research Ethics Committee. If you have any complaints about ethical aspects of the research or feel that you have been harmed in any way by participating in this study, you may call the University of Witwatersrand Ethics Committee, on 0027 117 171 408.

If you have concerns or questions about the research you may contact me on;

E-mail: thobekilezikhali@yahoo.com

Phone: 0027 711142327

Thank you



Thobekile Zikhali

CONSENT

I hereby agree to participate in Thobekile Zikhali's PhD study on transboundary water dynamics in the Incomati International River Basin in Southern Africa. I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop participating at any point should I not want to continue and that this decision will not in any way affect me negatively. I understand that this is a research project whose purpose is not necessarily to benefit me personally in the immediate or short term. I understand that my participation will remain confidential.

……..

Signature of participant **Date**…….

CONSENT FOR TAPE RECORDING

I hereby agree to the tape-recording of my participation in the study.

……..

Signature of participant **Date**…….

I understand that the information that I provide will be stored electronically and will be used for research purposes now or at a later stage.

……..

Signature of participant **Date**…….

D. Semi-Structured Interview Questions

Introductory Remarks

Thank you for your time. My name is Thobekile Zikhali, a PhD student at the Department of Political Studies in the University of Witwatersrand. My study is broadly on transboundary water governance in Southern Africa and how it affects international water relations in the region. My case study is the Incomati river basin that is shared by Mozambique, South Africa and Eswatini. It is my aim to understand (1) how transboundary water relations of the 3 states have evolved over time-from colonial, apartheid to post 1994 period (including institutional analysis) (2) the power relations or hydro-politics that exist between and among the states; and the internal politics within the individual countries i.e. how the resource is managed within countries and whether this has any bearing on foreign affairs with the riparian states (3) the role of third parties e.g. foreign governments, World Bank etc in the basin level development and how they neutralize or reinforce power asymmetries in a river basin .

This study was ethically approved by the University of Witwatersrand (Wits) Research Ethics Committee. Our conversation is confidential and your name will not be quoted in my thesis or publications that will result from this study. Should you feel uncomfortable at any stage of the interview, you have a right to discontinue with the interview. I have an information sheet detailing more about the study and a consent form that I would like you to sign if everything is clear and you are willing to participate in the study.

Question	**Probe**
Kindly share with me your experiences in the transboundary water sector	✓ How long have you worked in the water sector? ✓ Your experiences in water governance in general and in particular-transboundary water management
Who are the actors involved in transboundary water governance?	✓ What's the role and impact of these actors? By impact I mean what value they add to development of the river basin and the influences they have on decision making processes. ✓ The interests of each actor versus what's best for basin level development? ✓ What institutions exist? ✓ How have these institutions evolved over time? ✓ Who are the third parties and what is their role?
Who do you think controls the Incomati water resources or the activities related to the running of the river basin in theory and in practice? Would you agree that South Africa is a hydro hegemon? (that it is the most powerful)	✓ Water governance at national level and transboundary level ✓ How would you define power? ✓ What forms of power exist in the Incomati? ✓ Which is more effective hard/material or soft/negotiation? ✓ How how they perceive the effectiveness of the different power forms. ✓ Who sets the agenda for negotiations and who makes the final decision in matters affecting the basin
What are the counter hegemonic mechanisms employed by the non-hegemonic states in order to change the outcomes of water control or	✓ Would you define certain actors as 'weak'? ✓ Ways in which the perceived weaker states contest the power configuration

Question	Probe
allocation towards a more equitable distribution?	
What are the internal power dynamics within countries?	✓ How the national government per country relates to the provincial and local governments? ✓ Is there transparency? Accountability? Coordination? ✓ Is the Central government responsive to the needs of the local populace? ✓ How domestic policies are synchronized to facilitate cooperation and water resource development
What is the role of regional institutions in managing water resources?	✓ The role of SADC (what are the opportunities and challenges)
What are some of the challenges faced by transboundary water management policy makers and the opportunities/success stories in the SADC region or Incomati specifically?	✓ The respondent to discuss any of the issues that he or she thinks are important to know or to aid the study
How were transboundary water resources governed during the apartheid regime (1948-1994) and how has the advent of democracy in South Africa affected these relations? Simplified: Would you say the cooperation of states or other stakeholders is better now compared to apartheid times. Give reasons for your answer.	Probe for their comments on the below aspects (comparing apartheid and post-apartheid period) ✓ What agreements were signed by the Incomati riparian states? If you know any ✓ Institutional Building and Institutional Evolution ✓ Solving disputes ✓ Information Sharing ✓ Water Security
Any other issues you would like to add to our discussion	
THANK YOU FOR PARTICIPATION	

E. Research Ethics Certificate (Module 2.1)

Zertifikat Certificado
Certificat Certificate

TRREE

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Clinical Trials Centre
The University of Hong Kong

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

Thobekile Zikhali

a complété avec succès - has successfully completed

Research Ethics Evaluation

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

March 16, 2015
CID : H3oDyvvsM

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH
Continuing Education Program (5 Credits)
Programme de Formation continue (5 Crédits)

FPH
Continuing Education Programms
Programmes de formation continue

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TRREE

Zertifikat
Certificat
Certificado
Certificate

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Clinical Trials Centre
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Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

Thobekile Zikhali

a complété avec succès - has successfully completed

South Africa

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

March 30, 2015
CID : Y9tJhZtuMb

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program (5 Credits)
Programme de Formation continue (5 Crédits)

Fédération Pharmaceutica Helvetiae FPH Programmes de formation continue
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[REV : 20140328]

G. Bergen Summer Research School Certificate (Rivers, Power & Law)

Bergen Summer
Research School

Global Development Challenges

Water, Climate & Society

2016

This is to certify the participation of

THOBEKILE ZIKHALI

in the course

River Basins, Power and Law

Dr Tore Sætersdal
Academic Coordinator
UiB Global

Professor Terje Tvedt
Scientific Director
BSRS2016

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