Expanding the Kavango-Zambezi (KAZA) TFCA: Experiences from Botswana

By

Kelly Celeste Webster

Dissertation presented for the degree of MPhil in the Department of Environmental and Geographical Science

University of Cape Town

January 2019

Supervisor: Professor Maano Ramutsindela

ACKNOWLEDGEMENTS

I would like to take this opportunity to thank a number of people without whom this research would not have been possible. Firstly, to my supervisor; Professor Maano Ramutsindela for your mentorship throughout this process. Your knowledge, council and encouragement have been invaluable and helped to guide me along my academic journey. Thank you for continually providing me with enthusiasm for greater research and scholarship. To the University of Cape Town for allowing me the opportunity to undertake this research and providing the financial support to do so. To all the participants in this study thank you for sharing your time and experiences with me. Your engagements not only provided depth to my research but gave me valuable knowledge and experience to move forwards with. To both Kgosi Ramsden and Barena Mazebedi for your time and insight in assisting me with my research. To Grant Nel, Mark Vandawalle, Kathy Vandawalle, Elanor Patterson and all the Kasane residents for your continual support of my academic ambitions. Finally, to my family and friends for the encompassing support and constant reassurance always.

ABSTRACT

Transfrontier Conservation Areas (TFCAs) have emerged in recent years to become an important means of governing conservation land across the national boundaries of contemporary states. Southern Africa's TFCAs have developed as 'new conservation' spaces, which are considered to promote a more holistic approach to managing protected areas by effectively integrating conservation and development ideals. However, these initiatives require complex management structures that extend across and engage with a complex mosaic of land uses, while effectively trying to reconcile diverse ecological, social, and economic agendas. The Kavango-Zambezi (KAZA) TFCA is the largest of these initiatives extending across the borders of Angola, Botswana, Namibia, Zambia and Zimbabwe. This research traces the expansion of the TFCA from its formation in 2003 to 2018, with a particular focus on its land integration and resource management processes in Botswana.

To examine this expansion, this research utilizes the concept of 'territory' as a lens of land control which draws attention to the ways in which land within various spaces is valued, utilized and accessed. For this research, territory provides a useful perspective with which land and resource valuation, land-use conflict and resource rights within the TFCA's boundaries can be critically engaged with. In order to better understand the territorial expansion processes of the TFCA, this research examines firstly, the objectives of the Botswana state in terms of the growth of the TFCA; secondly, the motives behind the expansion processes; thirdly, the ways in which land under various tenure regimes is involved within the expansion processes; and finally, the impacts of these processes on local communities within these areas. The methodology adopted in this research involves (a) document analysis primarily focused on Botswana's *Integrated Development Plan* (IDP) for the KAZA to understand the planned political processes of expansion; (b) GIS mapping activities to identify the areas and types of land tenure that have been integrated into the TFCA; and (c) interviews with stakeholders and local communities to understand the expansion processes on the ground.

From this territorial orientation, this research demonstrates how the Botswana state has placed a strong strategic focus on the development of a luxury tourism industry based on

wildlife and non-consumptive resource uses. This focus aligns with the growth of the KAZA TFCA in the region, which aims to develop the region's tourist potential by expanding its conservation estate. Within these processes, land and natural resources are increasingly being seen as a means of revenue and capital accumulation in the KAZA region. These revaluations of land and resources have translated into changing land dynamics in areas that have been integrated into the TFCA. For communities in these areas, this has resulted in increasing resource restrictions, land-use and human-wildlife conflict, as well as a disengagement from resource management activities. These processes lead to unintended consequences in that they pit local communities against conservation agendas in the area.

Table of Contents

LIST OF FIGURES

LIST OF TABLES

ACRONYMS & ABBREVIATIONS

AR	African Renaissance
AWF	African Wildlife Foundation
BMZ	German Federal Ministry of Economic Cooperation and Development
BOCOBONET	Botswana Community Based Organization Network
BTO	Botswana Tourism Organization
CI	Conservation International
CBC	Community-based conservation
CBD	Convention on Biological Diversity
CBNRM	Community-based natural resources management
CBO	Community-based organization
CBPP	Contagious bovine pleuropneumonia
CHA	Controlled hunting areas
DWNP	Department of Wildlife & National Parks
EU	European Union
FDI	Foreign direct investment
FMD	Foot and mouth disease
FTP	Free Trade Protocol
GIS	Geographical information systems
GDP	Gross domestic product
HWC	Human-wildlife conflict
IDP	Integrated Development Plan
IUCN	International Union for Conservation of Nature
JVP	Joint venture partnerships
KAZA	Kavango-Zambezi
KfW	Kreditanstalt für Wiederaufbau
LUMP	Land Use Management Plan
MEWT	Ministry of Environment, Wildlife & Tourism
MIDP	Master Integrated Development Plan
MoU	Memorandum of Understanding
NGO	Non-governmental organization
NSP	National Strategic Plan
NPAD	National Policy on Agricultural Development
OECM	Other effective area-based conservation measures
OUZIT	Okavango Upper Zambezi International Tourism Initiative
PA	Protected area
PPF	Peace Parks Foundation
SADC	Southern African Development Community
TBPA	Trans-boundary protected area
TBNRM	Trans-boundary natural resource management
TNRMA	Transboundary natural resource management area
TDCA	Trade, Development and Cooperation Agreement
TFCA	Transfrontier Conservation Area
TGLP	Tribal Grazing Lands Policy
WDA	Wildlife Dispersal Area
WMA	Wildlife management area
WWF	World Wide Fund for Nature

CHAPTER 1

Introduction

Transfrontier Conservation Areas (TFCAs) have become a prominent feature of the conservation discourse in Southern Africa and across the globe (Ali, 2007). This rise in prominence is largely due to changes in conservation strategies and the fact that natural resources and their related environmental problems transcend national borders. Therefore, they require trans-boundary environmental management techniques. As large-scale conservation initiatives, TFCAs straddle the boundaries of two or more countries and are intended to promote biological connectivity and opportunities for development while at the same time strengthening political relations across the landscape (Hanks, 2003). However, ensuring this kind of landscape connectivity requires complex governance structures that can reconcile an array of social, economic and ecological objectives across a diverse tenure regime and a mosaic of land use (Metcalfe & Kepe, 2008).

This first chapter of this thesis provides the background to the research by examining the emergence of TFCAs in Southern Africa, and the ways in which they form part of broader conservation narratives that have undergone (and still are undergoing) ideological changes. To do this, it will examine the traditional western understandings of nature and society relations and how this inspired colonial 'fortress conservation' practices that promoted the creation of isolated Protected Areas (PAs). Thereafter, the discussion pays attention to how conservation ideologies changed over time and promoted a move towards community-based inclusive forms of conservation practices. The chapter situates the emergence of trans-boundary initiatives such as TFCAs within the context of changing conservation paradigms so-called 'new conservation' practices. Following on from this discussion the chapter presents the emergence and growth of the Kavango-Zambezi (KAZA) TFCA with a focus on its formation and objectives. The final section of this chapter describes the rationale for this research in the KAZA as well as the aims and objectives of the study.

Changing Conservation Narratives

The following section briefly examines the various ways in which nature and its relationship with society have been understood over time. This is achieved by examining the various ideologies that have served to underpin different conservation practices.

The Ideologies Underpinning Nature-Society Interactions

Over time our understandings of the relationships between nature and society have influenced the way we understand and interact with nature (Ramutsindela, 2004). Because of these various ideologies, nature preservation and biodiversity conservation have taken on several forms over different time periods. On an abstract level these ideologies relate to different perceptions of the relationships between humans and their environment, while on a more practical level these often come down to the issue of how to deal with (local) people living in and around PAs and the interactions between these people and the 'important' or 'threatened' biodiversity in question (Büscher & Whande, 2007).

The western colonial perception of nature has traditionally been dominated by the separation of society from the environment. Within this dichotomy, 'wilderness' was a term taken to mean something alien to humans; an environment against which civilization had waged a struggle (Nash, 1982; Siurua, 2006; MacKenzie, 2017). From these perspectives, there was an implied need to conquer and control the wild environment and their inhabitants (Ramutsindela, 2004). Preservation emerged out of these understandings as a means of protecting the environment from this human interface. As a result, conservation inherited a romantic rationale both for criticising the acts of 'modernization' as well as for managing and preserving nature for human benefit and enjoyment (Adams & Mulligan, 2003). Both ideals have served to perpetuate the idea of the 'wilderness' as being a pristine or unspoilt natural environment, entrenching the idea of separation between society and nature.

However, these traditional ideals of nature and society have not gone unchallenged. In recent years a large body of work termed 'new nature conservation' has offered reinterpretations of these understandings of nature, arguing that nature is fundamentally social in character and, therefore, the two are inherently inseparable (Castree, 2001; Ramutsindela, 2004; Berkes,

2004). These interpretations of traditional nature-societal configurations aim to eradicate the power relations embedded within these relationships and integrate principles of social and ecological justice at different scales. Hulme and Murphree (1999) argued that the emergence of 'new conservation' ideals was based on three main premises. The first premise was that conservation practise should be founded within society, moving away from state-centred control of resources towards community-based practises. Secondly, there have been changes in the conceptualization of conservation itself that has moved away from simply preserving of nature towards ideals on the need for sustainable development in which both conservation and development goals are co-operatively sought. The third premise for new conservation was based on neo-liberal economic thinking that rose to prominence at the time. This promoted thinking on the role of markets within conservation practises and understandings of environments being inherently dynamic and power-laden. All of these ideologies allowed for the growing acceptance that much of the previous thinking on conservation was dominated by 'environmental imperialism', which prioritized western goals of preservation over African development needs (Singh & Van Houtum, 2002; Dressler et al. 2010).

These contrasting ideologies have also over time resulted in a number of different configurations of biodiversity conservation and PA governance. The following section examined the various models that have come to dominate PA management over different time periods. However, as Büscher & Whande (2013) argue, it is important to understand that neither of the above ideologies and their various configurations has been absolutely dominant or implemented completely at any given time. Therefore, the implementation of the different conservation models has seldom followed one narrative. Rather, these different narratives and models are constantly overlapping and competing in different spaces, making the boundaries between them complex and hard to identify in practice (e.g. Leach & Mearns, 1996; Adams & Hulme, 2001; Sakar, 2003; Hutton et al., 2005).

The Establishment of Fortress Conservation & Protected Area Systems

The colonial notions of nature preservation, as mentioned above, envision nature as an 'un-spoilt wilderness' and advocate for the separation of people from nature because the two are considered inherently incompatible (Oates, 1999; Terborgh, 1999; Neumann, 2002; Brockington, et al., 2008). These ideals have promulgated conservation strategies advocating

for the designation of protected areas, where conservation is ensured through the separation of people from the environment (Brockington, 2002; Adams, 2003; Colchester, 2004). This form of conservation has come to be known as 'fortress conservation' or the 'fences and fines approach' (Wells & Brandon, 1992; Neumann, 1998; Brockington, 2002). Fortress conservation entails the creation of protected areas such as national parks or reserves, which limit the human impact by excluding people as residents and preventing the consumptive use of natural resources in that area (Brockington & Schmidt-Soltau, 2004). This model came to dominate 20th century conservation practice, promulgating the United States based creation of a National Park as a "a pristine wilderness area free of human impact" (Hutton et al., 2005: 342).

In Southern Africa, fortress conservation was promoted by various colonial administrations from the 1890s, who advocated for the establishment of a number of national parks and game reserves across many of the newly-annexed territories (Neumann, 2003; Hutton et al., 2005). The creation of these PAs was based on a paradigm conveying an image of a degrading wilderness and declining natural resources, which justified an interventionist and control-oriented approach to environmental management (Schroeder, 1999; Beinart & McGregor, 2003; Jones, 2006). These PAs acted as sites for colonial state control and the enactment of societal power divisions present at the time. Hunting within the reserves was a symbol of power and prestige and an activity reserved primarily for colonists. Indigenous populations were not only alienated from these areas but condemned for undertaking the same activities (MacKenzie, 1989; Jones, 2006; Spierenburg & Wels, 2006; Ramutsindela, 2008). New systems of land and resource regulation were imposed for these groups whose local knowledge and understandings of the intricate relationships between humans and their environment were dismissed or disregarded (Schroeder, 1999; Colchester, 2000; Brockington, 2004).

'New' Nature Conservation Practices

The establishment of PAs such as national parks and the ideologies underlying them have come to act as a cornerstone for the majority of global conservation strategies since the colonial periods (Dearden et al., 2005). However, fortress conservation has come under immense criticism in the past few decades (Dowie, 2009; Sarkar & Montoya, 2011; Kelly,

2011). These critiques stem firstly from the high economic costs of PAs and their low economic returns compared with alternative human-settled land uses (Leader Williams & Albon, 1988; Norton-Griffiths & Southey, 1995; Brockington et al., 2006). Secondly, these systems have also been heavily criticized for the displacement and marginalization caused to local communities who reside within and around these areas (Dressler et al., 2010). A growing body of literature has also drawn on political ecology to analyse the issues of the politics and economy found within PA systems (e.g. Neumann 1992, 2004a; Schroeder, 1999; Brockington, 2002). In doing so they critiqued the leading role of the state which acted as the central agent in the legitimization and exercise of power within these conservation processes (Peluso, 1993; Neumann, 2004b).

In response to these criticisms, there was a drastic decline in support for fortress conservation both in Africa and globally from the 1990s (Leach & Mearns, 1996; Dowie, 2009). In response to this decline, a significant change in the dominant conservation 'narrative' took place (Adams & Hulme, 1998; (Barrow & Murphree, 2001; Brown, 2002; Dressler, et al., 2010). This shift towards 'new nature conservation' narratives argued that conservation practises should augment human needs and should not be pursued against the interests of local people. These ideologies, therefore, argued for strategies that balance conservation practices and the needs of local people (Adams & Hulme, 1998, 2001). New conservation models such as co-management and community-based conservation (CBC) schemes are the embodiment of these ideologies that place a greater emphasis on the devolution of governance, shared natural resources and co-management strategies with local communities (Jones, 2006; Hutton et al., 2011). Within these new models, conservation is envisioned to be 'participatory' in nature and communities are perceived as 'partners', rather than bi-standers. Ideally, these processes are envisioned to be organized in such a way to yield an economic return for the community and, therefore, contribute to long-term sustainable development (Adams & Hulme, 2001).

'New Conservation' in the African Context

Africa also saw the demise of many fortress conservation practices as a legitimate conservation discourse at the end of colonialism in the 1950s and 1960s. With a new development climate arising in the 1970s, wide scale emancipation movements of previously

suppressed, underprivileged or disadvantaged groups took place in many countries. This resulted in a changing conservation climate more conducive to issues of popular participation and local ownership focussed on equitable forms of resource management (Kellert et al., 2000; Berkes, 2004; Büscher & Whande, 2007). Since then, new conservation initiatives in Africa have taken on several forms in the last few decades including integrated conservation and development projects (ICDPs), community conservation programmes, collaborative or joint management ventures and recently community-based natural resource management (CBNRM). Barrow & Murphee (2001) explained that the new conservation narrative can be best understood as a continuum of different practises. At one end of this continuum are initiatives that were designed to support PAs and national parks to fulfil their conservation objectives through the replacement of traditional 'fines and fences' strategies (Wells et al., 1992; Western & Wright, 1994; Barrett & Arcese, 1995; Bergin, 2001; Dressler et al., 2010). These programs tended to focus on addressing issues of land use conflict such as equitable resource use and access rights. Towards the middle of this continuum are 'collaborative management' projects between state and the local community and sometimes the private sector. These projects took on a number of forms, but Adams and Hulme (2001) argued that they tended to be characterized by contemporary development strategies often administered through 'pluralist', partnership or inter-organizational approaches (White & Robinson, 1998; Robinson et al., 2000). Then, at the other end of the continuum are initiatives that focused on ways to utilize wildlife and resources to achieve rural development in places outside of existing PAs. Within these programs, biodiversity conservation was often perceived as a secondary benefit of sustainable ecosystem management and resource use regime. These initiatives are what we know today as CBNRM projects (Barrow & Murphee, 2001; Adams & Hulme, 2001; Murphee, 2009).

Although there has been a rapid uptake of various 'new conservation' initiatives in recent years, they have not emerged without criticism (Noss, 1997; Brockington, 2004; Turner, 2004; McCarthy, 2005; Kumar, 2006; Dyer et al., 2014). One criticism has stemmed from apprehension around the ideals and practices of community conservation initiatives. These scholars have argued that these initiatives are often simplistic and possibly deceitful, by masking colonial preservation strategies of policing, eviction and misanthropy in a new 'inclusive' skin (Neumann, 1997; Brockington, 2004). Research by Dressler at al. (2010) shows how state and NGO-led CBNRM programmes in a number of countries have mirrored

traditional conservation concepts enforcing regimes that have limited local peoples' use of natural resources. These processes have often served to support prominent community members and entrench external power regimes. Similarly, Brockington (2004) among others (Archabald & Naughton-Treves, 2001; Lane & Corbett, 2005; Balint & Mashinya 2006; Corson, 2012) has noted the limited extent to which decentralisation has taken place and the accompanying corruption occurring within a number of initiatives.

A second critique has stemmed from the implementation of many community conservation projects, where the widespread standardization of programme policies and practices has resulted in interventions that are misaligned with local contexts (Mosse, 2005; Blaikie, 2006; Dressler at al., 2010). The widespread uptake of CBNRM has meant that in many cases it has been introduced simply as a predefined policy prescription for resource management. Implementation in this way focuses on technical solutions to livelihood problems with predetermined political and economic objectives rather than a means of achieving engagement and empowerment through conservation. This has caused many scholars to argue that the design and implementation of CBNRM is less focused on attempting to engage with complexities of conservation, sustainability and social inequality but more on quantifiable, transferable outcomes. The result is that these economic and political outcomes are often divorced from the realities of the local conservation context (Li, 2007; West, 2007).

Furthermore, scholars question the ability of CBNRM initiatives to effectively achieve successful biodiversity conservation (Kramer et al. 1997; Oates 1995; Spinage 1998, 1999a, 1999b, 2002; Struhsaker 1998). For example, Spinage (1998) has argued that the practises and models of community conservation can be seen as a weakening of the resolve of conservationists to achieve necessary preservation of species and ecosystems and an ability of local communities to achieve the successful conservation practises desired. Similarly, a review by Hulme & Murphree (2001) that included several community conservation and CBNRM projects in Africa argued that community conservation in varying contexts is failing to significantly achieve effective conservation strategy beyond the principles of good democratic governance.

The above criticisms around the inability of community conservation models to achieve successful conservation practise led to a resurgence of 'protectionist paradigms' among some conservation biologists in the 1990s. This resurgence of traditional conservation ideals became known as the 'back to barriers' argument. For example, Oates (1995) argued that conserving African forest primates can only be successfully achieved through the maintenance of strictly protected areas. Similarly, Redford (1991, 1992) contended that the increased human presence and activity in tropical forests is incompatible with the biological diversity conservation agendas. Arguments for the return of fortress conservation techniques and strictly protected areas have been made by other scholars including Terborgh (1999), Oates (1999), Kramer et al., (1997) and Brandon et al., (1998).

