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# IS TRANSFRONTIER CONSERVATION OVERCOMING THE PITFALLS OF LARGE-SCALE COLLECTIVE ACTION?

A case study of the Great Limpopo Transfrontier  
Conservation Area in southern Africa.

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## Abstract

Management of migrating resources is typically referring to fish or water, but wildlife such as elephants, rhinos and lions can also classify as a migratory resource. These animals are generally constrained by political borders, but by implementing large wildlife-parks called transfrontier conservation areas the political borders between two or more states are opened. The number of transfrontier conservation areas has expanded immensely between 1988 to 2007, increasing from 59 to 227 parks globally. One of these so-called peace-parks is the Great Limpopo Transfrontier conservation area, spanning over South Africa, Mozambique and Zimbabwe. This thesis is based on a case study of the Great Limpopo transfrontier conservation area. The aim is to evaluate what challenges and opportunities a transfrontier conservation area can give rise to, and if this institutional arrangement can overcome large-scale collective action dilemmas. Three factors were highlighted as potentially challenging; perceived loss of sovereignty, that the group of states is heterogenous and that the resource lacks clearly defined boundaries. Eight unique key informant interviews were conducted in South Africa and the results illustrate that challenges linked to large-scale collective action appear to be overcome in the Great Limpopo. However, other areas are challenging such as community neglect which seems to have contributed to the difficulties of rhino-poaching that has struck the area severely. Future studies should focus on different governance levels within the park, but also include interviews representing the other states involved in the Great Limpopo transfrontier conservation area.

**Keywords:** Transfrontier conservation, the Great Limpopo Transfrontier Conservation Area, collective action, resource management, common-pool resource

## Abbreviations used throughout the thesis

CPR	Common pool resource
GLTFCA	the Great Limpopo Transfrontier Conservation Area
NGO	Non governmental organization
SADC	Southern African Development Community
TFCA	Transfrontier conservation area

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# 1. INTRODUCTION

“What is common to the greatest number has the least care bestowed upon it. Everyone thinks chiefly of his own, hardly at all of the common interest”. The citation stems from Aristotle, who early highlighted the difficulties in managing a common resource (Ostrom, 1990:2).

When multiple actors share a common resource, it can be difficult to cooperate and hence the risk of overexploitation is apparent. Aspects such as the number of actors involved and the nature of the resource can complicate resource management further (Agrawal, 2002).

Resources can be stationary like trees, or migratory like water or fish. The former is easier to govern and manage because the number and size of the trees are more accessible to count and therefore usage is easier to allocate accordingly. Furthermore, monitoring is facilitated when resources are stationary and not dispersing over a large area (Ostrom et al., 1999). The opposite is valid for migrating resources such as fish which can transfer over large geographical areas, often crossing nation-state and administrative borders (Fidelman, et al., 2012).

Previous research regarding management of migrating resources is typically referring to fish or water as mentioned above, but wildlife on land also classifies as a migratory resource. One governance initiative to effectively manage wildlife has been to implement large wildlife-parks called transfrontier conservation areas (*hereafter TFCAs*). TFCAs, or peace parks, are vast conservation areas that overlap national borders between two or more countries (van Amerom & Büscher, 2005). Advocates of TFCAs argue that these parks will increase tourism to all parts, resulting in economic development for states and communities involved (Barrett, 2013). Another core purpose is to secure the common-pool-resource (*hereafter CPR*), the wildlife, and encourage a rich biodiversity (Wolmer, 2003). Also, an important aim with these parks is what the name itself implies – to generate peace in a historically troubled area and enhance cooperation between the actors involved (Schoon, 2013; Barrett, 2013). In sum, a successful park and cooperation among the actors would potentially yield multiple benefits simultaneously; environmental, economic and the maintenance of peace.

The number of these protected areas have expanded immensely, only between 1988 to 2007 the numbers increased from 59 to 227 parks globally. Although they are multiplying in a rapid pace, there is a lack of in-depth evaluation of how effective this institutional initiative is in terms of achieving its goals of economic prosperity, secured peace and protection of wildlife. The nature of the resource and the involvement of multiple actors

has its challenges, which leaves us with the question if this is a successful way of managing a migrating resource on land.

One way of evaluating the institutional setting of a TFCA is to apply theories of collective action. Collective action theory tries to outline the factors influencing cooperative behaviour over natural resources (Ostrom, 1990). The question is how to get individuals to pursue their common welfare, as contrasted to individual welfare. The earlier works on the logic of collective action was conducted by Mancur Olson (1965), stating that individuals are self-interested and opportunistic maximisers of short-term interests. If there are no rules limiting access to a resource they will not act in the long-term interest of the collectivity. Later, scholars realized that individuals indeed can manage commons in a sustainable way, even in the absence of a higher authority, although most studies have been conducted at a small or medium-scale level (see for example Ostrom 1990; Wade 1994 and Baland & Platteau 1996). Elinor Ostrom has contributed massively by studying small-scale commons and distinguish eight reoccurring principles that were present in successfully governed commons (Ostrom, 1990).<sup>1</sup>

Many of the environmental challenges we face today are of a larger scale character, such as climate change, the depletion of the ozone hole (Ostrom 2010; Sandler, 2010), and management of migrating resources such as elephants, rhinos and lions. Managing a large-scale resource is difficult itself, and the success rate is dependent on international cooperation (Ostrom et al., 1999). When a common is larger, new challenges in collaboration arise since the actors involved can be very diverse with different interests, capacities and goals. More research is needed to fully understand the complexities of large-scale commons. A TFCA can be regarded a large-scale transnational common since the park overlap multiple countries and lacks an overarching authority (Ansari, Wijen, & Gray 2013).

Effective resource management in a large-scale setting is a challenge. Implementing TFCAs has been one way of approaching the challenges arising when scaling up to a large-scale common. But comprehensive research regarding resource management with a migrating resource on land is scarce, hence evaluating TFCAs could contribute to better understand this complex phenomena. The aim of this study is therefore to evaluate what challenges and opportunities a TFCA can give rise to, and if this institutional arrangement can overcome large-scale collective action dilemmas. This will be examined based on the

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<sup>1</sup> The principles are: 1. Clearly defined boundaries. 2. Congruence between appropriation and provision rules and local conditions. 3. Collective-choice arrangements. 4. Monitoring. 5. Graduated sanctions. 6. Conflict-resolution mechanisms. 7. Minimal recognition of rights to organize. 8. Nested enterprises.

information from unique key informant interviews comprehending actors such as government officials, representatives from NGOs and TFCA-experts. This thesis is based on a case-study of the Great Limpopo Transfrontier Conservation Area (*hereafter GLTFCA*), a TFCA spanning over South Africa, Zimbabwe and Mozambique.<sup>2</sup> All informants have long experience and expertise on the GLTFCA. The results have potential to contribute to policy recommendations for the parks and further expand the large-scale commons theories. With previous research on large-scale commons theory and their challenges, I will examine if previously known obstacles are present here, or if they have managed to overcome these issues. Furthermore, the interviews have potential to recognize new aspects that have not previously been recognized within theory.

## 1.1 Disposition

The following section will deepen the understandings of TFCAs in general and the GLTFCA in particular. Afterwards, in section 2, the theoretical framework of collective action is presented to better understand how collective action dilemmas are portrayed, both in small- and large-scale cases. Aim and research questions are presented in section 3, and afterwards a comprehensive description of the strength and weakness of the research design and method is discussed in section 4. The results from the key informant interviews are presented in section 5. An analysis of the results is found in section 6 followed by a conclusion of the paper in section 7.

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<sup>2</sup> See appendix for a map over the area

## 2. BACKGROUND ON PEACE PARKS AND THE GLTFCA

The governance structure in TFCAs consist of a network with different actors working interconnectedly; national governments, joint management boards and international NGOs (Duffy, 2006). The NGO Peace Parks Foundation play a key role as a co-ordinating, facilitating and driving body in the creation and maintenance of the parks. Their dream is to: *“reconnect Africa’s wild spaces to create a future for man in harmony with nature”* (Peace Parks Foundation, 2018). Decisions emerge from within the national governments. Although Schoon (2008) points out that it is important not to view the governance structure in a hierarchical manner, but rather like a network of interconnected entities striving together for the collective advancement of the park. Even though many actors are involved, the state’s autonomy stays protected through a treaty, therefore the decision-making is primarily kept at a state-level (Lunstrum, 2013).

Advocates of the parks argue that the establishment of a TFCA increase state power to border regions which are common areas for illegal activities such as smuggling and poaching, thus increasing the availability to fight wildlife crime in places that were previously out of control (Wolmer, 2003; Duffy, 2006). But the open borders also facilitate cross-border movement. This expands the potential hunting area for poachers who are killing wild animals such as rhinos illegally. The fear of security issues which come along with TFCAs have made governments more hesitant to join transfrontier initiatives (Duffy, 2006).

South Africa, Zimbabwe and Mozambique are the states involved in the GLTFCA. The GLTFCA consist of three individual national parks in each of the countries involved: Kruger national park in South Africa, the Gonarezhou national park in Zimbabwe and the Limpopo national park in Mozambique. In addition, patches that are privately owned are also part of the GLTFCA (Schoon, 2013). The three states all have diverse conditions when entering this partnership; colonial history, political systems, approaches to natural resource management, state capacity and legislations affecting the area, to name a few. For example, corruption is considerably higher in both Zimbabwe and Mozambique compared to South Africa (The World Bank, 2019), as displayed in Table 1.

<u>Country</u>	<u>Control of corruption (2017)</u>	<u>Range</u>
<b>Mozambique</b>	19	0-100
<b>South Africa</b>	57	0-100
<b>Zimbabwe</b>	10	0-100

*Table 1 - Control of corruption. Figures from the The worldwide Governance Indicators (WGI). Range from 0=no control of corruption, to 100= full control of corruption.*

The same trend is also seen in other indicators such as government effectiveness and rule of law (The World Bank, 2019).

South Africa is often portrayed as the leading actor in the GLTFCA, mainly because its economic advantage and well-developed tourism infrastructure. Zimbabwe and Mozambique on the other hand both recently faced severe political crises affecting the area such as land-grabbing and immense loss of wildlife due to civil war (Duffy, 2006). Although these differences are apparent a treaty was signed in 2002 and the park has operated ever since.

Wildlife such as elephants, rhinoceros, lions and giraffes are considered the common resource in the GLTFCA. It is migrating and moving across nation-state borders, therefore it is impossible to reassure its security only by protecting it within the own territory. Thus, collaboration between the states is crucial to protect the wildlife from being illegally killed and achieve a sustainable use of the resource (Büscher & Schoon, 2009). Yet previous research has highlighted flaws resulting in impaired wildlife protection. One reoccurring event is human-wildlife interaction, which include animals escaping from the park boundaries. While South Africa has the experience and capacity to bring the animal back to the park in most cases, Zimbabwe and Mozambique lack the capacity of doing so, resulting in killing of the animal instead. These differences have caused conflict and little cross-border collaboration in this matter (Schoon, 2013).

The states have signed the treaty and entered this partnership which implies that there is a collective will and responsibility to protect the wildlife, yet it has failed in some ways. Wildlife crimes in the GLTFCA are high and pose a threat to the park's existence. In 2013, the number of poached rhinos reached 1004 individuals, subsequently leading to an international poaching drama in the GLTFCA (Büscher, 2015). At the same time, since the treaty was signed in 2002, more cross-border cooperation between the countries has emerged (Van Amerom & Büscher, 2005). Although issues are present in the GLTFCA, there are reported collaborations that have been successful. One of the largest threats to wildlife was



the Bovine tuberculosis, also called the “veterinary disease”, which spread from the buffalo population in South Africa to cattle in Mozambique. Veterinarians from all three partner countries came together and executed collaborative efforts to halt the disease by relocating animals in between the countries, and jointly testing them for veterinary disease. This has been regarded a success, mainly due to close relationships between veterinary professionals (Schoon, 2008).

The GLTFCA is often referred to as the “flagship peace park” (Büscher, 2015), it has been operating for a substantial amount of time, and thanks to the Kruger national park there is a plenty of money involved in this TFCA, at least on the South African side. The financial resources and the fact that the GLTFCA has been operating for 17 years makes it an interesting choice for a case study. These factors have probably contributed to a more formal governance structure and outcomes that can be evaluated. In comparison to newer parks where one could expect fewer results due to the lack of time and financing. Therefore, the GLTFCA will work as a case study to fulfill the aim of evaluating what challenges and opportunities a TFCA can give rise to, and if this institutional arrangement can overcome large-scale collective action dilemmas. In the next section, the theory of the thesis will be outlined.

### 3. THEORY

This section examines the theoretical foundations to be tested in this study. Starting in the general collective action literature and continuing by presenting further challenges added in large-scale commons. Three factors are theoretically posing challenges for large-scale commons. These factors will be treated as the theoretical framework applied to analyse the challenges presented by the key informants in section 6.2.

#### 3.1 Collective action and the dilemma

Mancur Olson's (1965) work on the logic of collective action stated that individuals perceiving the "costs" of participation in cooperative efforts as higher than the "benefits", will act in a self-interested way, even if the long-term benefits from cooperation are higher. A few years later, Garrett Hardin (1968) stated the expression "the tragedy of the commons" which according to him is the expected outcome whenever multiple individuals use a scarce resource collectively. For Hardin, it is rational to assume that a person who can increase his own yields will do so, even if that leads to overexploiting the resource in the long run. When sharing a common, decisions made by an individual will affect the outcome for everyone else. The ultimate response to solve this dilemma was by privatizing the common or implement an external authority to determine the CPR's capacity, monitor users and sanction non-compliance (Ostrom, 1990).

Years later, empirical evidence showed that people can design institutional arrangements to sustain a CPR amongst each other, even in the absence of a central government. Scholars have researched several cases around the world where successful resource management was seen (see for example Ostrom 1990; Wade 1994 and Baland & Platteau 1996). Together they have listed numerous reoccurring conditions that facilitate more effective and sustainable resource management, although most of the factors are adapted for small- or medium-sized commons. A small number of resource users, clearly defined group-boundaries and smaller resource systems are a few facilitating factors highlighted (Ostrom, 1990). Scholars have not reached consensus regarding which factors are essential for all cases of CPR-management. Agrawal (2002) highlights the importance of contextual factors such as the specific environment or characteristics unique to a certain group. They remain constant in the specific study, but not across studies.