The Rise of Trans-boundary Resource Management as a 'New Conservation' Strategy

The upsurge of community conservation in the 1980s/90s saw aid and donor agencies directing significant resources towards CBNRM and natural resource management schemes in Southern Africa (Roe et al., 2000). However, the constraints faced by many CBNRM initiatives and the resultant resurgence of preservationist conservation arguments meant that many donor agencies swiftly changed their focus in the late 1990s (Hutton et al., 2005). Much of this focus was redirected to the emerging concept of trans-boundary natural resource management (TBNRM) initiatives. Hutton et al., (2005) described the ways in which a number of aid organizations and non-governmental organisations (NGOs) such as the United States Agency for International Development (USAID) that were operating in Southern Africa swiftly redirected regional support from CBNRM initiatives to TBNRM between 1996 and 1997.

However, the concept of trans-boundary conservation areas (also known as 'peace parks') dates back to 1932, when the areas of Waterton and Glacier were jointly acknowledged as the first international peace park by Canada and the United States of America (USA). As these two states have a good relationship this move symbolized the role conservation areas could play in resolving conflicts between states. Since this inaugural agreement, the term peace park has been used to apply to a number of trans-boundary protected areas across the globe (Sheppard, 2000; Ali, 2007; Marton-Lafevre, 2007). In the 1990s, TBNRM rose to prominence not only out of the acknowledged short-comings of other 'new conservation'

initiatives at the time, but also because it aligned with a focus on several landscape priority-setting exercises initiated by international conservation organizations (Margules & Pressey, 2000). These exercises stemmed out of achieving *Programme Element 1* of the 2004 - *Protected Areas Programme of Work on the Convention on Biological Diversity (CBD),* which called for the establishment and strengthening of national and regional systems of PAs across national boundaries (Convention on Biological Diversity, 2004).

In Southern Africa, a move has been taken to extend the role of peace parks past the focus on political relations by placing greater emphasis on shared and multiple resource uses, especially by local communities, inspiring the term Transfrontier Conservation Area (TFCA). Broadly, TFCAs in Southern Africa can be understood as "relatively large tracts of land, straddling frontiers between two or more countries and which embraced natural systems encompassing one or more protected areas" (Hanks, 2003; 193). TFCAs extend beyond PAs such as national parks and game reserves and incorporate private land, communal land, forest reserves and wildlife management areas. Furthermore, TFCAs are envisioned to include innovative approaches as biosphere reserves and a wide range of CBNRM programs (World Bank, 1996).

The emergence of TFCAs not only aligns with changing global conservation ideals but also coincides with economic and political changes present in Southern Africa at the time of their emergence. Towards the end of the 1980s, the region experienced a period of political transformation with the fall of Apartheid in South Africa, and the agreement of a Peace Accord between Mozambique and South Africa that was established in 1992. At this time the region was also faced with critical socio-economic development and land-redistribution needs to cope with the effects created from the region's liberation wars. This was coupled with a lack of resources for development or biodiversity conservation and an over-population of elephants in many regions. As a result, expectations arose for regional tourism initiatives to solve many of these discrepancies (Ramutsindela, 2004; Spenceley & Schoon, 2007).

These expectations were bolstered by the development of the Southern African Development Community (SADC) that was restructured in 1996. The predecessor to SADC, the Southern African Development Co-ordination Conference had largely focused on political liberation

within the region, however, the development of SADC meant a change in focus to that of co-operation and regional development amongst the Southern African states (SADC, 1992). One of the outcomes of this restructuring process was the development of the *Protocol on Wildlife Conservation and Law Enforcement*, signed in August 1999 by the SADC member states (SADC, 1999). The aim of the Protocol, among other things, was to promote the establishment of TFCAs and transboundary conservation in the region. These processes served to create a regional backdrop that not only embraced the idea of TFCA initiatives but assisted in motivating for their development. By 2002, the SADC had officially sanctioned the establishment of 22 TFCAs in Southern Africa (**Figure 1.1**).

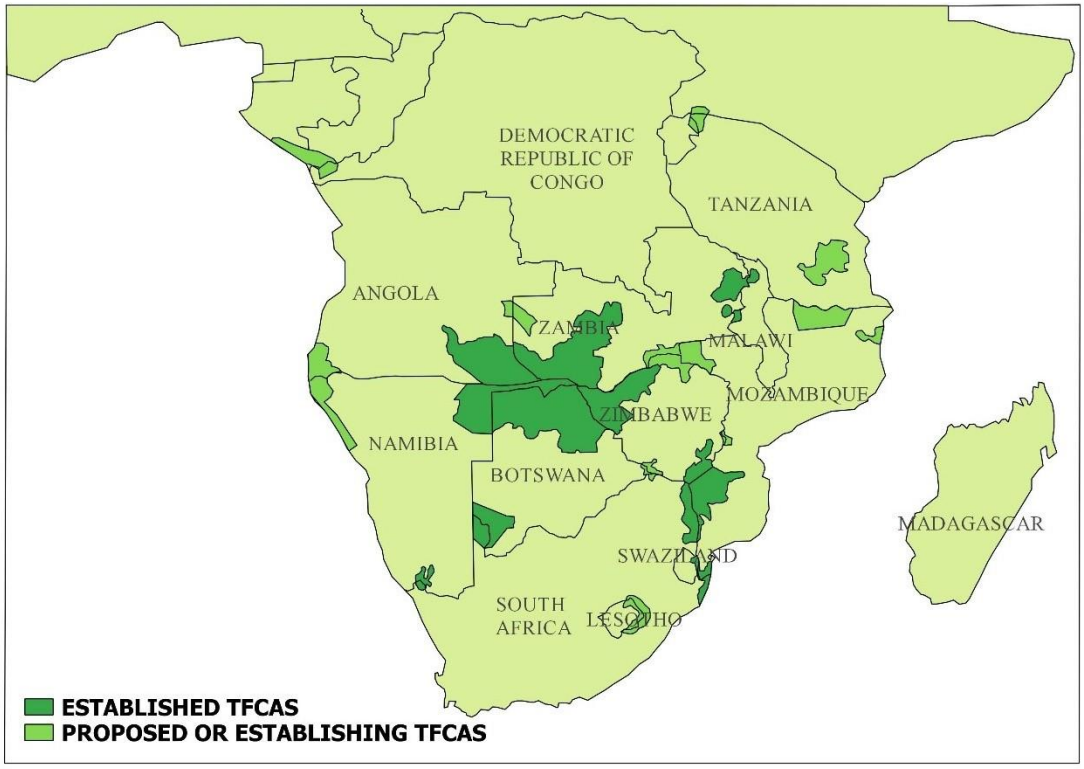

Figure 1.1 TFCAs in Southern Africa

(Source: Adapted from Peace Parks Foundation, 2012)

As of 2018 there are currently 18 TFCAs in the SADC region in various stages of development; 8 formalized, 4 emerging and 6 conceptualized in both terrestrial and marine environments (Peace Parks Foundation, 2018). The formation and establishment of these TFCAs has been headed by the Peace Parks Foundation (PPF), an NGO who widely advocated the ways TFCAs could achieve economic development for the region. The PPF

argued that in order for Africa to decolonize its colonial boundaries there was a need for political unity and cross-boundary conservation initiatives in the region (Hanks, 2003; Peace Parks Foundation, 1998). A widespread vision was promulgated at the time by the PPF of TFCAs as being "a beacon of hope for Africa's future" (Draper et al., 2004: 342). This framing of TFCAs showcases the political nature of their utility in Africa and the ways in which various rationales have been used to legitimize their growth and expansion. The next section examines these rationales in greater detail.

The Rationales for the Creation of TFCAs

It is necessary to examine the three key rationales for the growth of TFCAs in Southern Africa in order to understand their uptake and importance in contemporary conservation practices. These three rationales relate to conservation and wildlife mobility, the promotion of peace & regional economies and the alleviation of poverty.

Conservation & Wildlife Mobility

Globally, the justifications for the need to conserve biodiversity for human survival and development have been widely documented (Swanson, 1992; Folke et al., 1996; Balmford et al., 2002; Rockstrom et al., 2009). However, it has also been generally recognized that conserving all of nature, on a global scale will not be possible. In following this ideal, many strategies have been perceived as a means of prioritizing areas for conservation (Bottrill et al., 2008; Raymond, 2014; Myers, 1988; Myers et al., 2000). PAs including national parks, reserves, trusts and conservancies have been perceived as the cornerstones for conserving the world's remaining biodiversity (De Fries et al., 2005). However, globally these areas are becoming increasingly isolated from each other and their means of management have been seen as out-dated. The effects of habitat fragmentation and PA isolation on biodiversity, genetic diversity and species survival have been well documented (Olff & Ritchie, 2002; Fahrig, 2003; Bennet, 2003; Anderson & Jenkins, 2005). This has led many ecologists to question the viability of individual PAs in ensuring effective conservation (Sanchez-Azofeifa, et al., 1999; De Fries et al., 2005; Clerici et al., 2007).

These debates on the limits of PAs have contributed to what Munthali (2007) has summarised as the three key ecological justifications for creating TFCAs. Firstly, TFCAs are necessary to protect internationally shared ecosystems that fall over artificially created state boundaries. These boundaries have caused the division, fragmentation and degradation of ecosystems and subsequent habitat loss. Secondly, their creation is needed in order to protect and expand the land available for plant and wildlife populations and, therefore, reduce extinction rates. The third justification involves the re-establishment of seasonal migration routes for wildlife. In Southern Africa, the fragmentation and division of land for human activities can be traced back to the advent of private ownership of farms by Europeans, which resulted in the sub-division of what was formerly open common-property grazing lands. Over time across Southern Africa, fences have been used in combination with game elimination strategies to separate wildlife from livestock to control various diseases such as trypanosomiasis, Contagious Bovine Pleuropneumonia (CBPP), rinderpest and foot-and-mouth disease (FMD). This division of formerly open rangelands inevitably altered ecological processes and plant-herbivore interactions, resulting in long-term implications for biodiversity, ecosystem health and sustainability (Cumming et al., 2015). TFCAs seek to re-establish ecological processes that have been disrupted by these boundaries and fences such as large mammal migrations and historical dispersal routes. In doing so they aim to re-connect ecosystems by integrating already PAs with other land uses such as communal lands, private and state land across borders (Hanks, 2003; Cumming et al., 2015). This logic thereby justifies the expansion of PAs into new spaces and ensures a continued and expanded role of external parties in processes of local land control (Wolmer, 2003).

The Promotion of Peace & Regional Economics

The establishment of TFCAs has been significant not only for conservation but also for their role in strengthening the relationships between neighbouring countries and promoting peace and co-operation on the continent (Hanks, 2003; Van Amerom & Büscher, 2005; Ali, 2007; Büscher, 2013). Peace and cooperation between the African states has been deemed essential prerequisites for ensuring sustainable economic development and foreign investment for the continent (Hanks, 2003).

Draper et al., (2004), Van Amerom & Büscher (2005), Ramutsindela (2007) and Büscher (2013) assessed how this peace rhetoric fits into ideals on African cohesion, specifically that of the 'African Renaissance' (AR). This AR ideology was first championed by the former South African President Thabo Mbeki, understood to be a 're-birth' of the African continent in response to an array of social, political and economic problems afflicting the African post-colonial states. The objectives of the AR ideology involve: (1) the liberation of repressed or disadvantaged groups; (2) the reaffirmation and increased inter-exchange of African cultures; (3) sustainable economic development; and (4) the entrenching of democracy on the continent (Vale & Maseko, 1998). The proponents of Peace Parks have argued that TFCA initiatives can be used as a key tool to achieve the objectives of the African Renaissance. This idea has been endorsed in the media by leading figures such as the late Nelson Mandela, the late Prince Bernhard of the Netherlands, as well as the founder of the PPF, Anton Rupert who was an influential South African businessman (Van Amerom & Büscher, 2005; Ramutsindela, 2007). However, Draper et al. (2004) argue that TFCAs have been used as a political mechanism for the PPF and the elite to foster new cohesion and extend control over land in postcolonial Africa.

Socio-economic Development & Poverty Alleviation

A third rationale for the creation of TFCAs has been the economic incentives they provide. Research by Draper et al., (2004) and Hanks (2003) argued that the economic values associated with conservation practices are crucial to underpinning the development of TFCAs and the widespread acceptance of these ideals by the state and its polity. These relate to the notion promulgated by the PPF that TFCAs can act as a prime motor for economic development for both governments and local communities (Draper et al., 2004). This development is largely created through the formation of cross-boundary tourism, which is one of the key objectives underpinning the formation of TFCAs. TFCAs, therefore, perform the dual function of promoting biodiversity conservation as well as opening these biodiversity-rich areas for tourism (Ramutsindela, 2008). In the late 1990s, the creation of TFCAs and the tourism opportunities they enable were thought to present the fastest growing industry in the world (Wheat, 1997). TFCA advocates promoted that this growing industry would serve to maximize incoming foreign exchange as well as provide new jobs opportunities, primarily to rural areas where there is often high unemployment and a relatively unskilled labour-force (Hanks, 2003).

By arguing that the creation and expansion of TFCAs across Africa will foster economic development for both states and local communities, the initiative claims both social and economic legitimacy (Draper et al. 2004). However, in practise many case studies on TFCA case studies reveal no marked distinction between their narratives and those of traditional conservation, where decisions continue to be made at higher levels without community involvement (Wolmer, 2003). Duffy (2006) argues that most market-based schemes of ecotourism or community development within TFCAs are highly problematic in practice and their economic returns largely fall short of the promises made by TFCA proponents. The TFCA philosophy has therefore been criticized by academics for its ability to truly foster local development, encourage participation and ensure equitable resource access (Wolmer, 2003; Duffy, 2006; Ferreira, 2006; Andersson, et al. 2013), Wolmer (2003) therefore argues a more accurate rationale for TFCAs is the potential they hold for opening up new spaces for private sector investment and for feeding into the process of regional economic integration.

A Case-Study of the Kavango Zambezi (KAZA) TFCA

The previous sections of this chapter aimed to examine the emergence of TFCAs in the Southern African context. The following section now introduces the Kavango-Zambezi (KAZA) TFCA, which was the case-study for the current research. Briefly, it will describe the site-over view, along with the research rationale and aims and objectives for this research.

The KAZA Delineation

The KAZA (**Figure 1.2)** is a conservation and development initiative that is one of the 18 existing TFCAs of SADC. The KAZA was formed in 2006 by five partner countries namely Angola, Botswana, Namibia, Zambia and Zimbabwe in collaboration with the PPF. The intended beneficiaries of the KAZA TFCA are local communities as well as an array of public and private stakeholders in the wildlife and tourism sectors. The joint initiative between the member states had been created with the intention of achieving "sustainable improvements in the livelihoods of resident communities, better protection of the region's biological diversity, the promotion of a premier African tourism destination, and the building of sufficient capacity for the continued management of the region's wildlife and tourism resources" (KAZA TFCA, 2014; 13).

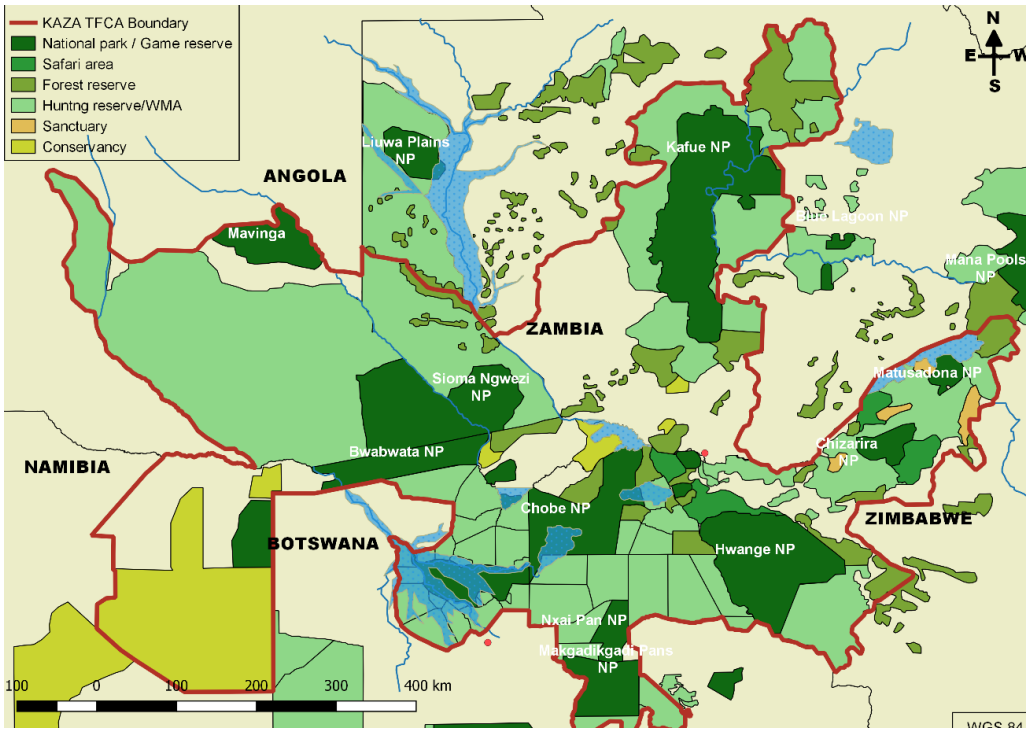

Figure 1.2 The Original Kavango Zambezi (KAZA) TFCA Boundary

(Sources: Adapted from AHEAD Working Groups, 2003 & www.victoriafalls24.com)

The KAZA territory extends over approximately 520 000 km², centred around the Caprivi-Chobe-Victoria Falls area making it the world's largest TFCA at present. Of this total area the five-member countries make up the following portions:

Angola – 9 0621.67 km² (approximately 17%)
Botswana – 1 3362.72 km² (approximately 30%)
Namibia – 7 1516.43 km² (approximately 14%)
Zambia – 13 2630.80 km² (approximately 25%)
Zimbabwe – 7 1479.98 km² (approximately 14%)

The TFCA is broadly made up of 40% of state protected land and 60% of communal land. Within this area there are more than 70 PAs that range in size from 22 000 km² (Kafue National Park) to 19 km² (Victoria Falls National Park) (Cumming, 2008). These PAs have an array of conservation statuses from strictly enforced national parks under state control to multiple-use areas under community management. The demarcation of these PAs in each member country is indicated in **Table 1.1** below.

Table 1.1 Protected Area Delineation of the KAZA TFCA

Type of Conservation Area	Country Area (km²)					Totals	% of the KAZA TFCA Area
	Angola	Botswana	Namibia	Zambia	Zimbabwe		
National Park		9,210	10,884	31,402	18,827	70,324	17.6
Game Reserve		1,8000				1,800	0.5
Safari Area					6,224	6,224	1.5
Recreational Park					2,830	2,830	0.7
State Forest Reserve		6,190	1,200		7,005	14,395	3.6
Partial Reserve	14,350					14,350	3.6
Game Management Area				82,790		82,790	20.7
Hunting & Wildlife Management Area		47,492			2,100	49,592	12.4
Community Conservancy			4,055			4,055	1.0
Coutadas	61,700					61,700	14.4
Totals	**76,050**	**64,692**	**16,140**	**114,192**	**36,986**	**308,070**	**76**

(Source: Adapted from Cumming, 2008)

As indicated above, approximately 308 070 km² of the KAZA exists under some form of protection or wildlife management with this number growing to as high as 371 394 km² in recent years (KAZA TFCA, 2014). Outside of these PAs, approximately 148 520 km² of land is utilized for agriculture and rangeland (KAZA TFCA, 2014). Because the KAZA has such large portions of communal land tenure, it is, therefore, essential for the TFCA that conservation and socioeconomic objectives are mutually reinforcing (Cumming, 1999; Metcalfe, 1999). However, as proceedings chapters will demonstrate, this is not necessarily the case, as national priorities and local land challenges created increasing conflict between conservation and community land.