There are two main characteristics leading to dilemmas regarding CPRs; the difficulty of excluding individuals from enjoying the resource, and the fact that one person's

usage lessens another person's use. This is related to the view of people acting in a manner of short-term interest, which will produce outcomes that are not desirable to anyone. This phenomenon is referred to as the free-rider problem and it is a central issue to the commons. (Ostrom, 1990). Free-riders always act in a narrow, self-interested manner and do not cooperate (Ostrom, et al., 1999). To avoid overexploitation as a result of the free-rider problem, institutions for governing and managing CPRs are required to apply two actions: restricting access for individuals not involved in the common and create incentives encouraging individuals to increase compliance instead of overexploitation (Ostrom, et al., 1999). The essence of achieving collective action is thus to get individuals to overcome their selfish, short term interests and instead cooperate so that it benefits the larger group.

### 3.2 Challenges associated with large-scale collective action

As stated earlier, a TFCA can be regarded a large-scale common. So, is it possible to use the abundant literature on small-scale commons and apply it to larger cases? Although the design-principles presented by Ostrom (1990) were mainly created by observing small- or medium sized commons, scholars have tried to apply them to large-scale cases (see for example Epstein, et al., 2014a; Epstein, et al., 2014b). By summarizing five large scale commons and their applicability with Ostrom's eight design-principles, Fleischman, et al., (2014) concluded that some principles indeed were applicable. Another important aspect of the design principles is that Ostrom (1990) presented them as reoccurring conditions observed in successful cases, but never as preconditions or necessities. Therefore, Fleischman, et al., (2014) state that even if successful cases in their study fail in a principle, it is not confirming that the principle itself is wrong. Rather they conclude that large-scale commons can fail or succeed in various ways depending on the context and configuration of variables.

A TFCA is an institutional arrangement that is created as a way of solving problems arising in large-scale commons. Because TFCAs cover large spatial areas and the multiple actors involved, they are confronted with new obstacles in comparison to local communities sharing for example a forest or irrigation system. By scaling up the collective action theory new challenges arise. Three issues will be presented below.

#### 3.2.1 Clearly defined boundaries

Firstly, one of Ostrom's eight principles stated that resource systems with well-defined boundaries are more likely to be successfully governed. This enables resource users to collect information about the resource and lower monitoring costs (Ostrom, 1990). If the boundaries

between resource users are unclear, this could affect the possibilities of regulation to only cover a smaller part of the larger-scale common (i.e. when the resource is within the own juridical boundaries). Migrating resources can complicate the distribution between the partner countries creating an unpredictability and unequal access which results in a failure of acting collectively (Muchapondwa & Ngwaru, 2010). These factors could work as a disincentive for preservation and instead pose incentives to exploit for the own greater good, the free-rider dilemma (Fidelman et al., 2012).

### 3.2.2 Sovereignty

Secondly, Sandler (2010) argues that collective action is more likely to succeed when states do not have to sacrifice much autonomy. If states perceive a risk of losing autonomy, they are less likely to cooperate. States being reluctant to release their autonomy can cause other issues; it can act as a barrier to intervention in states domestic affairs, limiting other states abilities to interfere in other's juridical areas and posing difficulties to harmonization of laws and regulations (Young, 1994). Post-colonial African states are known to be strong defenders of their sovereignty, making regional integration a challenge. When states are strong defendants of sovereignty, the prospects for successful collective action is increased because the chance of signing a treaty rise. If states experience a risk of losing their autonomy, they are less likely to sign the treaty and initiate a collaboration in the first place (Welz, 2013).

### 3.2.3 Homogenous group

Finally, groups that are homogenous are more likely to share the same social, economic and cultural characteristics which supposedly facilitates for collective action (Poteete & Ostrom, 2004; Dietz et al., 2003). If a group of actors is complex and diverse, they will experience difficulties when making collective decisions (Yi et al., 2018; Sjöstedt, 2012). There are different types of heterogeneity; cultural diversity might pose a challenge because it can decrease the likelihood of finding shared interests and understandings for one another (Ostrom, et al., 1999). Simple rule changes can involve multiple ministries in all countries involved - a time-consuming and expensive process (Büscher & Schoon, 2009). This has been the case in the African Union, which has stated that cultural, political, and social heterogeneity is one of the largest challenges in their aim of uniting Africa (Welz, 2013). In the case of governance heterogeneity, collaborations across borders can create uncertainty about the actual outcome because more actors with potentially different incentives can respond to wildlife interaction. For example, ineffective managers in one state can learn to

manage wildlife more effectively from their counterparts. However, the reversed outcome may occur if a group of managers act in a harmful way, which can happen if their perceptions about issues such as ownership of wildlife and damage-causing animals is negative. The open borders could thus lead to more areas of wildlife mismanagement (Muchapondwa & Ngwaru, 2010). Furthermore, previous research has highlighted difficulties of transnational cooperation when the members have different political systems, because this can result in a mismatch of responsibilities and unequal financing (Scott, 1989).

It should be mentioned that the concept of homogeneity and collective action is debated. Scholars have not reached consensus on what characteristics actually affect collective action, and if perhaps some aspects can contribute to better cooperation (Poteete & Ostrom, 2004).

Following these insights, managing a large-scale common is challenging and complex with many factors affecting the outcome. The three aspects mentioned above are factors that can pose a threat to the ability of the institutional arrangement to overcome collective action dilemmas. Further research is required to understand if these factors have an impact in achieving successful resource management in a TFCA setting. If they do, this research would strengthen existing studies on challenges posed to large-scale commons. However, if these issues are not perceived as problems in a TFCA, the institutional arrangement might cope with these obstacles effectively, thus implying that it is a successful way of managing migratory resources. In the next section the aim and research questions to be answered throughout the thesis are stated.

## 4. AIM AND RESEARCH QUESTIONS

The aim of this study is to evaluate what challenges and opportunities a TFCA can give rise to, and if this institutional arrangement can overcome collective action dilemmas. The goal is to achieve successful management of a migratory resource in a large-scale setting, and the solution has been to incorporate multiple countries to solve the issue commonly. According to the literature on large-scale commons, multiple challenges could arise in this constellation; diverse goals and aims because the states are heterogenous, poor cooperation due to the perception that they lose autonomy or disincentives for preservation due to the difficulties in monitoring a migrating resource. These insights bring us to the overarching research question to be answered in this study:

- *In what way do issues related to large-scale collective action unfold in a TFCA context?*

Three additional questions are added to further investigate the motives, benefits and obstacles that TFCAs pose:

- *What are the motives behind implementing a TFCA?*
- *What benefits are there with TFCAs?*
- *What challenges are there in a TFCA?*

To realise this aim, I will conduct key informant interviews with experts involved in coordinating and managing the GLTFCA. Their first-hand expertise provide unique insights in what challenges they face and what positive aspects there are in implementing a TFCA. Furthermore, the interviews can help to highlight new aspects of collaboration in a large-scale common, and therefore help to progress existing theories. In the following section the research design and method are presented and critically discussed.

## 5. METHOD

In this section the method and data of the study will be outlined and discussed, and further the implications with the data collection and research design.

### 5.1 Research design and data collection

The empirical data collection was gathered through eight key informant interviews conducted in South Africa between the 12<sup>th</sup> of November to 3<sup>rd</sup> of December 2018. A qualitative case study which uses interviews is desirable when the goal is to develop existing theories (Esaiasson et al., 2017). The aim of this study is to find out whether experts involved in transfrontier conservation perceive that this institutional arrangement can overcome issues theoretically associated with large-scale collective action theory. Key informant is the most appropriate choice of informants, in contrast to respondents. That is because in order to answer the research question the informants have to be experts in their area, with in depth-information about the complex phenomena of the GLTFCA. It would not be suitable with respondents because the aim of this study is not to describe individuals' perceptions or opinions, but rather to present facts and evidence about the GLTFCA. The process of choosing informants for this study firstly followed the centrality principle, where individuals who were considered important were contacted and interviewed, and afterwards asked to recommend additional interviewees, so called snowballing (Esaiasson et al., 2017).