The Formation of the KAZA

Preceding Work & Agreements:

The formation of the KAZA initiative stems from a number of previous programs that culminated to form what is known as TFCA today. In the 1990s, a spatial development initiative was proposed by the Development Bank of South Africa (DBSA) to develop a Southern African Wildlife Sanctuary in the area which was developed in 1993 into the

Okavango Upper Zambezi International Tourism Initiative (OUZIT) (Metcalfe, 2000; Mogende, 2016). The aim of the OUZIT initiative was to better utilize and manage the region's networks of PAs, wildlife, cultural and natural resources in order to develop a premier tourism hub (Spenceley, 2008). An integral part of the development of OUZIT was a research program developed by Conservation International to deliver data to resource management authorities on elephant ecology, population status and transboundary movements in the area. However, OUZIT's development and progress was slowed at the end of the decade due to its poorly defined scope and issues of co-operation. It was re-developed in 2003, as the 'Four-Corners Transboundary Natural Resource Management Area' which was funded by USAID and implemented by the African Wildlife Foundation (AWF). The aim of the *Four Corners* initiative was to increase co-operation in the management of shared natural resources, primarily aquatic and wildlife in the Upper Zambezi area. The work of AWF worked more closely with local communities focusing on biodiversity conservation and developing community-based natural resource enterprises (Mogende, 2016) The project was able to provide support to the Botswana Community Based Organization Network (BOCOBONET), as well as individual community development programs. For example, assistance was provided to the Sankuyo community to develop the Santiwani Lodge which is a fully community-owned tourism venture (Metcalfe, 2005). Despite this work, the initiative too was plagued by political problems such as a lack of state involvement and a belief by the member states that the initiative was driven by international donors and led by NGOs (Metcalfe, 2005).

Formation Processes:

The KAZA was established on the 29th May 2003, when the Tourism Ministers from its five-member states met in Luanda, Angola, and agreed to establish a major new TFCA in the Okavango and Upper Zambezi River Basins (KAZA TFCA, 2014). In light of the failures of the previous trans-boundary initiatives, the member states agreed in principle to revitalise the trans-boundary idea. Therefore, the initiative was no longer perceived as an NGO driven construct, but a government-driven project (Mogende, 2016). Later in July of the same year, the Ministers met in Katima Mulilo, Namibia, to define key elements of the KAZA program and commission pre-feasibility studies to formulate an *Agenda of Action* for taking the development process forward. The Pre-Feasibility study was carried out from October 2005 to August 2006, by the *Transfrontier Conservation Consortium*, aided financially and

technically by the PPF. On completion and review of the study, the five partner countries signed a Memorandum of Understanding (MoU) on 7th December 2006. The MoU then served to provide the necessary platform for formal negotiations in order to establish the TFCA (KAZA TFCA, 2014).

Study Justification

Since its creation in 2003, the KAZA has expanded to be the largest TFCA on the continent. Currently Botswana is the largest contributor of land to the TFCA, incorporating not only PAs, but also a number of other land uses. With the signing of the KAZA Treaty in 2011, each of the member countries was required to develop an Integrated Development Plan (IDP), that was premised on an extensive stakeholder consultation processes, existing management policies, land use plans and relevant reports. These IDPs would then be used to guide each of the countries' management and development strategies for their portions of the KAZA. For Botswana, the IDP was compiled by the Ministry of Environment, Wildlife & Tourism (MEWT) as the lead agent with input and support of the PPF. During the consultations for the predation of this IDP, recommendations were made to expand the original 'Treaty boundary' due to the fact that the original boundaries were restricted to PA only and excluded communal land areas (MEWT, 2013). As a result of these recommendations, areas around existing PAs with varying land use and conservation status had been integrated into the KAZA in Botswana's portion. This included, but was not limited to communal land areas, areas around the existing national parks and areas of cultural significance (Mogende, 2016). These process of territorial expansion of the TFCA are ongoing but are being done unilaterally and unevenly across the KAZA. This can be seen on the Peace Parks website, which uses geographical information systems (GIS) to map the growth and expansion of the KAZA since its inauguration (www.peaceparks.org). Little research has currently been done to assess these processes, the forces driving them and their effects on local communities.

Research on the KAZA TFCA has largely focused on three main themes, namely human/wildlife conflicts, CBNRM practices and tourism. Most of the research has focused on farming and wildlife interactions and other issues of human/environmental conflict for communities living within the KAZA (Chengeta et al., 2003; Metcalfe & Kepe, 2008; De Garine-Wichatitsky et al., 2013; Thomson et al., 2013; Roever et al., 2013; Ferguson &

Hanks, 2012). The second theme of research has assessed the role of CBNRM in the PAs of the KAZA and its role in conservation practice (Schuerholz & Baldus, 2007; Murphy, 2008). The final area of research focuses on assessing tourism in the KAZA and its economic possibilities for local communities (Suich, 2008; Suich et al., 2005). This study appreciated these themes and drew on this information but focused on questions of land integration within the TFCA, with the view to understand the expansion of the territory of the KAZA.

Research Aim & Objectives

This research aimed to examine the complex land tenure systems in the Kavango-Zambezi (KAZA) TFCA to understand how various land uses have been incorporated into the TFCA to enable the expansion of the KAZA in Botswana.

The objectives of the study were;

- To assess the goals and objectives of Botswana in terms of the growth and management of the KAZA.
- To assess the reasoning behind Botswana's desire to expand the KAZA.
- To assess how land under various tenure regimes was involved in the expansion of the KAZA and the methods used in this process.
- To examine the direct impacts that this expansion has had on local communities in these areas.

Site Overview

For the purposes of this research, a particular study area was chosen located in the northern section of the Central District of Botswana. Within this area, approximately 29 400 km² of land was integrated between 2010 and 2011. The areas integrated into the KAZA during this period of expansion are located between the Botswana/Zimbabwe border and the south-eastern and southern portions of the Makgadikgadi Pans National Park.

Area Description

On the western boundary of the expanded area is the Makgadikgadi Pans National Park, which shares its northern boundary with the Nxai Pan National Park and its eastern and southern borders by the Wildlife Management Areas (WMAs) CT 10 and CT 11. Extending around these PAs are communal rangelands and cattle ranching areas, which are separated by a Major Cordon Sanitaire (veterinary fence) (KAZA TFCA, 2014). This fence acts as the old boundary of the KAZA, which starts at the village of Gweta, running along the eastern border of Nxai Pan National Park and along the southern edges of the WMAs CT1, CT2 and CT5. The fence then runs adjacent to the Zimbabwe border along the southern edge the Hwange National Park boundary intersecting the Major Buffalo proof fence at Sepako (KAZA TFCA, 2014). Figure 1.3. shows communal and ranch lands that have been integrated into the KAZA marked CT4, CT6, CT7, CT12, CT13, CT16, CT17 and CT 19.

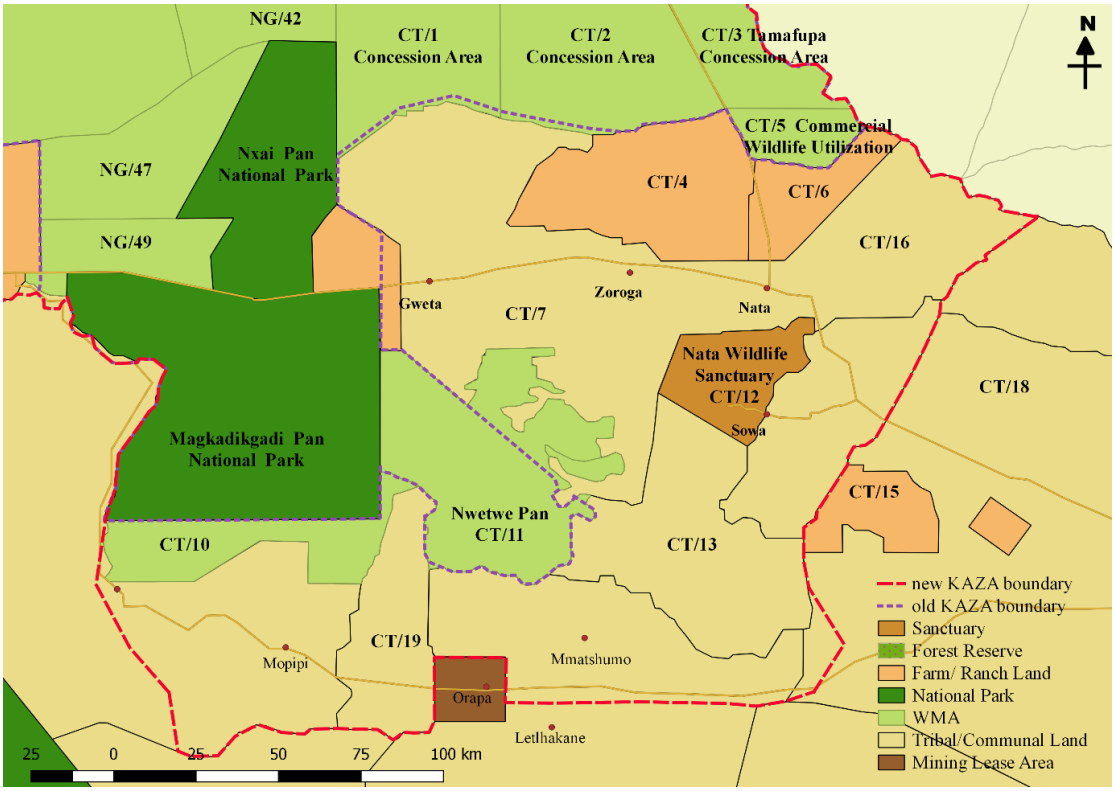

Figure 1.3 Study Area

(Source: Created using data from the Botswana IDP (MEWT, 2013))

Physical Environment

The soil zones of this area are largely wet-sandveld, in the form of calcisols, which are desert soils or fine loamy soils with high concentrations of lime present. The landscape in this area takes the form of flat plains with many large pans and depressions present (MEWT, 2013; Ministry of Agriculture, 1990). Due to the high concentrations of lime and salt, vegetation is sparse in many areas. The average annual rainfall for the area is approximately 450mm, however, it is extremely variable with pronounced inter-annual variability. Rainfall tends to be concentrated in the summer months, with the highest mean monthly rainfall found in January and the driest months in July and August (McCulloch et al., 2010). The area also experiences extreme diurnal and seasonal temperature variations with common and extended periods of drought, sporadic heavy rainfall events, extreme soil variations and hydrologic flux (Ministry of Agriculture 1990; McCarthy et al., 2003, du Plessis & Rowntree, 2003).

Despite extreme climate variability, several water bodies in this area mean that water is critical for wildlife movements within and around the KAZA. The most prominent water bodies include the mouths of the main inflowing rivers, the Ntwetwe pan sump, the Nata Sanctuary pan sump and several smaller pans such as Nkokwane and Dzibui pans (McCulloch et al., 2010). Because of this seasonal surface water and groundwater presence, this area supports a rich fauna community despite the arid conditions and as a result has been identified as a biodiversity hotspot in the country's *Biodiversity Strategy Action Plan* (BSAP-SR, 2003).

The Makgadikgadi Pans are of particular biodiversity importance as a result of the presence of several species well adapted to the unique and often extreme conditions of the saline and highly variable wetland ecosystem (McCulloch et al., 2010). Ecologically this area is also considered to be critical for several wildlife dispersals within the KAZA, falling into what the KAZA MIDP deems the Hwange-Makgadikgadi-Nxai Pan Wildlife Dispersal Area (WDA) (KAZA TFCA, 2014). This WDA supports the migrations of several large mammals such as elephant, zebra and buffalo. During the dry season the salt pans are largely uninhabitable but following the rains they act as important water and food sources to large migrations of zebra, wildebeest and other animals. They also host several migratory bird species including geese,

ducks and Great White Pelicans as well as accommodating one of Southern Africa's only two breeding colonies of Greater Flamingos (KAZA TFCA, 2014).

Conclusion

This chapter aimed to provide an introductory overview of the research study. It introduced the concept of TFCAs and examined their emergence as a new form of conservation practise in Southern Africa and globally. In doing so it has examined changing global conservation narratives and explored what practises these narratives have inspired. In looking at the emergence of TFCAs out of these changing trends, it has also examined the changing climate of Southern African conservation as well as the key rationales for uptake of the TFCA concept. This chapter then focused more deeply on the KAZA TFCA, the study area of the research. Finally, the chapter briefly outlined the research rationale for the work, as well as the aims and objectives of the research. The following chapter will provide a literature analysis to support the current research, focusing on the concepts of territory, land control and primitive accumulation.

CHAPTER 2

Exploring TFCAs in the Concept of Territory

The previous chapter examined the ways in which TFCAs are an interesting new environmental management strategy. This strategy claims to transcend the legacy of traditional conservation models such as national parks in terms of both the scope and goals of nature conservation, but also in terms of relationships between conservation and local people. The proponents of TFCAs, have also argued that TFCAs will act as new trans-border conservation territories in which various land tenure regimes will be accommodated and in which varying forms of use and access are equally respected (Ramutsindela & Sinthumule, 2017). As such, TFCAs are seen as an important tool with which both conservation and development can be achieved (Duffy, 2006).

This chapter examines the development and expansion of TFCAs within the larger context of neoliberal conservation practice and contemporary land control. To do this, this chapter examined the body of literature that deals with the growing global expansion of PAs and resource restrictions placed on nature in recent years. It will then go on to situate this growth within the context of land control, through the use of literature focusing on territory and the primitive accumulation of land and resources. These themes allowed this chapter to draw attention to the way land is used, accessed and controlled by different actors in conservation spaces. In doing so it will demonstrate both historical and contemporary avenues of capital accumulation within conservation spaces and PA expansion. Finally, it places the emergence of TFCAs as 'new conservation' initiatives within these ongoing processes, to critically examine the relationships between global conservation governance, local land use and control.

The Global Expansion of Conservation Areas

The creation of TFCAs in recent years has been described as part of a global drive to expand areas available for conservation (Büscher, 2009). On a global scale protected-area coverage has undergone extensive increases over the past 30 years (Brechin et al., 2003; Zimmerer et al., 2004). Jenkins & Joppa (2009) highlighted the ways in which the 2003 Fifth World Parks

Congress in Durban, inspired numerous commitments by states, NGOs and the private sector to assist the world's PAs. One of these commitments was to establish over 200 000 km² of new PAs across the globe, and the provision of more than US$ 50 million to strengthen the management of existing PAs (Sheppard, 2004). The conference also inspired a body of research that examined the spatial patterns and dynamics of PAs. This work highlighted the ways in which the global network of PAs has expanded in recent years to make up approximately 11–12% of the global land use. This growth suggested an expansion rate of around 0.4% or more per year since 1997 (Jenkins & Joppa, 2009).

Examining the Expansion of PAs

Scholars have tried to explain these global drives for PA expansion by examining and revealing the economic benefits driving them and linking conservation to broader capitalist projects (e.g. Garland, 2008; Li, 2008; Brockington & Duffy, 2010). Kelly (2011) furthers these arguments by using the concept of primitive accumulation to explore the potential economic drivers behind PA creation, which may be more obscure than those already studied by the scholars mentioned above. Kelly (2011) argued that by examining this expansion through the lens of capital accumulation, it demonstrates the ways in which PA establishment and maintenance is a dynamic, ongoing and often violent process that influences not only the economic relations of the actors involved but the social and environmental relations as well.

Currently, there is a large body of literature in both peasant and agrarian studies that focus on the development of capitalism through the primitive accumulation of land and resources (e.g. Bernstein, 1977; Borras et al., 2012; Borras & Franco, 2012; Goodman, 2017). There is also a large body of literature focusing on the interactions between PAs and people (e.g. Peluso, 1993, Brockington, 2002; Neumann, 2004). However, presently, little research exists which examines the concept of primitive accumulation within the context of conversation discourse and PA creation (Kelly, 2011). This chapter aims to use the concepts of primitive accumulation to understand the ways in which land is controlled in conservation areas through the expansion of PAs and other exclusionary modes of conservation.

The Concept of Territory

In order to understand the processes of PA expansion, the following section brings together the concepts of land control and territory which deal with the organization of rights and access to land and resources as well as the management of these. Over time the concept of territory has taken on different forms, for example in political science, 'territory' means the population, land and resources claimed by a state (Johnston, 2001; Elden, 2007; Brighenti, 2010). Judicially 'territory' describes the jurisdiction and delimitation of space. In geography 'a territory' can be understood as an area of land under the jurisdiction of a ruler or state who enforce control through practices which control or consolidate varying forms of access and enforce processes of exclusion (Gottmann, 1973; Elden, 2013; Peluso & Lund, 2011). Analytically, the notion of territory can be broken down into an array of different inquiries such as physical geography, natural resources, population density, settlement dynamic, modes of life and access. However, in its entirety, the concept of territory can be understood as the unit in the political organization of space that defines the relationships between the community and their surrounding environment and between the community and its neighbours. The concept of territory is particularly important when examining land use as it allows us to analyze the important links between politics, people and the natural environment (Gottmann, 1973).

By examining land in the context of 'territory' it draws attention to the way that land is used, accessed and controlled and by whom. There are varying practices of land control that have been used throughout history to enact territory. For example, enclosure entails the physical act of boundary making whereby land, especially common-land is appropriated through the restriction of access with the use of a barrier, such as a fence. Territorialization is the organized process of acquiring control over new land by a state or ruler. These practices of land control generally entail the privatization or expropriation of land and resources through the dispossession of their previous users for the purposes of capital accumulation (Hall, 2013). This dispossession often uses the means of force and violence or the threat of these to control or restrict utilization.

Examining conservation spaces as territories highlights the ways in which different actors can access and control land and the political and institutional implications of these restrictions

(Peluso & Lund, 2011). For example, PA creation and maintenance can be examined as a form of land control enacted by the state. The use or extraction of natural resources from the environment or the utilization of scarce resources for their scientific values or tourism appeal are revenue-generating strategies undertaken by most states. For these activities, the state controls and distributes the rights to either use or conserve these resources as it sees fit (Peluso, 1993). Peluso (1993) highlighted the ways in which several states have retained control over resources, by 'coercing conservation' in cases where this control has been contested by other resource users. The state tends to coerce the need for conservation under two circumstances. Firstly, if resources are considered extremely valuable, secondly in cases where coercion is considered either the last resort or the easiest means of exerting influence over the resource or people utilizing it. These processes entail the creation of PAs as part of the conservation processes over the resource which restricts access for other resource users.