Benefits of conducting interviews, in contrast to surveys, is the flexibility the researcher has in asking different questions depending on the informant's knowledge and experience. It also enables to derive more in-depth information on the processes and mechanisms. By using a semi-structured questionnaire consisting of a few themes with open questions, the flexibility of the interview was maintained, and interviewees could talk freely.<sup>3</sup> Additional questions and supplementary questions could easily be added. When choosing central key informants' consideration was taken to make sure that informants with different interests and possible biases were covered. Therefore, the list of interviewees involves individuals representing government officials, NGOs, private landowners, and researchers who are experts in TFCAs. All informants represented the South African point of view. These considerations enrich the study with a wider perspective, but it also strengthens the validity

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<sup>3</sup> For the complete interview guide see Appendix

when numerous informants with different tendencies state the same information (Alvehus, 2013; Esaiasson et al., 2017).

All interviews were held in English, which is one of the official languages in South Africa, therefore an interpreter was not required. The informants were informed that their participation would be anonymous, and they were asked if they approved of the interview being recorded, which they all did. This strengthens the reliability of the material because errors are less likely to occur when transcribing (Alvehus, 2013).

When analysing the collected material, the fully transcribed interviews were read through carefully and important quotes were then derived and placed into categories. The categories were fitted to the research questions, meaning that separate categories were created for all three questions; motives, benefits, and challenges.

## 5.2 The case

This study is based on a case study of the GLTFCA. It makes an interesting case, mainly because of its complexities and the amount of time it has been operating. It is a vast area covering 35 000km<sup>2</sup> and it includes three countries. Multiple communities are residing within the park on the Mozambique and Zimbabwean sides while Kruger national park does not have people living in it (Lunstrum, 2013). All these factors appear to complicate the prospects for successful collaboration. Hence, the case can be considered a “least likely case”, meaning that if the applied theory succeeds here, it will likely do in cases where the contextual factors are not as complex. Compared to a “most likely case” that tries to test the theory in an advantageous context (Esaiasson et al., 2017). The contextual factors in this case are for example the characteristics of the actors involved, the characteristic of the resource and the governance structure with multiple levels.

The advantage of case studies is their ability to provide in-depth information about a complex case. It also gives the researcher better understanding of processes and how context might matter. This type of study facilitates for internal validity, because it is based on in-depth research which is better at providing a legitimate conclusion of events (Yin, 2011). Critique of case studies regard the difficulty in generalizing the results to a larger population and other cases (Esaiasson et al., 2017). For example, it would be possible to conduct a large N-study, where multiple parks were examined. The advantage of this type of statistical study would be its ability to generalize and examine relationships over time. This type of study would strengthen the external validity, because it would facilitate for generalization (Esaiasson et al., 2017). However, the goal of this study was to understand complex



relationships of how certain factors might affect the collaboration in-between actors, therefore a statistical study would not be suitable.

Although these implications exist, there are still similarities to other TFCAs that make the results usable for future studies. Although countries in Africa do not share the exact same history or language, they have troubled pasts as colonized countries in common. There might be inherent differences regarding who the colonizer was which has left them with different languages or ways of administration today, but the common aspect is colonization and political instabilities are still prevalent (Welz, 2013). Furthermore, all TFCAs are located in southern Africa, the migrating resource in the TFCAs are often the same, and the main NGO Peace Parks foundation has been involved in the creation of a majority of these parks, creating similar webs of stakeholders and actors involved. With these aspects in mind, I argue that the results of this case study can be used for other TFCAs in southern Africa where the common resource is migrating wildlife.

### 5.3 Implications with the method and data collection

Theoretical saturation was not reached during the eight interviews. Therefore, one cannot reject the possibility of finding further valuable information that could change the overall results of this study. However, most answers were repeated by multiple informants, which strengthens the results and the reliability. Still, new information could be added if further interviews were held. Furthermore, there is a risk of an “interviewer effect”, which occurs when the answers are dependent on who is asking the question (Esaiasson et al., 2017). An implication of the semi-structured interview is that it requires that the researcher is ready to counter with supplementary questions. It often requires an experienced researcher to be able to come up with valid questions while interviewing (Alvehus, 2013). To avoid missing important information due to inexperience I asked the informants if it would be possible to contact them afterwards if further questions occurred, which they all agreed to.

The validity of the data can be questioned to some extent, regarding some of the chosen informants. A valid informant should be representative for what the study aims to solve or highlight (Halling & Helin, 2018). A landowner is perhaps not the optimal informant to answer questions about cooperation between the multiple states involved, but his or her information can contribute to understanding views from different levels in the web of stakeholders. The landowner interviewed for this study is part of a sub-committee where meetings are held with representatives of all states involved, therefore his or her knowledge was found valuable. Overall informants were honest and explained when they were not

involved in different areas that were asked for. This was considered in the analysis where the actors' positions and authority were accounted for.

Finally, TFCAs involve multiple countries, therefore the study would probably benefit from informants representing all states involved in the GLTFCA. However, given the time-frame of this study and the limitations set by the Swedish International Development Cooperation Agency (SIDA) who granted a scholarship enabling this case study, South Africa was the only country visited and represented.<sup>4</sup> It would be fruitful if future studies were conducted in the partner countries of the GLTFCA i.e., Mozambique and Zimbabwe, to evaluate if there are any differences of perceived motives, benefits and challenges.

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<sup>4</sup> A Minor-Field study scholarship was granted by SIDA. The scholarship obliges the student to spend at least 8 weeks in one developing country. This study was therefor only executed in South Africa.

## 6. RESULTS

The following section highlights the factors that are stated as motives, benefits and challenges connected to the GLTFCA. The motives and benefits stated by the informants are similar to a large extent, and therefore they are merged together and categorized in three main groups: Ecological, Economic and Improved international cooperation. The challenges presented represent all types of issues the informants experienced. All results could be of policy relevance when creating new parks or altering existing parks. Hence, the results are relevant both for actors involved in TFCAs and for future researchers wanting to further develop the collective action theory.

### 6.1 Motives and benefits

#### Ecological

One core motive when creating TFCAs is that they create larger areas for the wildlife to roam freely, which creates a larger carrying capacity and migration routes.<sup>5</sup> Informants mentioned this aspect as a benefit of this institutional arrangement. Larger areas appear to be especially advantageous for large mammals such as elephants, which is stated by two informants:

So this TFCA I think it's the best method to deal with management of large mammals, because they will never sustain managing them within a small protected area. Because the carrying capacity will be a bit small. (Interview 2)

And so getting back to the question if it solves the problem, the problem of animal density, especially elephants, it [TFCAs] will help solve the problem. (Interview 1)

Creating a larger area for elephants appears to have been a motive and benefit behind the creation of the GLTFCA. They require large areas which the Kruger national park would not be able to cater for. All informants agreed that an important benefit of a TFCA is directly connected to the wildlife. Larger areas equal better conditions for them to roam, find food and live in their natural way.

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<sup>5</sup> Carrying capacity is the number of species that can be supported in a given environment. The number of individuals is determined by resources such as food and space (Nationalencyklopedin, Bärförmåga, retrieved 2019-01-07).