These understandings of territory and land control were important for this research because they provided a means of understanding the ways in which space is used and how land within that space is valued, used and accessed by different actors. This research study focused on the development and expansion of TFCAs as 'new conservation spaces' which are shaped and controlled by a variety of contemporary land governance structures. The contemporary transformations of land governance are complex, involving multiple trends and actors operating at different scales. Therefore, territory provides a useful lens with which to understand these interactions and what effects they have on local land use processes.

The Means of Land Control

Two key concepts that scholars have used to understand how processes of land control are enforced are Karl Marx's 'primitive accumulation' (Marx, 1906) and David Harvey's reconstruction of this, known as 'accumulation by dispossession' (Harvey, 2003). These processes involve the dispossession of land and other resources from their users through enclosure by another group or entity resulting in capital accumulation for the latter (Hall, 2013). Marx's theories of primitive accumulation examined the 'original' resource accumulation which kickstarted capitalism by divorcing producers from their means of production (Perelman, 2007; Hall, 2013; Massé & Lunstrum, 2016). Harvey's (2003) 'accumulation by dispossession' builds on these theories, but he argues that primitive

accumulation has never disappeared but simply has taken on new forms in more contemporary contexts. Therefore, according to Harvey (2003), the primitive accumulation can be examined as continuing process which required in order to sustain the capital's continued growth (Massé & Lunstrum, 2016). Within these processes of capital accumulation, the dispossession and enclosure of land has had and continue to have an important role in creating new frontiers of value, enclosing new territories and accentuating conflict often along ethnic and racialized lines at various levels (Peluso & Lund, 2011).

The Key Actors in Land Control Practices

As mentioned above, traditionally the sovereign state has played a central role in enforcing land control through processes of capital accumulation and land dispossession (Hall, 2013). State sovereignty entails exercising jurisdiction over territory. A sovereign state has been defined as one with clear borders, with the right to rule over its people and one that expects its territorial integrity to be respected by other states and vice versa (Murithi, 2005). However, the changing landscape of governability has meant sovereignty is no longer viewed as an intrinsic geographical right of states, but rather a right that is derived from its people (Elden, 2007; Farmer, 2012). Therefore, the ability of the state to exert control over land and resource use, like governance capacity is a function of the relations between the state and civil society. The state's ability to successfully enforce its will depends on the degree of authority and legitimacy it has within its territory. Consequently, exerting effective authority tends to depend on the means of social control the state utilizes and the relative effectiveness of those means to achieve national agendas. In the case of resource management, the state's capacity is reflected in the levels conflict or conformity present between national intentions and local land users (Peluso, 1993).

Although the state still plays a key role in resource management within its territory, in recent years there has been an increasing number of other external actors involved in these processes. Fairhead et al., (2012) argued that although there has always been a variety of non-state actors involved in resource conservation and PA establishment, today these actors are "more deeply embedded in capitalist networks and operating across scales" than ever before (Fairhead et al., 2012: 240). Kelly and Ybarra (2016) explained that a variety of non-state including international NGOs and parastatal organizations, aid agencies and private

companies are becoming increasingly involved in conservation and resource management in the Global South. They argue that this involvement is a response to 'global environmental crises' such as climate change, deforestation or biodiversity loss. These crises are seen to be mitigated through involvement in conservation activity and PAs particularly focused on the outlying territories of Southeast Asia, Africa and Latin America (Peluso, 1993; Kelly & Ybarra, 2016).

The Territorialization of Protected Areas

Research on political ecology among other work, is increasingly looking to the related concepts of primitive accumulation and accumulation by dispossession to examine the ways in which natural resources are used and controlled by different actors and how these activities form part of contemporary neoliberalized conservation practises (e.g. Glassman, 2006; Sneddon, 2007; Spronk & Webber, 2007; Brockington & Duffy, 2010; Baird, 2011; Benjaminsen & Bryceson, 2012; Hall, 2013). By examining various processes of nature conservation and resource management within the context of primitive accumulation, it enables us to examine the connections present between conservation, land control, practises of the enclosure and capitalist production (Kelly, 2011). There are various ways in which capital accumulation has been enacted in conservation spaces. The sections below highlight key historical and contemporary forms of land-control in conservation areas.

Historical Forms of Land Control

Historically PAs have been understood as state-controlled territories enacted through processes of territorialization and boundary making, where conservation land is differentiated from its surrounds by artificially constructed boundaries (Sletto, 2011). These understandings have stemmed out of colonially entrenched forms of access and land control. Prior to colonization, most of Africa was governed by traditional processes of land utilization known as customary land tenure. These forms of tenure were transformed and superseded by colonial rule which followed strategic policies to divide and rule African populations and land. These policies resulted in the expropriation of land from Africans and the creation of new categories of land tenure with most of the land converted to state or crown land. The remainder was divided as either freehold, leasehold, or communal land. This tenure

introduced a dual system of ownership where whites owned land as private property, while blacks held land communally (Kalabamu, 2000; Ramutsindela & Sinthumule, 2016).

The initiation of conservation areas in Africa was embedded within these processes of division whereby the colonial powers wanted to separate and protect nature from people (Ramutsindela, 2008). In doing so, the colonial state exerted control by relocating local people from areas considered to be ecologically important, in order to make way for nature conservation areas, especially national parks (Metcalfe, 2003; Adams & McShane, 1992). Therefore, the formation of PAs served to create boundaries advocating for delineation between state-controlled 'PAs' and communally owned 'unprotected areas'. These boundaries both ignored and dismantled local people's claims to land and resources, causing them to be disregarded both symbolically and materially (Sletto, 2011). The result of this is that rural populations were dispossessed of land rights, resources and livelihood opportunities (Büscher, 2009; Neves & Igoe, 2012).

Contemporary Forms of Land Control

Historical forms of fortress conservation that created national parks and PAs have not been the only ways in which land is controlled through conservation strategy. Ojeda (2010) and Zoomers (2010) have described how this is a continuing process that is part of a global land grab, where PA expansion is resulting in the displacement of local populations through conservation land deals and acts of re-enclosure in existing PAs. Land grabbing entails new ways of acquiring large tracts of land for various purposes, whereby processes of accumulation by dispossession occur through neoliberal processes such as privatization and the commodification of utilities (Borras & Franco, 2012; Borras et al., 2012; White et al., 2012; Hall, 2013). Green grabbing is a process whereby the appropriation of land and resources takes place for environmental purposes. Green grabbing entails any activity where an environmental agenda is the core driver of land appropriation whether linked to biodiversity conservation, ecosystem services, biofuels, ecotourism or maintaining environmental 'offsets' (Fairhead et al., 2012).

The literature on green grabbing is grounded in prominent histories of colonial and neo-colonial resource alienation in the name of the environment, either for the purposes of park creation or to halt assumed unsustainable practices by local resource uses. However, more recently it has been linked to contemporary forms of accumulation. Kelly (2011) explains that conservation spaces are increasingly being perceived as new frontiers of value not only in terms of land in and around them, but also for new commodities such as wildlife species and environmental products or services. In doing so, new conservation structures such as '*payment for environmental or ecological services'* serve to produce these natures and render parts of the landscape as usable commodities. Although the proponents of conservation areas may perceive conservation practice as solely for the purpose of protection, Kelly (2011) argued that there has been an almost universal turn towards the neoliberalizing of nature and revaluing PAs and their ecosystems as commodities (Kelly, 2011; Brockington, 2002; Büscher, 2009; Igoe & Brockington, 2007). These processes enable future accumulation and contributes toward the drive for increased PA expansion (Robertson, 2010; McAfee & Shapiro, 2010).

Although many new conservation programs such as TFCAs advocate for inclusion rather than the displacement of local populations, they are not exempt from these accumulation processes. Even CBNRM programs that are supposed to shift power from the state to local communities and help these communities control resources and rise out of poverty have been critiqued for propagating new forms of capital accumulation (Brockington, 2002; Dressler & Büscher, 2008; Büscher, 2009; Benjaminsen & Svarstad, 2010). These projects work to pull resource users into new market economies, whereby local communities are relieved of land and resource access and forced to become dependent on a capitalist industry (often ecotourism) over which they have no control and from which they often earn very little money (Dressler & Büscher, 2008).

PA Expansion & the Global Land Grab

Global PA expansion as described above, is increasingly examined in relation to contexts of new frontiers for land control, accumulation by dispossession and the facilitation of land grabbing processes (Brockington & Duffy, 2010; Borras et al., 2011; Corson & MacDonald, 2012; Fairhead et al., 2012; Hall, 2013). This expansion entails complex spatial-

environmental dimensions with distinct territorial, legal and political features supported by discourses including those of science that both surround and permeate them (Zimmerer, 2006). Given that there is such a variety of actors, interests and partnerships involved within the context of land access, control and ownership, the connections governing these processes can be complex and hard to identify (Massé & Lunstrum, 2016). Neumann (1997) argued that it is useful to understand these processes as operating at both the global and community levels.

Drivers at the Global Scale

The first scale is global, which prompts questions about relationships between African landscapes, communities and global environmental agendas. Many academics have pointed to the ways in which the processes of conservation area expansion are being facilitated and financed by various actors operating at different scales (Zimmerer, 2006; Neumann, 1997). Litfin (1994) argued that science has been used as a powerful legitimator for political involvements into environmental contexts. This can be seen in the case of conservation spaces, where the insights from the field of conservation biology has delivered a scientific rationale for the expansion of PAs. This has been done through notions such as bioregionalism - a northern philosophy which holds that the earth consists of contiguous 'bioregions'; which are spaces defined by their life forms, topography and biota, rather than by human dictated boundaries or legislature (Alexander, 1990; McGinnis, 1999; Wolmer, 2003). Elements of this bioregionalist philosophy have entered mainstream conservation thinking as ecoregional planning, arguing for the need for entire ecosystems to be conserved rather than small parts of them (Wolmer, 2003). These arguments stem from research by MacArthur and Wilson (1967) whom asserted that the number of species present in a particular habitat is set by a process of equilibrium between distance-dependent colonization and area-dependent extinction. They predicted that the smaller and more isolated a habitat is, the fewer species it can support. By identifying how the spatial configuration of a habitat can influence species populations, this theory transformed the ecological understandings of the environment (Harrison & Bruna, 1999). From this founding work, a large body of research has examined the importance of biological connectivity which is the degree to which a landscape facilitates the movement of organisms (Tischendorf & Fahrig, 2000). This research argued the need for connectivity between PAs to allow for both gene flow and genetic diversity among species (Dudley, 2008; Heller & Zavaleta, 2009; Locke & Mackey, 2009;

Nature, 2011; Noss et al., 2012; Worboys et al., 2009). Connectivity has also been the most frequently recommended strategy for climate resistance (Heller & Zavaleta, 2009). These rationales have been adopted by a number of international bodies as the basis for facilitating the adoption of land in areas of Africa and on other continents. Examples include the 1987 Brundtland Report, created by the World Commission on Environment and Development that identified increased PA expansion, especially in the tropics as a critical response to global ecosystem degradation (Locke, 2014). A more recent example is the 'Nature Needs Half Movement' which is an international group informed by research by Noss & Cooperrider (1994). They determined that in most regions an average of 50% of the area is needed to be protected in order to maintain biodiversity and ecological processes.

The arguments made by these international bodies and movements are implemented through international conservation organizations such as Conservation International, the World Conservation Union (IUCN) and the World-Wide Fund for Nature (WWF). Examples of their interventions include the IUCN's Global Protected Areas Program and IUCN World Commission on Protected Areas that are working towards achieving greater biodiversity conservation through strategies such as the 20 Aichi Targets for global biodiversity conservation set at Convention on Biological Diversity (CBD) in 2010. Aichi Target 11 specifically commits all parties of the Convention on Biological Diversity (CBD), to work towards conserving 17% of the terrestrial surface of the earth, particularly areas with high biodiversity importance. This should be done through well-connected systems of PAs or other effective area-based conservation measures (OECMs). These systems are implemented through National Strategic Plans operating at local scales (Woodley et al., 2012). In turn, these organizations are progressively being sponsored by multi-national donor organizations including the World Bank, the European Community and western agencies (Neuman, 1997).

Drivers at the Local Scale

When examining primitive accumulation and land control of PAs, it is important to understand that the processes operating at the global scale are not operating in isolation. Their interventions into local conservation areas are authorized by and reliant on an active role from national governments and local actors within these processes. This most often occurs through institutional arrangements introducing neoliberal political and economic policies that

exert and entrench state influence in conservation spaces. Several studies have shown the ways in which conservation programs endeavoured to integrate conservation with economic development objectives have acted to simply facilitate the extension of state authority in remote and often neglected rural areas (Hitchcock, 1995; Lance, 1995).

Therefore, it is important to also consider the second scale at which these processes operate, and that is at the local level. Regarding conservation area expansion, processes occur at the local level which makes land and resources available for use (control), lease or purchase that were formerly beyond the capital's reach. Often this land is used and claimed by local communities whose rights are often recognized only partially or not at all by the state and who need to be dispossessed for the acquisition to proceed (Hall, 2013). To do this, the processes that facilitate expansion emphasize activities such as land registration and tenure reform as techniques to restrict access to resource-conserving land. Therefore, those that engage in conservation interventions continually influence ongoing negotiations and conflicts over land ownership and access with local communities (Neumann, 1997). Neumann (1997) demonstrated this by highlighting the ways that international NGOs have intervened in African conservation arenas to try to incorporate many rural areas located on the peripheries of existing PAs. These areas are known as buffer zones which are then placed under the jurisdiction of the state. In extending these buffer zones, local community access and resource utilization has been inhibited. Kelly (2011) explained that the process of turning land into public property under the authority of the state facilitates capitalist social relations, as the enclosure and dispossession involved in these processes serve to separate people from their means of production and make these resources available for capitalist investment through tourism and other economic activities (Kelly, 2011).

TFCAs in the Context of Land Control

The sections above demonstrated the ways in which conservation areas have been integrated into global forms of capital accumulation through neoliberal conservation practises and the expansion of conservation territory. TFCAs as a contemporary form of resource management that transcends national boundaries can be examined as an important extension of these processes. The functioning of TFCAs relies on a shift in authority over resource governance from the state to various non-state actors which operates at both global and local scales

(Duffy, 2006). The functioning of TFCAs is heavily reliant on input from complex networks of actors which includes NGOs, donor organisations, private business and local communities. A key NGO within these processes is the PPF, who has been instrumental in lobbying global institutions such as the World Bank and national western governments to provide financial support for TFCAs. Furthermore, the PPF has been influential at the regional level in persuading the key national governments to co-operate and support the implementation of TFCAs on the ground (Duffy, 2006).

The proponents of TFCAs envision that this transnational governance will result in more effective resource management and therefore peaceful co-operation across the area. However, many researchers have argued that an abundance of resources such as that of a TFCA are most likely to create new forms of conflict over processes of access and control (Richards, 1996, 2001; Fairhead, 2001; Peluso & Watts, 2001; Nordstrom, 2004). Increasing criticism of the TFCA's conservation governance relates to the interactions with local resource users and control of resources in the spaces. The areas selected to be integrated into these growing TFCA territories are not vacant lands and are spaces filled with multiple networks of actors with an equal interest in gaining resource access and control. As such, these actors often challenge and resist the TFCA or other stakeholder's plans to implement mechanisms of resource control (Duffy, 2006; Spierenburg et al. 2008; Lustrum, 2016).

These resource conflicts have become a major feature of TFCA creation in Southern Africa resulting in the resettlement of local communities who live on the peripheries of existing PAs and the increased restriction of resources in these peripheral spaces (Ferreira, 2006; Andersson et al., 2013; Glatz-Jorde et al., 2014; Tavuyanago, 2016; Sinthumule, 2017). An example of the most controversial TFCA community eviction is that recommended for the Great Limpopo Transfrontier Park (GLTFP) (Witter, 2013, Lunstrum; 2016; Massé, 2016; Andersson et al. 2017). During the formation processes of GLTFP, at least 2 500 Shangaan residents were encouraged to relocate from the Limpopo National Park (a constituent of the GLTFP), to try to make additional space available for wildlife and thereby making the park more attractive for private investment (Munthali, 2007). In doing so rural populations were dispossessed of land, resources and traditional livelihood opportunities such as agriculture or hunting or veld collection, to provide new avenues for capital accumulation such as tourism-based activities (Büscher, 2009; Kelly, 2011; Neves & Igoe, 2012; Sullivan, 2013). This has

led many scholars to question the appropriateness of the TFCA context and whether these initiatives will use state-controlled PAs to leverage real development for communities or will they be used to simply appropriate land and extend state influence and control in rural areas (Wolmer, 2003; Ramutsindela, 2004; Duffy, 2006; Spierenburg et al., 2008; Büscher, 2010; Andersson et al., 2013).

Conclusion

This chapter aimed to examine the context of TFCAs through the concept of territory. In doing so it has used literature on both land control and capital accumulation to understand the ways in which land and resources are used, accessed and controlled. Using these concepts this chapter has examined how claims on land access and resources are driving the global land grab and efforts to expand conservation areas in order to make way for greater capital accumulation by different actors. These processes occur through interventions at both global and local scales that serve to facilitate the enclosing of new land for conservation, both in and around already established PAs. The following chapters will build on these understandings to examine the growth and expansion of the KAZA TFCA in Botswana. By doing so the research aimed to examine the ways in which land and resources are used and controlled by different actors and the conflicts that emerged as a result within the communal land areas integrated into the TFCA.

CHAPTER 3

Research Methodology

This chapter outlines the methodology used to carry out the research objectives. Firstly, it will outline the research approach and choice of the methodology used. It will then demonstrate the study design and procedure explaining in detail the three methods that were employed, i.e.: a document analysis, quantitative mapping and qualitative interviews. It will then go on to explain the details of the data collection including the study-area selection and fieldwork activities. In the final sections it will highlight the ethical considerations of this research as well as bring to light the difficulties experienced in conducting this work.

Research Approach

The study was designed to understand the ways in which the planned processes of territorial expansion of the TFCA are carried out on the ground and what kinds of effects these processes had on local interactions over resources. The establishment and expansion of TFCAs is a complex process that involves various interactions between numerous actors operating at different scales (Mogende, 2016). Therefore, in order to accurately grapple with these processes a variety of qualitative and quantitative research methods was employed in this study.

A quantitative research approach involves the collection of measurements and information that can be tangibly calculated. Because the data is in a numeric form, we can, therefore, do statistical tests in making statements about the data and quantify facts about the social phenomenon (Madrigal & McClain, 2012). This data is helpful in understanding the contexts of change, growth and comparison, through quantifiable metrics. The quantitative data-sets collected in this research related to population statistics and area densities, wildlife statistics and GIS land use change and expansion metrics relating to the land integrated into the KAZA.

Qualitative data on the hand is the production of descriptive data, through the collection of narratives that provide insight into certain phenomenon. This allows for the collection of data that could not be derived through quantitative analysis (Hatch, 2002). Where quantitative data deals with numbers and measurements, qualitative data deals with meanings (Dey, 2003). Qualitative data is important because it allows us to grapple with these 'meanings' which are facilitated mainly through action and language. Concepts are constructed in terms of this intersubjective language which allows us to communicate (Sayer, 1992). Therefore, without qualitative data collection, important understandings, concepts and constructs would be missed. For this research, qualitative data was collected in the form of formal interviews and informal discussions with various participants to gain understandings of personnel accounts, residents' opinions and current discourse relating to the growth of the KAZA and issues of land integration.