## Economic

A second category was the economic motives and benefits. As stated earlier, one of the core ideas of these parks was the economic benefit that all states involved would benefit by creating tourism in areas that were inaccessible before. This would in turn favour the local communities who reside within the park, mainly in Mozambique and Zimbabwe.<sup>6</sup> Although this appears not to have been fulfilled in the GLTFCA yet, other economic benefits have been achieved for example helping neighbouring countries to get donor-fundings, as stated by a NGO employee:

It's a founding principle of TFCAs, that the collective is better than the part. The resourcing, how can the countries that are better resourced help the ones that are less resourced to do things? Not helping by paying directly but by mobilising funding and resources. (Interview 8)

By helping their counterparts to mobilise funds and resources the whole park could develop as a collective. These funding efforts have benefited the other countries and resulted in infrastructure projects, which they would not be able to fund at this time without the joint efforts:

Some aspect is infrastructure, through TFCAs we are able to have infrastructure on either side of the country. South Africa could promote that or go for funding which we request that this funding should be used on the other side of the border without us being selfish. So we have got a lot of infrastructure within the TFCA that will facilitate these cross-border products, so there are buildings like the lodges that were developed only through TFCAs. (Interview 2)

The economic motive appears to be one of the main drivers when creating a TFCA. The idea is that tourists should disperse across the borders and travel through the whole park and therefor improve the incomes generated by tourism. According to the informants, free movement of tourists has not been realized in the GLTFCA yet. Border posts and expensive fees are still restricting free movement, and most tourists still only visit the Kruger national park in South Africa. The informants agree that the economic benefits that were thought to favour countries with less tourism have not been fulfilled yet.

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<sup>6</sup> Communities are residing in Zimbabwe and Mozambique but there are no communities on the South African side of the GLTFCA.

### Improved international cooperation

The TFCAs are often referred to as peace parks because they are thought to foster peace between countries cooperating on a common project. When evaluating the benefits stated by the informants improved international cooperation was mentioned. Most benefits appear to be on a higher level in the governance structure, mainly affecting higher elite officials operating transnationally.

I guess on the one side there is this governance, cross-border collaboration, joint- management which is important, especially around issues like rhino poaching and wildlife crime. That happens on a different level. More of a strategic level that is sort of a national level, with the joint-management board, and the operational committees so that is definitely an important benefit. (Interview 8)

Furthermore, cooperation on additional levels were highlighted. According to the informants, the cooperation has been so successful that it has improved the friendship and trust not only on a state level, but also among rangers and conservation authorities.

It has [trust] improved. Particularly in the area between Mozambique and South Africa, there is much better trust between them. It's still awareness from the Mozambique side because South Africa is so big and powerful, but it has definitely improved the relationship between conservation authorities. (Interview 8)

Our rangers are on a daily contact with their counterparts in Mozambique. It is one area. If Limpopo national park is affected by rhino poaching, we have a lot of poachers coming from Mozambique through the Limpopo national park, on those bases they are forced to be in contact with one another on a daily basis. (Interview 3)

In addition, it seems as if the GLTFCA network has created platforms for officials to discuss other matters. As an elite official explains, they can invite colleagues from other departments to discuss other matters with the partner-countries.

For example, if we have a challenge of let's say veterinary issue which is under agriculture with Lesotho. We will request our officials to come through the TFCA network and request Lesotho official from Agriculture to come and participate. We put an agenda item and give them space to deliberate. They will end up knowing each other and formulating their own separate structure, but TFCA will provide that platform for various fields. It assists countries in developing trust among each other. (Interview 2)

In sum, it appears as if cooperation has improved. The levels of trust have increased due to the TFCA and friendship between the countries has evolved.

## 6.2 Challenges

According to the collective action theory presented earlier in this thesis, three areas are expected to cause challenges to the collaboration in the GLTFCA. Loss of sovereignty, the fact that the states are heterogenous and the migrating characteristic of the resource. All three of these issues were mentioned by the informants. Two additional areas were mentioned as challenging: Economic & diplomatic challenges as well as Community neglect. Although the emphasis of this study is on large-scale collective action theory which affects issues on a state level, after conducting the interviews it becomes evident that there are issues at different levels in the governance structure that has significant influence on the park's development. In fact, the most severe issues that the GLTFCA is facing today appears to stem from issues at a community level.

### Sovereignty

When the GLTFCA was created, a treaty was signed which ensured that all states sovereignty should be respected and never violated. A majority of the informants mentioned 'protected sovereignty' as an issue. Relating back to the theory of large-scale collective action, states should be more likely to cooperate if they do not have to sacrifice much autonomy. However, sovereignty was mentioned as a challenge in terms of policy harmonization.

The first challenge is for the countries to go beyond their need to feel the power of national sovereignty. And if you don't do that there is only so much you can do in terms of creating real TFCAs. (Interview 7)

The problem when states are reluctant to give up their autonomy is the difficulty of policy harmonization, which according to some informants is an issue. According to them, the countries sharing a TFCA need to harmonize their legislation about customs, immigration and border patrolling, otherwise it will never work as one entity. At the same time, there is the opposite opinion that respect of sovereignty is not a challenge, but rather a requirement that needs to be fulfilled, otherwise TFCA treaties would never be signed.

I think some people got an issue around it [sovereignty], but I don't. It's not a big issue. I suppose if you look at this region it's an important issue because of the history of politics in the region. I don't think people will sign treaties if there is not a protection of sovereign rights, definitely not South Africa. I don't think it's an issue, and I don't think it's a challenge.

(Interview 8)

Informants sharing this view do not regard policy harmonization as a prerequisite, because most policies can be regulated by protocols. Through them the states can negotiate what they want to achieve in the area without having to change national legislation.

### Homogenous group

The three countries included in the GLTFCA are not entirely homogenous. According to the literature, this can pose difficulties when making collective decisions. All informants agreed that all states involved had the same interest and aims with the collaboration. However, English is one of the official languages in both Zimbabwe and South Africa, while Portuguese is spoken in Mozambique. The language barrier was hence highlighted as an obstacle when cooperating with Mozambique, but also their different ways of administration.

It's a challenge because we work within these very complex governance systems that they have in Mozambique. If you drop me there it will take me 10 years to figure it out. It's so important to have contacts. (Interview 6)

Even the process of implementing activities and programmes across the park seems to be affected by the differences. According to theory, governance heterogeneity could lead to difficulties in collaboration because it creates uncertainties about the outcome. Issues of implementing programmes uniformly have been noted, as explained by an elite official:

Some may have less capacity or few individuals and that will affect how the programme is implemented. So it differs from one country to another, in some places programmes are implemented much faster than on the other side. There can be political differences that could affect how you implement activities, because meetings are not always held as they are supposed to be held. Indeed, these differences among countries in terms of how we implement these programmes affect. (Interview 2)

The informants expressed these challenges to slow down the process of implementation and the effectiveness of operations within the park, but it was not stated that these challenges posed as a threat to the park's existence or the collaboration all together.

### Clearly defined boundaries

Wildlife is roaming freely in the park, which according to the collective action theory could pose issues of not having clearly defined resource boundaries. The fact that they are moving create an unpredictability and unequal access for the research users. Because the states might have different capacities of protecting the wildlife, concerns of poaching on the other side of the border were mentioned.

It's not the fault of the people on the ground, there is just no money. There is a team there, a wildlife department team but they have got no fuel or vehicles, they cannot afford to get in to the area because they have not got the funds. So their area is heavily poached. (Interview 1)

New issues regarding migrating wildlife appeared when the GLTFCA was created, which is mostly affecting the communities in Zimbabwe and Mozambique. The communities often have farms with cattle as their livelihood. With the creation of the TFCA additional wildlife was relocated there and could not be hunted legally anymore. According to the informants, before the implementation of the GLTFCA the communities could be occupied with small-scale hunting to feed their families and protect their cattle. But nowadays all hunting within the national parks is restricted, which limits their abilities to protect their farming animals and gather sufficient food.<sup>7</sup> The communities in these areas have therefore suffered losses of cattle due to wildlife interactions, often from elephants who destruct whole farms and with that the income of these communities.

First of all there was a promise of resettlement that never happened, at the same time the movement of wildlife did happen, but it was somewhat forced because animals were relocated and so whilst prey animals were located predators followed and that increased the human-wildlife conflict, especially in the Singuise valley [Zimbabwe] because that's where people have their fields, so they are more vulnerable to attacks by wildlife including elephants. Also there has been a few incidents of attack by predators like lions onto people and cattle, especially cattle. (Interview 7)

The migration of wildlife is at the core of the park and was mentioned as one of the main benefits with this arrangement. All informants agreed on that it appears as if the wildlife has

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<sup>7</sup> The GLTFCA consists both of national parks and private areas. Hunting can be allowed in the privately-owned areas but is forbidden in the three larger national parks; Kruger national park, the Gonarezhou national park and the Limpopo national park (Schoon, 2013).



benefited more from opening the borders in comparison to smaller protected areas, even though the costs for monitoring and collection of information would be more advantageous in a smaller protected area. The unequal access of the resource appears to cause issues for communities but not at a state level.

### Economic and diplomatic challenges

As stated a benefit, the GLTFCA has created more platforms where state officials can meet and discuss matters, even issues not related to TFCAs. An elite official stated a challenge in always being mindful of what the partner countries will think of an act, and therefore feels the need to act carefully not to disrupt the relationship.

If we have got an issue that we think might create a problem we need to consult our international relations so that at least get advice on how best to approach that. If it creates a political problem it's going to affect all aspects that country will be dealing with us. All aspects, like education, so that's why we need to be mindful of that. If we create problems here it might escalate to other areas. (Interview 2)

Although there was no example in history where it had happened, the fear of escalating into other political areas is apparent and results in slower processes. The states do not want to risk the collaboration and friendship that has evolved and therefore rather act slowly and carefully. Getting funds for all areas of the GLTFCA seems to be a challenge, and since the rhino-poaching started to intensify back in 2007 a lot of the finances are directed towards anti-poaching efforts. Because of this, other areas are being neglected. Getting sufficient funds was a reoccurring issue, as described by a government employee:

The SADC [Southern African Development Community] have developed a socio-economic strategy for the TFCAs, it cannot be implemented if there is no money. So, lack of funds is also a problem. Financing and funding is a huge challenge. (Interview 4)

Funding is important for the park's development. Plenty of money has been addressed to fight rhino-poaching by investing in equipment for rangers for example night-vision goggles, helicopters and dogs as explained by an informant:

We have implemented lots and lots of plans, we are dealing with syndicate crime, they also plan as you put in place some sophisticated plans they also create theirs. So it's a battle.[...] when this whole thing started, our rangers were ordinarily walking around patrolling the area, but since then we have improved their equipment; additional vehicles, motorbikes, additional helicopters, we have given them night goggles and we are using big cameras and we are continuing to improve our fighting technology. We continue to fight and implement new

technology, dogs, and things like that. We are not going to stop until the rhino poaching stops. (Interview 3)

### Community neglect

Multiple communities reside within the GLTFCA. When the park was implemented a forced removal was planned to relocate them outside of the park (Lunstrum, 2013). Some communities have accepted it and moved out, but many still live within the boundaries of the park, without receiving any beneficiation from it. Among the informants it was well established that the rhino-poachers are individuals from these communities who have been paid by illegal groups. A mentioned issue was that the park has not provided any mean of income or livelihood for these people as promised. It appears that tourism has not dispersed over the borders and therefore the economic benefits have been left out in exposed areas. There seems to have been a lack of creating a value of wildlife for these communities, instead they poach to get any income at all. Or as one informant states it; “they will create a value”:

These people need to understand the importance and value of these things [wildlife]. They don't see it. So they will create a value, because nobody cares. There's a missing link within the coordination. And the coordination is at the implementation phase, because at the strategic level it's well conceptualized, at the operational level you have got more scientists who are not community developers, they will not get it right. There is lack of coordination from that perspective. (Interview 4)

The informants further witness about a situation of promises about regional development that were made for the communities when the GLTFCA was implemented 17 years ago. Most promises seem to not have been fulfilled, which has created a disbelief in conservation and government. It seems as if some individuals feel the need of retaliation and are creating their own justice through poaching. Many informants agreed that things are starting to change regarding that matter, and that conservation authorities have started to realize the importance of community involvement and beneficiation.

There is a challenge to deliver on community expectation on socio-economic development. There is still a lot of work that needs to be done on that level. TFCAs are not by any means delivering on this promise to be a regional driver of socio-economic development, there is still a long way off. (Interview 8)

In order to solve issues like rhino-poaching, informants state that communities need to be included in the conservation narrative. By realizing that there is enough space for multiple land-use, not only conservation and the favouring of animals and photo tourism, issues of poaching could potentially be solved.

## 7. ANALYSIS

By examining the institutional arrangement of the GLTFCA, the pitfalls appeared to be several, including the three areas chosen to examine further as well as other aspects. Table 2 illustrates a summary of the theoretical implications and the findings from the GLTFCA.

<b>CHALLENGE</b>	<b>THEORETICAL IMPLICATIONS</b>	<b>FINDINGS IN THE GLTFCA</b>
<b>Perceived loss of sovereignty</b>	Challenging for regional integration & policy harmonization. = Less likely to cooperate	Cooperation possible due to protection of sovereignty, slows down effectiveness
<b>Migrating resource</b>	Unpredictability, unequal access, disincentive for preservation. = Creates incentives to exploit & become a free-rider	Concerns that the wildlife could be poached on the other side of the border i.e., in the partner-country, no issues in cooperation due to this fact
<b>Heterogenous group</b>	Difficulties in making collective decisions, decreased likelihood of shared interests, time-consuming & expensive administrative processes, uncertainties about the outcome, mismatch of responsibilities & unequal financing. = Less likely to cooperate	Shared interests among the members, although ineffectiveness in implementing due to language barriers & administrative differences
<b>Economic &amp; Diplomatic</b>	<i>Not touched by the chosen theory of this study</i>	Fear of creating conflict in other political areas, slow process, lack of funding, fundings only directed at anti-poaching
<b>Community neglect</b>	<i>Not touched by the chosen theory of this study</i>	No benefits from the TFCA to the communities, prioritizing wildlife over people, increased poaching, promises made by government not fulfilled

Table 2- Summary of the theoretical implications stated by large-scale collective action theory and the findings made in the GLTFCA. Under theoretical implications the statements made by the theory are presented, under findings in the GLTFCA the results derived from the key informants are presented.