Morgan (1998) outlined the usefulness of combining qualitative data with quantitative data in the research collection. This is because the combination can bring research strengths together in the same project, broadening the type of information available. By doing this the researcher can understand and bring together different aspects of a certain phenomenon or context. This approach was useful in the study context such as a TFCA, because of its complexity and multitude of different features, debates, settings and actors. This research combined an array of data including policy documents, budget reports, census data, wildlife statistics, land use plans, mapping metrics, personnel accounts and official interviews to try to get a comprehensive understanding of the complex context of the KAZA's situation. For example, GIS mapping of land use change and data relating to population growth and human-wildlife conflict was compared with personnel accounts of issues of land integration and human-wildlife conflict in the area. This was done to not only identify the issues occurring but also to understand the causal relationships behind these issues and how they relate to the TFCA processes.

Study Design & Layout

The methods used to conduct the research were threefold. The first research activity involved document analysis to identify Botswana's objectives and planning processes for the expansion of the KAZA TFCA within their territory. The second research activity involved

mapping procedures to identify the new boundaries of the KAZA and the land use of these areas that have been incorporated. The third and final research activity was then to carry out interviews and discussions with those involved in the processes and affected by the expansion.

The combination of these techniques was chosen in order to 'triangulate' research findings. Triangulation is a process that uses a combination of varying methodologies within the same study, in order to find convergence and corroboration between the findings (Denzin, 1970; Johnson & Turner, 2003). In order to do this, the researcher must make use of multiple (at least two) sources of evidence from different data sources and methods to provide "a confluence of evidence that breeds credibility" (Eisner, 1991; 110). By examining information in this way, it allows the researcher to validate findings across data sets and therefore reduce the potential for bias that can arise when using only a single method (Bowen, 2009).

Data-Collection Processes

The sections below briefly describe the research timeline, area selection and fieldwork processes.

Case-Study Area Selection

The Botswana portion of the KAZA as per its treaty extends over the majority of Northern Botswana including the Okavango Delta, Linyanti, Moremi Game Reserve, Chobe National Park and Makgadikgadi-Nxai National Parks (KAZA TFCA, 2011). The area selected for analysis was chosen due to its proximity and adjacency to several PAs, myriad of land uses and presence of several villages with notable populations. This area is located between the Botswana/Zimbabwe border and the south-eastern and southern portions of the Makgadikgadi Pans National Park, in the northern section of the Central District. This area was integrated into the KAZA between 2010 and 2012.

This area includes several large villages, as well as several smaller ones, largely located along Botswana's A3 highway. Interviews were largely carried out in the villages of Nata, Zoroga

and Gweta. These villages were chosen as the study site for the several reasons relating to the integration history of the area and logistical considerations. Firstly, the areas were integrated as part of the TFCA's initial expansion processes, six years ago. They also form the area closest to the old KAZA boundary. As such, it was presumed that people in these areas would have a greater understanding of the KAZA processes and so would be more suited to answer questions around the effects of the expansion. Secondly, these areas were selected due to their logistical accessibility to conduct research. The areas are reachable by tar-road from Kasane, a larger town located approximately 360km to the north of the study area, which was used as a base during the fieldwork. Many other villages in the Makgadikgadi area of the Central District pose difficulty in access due to the need for 4x4 vehicles, lack of established roads and seasonal access. The Nata village and surrounds were particularly focused on in this research. This is firstly due to its size as one of the larger villages in the area as well as it being a site for many of the initial KAZA meetings that were carried out in the area.

Fieldwork

This research was conducted from April 2017 to 2018. Research commenced with the document review of the KAZA official documents and IDPs, followed by GIS mapping processes using data attained from the IDPs and other sources. This was followed by various visits to undertake fieldwork in the study area, carried out from November 2017 to February 2018. Post-fieldwork data analysis and write up activities were undertaken from April to December 2018.

Interviews in the study area were done in collaboration with several visits to Kasane, where the KAZA Secretariat is based, from November 2017 to February 2018. In the first visits in November/December 2017 scoping processes were carried out to identify potential respondents and collect relevant information. In January and February 2018 several day-trips and one over-night trip were made from Kasane to the study area. On these trips, several meetings were arranged prior to arrival, particularly those with government officials and community leaders. Further meetings were then arranged through conversations with these respondents, where introductions were made to other willing respondents. This process was particularly useful in widening the scope of *interviewees* and collecting different narratives. These interviews were recorded via a recording device with permission from the respondents.

Interviews with individual community members posed difficulties as many were hesitant of the interview process as well as having a limited understanding of the KAZA and the questions relating to these processes. As such, the decision was made to carry out interviews with community members largely in group discussions with some complimentary individual interviews with willing participants. These interviews were carried out in the form of 'conversational style' discussions which were not recorded but notes and key points noted down. Several selected respondents were unavailable for face-to-face interviews at the time of fieldwork collection. These interviews were therefore collected later telephonically or via email. A follow-up visit to the study area was also made in May 2018 as a means of clarifying data and gathering any outstanding information.

Ethical Considerations

This research tackled the complex processes that underlie conservation areas. These processes are highlighted and accentuated in a situation like the KAZA, where areas of land that were previously on the edge of a conservation space, are being integrated into it. This research sought to understand these processes of land integration and how and in what ways they may affect the people living in these areas, the benefits as well as the difficulties these processes may bring about.

Part of this study has relied on qualitative research with local communities. As such, it was critical that local knowledge, customs and beliefs were upheld and not misused or misrepresented. It was also important for participants to feel comfortable during the interview process and ensure they were free to express their opinions, knowledge and understandings of the context and questions posed. To try to maintain these principles a number of considerations were put in place for interviews during the study. Firstly, all participants involved in the research did so on a voluntary basis, at a time and place that best suited them. They were also made aware that they could withdraw their participation at any time during the interview process. Prior to the interview, each participant was made aware of the research background, its objectives and the procedures the work would follow. They were asked to sign informed consent forms outlining the researcher's and study information (**Appendix 1**).

Due to the sensitive nature of many of the interviews, anonymity was offered to all participants involved in the study. This guaranteed that their names or positions would not be used in the study. Additionally, if requested by the participant, their affiliation or organization would also remain anonymous. Confidentiality and anonymity were maintained in the research with the use of pseudonyms.

Ethics Approval:

On completion of a research proposal in April 2017, an ethics approval application was submitted to the University of Cape Town Faculty of Science's *Research Ethics Committee* for scientific and ethical review. Approval was granted, without any methodological changes being required (FSREC 35 – 2017).

Fieldwork Considerations:

In terms of field-work activities, the utmost care was taken to ensure participants were comfortable with the interview process and willing to participate. Most interviews were arranged beforehand, with a meeting time and place that suited the participant either a public space, their office or home. All interviews were carried out in English, however, a research assistant from a local NGO, familiar with the area and participants attended several of the interviews to assist, particularly with translation where necessary. This assistance was particularly useful in providing insight into achieving effective interview processes, following local procedures and honouring various practices. This was particularly useful for attending Kgotla meetings or meetings with Kgotla officials, as specific practices and processes were at play.

Document-Analysis

The first research activity carried out was a document analysis of Botswana's policies and planning processes. Document analysis is a systematic technique for reviewing or evaluating both printed and electronic material. This is a form of qualitative research that requires data to be examined and interpreted with the intention of gaining understandings as well as developing meaning and empirical knowledge (Corbin & Strauss, 2008). A large variety of documents can be analysed in this way including that of books and brochures, diaries,

advertisements, agendas and attendance registers, minutes of meetings, manuals, journals, letters and memoranda, newspapers, press releases and event programs, program proposals, application forms, organisational or institutional reports, survey data and various public records (Bowen, 2009).

A document analysis was chosen as a means of gathering insight into the background of the research area to provide the necessary historical information and research data, as well as identify what contexts should be observed and the kinds of questions that should be asked in the later research activities. For this study, the document analysis aimed to provide insight into the processes relating to the growth and management of the KAZA particularly in Botswana's territory. In doing so, this document analysis aimed to identify and evaluate the following thematic areas:

- The overall objectives for growing and expanding the KAZA.
- The areas in which expansion of the KAZA had taken place.
- The methods and processes through which this expansion was carried out.
- The techniques employed to effectively integrate and manage land within the KAZA.
- The key challenges facing the KAZA in terms of land use and integration.

Documentation Used:

This document analysis was done primarily through assessment of formal documentation relating to that states' objectives within the KAZA. The primary documents assessed were Botswana's IDPs and the Master Integrated Development Plan (MIDP) for KAZA as well as their supporting documents.

- *Integrated Development Plans (IDPs)*: These are documents created by each of the individual member states of the KAZA that outlines their commitments in supporting the development of the TFCA and states their strategic direction, objectives and management strategies.
- *The Master Integrated Development Plan (MIDP):* The MIDP outlines the global relevance of the KAZA TFCA, its potential to promote and maintain large-scale ecological processes in Southern Africa. It is based upon the analysis and compilation

of the five individual countries National IDPs as well as an evaluation of the major development needs of the KAZA TFCA.

The other accompanying documentation used for the analysis included:

- *The KAZA Memorandum of Understanding* (MoU) which is a document that outlines the role of the member states in establishing and managing the sharing of information and effective promotion of conservation and tourism strategies.
- *The KAZA Strategic Action Plan* which is a collection of documents created in 2008, that outlines the organizational and operational arrangements for the continuing development of the KAZA. This document was audited and later ratified to create a final version that was signed by the member states' ministers in February 2011.
- *The KAZA Treaty* which was a document created using the Organizational and Operational Structure Document for the KAZA and the Strategic. The treaty outlines the principles and guidelines for the area agreed upon by the five states.

In addition to this formal policy documentation, other documents analysed included:

- KAZA brochures and pamphlets.
- Planning and budget reports for the KAZA.
- Land use management plans for the area.
- Botswana Tourism development strategy documents.
- Census data and land use information.

Quantitative Mapping

The second research activity that was carried out involved mapping processes with the use of GIS to map the growth of the KAZA and identify the areas that had been integrated into the TFCA. GIS can be described as a computer system for capturing, storing and displaying data related to positions on Earth's surface (National Geographic Society, 2017). It is a useful tool with which to record large volumes of data and integrate varying data sets. It has been used by research as a tool for resource inventory, data integration, spatial analysis and modelling

as well as in some cases to even facilitate community involvement (Bahaire & Elliott-White, 1999).

One of the most useful applications of GIS is its use for land use mapping and analysis (McHarg, 1969; Hopkins, 1977; Brail & Klosterman, 2001; Collins et al., 2001). In many areas where land use is marginal or very slow, land use maps tend to be relatively old (i.e. 10 to 20 years). However, these maps often still adequately portray current conditions or useful information (Treitz, Howarth & Gong, 1992). This is the case in Botswana where detailed up-to-date datasets are not readily available. Therefore, GIS technology acted as a useful tool to integrate older data-sets with more contemporary information such as satellite imagery.

For this research, the expansion of the KAZA was mapped using the following processes. Firstly, a georeferenced data-set of Botswana and its neighbouring countries, containing coordinates and administrative boundaries was downloaded from 'The Map Library' (http://www.maplibrary.org). This is a public domain source of basic map data concerning administrative boundaries in Africa. This data set was used as the base ortho-rectified dataset with which other data could be plotted onto. The co-ordinates of the old and new KAZA boundaries were then collected from the Botswana IDP and plotted onto the map to identify the areas integrated into the KAZA. To identify land use in these areas a combination of aerial photography and existing land use maps were gathered from the Department of Agriculture, Ngami Data Services and other public sources. These datasets were then geo-referenced using GIS to get the most accurate and up-to-date depiction of the area. The study area was then mapped by creating various shape-files to depict the land use in the area. These land use maps were then used in combination with data from the 2011 Botswana census and older existing population maps to create a map depicting more recent population densities in the study-area.

Qualitative Interviews

The final research activity involved the collection of field research in the form of individual interviews and group discussions with stakeholders and local communities. For the majority of these interviews and meetings an appointment was made via a phone-call or email

beforehand, with exception of group discussions. Before the interviews took place, respondents were made aware of the intentions of the research, that their input was a voluntary process and that their anonymity would be ensured within the research.

Group Discussions

The group discussion processes carried out took place with two or more participants in public meeting places and took approximately 20 to 30 minutes (**Table 3.1**). These group discussions did not have focus and were structured to be conversational and discursive in style. There were guided by broad themes and initial questions to initiate conversation (**Appendix 2**). These discussions were not recorded but key points and notes were taken down.

These interviews were intended to gain general understandings into:

- The processes of land and resource management in the area.
- The key issues relating to land and resource governance.
- Understandings and perceptions of the causes of these issues.
- The relationship between the TFCA and local land users.

Table 3.1 Group Discussions Details

	Location	Group Selected for Interview
1	Kasane	Residents forming part of the community-environmental group dealing with environmental issues in the area.
2	Kasane	Residents with knowledge or involvement of the KAZA processes.
3	Nata	Residents with farms/cattle-posts located in the area
4	Nata	Members of the local Kgotla
5	Zoroga	Residents with farms/cattle-posts located in the area
6	Gweta	Residents with farms/cattle-posts located in the area

Interviews with Individuals

Individual respondents were selected based on certain criteria including; residency or experiences in the study area, occupation, spoken language, knowledge of or involvement in local environmental projects and availability at the time of interviews. The interview process with individual participants took approximately between 10 to 60 minutes. These interviews were semi-structured where a list of both specific and more general questions was used to facilitate discussion (**Appendix 3**). These interviews took place in a place of the respondent's choice either administrative offices, public spaces such as restaurants or coffee shops, or the respondent's home. These were recorded with consent using a recording device and later transcribed onto a computer. The transcriptions were then examined and organized, where various sections were categorized into relevant themes according to the research questions.

Interviews with Officials:

Various officials were selected as respondents based on their involvement with or affiliation to the KAZA, environmental considerations in the area or local land use planning. **Table 3.2** below refers to the interviews and meetings carried out with officials and members of local government. These interviews were intended to gain understanding into:

- The key drivers for expanding the KAZA territory in Botswana.
- The planning processes relating to the growth and management of KAZA.
- The kinds of issues being experienced with regards to land integration.
- The current and future management strategies for coping with these issues.

Table 3.2 Interviews with Officials

Location	**Organization or Department**
Kasane	KAZA Secretariat
Kasane	District Council
Nata	Department of Wildlife & National Parks

Interviews with Local Community Members & NGOs and CBO Affiliates:

Table 3.3. below demonstrates the interviews that were conducted in the towns and villages of Kasane, Nata, Gweta and Zoroga, with local residents. Within these villages, general discussions were held with community members and elders from the *Kgotla*, and more detailed interviews were carried out with the local chief from each village, the Community Trust, and residents. Residents were selected either based on their knowledge of the KAZA and its processes or with knowledge of land use conflict occurring in the area e.g. local kgotla members, farmers or members from local NGOs in an unofficial capacity. These interviews were intended to gain an understanding of:

- Opinions and understandings of the KAZA processes.
- The consultative processes of being integrated into the TFCA.
- Individual experiences within the KAZA around the dynamics of land-use and resource management.

Table 3.3 Interviews with Local Community Members & NGOs and CBO Affiliates

Location	**Position or Affiliation**
Kasane	Local community-based organization (CBO) Affiliate
Kasane	Resident involved in local CBNRM activities
Kasane	Resident involved in local government and rural development processes
Kasane	Resident involved in conservation and environmental issues in the area
Kasane	NGO Affiliate
Kasane	NGO Affiliate
Kasane	NGO Affiliate
Kasane	Kgotla Member
Nata	Community Based Organization (CBO) Affiliate
Nata	Tribal Leader
Nata	Resident farming in the area
Nata	Resident farming in the area
Nata	Resident living in the area
Gweta	Tribal Leader
Gweta	Resident living in the area

Zoroga	Resident living in the area
Skype/email	Environmental Consulting Company

Methodological Limitations & Concerns

A key issue relating to this research was the application of a research permit in Botswana. Due to a concern by the Botswana government that researchers and filmmakers were failing to comply with statutory requirements, a ban was imposed on the issuing of all permits in 2017. Addressed with the issue, contact was made with the Ministry of Environment in Gaborone. On the assessment of the research proposal, they advised that due to the researcher's residency status in Botswana, as well as the nature of the fieldwork, that limited interviews could be continued, and assistance sought from local NGOs in order to follow the correct research procedures.

A key issue for the study was acquiring relevant data and documents relating to the KAZA processes. In general, there was little evidence of the KAZA processes in the study area or even in more central areas such as Kasane. Residents have limited knowledge of the KAZA with the majority not even knowing that the KAZA initiative exists. This made interviews extremely difficult. In order to overcome this obstacle a change in approach was used and residents were asked questions relating to the kinds of issues they experienced in the area and questions relating to themes of land use conflict, wildlife, resource use, hunting and tourism. Through these kinds of questions, it was possible to indirectly grapple with the KAZA's context in the area.

Similarly, the collection of official documents and data relating to its growth, planning and projects of the KAZA also proved to be difficult. Although the Botswana IDP and MIDP among other official documents were collected easily, these reports are made for public view and were easy to obtain. Other information such as planning procedures, budget reports, management plans were much more difficult to collect and were not made available by the KAZA Secretariat. These materials were accessed via other sources such as the KAZA's partners, local NGOs or online databases.

CHAPTER 4

Botswana's Changing Land & Resource Governance

This chapter aims to provide important context and background information to the research questions that guided this study. This research aimed to focus on the growth and expansion of the KAZA through the lens of land use and land governance in Botswana. To do this, this section provides background to Botswana customary system of land use governance as well as contemporary changes in this governance which includes the adoption of the KAZA framework. The first section describes Botswana's customary land-tenure system and how this affects present day land use activities. This research aimed to particularly draw attention to the importance of cattle within these traditional tenure systems. The second section goes on to describe recent shifts away from this traditional governance structure to a more neoliberalized resource strategy. This section also highlights the ways in which priorities have shifted away from cattle to focus on conservation and tourism. The final section outlines how the adoption of the KAZA program aligns with these current strategies and the ways it is being used to facilitate the present national objectives.

The Land Tenure System

The following section outlines Botswana's traditional land tenure system in terms of governance, the forms of land use and the importance of cattle and agricultural systems in governing this land use.

Land & Resource Governance

Land tenure within the Botswana portion of the KAZA currently consists of 20% state land, and of 80% customary land tenure. Botswana, like many other countries in the region, obtained a dual system of statutory and customary (traditional) land tenure at independence. Customary land tenure refers to the traditional forms of tenure utilized prior to colonization and the formation of the governmental state. Within these traditional tenure systems, land governance and resource rights were enacted through a variety of social constructs. These

constructs were enacted through practise and transferred orally through the generations of a particular tribe (Kalabamu, 2000). A major feature of these tenure systems was the *Right of Avail*, whereby land was considered to be shared by an entire clan or tribe and distributed by its tribal elders or chief to various households (Schapera, 1943; Masale, 1988). That household would then retain the exclusive right to use this land, as long as the *allottee* actively utilized the land and continued to belong to that community. Land that was unallocated was accessible to the community and could be utilized for collective activities such as hunting, livestock grazing, and forestry (Kalabamu, 2000). Statutory tenure systems were later introduced through colonial practices across Africa through a series of council decrees which facilitated the expropriation of large tracts of land by colonial administrators and European settlers. These practices subsequently divided territories into European land and native reserves and overrode customary tenure systems (Ng'ong'ola, 1996).