A migrating resource can create an unpredictability and unequal access which could result in failure of collective action (Muchapondwa & Ngwaru, 2010), but no informants implied that

this was the case at a state level. It could be because the informants were representing South Africa, which has an abundance of wildlife compared to the other states involved. Likewise, the infrastructure is not fully developed so that tourists can visit the other countries easily yet, but in the future an unequal distribution of wildlife could cause problems if tourists actively choose not to visit certain parts because it contains less wildlife. However, a disincentive for conservation was observed at a community level. Today's conservation goal appears to solely be about preserving the animals, while communities are not allowed to hunt or disrupt the animals within the park in any way. According to the interviewees, since the creation of the GLTFCA their right to alter the nature seems to have changed drastically and created a negative spiral. Hence, one could argue that there is an unequal access to the resource, where communities have limited rights to take care of themselves in terms of protection and supplying their families with food. And simultaneously, they seem to bear the costs of living among wildlife.

Strong emphasis on sovereignty was mentioned both as a strength and challenge to the cooperation. Sandler (2010) would argue that collective action is more likely to succeed when states do not have to sacrifice much autonomy, which is in line with the statements of several informants. They believe that the states would not agree to enter a treaty if their sovereign rights were not respected. The interviewees who perceived sovereignty as a challenge were concerned with the drawback of policy harmonization and effectiveness. Given the history of the African states it is understandable that they want to defend their sovereignty after years of colonization (Welz, 2013). This might create political deadlocks and slow processes, but they do sign treaties and cooperate over wildlife conservation which, according to theory, would not be possible otherwise. With all benefits in mind, it appears as if it is better to enter a treaty where deadlocks can occur due to difficulties in policy harmonization, as opposed to no treaty at all. Therefore, the protection of sovereignty appears to be positive in this context.

It was obvious for all informants that the states involved in the GLTFCA are heterogenous with different capacities and abilities. Many issues related to this fact were raised, such as difficulties in administration and the language barrier. Groups that are complex and diverse can experience difficulties when making collective decisions (Yi et al., 2018; Sjöstedt, 2012). Governance heterogeneity can create uncertainty about the actual outcome because multiple actors with diverse incentives can respond to wildlife interaction differently (Muchapondwa & Ngwaru, 2010). However, the treaty was signed, and the collaboration was initiated although these inherent differences. Multiple issues related to the heterogenous

aspect of the group were mentioned, such as communication issues and difficulties in policy harmonization, but none of the informants implied that there is a risk of non-cooperation due to this fact. Just like the aspect of sovereignty, it affects the effectiveness of the process, but it does not appear to threaten the cooperation as a whole. Therefore, the fact that the states were heterogenous does not seem to pose a threat on the prospects of acting collectively.

Two additional challenges arose during the interviews. Lack of funds and slow governmental processes is not explained by the collective action theory. These aspects can perhaps be examined in the future by applying theories of government effectiveness which combines theories of economic, political and cultural theories (Brewer, Choi, & Walker, 2007). The perceived lack of funding could be avoided if the existing funds were utilized more effectively, or perhaps corruption is involved which further alters the actual funds used for the park. For this study the results connected to this category do not appear to alter the prospects for collective action.

Community neglect appears to affect many different levels. Mistrust and disbelief in the communities appears to have created a negative spiral in the system. The neglected individuals start distrusting the government who are not fulfilling their promises which is followed by questioning of conservation and wildlife. Through illegal poaching syndicates they create their own value in wildlife and the state's response to this is to invest more in anti-poaching equipment and programmes. The rest of the park suffers from the loss of funds, and simultaneously a sense of "us and them" is created across the borders. For every poacher that is killed or captured the disbelief and hatred increases in the communities, creating more incentives for these individuals to become poachers themselves. The neglect of communities together with the unequal access to the wildlife has caused a seemingly growing issue from the grassroots of the park.

This study has focused on large-scale collective action at a state level, the results appear to show that most issues connected to large-scale collective action have been overcome through the implementation of the GLTFCA. However, future studies should focus on understanding all governance processes at all levels within the park, for example by applying the theory of polycentricity. Polycentricity is characterized by governance systems at multiple scales, the different units are relatively independent and create rules and norms within their particular area (Ostrom, 2010). This theory could potentially help to better understand the community neglect that this study highlighted as an issue. As pointed out in the introduction, previous scholars such as Schoon (2008) imply that it is important to view the governance structure like a network of interconnected entities striving together for the

collective advancement of the park, which according to the results of this study appear to have failed at a community level.

## 8. CONCLUSION

This thesis started by evaluating previous research on peace parks in general, and the GLTFCA in particular. The literature did not present a satisfying picture of how well TFCAs are at managing migrating wildlife. By applying the theory of collective action, it appears as if cooperation is essential to achieve the common good which is to protect and manage the wildlife in a sustainable manner. Theories of large-scale collective action and what factors are of importance is however underdeveloped. Therefore, the thesis tried to outline if certain factors highlighted by previous scholars did affect the amount of cooperation in a TFCAs or not. Three factors were highlighted as a potential disturbance to cooperation in large-scale settings; if states perceive that their sovereignty is threatened, if the states involved are heterogenous and the fact that the common resource is migratory wildlife.

The overarching research question aimed to outline in what ways issues related to large-scale collective action unfold in a TFCAs context. To answer this question a case study was conducted. The GLTFCA was selected as a suitable case due to several reasons. Firstly, the GLTFCA has been operating for 17 years, the amount of time has probably contributed to a more formal governance structure and outcomes that can be evaluated in comparison to newer parks. Secondly, since the Kruger National Park is well-established with a lot of financial resources one might expect that the financial strength has contributed to some amount of development. By conducting a case study the internal validity is strengthened due to the in-depth information gathered through the interviewees (Yin, 2011). Although critiques would argue that the external validity and possibilities of generalizing are limited in a case study (Esaiasson et al., 2017), I find that many TFCAs have similarities such as geographical area, similarities in colonial history and similar webs of stakeholders involved. Hence, the results from this study can be applied for future studies of TFCAs in southern Africa where the common resource is migrating wildlife.

The results are based on eight unique key informant interviews conducted in South Africa. Motives, benefits and challenges in the GLTFCA were asked for. Three categories of motives and benefits were highlighted by the informants; Ecologic, economic and improved international cooperation. The creation of the GLTFCA has benefited the animals because it expands their area, especially for elephants. Economic benefits such as helping partner-countries to receive donor-fundings were mentioned. The international cooperation on a state level has apparently improved. For example, thanks to the GLTFCA, additional platforms that state officials can communicate on have been created. Furthermore,



the cross-border collaboration has improved on important matters such as fighting rhino poaching.

The three issues related to large-scale collective action were mentioned by the informants. Although, it does not appear to affect the collaboration and hence create a collective action dilemma. Instead, state sovereignty is perceived as being protected and secured, posing an obstacle for policy harmonization but not cooperation as a whole. The fact that the involved states are heterogenous appears to distress on effectiveness because it slows down the process of implementation, but it was not stated that it altered the collaboration all together. Although the migrating animals did create a fear of them being poached on the other side of the political border, the movement of the animals do not seem to have caused issues on collaboration at a state level. These three categories were chosen because the large-scale collective action theory suggested that these factors could cause a dilemma. It proposes that the states would act in a short-termed way because the “costs” of participation in cooperative efforts are higher than the “benefits”, even if the long-term benefits from cooperation are higher (Olson, 1965). The results from this study suggests that a collective action dilemma is not realized in the GLTFCA, even though these disturbing factors are present. This could indicate that commonly known factors that are seen in large-scale commons are overcome in a TFCA.