During Botswana's independence in 1966, a process of land reform began which converted state land formerly known as crown land into customary land and permitted the President the power to administer and allocate it as required. Since independence, communal-land under customary tenure has been increased from 47% to over 71% of the country's land area, while state land has been reduced from 48% to 23%. The percentage of freehold land (that under private ownership), was increased only marginally from 5% to 6% during the same period (Kalabamu, 2000). Therefore, Botswana's land policy has been to increase the country's proportion of communally owned by limiting both state and private ownership (Adams et al., 2003). The result of these processes is three categories of land tenure that exist in Botswana which includes communal land under customary tenure, state land under statutory tenure and freehold land. Freehold land remains limited due to policies aimed at limiting the monopolization of land, proclaiming that no freehold land be created from 1978 onwards (Kalabamu, 2000).

Tribal Land:

Communal land also known as tribal land is administered through the Tribal Land Act of 1968, which established governing bodies known as Land Boards in each district. These Land Boards replaced chiefs, sub-chiefs and headmen and were given the power to allocate and administer communal land. Aside from this transferal of authority from the chief to the Land

Board, the Tribal Land Act did not alter customary land law other to introduce certificates as evidence for customary grants such as for residential plots (Adams et al., 2003; Kalabamu, 2000). The 1968 Tribal Land Act states that Land Boards are vested with the power to grant the right to use tribal land as well as the cancellation of any grant and restrict the rights to the utilization of tribal land. Land Boards are also granted with the authority to approve the sinking of all boreholes and grant exclusive rights to different grazing areas. All communal land is, therefore, either held by the land board itself or given by the Land Board to eligible applicants through common law leases or customary grants. These leases maybe annual, quinquennial or for a longer duration. When the leases expire, or the customary land grant is cancelled, the land is then returned back to the Land Board (Kalabamu, 2000). Despite their ability to authorize land distribution, the Land Boards are not judicial bodies, hence they do not have authority to settle disputes or determine land rights between individuals or groups (Mathuba, 1989). These matters are handled by the Land Tribunal which was initiated in 1995 that has the job of facilitating land appeals against or with regards to land board decisions.

State Land:

State land in Botswana does not fall under the jurisdiction of Land Boards and is administered by the state through various central and local government councils. This land can be distributed to citizens through fixed-period state grants (FPSGs) in urban areas. These are given on 99-year leases for residential purposes and 50-year leases for business or industrial purposes (Adams, 2003). Outside of urban areas state land also includes research stations, roads, military-use areas and large dams (Adams & Mulligan, 2003; Adams & Knight, 2012). All forest reserves, game reserves and national parks are considered state land as well as areas formally recognized as WMAs. These WMAs were initiated in 1986 where amendments to the Tribal Grazing Lands Policy (TGLP) meant that the ‘reserve’ category of land was replaced by the term WMAs (Hitchcock, 1999). WMAs are areas where natural resource utilization in both consumptive and non-consumptive forms is the primary economic activity (Twyman, 2000). These areas now cover around 22% of the country largely in the remote, sparsely inhabited western and northern parts of the country (Arntzen et al., 2003).

WMAs are technically not considered 'PAs' in the Botswana government's policy definition. However, they are recognized as 'protected' in the IUCN and CNPAA's protected-area management categories, under Category VI as a 'managed resource PA' (Ghimire & Pimbert, 1997). PAs falling under this category are managed 'mainly for the sustainable use of natural resources', with the purpose of providing 'benefits to local and national economies' and acting as 'models for sustainable development to be applied elsewhere' (Ghimire & Pimbert, 1997: 10). For the populations that exist in these areas, economic activities are extremely limited and subsistence occurs in the form of natural resource utilization such as hunting and gathering. Therefore, within most of Botswana's WMAs, the state has granted local communities the right to use the wildlife resources. However, this use is subject to government regulations that include requirements to form a community trust, to prepare and adhere to a management plan for the area and the need to apply for various hunting quotas (Arntzen, 2003; Ramutsindela, 2009; Mbaiwa, 2015).

Protected Areas:

Historically prior to Botswana's independence in 1966, its Protectorate status provided an unusual history of conservation, game and resource laws. When the British Government assumed hegemony over Bechuanaland in 1885, the Commissioner had specific instructions not to interfere in tribal ('native') matters (Spinnage, 1991). Consequently, a statutory law applied to 'foreigners' (Europeans), the Chiefs and those living under their authorities were left to rule their resources as they wished. The first game statute in the Protectorate was in 1891, applying hunting restrictions, closed seasons and of various license limits which were direct imports from the colony of the Cape bearing similarities to those existing in South Africa and Rhodesia (Spinnage, 1991). In 1961, the territory was divided then into Controlled Hunting Areas (CHAs) to provide a basis for game assessments and for the management of off-takes. Political independence brought about more extensive adjustments beginning in 1967. Initially, each major tribal group retained its own regulations with citizens required to pay for hunting privilege. In 1979, Fauna Conservation (Unified Hunting) Regulations superseded the dual laws for tribesmen and for foreigners, introducing statuary law whereby resources and conservation areas would be controlled by various state departments. Botswana was one of the few African countries obtaining independence without possessing a national park, with the Chobe National Park being introduced in 1967.

The Importance of Cattle in Traditional Tenure & Governance

Cattle keeping activities have been critical in the configuration of Botswana's policy on land and governance. As a result, the presence of a strong cattle constituency which has included many politicians has tended to privilege cattle interests over wildlife (Neme 1995; Parson, 1981). Historically, cattle constituted as not only as an important livelihood activity but as an important form of wealth and means of power and authority in Tswana pre-colonial society. The creation of cattle exchange networks formed part of a productive system utilizing livestock husbandry, crop production and trade (Peters, 1984). Shortly after Independence in 1966, Botswana's beef industry was boosted by a 90% market subsidy by the European Union (EU). This lucrative trade agreement drove the formation of a series of livestock development projects across the country. This growth in the commercial beef industry promoted the widespread expansion of cattle-posts and borehole drilling into the Kalahari through the 1970s (Perkins, 1995). The 1975 TGLP formalized these projects with the aim of moving the cattle industry away from the traditional cattle-post system and establish commercial ranches. Ranches were taken to be perimeter fenced areas with interior paddocks, rotational grazing and a system of water reticulation. These ranches were distributed through 99-year leases (Perkins, 1995).

In accordance with standards laid down by the EU for Botswana's beef exports an extensive network of veterinary cordon fences was erected from 1958, in combination with a network of quarantine camps to protect the livestock industry. Their intention was to separate livestock from wildlife such as buffalo (*Syncerus caffer*) that carry diseases such as *Contagious Bovine Pleuropneumonia* (CBPP), known as the cattle lung disease, *Foot-and-Mouth Disease* (FMD), *trypanosomiasis* and *rinderpest* among others (Gadd, 2012). Consequently, a series of veterinary fences have been erected one at a time in various districts across the country over the years to the extent where they are criss-crossed across the landscape (Mbaiwa & Mbaiwa, 2006).

This criss-crossing network of veterinary fences have been significantly criticized for their effects on wildlife populations over the years (Lomba, 1991; Mordi, 1991; Perkins & Ringrose, 1996; Mbaiwa & Mbaiwa, 2006; Gadd, 2012). A large body of research taking

place from the 1990s highlighted the ways in which wildlife population numbers in Botswana were undergoing long-term decline (Williamson & Williamson, 1984; Campbell, 1995; Perkins, 1996; Albertson, 1998; Boone & Hobbs, 2004; Gadd, 2012; Ferguson & Hanks, 2012). Research by Perkins & Ringrose (1996) detailed how wildlife numbers have been deteriorating since the 1960s, largely due to cattle orientated fencing activities and frontier boundary making. For example, during the serious drought periods experienced in the 1960s Botswana's wildebeest populations deteriorated from a high of approximately 380 000 to between 25 000 and 15 000 (Estes, 1969). Simultaneously, zebra populations completely vanished from the northern Kalahari as fence erections blocked their access to water sources. Later in the 1980s, a similar decline was also experienced in the southern Kalahari where fencing blocked migratory routes to water in the severe drought causing the deaths of over 80 000 wildebeests and 10 000 hartebeests (Spinage, 1992). Despite this research and widespread condemnation of veterinary fence system, they have remained in place, despite the dismantlement of the trade agreements inspiring their creation.

Shifting Land Control & Conservation Governance

The above section has traced the traditional governance of land and resources in Botswana and the focus of cattle keeping within these systems. However, the following section describes how there has been a shift in these governance structures in recent years to prioritize new industries such as tourism.

The Changing Economy

When Botswana gained independence in 1966, it was among the poorest countries in the world with an economy focused predominantly on cattle through its agricultural sector. In the following years revenue from the discovery of diamonds elevated Botswana to middle-income status and by 2006 it was classified as an upper-middle-income country by the World Bank (World Bank, 2008). During this time Botswana's economic landscape has dramatically shifted as the primary economic activity moved from agriculture to mining and later to services (McCaig et al., 2015) (**Table 4.1**).

Table 4.1. Changes in the Structure of Botswana's Economy (% of GDP)

	1966	1976	1986	1996	2006	2010	2014*
Agriculture	39	24	4	4	2	2.5	2.1
Mining	0	12	47	33	32.2	19.2	22.9
Manufacturing	8	8	6	4.8	5.3	6.4	5.5
Construction	6	7	3	6.2	4.8	5.8	6.1
Trade, Hotels & Restaurants	18	16	18	18	11.9	15.1	14.8
Government	13	14	13	15.4	13.2	15.4	14.1

**Projected Data at the time of publication*

(Source: Adapted from Makoni, 2015)

In terms of land and resource policies, historically, Botswana's land and resource policies have been constructed in such a way as to limit external and individual ownership of land and centralize all resource use through state departments. As explained in the sections on the means of land control in Chapter 2, there has been global shifts in the last 20 years towards more neoliberal governance strategies that advocate for a roll-back in state resource control and advocate for the expansion of market-based mechanisms to govern natural resources (Duffy, 2010).

At Independence, Botswana's economy was heavily reliant on agriculture, principally cattle rearing and beef production. However, due to the country's arid environment and limited surface water, the potential for an extensive agricultural industry is largely constrained. The discovery of diamonds in Jwaneng, Orapa, and Letlhakane soon after independence served to rapidly shift the country's economy from agriculture to mining. Since then, diamond mining has served to be the primary GDP contributor. However, the revenue produced by Botswana's diamond industry is expected to drastically decline from the mid-2020s onwards (McCaig et al., 2015; Makoni, 2015).This created a need to diversify the economy and in doing so Botswana has followed a growing trend of a liberalization of investment policy in various economic sectors to attract foreign direct investment (FDI). Between 1994 and 2009, import tariffs fell significantly with some falling by over 20% (Edwards, 2005). In addition to these liberalized investment policies, the government also signed up to a number of bilateral and regional trade agreements which culminated in South Africa's implementation of the

SADC Free Trade Protocol and the South Africa-European Union Trade, Development and Cooperation Agreement (TDCA) in 2000 (McCaig et al., 2015).

Refocusing National Priorities

Part of Botswana's attempts to diversify its economy, attract greater FDI and promote sustainable development has been to place a strategic focus on the development of the tourism industry (Duffy & Moore, 2010). As in most of the Southern African countries, the tourism industry is heavily reliant on the attractions derived from wildlife and wildlife-rich areas (Department of Tourism, 2012; Stone, 2014). Therefore, the following sections outline the ways in which the promotion of tourism and subsequent need for conservation have been prioritized in Botswana.

The Conservation of Wildlife:

The prioritization of wildlife within Botswana's national policy has been increasingly evident in recent years. Globally, it is one of the few countries to have committed up to a quarter of its territory to PA creation as part of the efforts towards the criteria outlined by the Fourth World Congress on National Parks and Protected Areas (CNPAA) in 1992 (Twyman, 2001). Approximately 227 000km² (around 39% of Botswana's territory) has now been allocated for various forms of resource and wildlife conservation within Botswana (Barnes, 2011). Botswana has also been signatory to various regional and international environmental agreements such as *the Convention on Wetlands of International Importance* (Ramsar Convention, 1971), the *Convention on International Trade in Endangered Species of Wild Flora and Fauna* (CITES, 1973), *the Convention on Biological Diversity* (1992), *the Climate Change Convention* (1992), *the Permanent Okavango River Basin Agreement* (1994), the *SADC Protocol on Wildlife Conservation and Law Enforcement* (1999) (Rubidiri, 2009). These strong commitments have served to support a substantive local conservation context. As a result, Botswana maintains a substantial wildlife population, which includes the largest population of African elephants (*Loxodonta africana*) found globally - c. 130 000 (Chase et al., 2015).There are also significant species numbers recorded for other populations including buffalo (*Syncerus caffe*), zebras (*Equus quagga*), lions (*Panthera leo*), impalas (*Aepyceros melampus*), kudu (*Tragelaphus strepsiceros*), giraffes (*Giraffa Camelopardalis*), red lechwe (*Kobus leche*) and other small species (Mbaiwa & Mbaiwa, 2006).

Although Botswana currently boasts high population statistics for its mega-fauna comparative to other countries, this has not always been the case. In light of the human-induced effects on wildlife populations mentioned above, from the 1990s Botswana has developed a more focused and rigorous conservation agenda, whereby significant resources have been invested in conserving the wildlife sector. In terms of resource management, wildlife monitoring was introduced in 1986, whereby twice a year counting and broadly evaluating wildlife numbers was done across the country. Gibson (1995) described results from this aerial monitoring program noting significant increases in elephant populations from the start of the counts. In the past, there has been managed utilization of resource use for both hunting and harvesting. Hunting was done through centrally-managed licenses for citizens and the lease of safari hunting and tourism concessions to private sector operators on public land. There was also enterprise promotion for product processing such as tanning, craft production and some limited commercial wildlife farming for mostly ostrich (*Struthio camelus*) and crocodile (*Crocodylus niloticus*) as well as private game ranching (Barnes, 2011). In 2014, a unilateral ban was imposed by the Botswana Government on all hunting activities and intensive resource utilization. Communities that engaged in activities involving in the consumptive use of resources were expected to find alternative livelihood options. Many communities have been urged by the state to convert their hunting concession areas to photographic safari use and to develop and operate their own photographic tourism enterprises (Mbaiwa, 2017).

These changing narratives in Botswana's resource and wildlife strategies indicate a strong commitment towards a conservation-led agenda for the country and a focus on using this sector as a means of broadening the economy and bringing in the capital. Since the implementation of the hunting ban and increasing restrictions on the consumptive use of resources, these gains have been perceived to come through eco-tourism.

The Growth of Eco-Tourism:

Eco-tourism in the form of wildlife safaris and game viewing is quickly becoming the generator of the greatest economic return in Botswana (Barnes, 2001). Botswana has become one of the key tourism destinations for international tourists in Southern Africa in recent years. During independence in 1966 the tourism industry was virtually non-existent, but by

2006 it had grown to be the country's second largest economic sector contributing to approximately 5% of the gross domestic product (GDP) (Mathambo, 2014). The majority of this tourism industry is centred on the wildlife-rich KAZA component of the country. As a result of this growth significant focus has been given by the state into developing this sector in recent years. Tourism development in Botswana is guided by the 1990 Botswana's Tourism Policy (GoB, 1990: 14), whose main goals are:

- To shift the mix of tourists away from those who are casual campers towards those who occupy permanent accommodation;
- To substantially increase the financial returns from tourism to the people of Botswana, especially communities living where wildlife abides; and
- To ensure that tourist activities are carried out in an ecologically sustainable way.

These policies were adopted in conjunction with Botswna's hunting ban to facilitate the government's desire to expand the country's economy through non-consumptive wildlife-based tourism (Mbaiwa, 2017). The facilitation of tourism has largely been done through the promotion of high-end ecotourism enterprises. 'Ecotourism' is a term devised by Hector Ceballos-Lascarain,a Mexican conservationist in 1983 (Ceballos-Lascurain, 1996). Ecotourism is a term used to imply a nature-based tourism industry that promotes and enables environmental conservation, environmentally friendly tourists and the socio-economic well-being of the local people (Mbaiwa, 2005).

In Botswana, the promotion of ecotourism was envisioned in 2002 through an 'Ecotourism Strategy' emphasizing the initiation of CBNRM programs. CBNRM began in Botswana in the mid-1990s as a strategy to foster rural community growth and natural resource conservation in remote areas. The strategy aims to: (1) contribute actively to environmental conservation; (2) involve local communities in tourism planning, development and operation and contribute to their wellbeing; and (3) promote nature-based tourists who are environmentally friendly (Department of Tourism, 2002).

The KAZA Framework in Facilitating National Objectives

As demonstrated above Botswana's current national objectives are strongly influenced by the desire to protect and develop wildlife resources to promote the subsequent tourism industry. The uptake and development of the KAZA are strongly aligned to these objectives with its vision of developing a world-class transfrontier conservation and tourism destination area. (KAZA TFCA, 2014).

The KAZA Goals and Objectives

The KAZA vision is to "sustainably manage the Kavango Zambezi ecosystem, its heritage and cultural resources based on best conservation and tourism models for the socio-economic wellbeing of the communities and other stakeholders in and around the eco-region through harmonisation of policies, strategies and practices" (KAZA TFCA, 2014: 19). The majority of the KAZA objectives for this vision (objectives a,b,c,d, e, j and h) specifically relate to the facilitation of increased tourism in the area, as a result of successful conservation strategies (MEWT, 2013) which include:

- Maintain and manage the shared Natural and Cultural Heritage resources and biodiversity of the KAZA TFCA to support healthy and viable populations of wildlife species.
- Promote and facilitate the development of a complementary network of PAs within the KAZA TFCA linked through corridors to safeguard the welfare and continued existence of migratory wildlife species.
- Provide opportunities, facilities and infrastructure that shall transform the KAZA TFCA into a premier tourist destination in Africa made up of a range of independent yet complementary and integrated sub-regional tourism development nodes.
- Facilitate tourism across international borders in the KAZA TFCA.
- To implement programs to enhance the sustainable use of natural and cultural heritage resources to improve the livelihoods of resident communities.
- To promote the management of natural and cultural heritage resources and ensure the protection and sustainable use of species and ecosystems.
- To promote and facilitate transboundary animal disease prevention, surveillance and control.

The other objectives broadly relate to building a strong economic base, capacity and research in the area, as well as mainstreaming emerging environmental and social issues. However, the primary focus of the KAZA initiative appears to be strongly centred on trying to facilitate the creation of a 'premier tourist destination', by facilitating conservation strategies as the principal form of land use. This agenda highlights the ways in which contemporary conservation initiatives are seeking to conserve nature, but also make it profitable in order to pay for itself. Within this conservation context, wildlife and the natural landscape are envisioned in the monetary potential they can attract through tourist activities such as safaris and game watching, therefore, generating an economic justification for their survival and protection. From this perspective, conservation is conceived in the form of 'sustainable development' and entails sustaining of the environment for human production (through the maintenance of protected areas) and consumption (for the enrichment and enjoyment of tourists) (Ferreira, 2004).