Although issues connected to large-scale collective action seem to be overcome, two categories that were not covered by the chosen theory were highlighted by the informants. Economic & diplomatic issues were mentioned. For example, the lack of funds and fear of creating conflict in other political areas outside the GLTFCA. Community neglect was another issue, where the predicted economic benefits of increased tourism had not been realized for communities residing within the park. Furthermore, there is a view that wildlife has been prioritized over people, which in turn create a negative spiral where these communities become poachers.

Future studies need to be conducted to confirm the findings from this study, and to clarify the findings that were not covered by the chosen theory. Firstly, further case-studies in different areas are needed as these could potentially confirm the results that TFCAs in general are suitable for overcoming large-scale collective action dilemmas or detect if the GLTFCA was an exception. Secondly, because multiple states are involved in this collaboration it is important to conduct case-studies where the other states opinions are revealed. Because it is a multi-lateral cooperation it is essential to cover all views to understand the whole picture of the relationship. Finally, future studies should also be

focusing on different governance levels within a TFCA, for example at the community level. Since this study suggests that issues appear to be present at a community level, it would be interesting to apply theories of polycentricity which focuses on governance systems at multiple scales (Ostrom, 2010).

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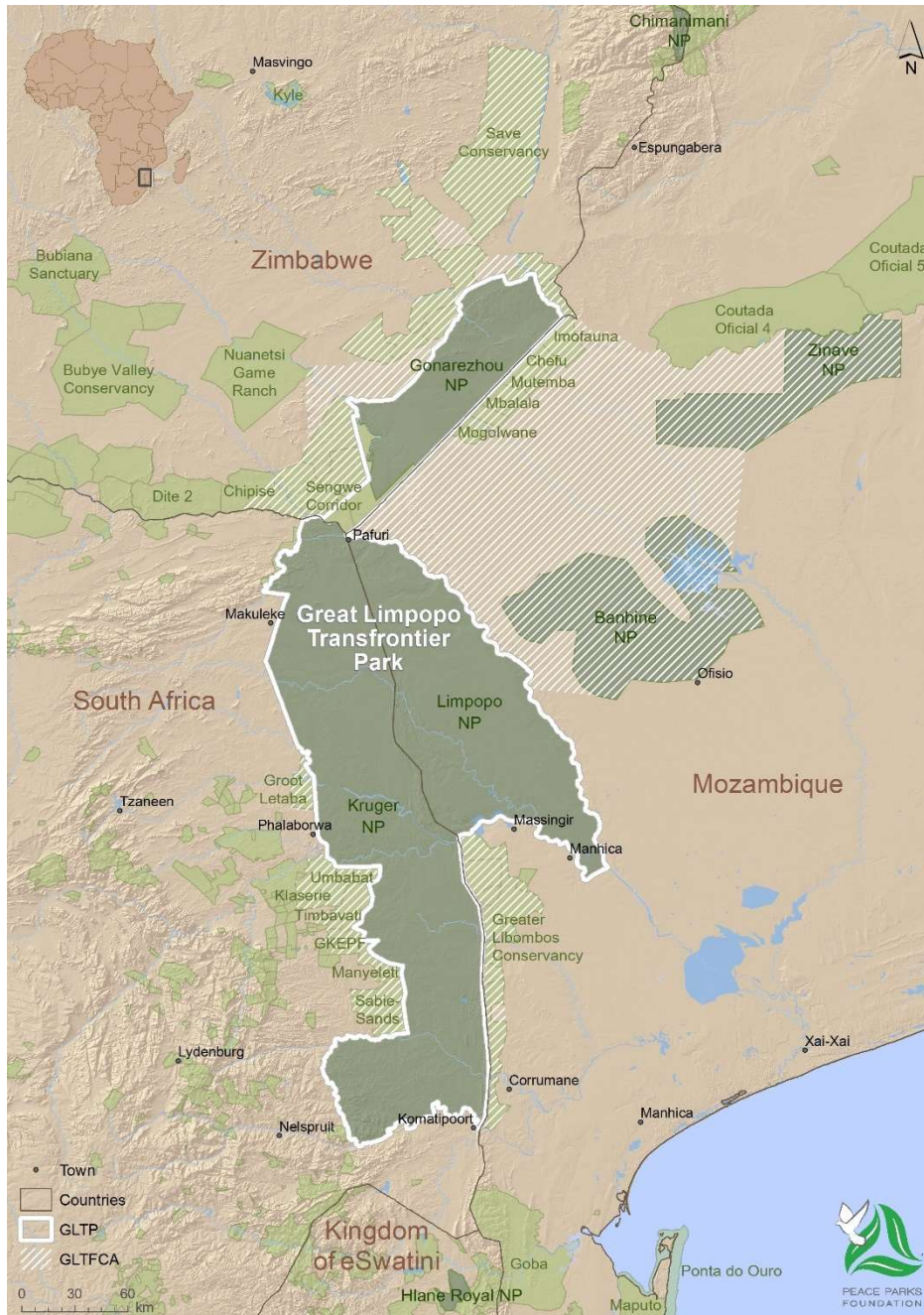
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# 10. APPENDIX

## 10.1 Map of GLTFCA



Source: Peace Parks Foundation, 2018.

## 10.2 Questionnaire

Title:

Country of origin:

Authority and tasks:

Employment history (how many years and on other positions):

### **Into**

- What is your overall perception of the park?
- Would you describe it as a success story or in any other way?
  - Why?

### **International collaboration (Sovereignty)**

- What are the main challenges in the cooperation between the countries involved?
  - Do you share common laws? Is that a problem?
- Are there any challenges that wouldn't be faced if the park would be a national park?
- Do you believe collaboration is necessary to achieve a successful management of the park?
- Do the involved states benefit to the same extent?
  - Would it be/is it a problem?
  - How do you believe it affects the effectiveness of the park?
  - Would shared revenues alter the collaboration?
    - In what way?
- Do you believe that the collaboration would be more successful if all states shared the revenues?

### **Heterogeneous group**

- How does it work when collaborating with the different national governments?
- Do you believe they all have the same aims and goals with the park?

### **Well-defined boundaries (migrating resource)**

- How do you work to secure the animals safety?
  - Do you see any difficulties when securing the animals safety?
  - How would you evaluate the anti-poaching efforts of the park?
    - How do the involved states work towards harmonization of their policies regarding poaching?
      - Is harmonization desired?
      - What are the main obstacles?
  - Is poaching more frequent in certain areas of the park?
    - Why do you believe that is?
  - What would, ideally, be done to combat poaching?
    - Would the actions taken be different if the park were a national park?
- 
- What do you believe needs to be done in order to establish a more successful park?



### 10.3 Interviewees

	<b>Area</b>	<b>Date</b>
<b>Interview 1</b>	Johannesburg, South Africa	2018 – 11- 12
<b>Interview 2</b>	Pretoria, South Africa	2018 – 11- 19
<b>Interview 3</b>	Phalaborwa, South Africa	2018 – 11- 27
<b>Interview 4</b>	Phalaborwa, South Africa	2018 – 11- 27
<b>Interview 5</b>	White River, South Africa	2018 – 11- 29
<b>Interview 6</b>	White River, South Africa	2018 – 11- 30
<b>Interview 7</b>	White River, South Africa	2018 – 11- 30
<b>Interview 8</b>	Johannesburg, South Africa	2018 – 12- 05