The KAZA's envisioned tourist enterprises are based on the idea of creating a destination with both natural attractions such as the Victoria Falls and Okavango Delta, as well as a remarkable display of mega-fauna (Metcalfe & Kepe, 2008). Therefore, to achieve this the conservation objectives of the KAZA largely focus on the management of this mega-fauna, particularly that of a huge elephant meta-population (approximately 200 000+), which has become a defining feature of the KAZA TFCA (Hanks, 2003). The majority of this meta-population can be found within the southern part of the TFCA, largely in Botswana and Zimbabwe (Metcalfe & Kepe, 2008). Due to this concentration, a key focus for the KAZA relates to the restoring of historical migration routes for these populations, in order for them to disperse into the northern reaches of Zambia and Angola (Metcalfe & Kepe, 2008).

Since the signing of the KAZA Treaty in 2011, Botswana along with Namibia have taken the lead on a number of its developmental projects. This is possibly due to current differences in capacity relating to the KAZA:

> "A big big problem as well, is the disparity in the five countries, the economic capabilities, cultural capabilities, willingness, corruption, poverty levels etc……You know the only two countries that are really forging ahead in this is Namibia and

> Botswana, because they can afford too, they are stable, they have got the finances, they have got the will. Most of the area that falls within the KAZA in those two countries are already wilderness type area anyway, and they have got good community programs that have already been set-up. It's the other three countries that really need to catch up" (NGO affiliate, personal communication; 18/01/2018).
>
> "You have five different nations that have to agree on something - and maybe three out of those five nations are really serious about conservation. The other two have really either immature tourism infrastructure or they have concerns – national concerns that far out-way any conservation concerns" (Community Representative; personal communication; 18/01/2018).

These responses depict the difficulties the KAZA is experiencing in terms of its capacity to manage resources across the TFCA. There is variation both within and across its member states in terms of infrastructure, resource management policies, institutions and funding. These disparities and the lack of capacity to cope with them, raise questions around the ability of the TFCA to achieve its proposed goals of development, conservation and sustainable resource use.

Conclusion

This chapter outlined a background to the research by outlining Botswana's land-tenure system and the important role of cattle in dictating customary tenure systems. However, the chapter also described the ways in which Botswana's economic focus has shifted in recent years to focus on the growth of a tourism industry based on wildlife. This focus has helped to drive a strong national prioritization of conservation projects in Botswana. The uptake and development of the KAZA initiative forms part of this national prioritization to develop greater conservation and tourism capacity in the country and across its borders. Therefore, the growth and development of the TFCA can be seen as an important part of Botswana's methodology for developing its tourist infrastructure. However, as the following chapters will demonstrate, Botswana has integrated a number of areas into the TFCA that are in the past have not considered high tourist appeal or ecologically significant in their own right. The next chapters will examine these processes of integration and the ways in which these areas are being revalued for the growing tourism and conservation industries in the region.

CHAPTER 5

The KAZA's Expansion & Integration Processes

The preceding chapter traces Botswana's national strategies of neoliberalizing nature through the development of a luxury tourism industry based on wildlife as a major economic activity. The development of the KAZA TFCA and Botswana's involvement in these processes, forms an important part of these national objectives, as a means for achieving conservation across its borders and increasing the tourist capacity of the area as a whole. The following chapter examines Botswana's decision to include additional areas into the KAZA, therefore, expanding the conservation estate. In doing so, this chapter firstly identifies the changing KAZA boundary and the types of land integrated into the TFCA. It then examines the motivations made for these particular expansion processes, as well as the arguments made against them. Finally, the chapter goes on to examine how these conflicting arguments have served to create the complicated context we see within the TFCA today.

The Changing KAZA Boundary

The study sought to understand these expansion processes, the reasons for them and the types of land that were incorporated as a result. This section traces the territorial expansion processes of the TFCA describing the original extent of the KAZA at its formation and examines the changes made to this territory from 2010 onwards.

Expansion & Integration Processes

At its establishment in 2003, the KAZA territory in Botswana extended over most of the northern part of the country encompassing the entire Chobe District, large parts of the North West District and the northern regions of the Central District. This area incorporates several PAs including the Okavango Delta, the Chobe, Makgadikgadi Pans and the Nxai Pans National Parks', the Chobe Forest Reserves and a number of WMAs (MEWT, 2013). Proposed extensions to this area were made by the Botswana government and the KAZA Secretariat during the preparation of Botswana's IDP between 2010 and 2013. These

extensions included the incorporation of a number of communal-land areas "that form extensions of PA habitats" around the KAZA (MEWT, 2013: 4). Botswana's IDP states that these areas represent integral components of the main KAZA ecosystems both in terms of wildlife management and natural resource utilization (MEWT, 2013).

The Botswana IDP identifies the following communal-land areas for integration into the KAZA:

- The west and south of the Okavango Delta,
- The southern and eastern areas around the Pans National Parks'
- The areas between the Pans National Parks' and the Hwange National Park in Zimbabwe

The expansion and land incorporation processes have been carried out in varying phases from 2010 through to present. The most significant expansions in Botswana occurred in two phases, the first from January 2010 to January 2011 and the second from January 2012 to January 2013. The figures below indicate these changes, created with the use of GIS using data from the PPF (Peace Parks Foundation Website, 2017).

Phase 1: January 2010 – January 2011

The expansion processes that took place between 2010 and 2011 are indicated in **Figure 5.1a** and **Figure 5.1b** below. During this phase of expansion, the land was incorporated in the south-eastern portion of the KAZA in Botswana, linking the Hwange National Park in western Zimbabwe with the Makgadikgadi and Nxai Pans' National Parks in Central Botswana.

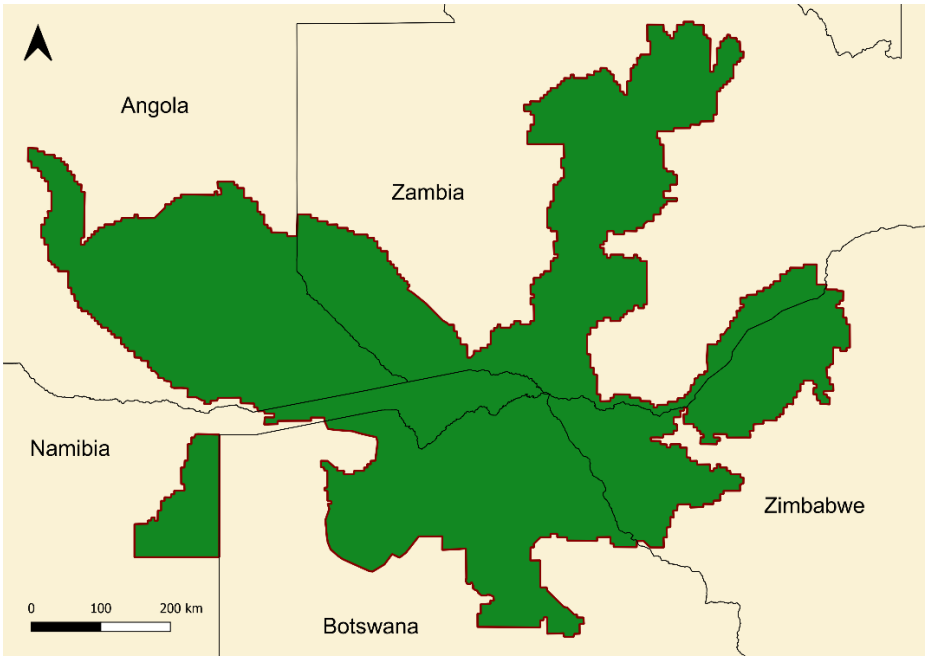

Figure 5.1a The KAZA delineation 2010

Figure 5.1b The KAZA delineation 2011

(Source: Adapted from www.peaceparks.org)

Phase 2: January 2012 to January 2013

The expansion processes that took place between 2012 and 2013 are indicated in **Figure 5.2a** and **Figure 5.2b** below. Within this phase of expansion, the land was integrated between the

Okavango Delta and Namibian border in western Botswana, as well as the southern areas of the Okavango Delta. Prior to this expansion, the KAZA boundary ran along the veterinary fence adjacent to the Okavango pan-handle. Within this period this boundary was extended to connect the conservancies located in North-East Namibia.

Fig 5.2a The KAZA delineation 2012

Fig 5.2b The KAZA delineation 2013

(Source: Adapted from www.peaceparks.org)

After the expansion processes described above, the new portion of the KAZA in Botswana now covers an area over 153 600 Km², nearly double the original area of approximately 78 200 Km². This is roughly 30% of the KAZA territory making Botswana the largest contributor to land thus far (MEWT, 2013). The types of land that have been incorporated since 2010 include urban land in the form of over twenty[1] villages, as well as communal land, farms and ranches, WMAs and CBNRM concessions. **Figure 5.3** below indicates the delineation of the changing KAZA boundary in Botswana and the land use of the areas that have been incorporated. These figures were created with the use of GIS, using the co-ordinates for both the old and new boundaries given by the Botswana IDP for the KAZA (MEWT, 2013).

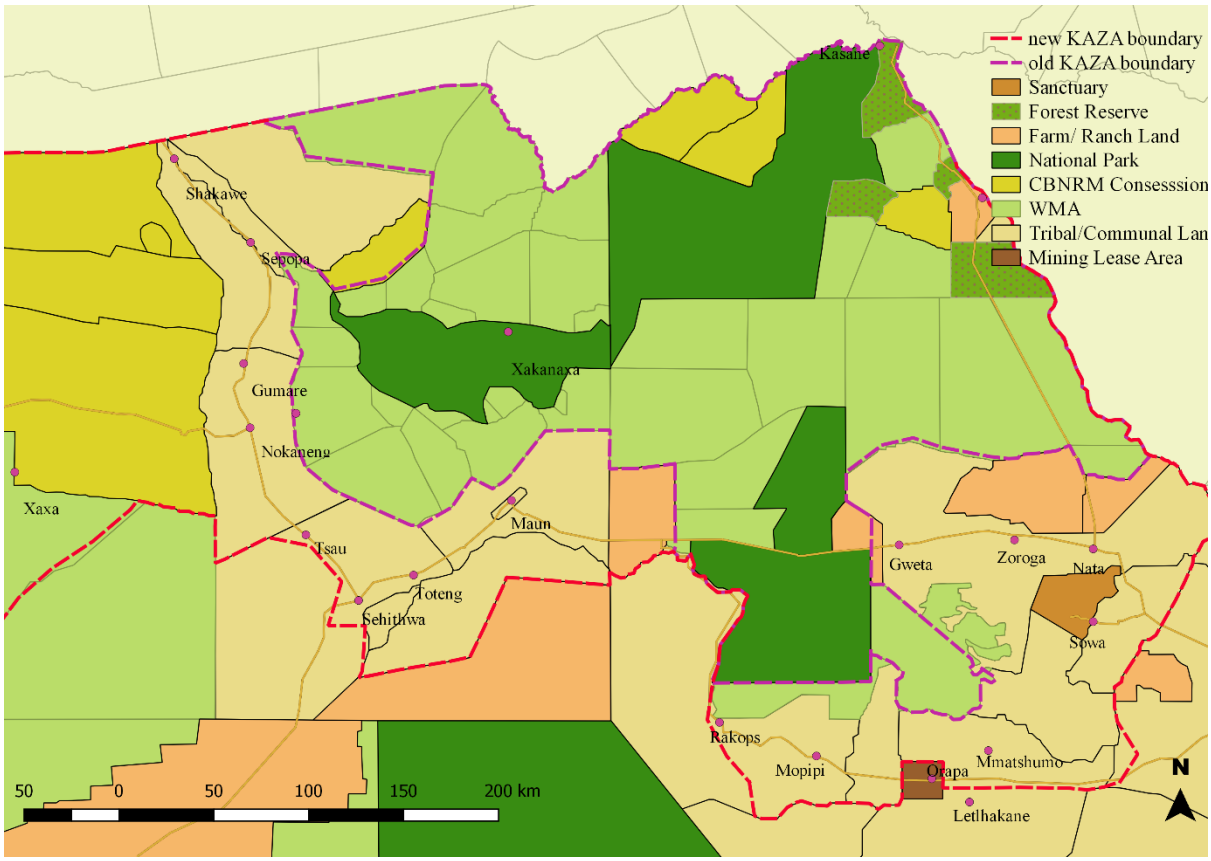

Figure 5.3 The Changing KAZA Boundary

[1]Towns and villages incorporated since 2010: Gumare, Maun, Shakawe. Sehithwa, Seronga, Ngarange, Nokaneng, Tsau, Sepopa, Shorobe, Toteng, Muhembo West, Makalamabedi, Nxamaseri, Xaxa, Muhembo East, Nata, Gweta, Rakops (Tsienyane), Mopipi, Sowa, Mosu, Xhumo, Zoroga, Mmatshumo, Toromoja, Sepako, Tshokatshaa, Maposa and Mmanxotae.

(Source: Created using data from the Botswana IDP (MEWT, 2013))

The Motivations for Expanding the TFCA

The following section assesses some of the motivations for the Botswana government to extend the KAZA boundary. This study sought to understand why Botswana is participating in the KAZA and the reasoning for choosing to expand the KAZA territory to include these particular areas. The section below indicates the ways in which the KAZA's focus on establishing and maintaining wildlife dispersal routes acted as a key motivation for these expansion processes. The section outlines the KAZAs focus on both the maintenance of current wildlife dispersal routes and restoration of historical migration routes.

The Need for Large-Scale Ecological Processes

TFCAs such as the KAZA are premised on the growing recognition that the creation of isolated PAs are not enough to ensure sufficient conservation. More broadly, conservation initiatives should seek to maintain the large-scale ecological processes which transcend both the boundaries of existing PAs and international borders. Examples of these large-scale ecological processes include carbon circulations, the hydrological functioning of river systems, plant distributions, wildlife migrations and seasonal dispersals and the ecosystems they are associated with (KAZA TFCA, 2014).

A key focus for the KAZA initiative has been on maintaining these large-scale ecological processes, particularly that of wildlife movement, whereby the TFCA "enables all types of wildlife to seasonally move and make better use of a variety of habitats, than would be otherwise possible" (KAZA TFCA, 2013; 8). This applies both to dispersal routes currently being utilized by wildlife, as well as historical migration routes that have been disrupted in the past by fences, borders and human settlements. As examined in Chapter 2 and 3, a significant body of literature has in recent years, demonstrated an increasing 'crisis' for global biodiversity, whereby habitat fragmentation is causing the wide-scale destruction of species.

In the African context, research has particularly highlighted these effects on wildlife populations, particularly large mammals (Taylor & Martin, 1987; Van Dyk & Slotow, 2003; Boone & Hobbs, 2004; Reid et al., 2004; Newmark, 2008). These decreases in population numbers are due to many African PAs and their species' populations becoming increasingly isolated from each other due to human-induced activities in and around PAs causing habitat loss, increased fencing and overhunting (Taylor & Martin, 1987; Newmark, 2008; Gadd, 2012). Consequently, between 1970 and 2005, research indicated that Southern Africa's wildlife species had ranges largely restricted to PAs, which had resulted in an estimated decline of up to 50% (Newmark, 2008; Craigie et al., 2010).

The decline in the African elephant (*Loxodonta Africana*) populations has received particular attention both locally and globally. The Great Elephant Census found that between the period of 2007 and 2014, savanna elephant populations have deteriorated as much as 30% (equating to 144 000 elephants) and are continuing to decrease in many areas (Chase et al., 2016). Decreases in elephant populations have largely been caused by habitat and areas loss as well as poaching activities, both of which have been attributed to human population growth throughout Africa (Armbruster & Lande, 1993; Hoare & Du Toit, 1999; Chase, 2010; Craigie et al., 2010). In light of these diminishing numbers, the KAZA has been envisioned as a means of enlarging the range available for elephants and other species. These aspirations have been an important motivation behind the widespread support for the TFCA governments, international conservation agencies and donors' groups (African Wildlife Foundation, 2004; Conservation International, 2006; Transfrontier Conservation Consortium, 2006).

Understanding the KAZA's Wildlife Corridors

TFCAs have been envisioned as conservation initiatives able to address the issues of fragmentation and biodiversity loss highlighted above. One of the key objectives of the KAZA is to "promote a network of interlinked protected areas to safeguard the welfare and continued existence of migratory wildlife species" (KAZA TFCA, 2014: 11). During the KAZA's formation, three types of ecological corridors were identified as important potential

linkages between the PAs within the TFCA, migration routes, dispersal corridors and adaptive response corridors[2] (Cumming, 2008).

The focus of the KAZA on managing these various wildlife corridors has been prominent from its on-set. The KAZA 'Pre-feasibility Study' (Transfrontier Conservation Consortium, 2006) highlighted the following recommendations for the need for wildlife corridors at its initiation:

> "Identification and consolidation of transfrontier wildlife corridors. The following potential corridors will receive priority attention in the Feasibility Phase:
>
> - The links between the south of the Kafue National Park and the remainder of the KAZA TFCA, part of which could be one or more wildlife corridors from northern Botswana through East Caprivi, or a link with Sioma Ngwezi National Park or to Zimbabwe.
> - The link between Botswana through West Caprivi to south-eastern Angola. This very important corridor will form a major dispersal route for elephants between Botswana and Angola.
> - The need for a corridor to link the north of Khaudom Game Park to Western Caprivi and south-eastern Angola.
> - The link between the protected areas south of Lake Kariba (Hwange) and the remainder of the KAZA TFCA to the west (Chobe)" (Cumming, 2011: 65).

Within the Pre-Feasibility study, the priorities and options for establishing wildlife corridors in and across the TFCA were examined. Nine potentially important corridors were identified, as well as any potential barriers such as human settlements, fences, major roads, risks associated with the spread disease or dispersal of alien species. Of these nine corridors, three priority corridors were identified as linked:

[2] ***Migration routes***: These are corridors both used historically and presently, that serve to maintain regular seasonal movements of animals between alternative areas or habitats.
Dispersal corridors: These are corridors that serve to allow the dispersing component of particular species populations to move to other suitable areas or habitats.
Adaptive response corridors: These are corridors that will allow for both fauna and flora to shift, or disperse, along ecological gradients in response to future changing climatic conditions.

a) Chobe NP – Babwata NP – Liuana – Sioma-Ngwezi,
b) Chobe NP –Zambezi NP-Matetsi-Hwange NP complex,
c) Caprivi-Zambezi NP – Kafue NP

The other important links identified were potential corridors between the Babwata and Khaudom national parks in the west of the KAZA, between Chobe, Nxai Pan and Makgadikgadi national parks in the south and between the Makgadikgadi and Hwange national parks in the east. There were also potential linkages listed between Mavinga and Liuwa Plains in the north, and their links to the south of the TFCA (Cumming, 2008).

In light of these recommendations, a major focus within the KAZA has been to develop a network of ecological corridors linking to a central core of the KAZA TFCA. This has been supported and endorsed by a large number of international NGOs and projects such as the Wildlife Conservation Society's '*Beyond Fences*' Program (Cumming et al., 2015) and Conservation International's projects to provide authorities with data relating to elephant population numbers, ecology and transboundary movements in the area (Hanks, 2006).

Integrating Communal Land into the KAZA

Based on the various corridors identified above, the KAZA Master Integrated Development Plans (MIDP) divides the KAZA region according to six geographically-specific areas termed Wildlife Dispersal Areas (WDAs) (KAZATFCA, 2014) The are known as the Kwando River WDA, the Zambezi-Chobe floodplain WDA, the Zambezi-Mosi Oa Tunya WDA, the Hwange-Kazuma-Chobe WDA, the Hwange-Makgadikgadi-Nxai WDA and the Khaudum-Ngamiland WDA. These 6 WDAs are indicated in **Figure 5.4** below.

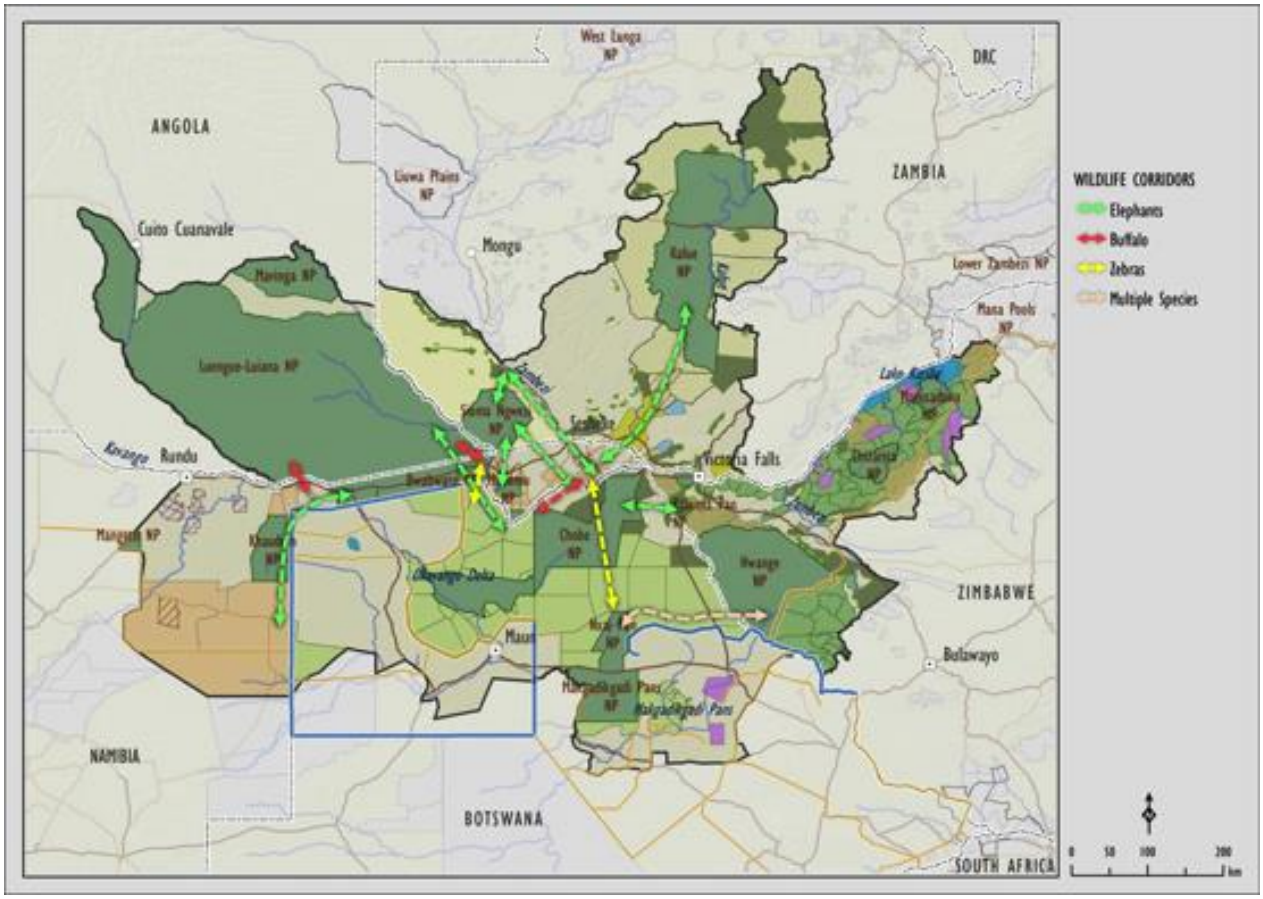

Figure 5.4 Documented Wildlife Dispersal Routes

(Source: KAZA TFCA, 2014)

When cross-examining the WMA maps with those of the land in Botswana integrated into the KAZA between 2010 and 2013, with the MWA maps above, several parallels emerge, which will be discussed below.

Phase 1 of Expansion: 2010 - 2011

The communal-land areas integrated into the KAZA in the first phase of expansion in 2010 to 2011 form part of the '*Hwange-Makgadikgadi-Nxai Pan Wildlife Dispersal Area*' which straddles the boundary of Botswana and Zimbabwe in the southern portion of the KAZA (KAZA TFCA, 2014). The land integrated in this phase of expansion makes up the southern portion of the WDA, although currently separated from the PAs by a Major Cordon Sanitaire (veterinary fence) that runs E-W across the area (**Figure 5.5**). Ecologically, this WDA supports over 400 species of bird and 100 species of mammal. According to the KAZA MIDP, the area supports several important dispersal routes including those documented

routes for elephant, lion and other mammal species. These other mammal species are not listed in the MIDP (KAZA TFCA, 2014). Collaring data from Elephants Without Borders has shown that elephants in this area of Botswana have the largest home ranges (24,828 km2) recorded for African elephants. They form part of a contiguous population encompassing western Zimbabwe, the Caprivi Strip in Namibia, southeast Angola and southwest Zambia (https://elephantswithoutborders.org).

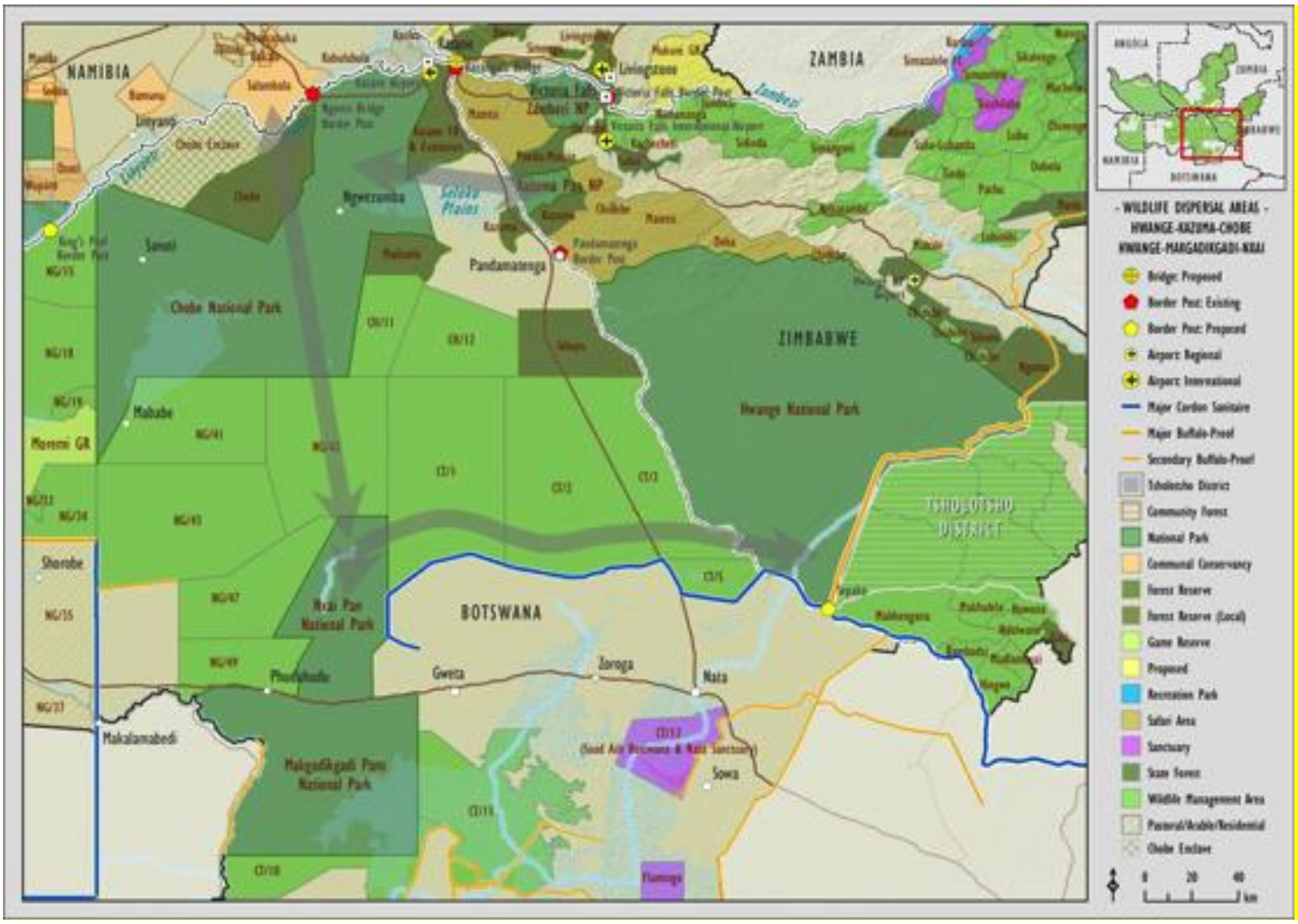

Figure 5.5 Hwange-Makgadikgadi-Nxai Pan Wildlife Dispersal Area

(Source: KAZA TFCA, 2014)

Phase 2 of Expansion: 2012 - 2012

The communal-land areas integrated into the KAZA in 2012 to 2013 form part of the '*Khaudum – Ngamiland (NGs 1, 2, 3, 4) Wildlife Dispersal Area*' in the western part of the KAZA. This WDA straddles the Botswana and Namibia border and extends over the areas north of the Okavango Delta's pan-handle and the Luengue-Luiana National Park in Angola

(KAZA TFCA, 2014). The communal-land integrated in the 2nd phase of expansion can be seen to make up the land between the PAs in Namibia and Botswana's Okavango Delta (**Figure 5.6**). However, these communal-land areas are currently separated from their adjacent PAs by two Major Cordon Sanitaires, the first running N-S along the countries' boundary line and the second running N-S and then eastwards along the Okavango 'pan-handle'. According to the KAZA MIDP, this WDA has been recorded as ecologically important for elephant dispersal as well as some other species (KAZA TFCA, 2014).

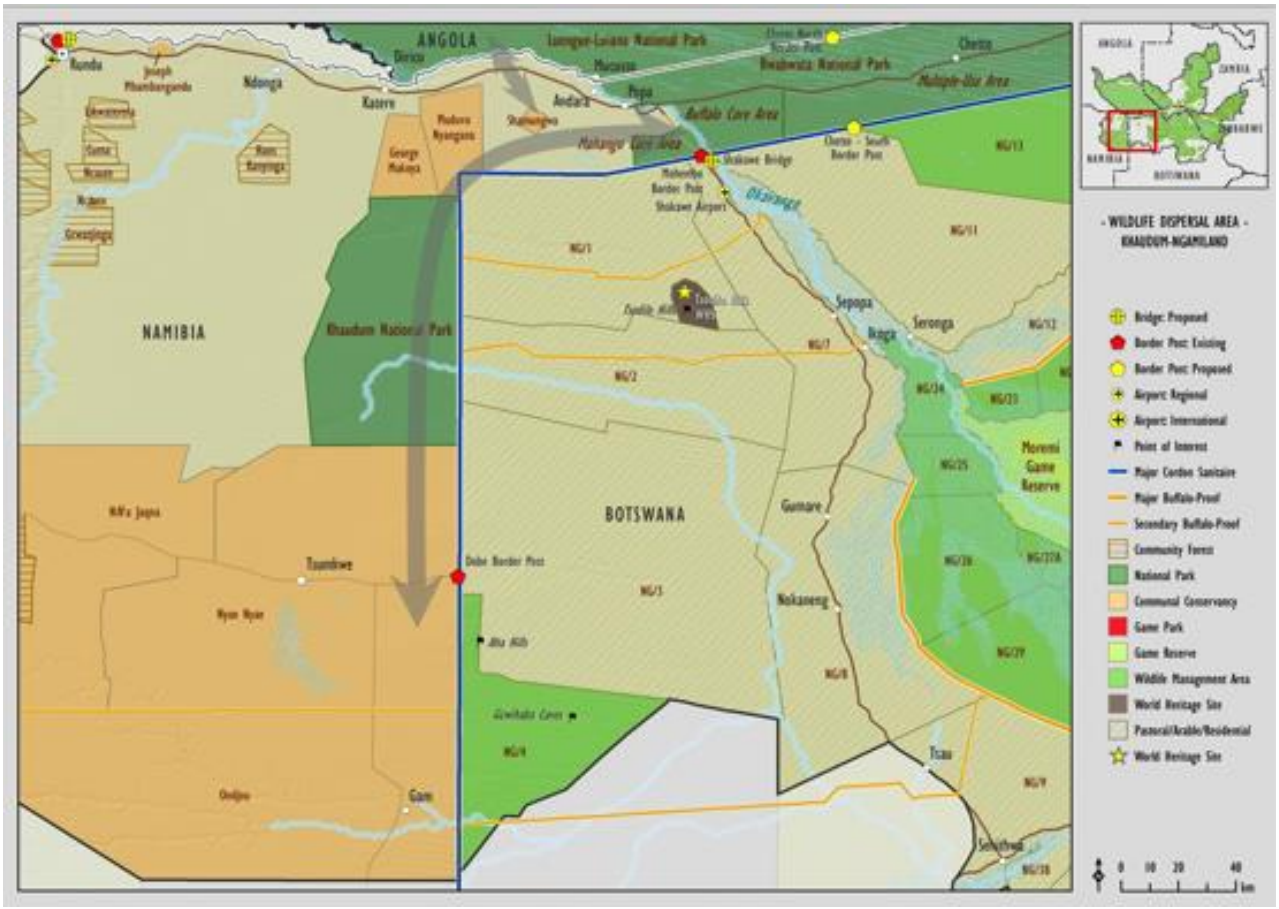

Figure 5.6 Khaudum – Ngamiland Wildlife Dispersal Area

(Source: KAZA MIDP (KAZA TFCA, 2014))

According to Botswana's IDP the communal-land areas in question "form integral parts of the main KAZA TFCA ecosystems" in respect to both wildlife management and natural resource utilization (MEWT, 2013: 4).

> The choice of all areas in the KAZA TFCA was guided by the need to re-establish seasonal wildlife migration routes and interconnectivity among the thirty-six protected areas (national parks, community conservancies and forest reserves) that occur in this TFCA. (KAZA Secretariat; personal communication, 02/01/2018).

Communal lands such as these are considered to be rich in biodiversity and therefore often act as repositories of biodiversity outside of established PAs such as the Okavango Delta, Moremi Game Reserve or Chobe National Park (Ramutsindela & Noe, 2012; Mogende, 2016;).

The Contesting Connectivity Arguments

As illustrated in the section above, official KAZA documentation, interviews and supporting conservation literature demonstrated that the communal-areas chosen were integrated due to their ecological importance for corridor connectivity. However, the concept of corridor connectivity across the KAZA is a contested context. The following section provides an assessment of some of the opposing arguments made for corridor creation in and around the KAZA.

Critiquing the Need for KAZAs Corridors

There has been significant debate over the past decade on whether corridors are in fact used by animals and if they do lead to connectivity across the landscape (Mann & Plummer, 1995; Soule & Gilpin, 1991; Caro et al., 2009; Hilty et al., 2012; Ogden, 2015). Beier & Noss, (1998) maintained that evidence provided by well-designed studies largely supports the use of corridors as an effective conservation tool. However, in general, this evidence tends to be limited and research such as by Simberloff et al., (1992) have argued that substantial evidence supporting the effectiveness of corridors for conservation is largely absent. There are a number of small-scale studies that exist providing evidence for the use of corridors in enabling the movement of individuals across certain landscapes (La Polla & Barrett, 1993; Rosenberg et al., 1998; Laurance & Laurance, 1999; Bowne et al., 1999; Gloyne, & Clevenger, 2001). However, these experiments tend to examine highly artificial urban landscapes or are focused examples of animals not of conservation concern (Mech & Hallett, 2001).

Some researchers have argued that corridors can even be detrimental to species because of their potential to spread diseases, exotic species or wildfires into connected areas (Simberloff et al., 1992; Hess 1994). Corridors can also potentially serve to endanger animals by luring them into areas (potentially the corridors themselves) in which they are more vulnerable and may experience higher mortality (Simberloff et al., 1992; Hobbs, 1992). A central concern from all this research is that the funds utilized for acquiring corridors are currently questionable or have unproven value (Simberloff et al., 1992). The sections below, discuss some of the more localized critiques of the arguments made for the KAZA's corridors and resultant need land integration.

Calculating the Extent of Fragmentation:

The need for wildlife corridors has arisen out of situations whereby the landscape has been transformed in such a way as to isolate various habitats and inhibit animals from moving between them (Mech & Hallett, 2001). When examining the requirement for corridors in an area there is firstly a need to asses to what extent habitat fragmentation has taken place. Currently, little research has focused on trends in land use and land cover change with the KAZA. A full biodiversity assessment of the Four-Corners area (now known as the KAZA) was undertaken in 2003-2004 by the Zambezi Society in collaboration with the Biodiversity Foundation for Africa (Timberlake & Childes, 2004). The biodiversity assessment evaluated a range of data such as area geomorphology, vegetation, ecological processes and an extensive range of vertebrate and invertebrate taxa. It also examined issues relating to elephant population numbers, movements and impacts, as well as large mammal migrations and barriers in the area. This assessment served to collect and synthesize a large selection of information on the area, particularly data on wildlife. However, this report alone does not provide a detailed dataset or standard against which land use changes or long-term biodiversity can be examined within the TFCA (Cumming, 2011). Any other large-scale assessments of land use change in the TFCA have not yet been done.

In light of the current lack of indicators or data present on the KAZA, there is a need for greater research on the recent of land use change and fragmentation in order to legitimately argue for the need for wildlife corridor creation. This research would need to address the

following questions: have PAs in the KAZA been isolated by processes of habitat fragmentation? To what extent has transformation of the landscape occurred? Has this transformation acted as a barrier to animal movement or interrupted historical movement patterns? And finally, which species have been greatest effected within these processes? (Cumming, 2008).

Restoring Historical Migrations:

Although the KAZA's official documents make reference to the presence of historical migration routes for multiple species, Cumming (2004b) contends that there is currently no evidence for the presence of large mammal transboundary migrations in the KAZA region. There have been regular localized migrations recorded for both zebra and wildebeest which occur or have occurred in two areas of Botswana between the Linyanti and Savuti areas and in the Makgadikgadi area (Bartlam-Brooks et al., 2011; Naidoo et al., 2016). A regular wildebeest migration occurs to the north of the TFCA across the Liuwa Plains in Zambia. However, outside of these localized migrations, research and evidence are still very limited.

The Creation of Dispersal Corridors:

In terms of the creation of 'new' dispersal routes, research in the KAZA has largely focused on the provision of corridors for elephants (*Loxodonta africana*). This has been due to the hopes of dispersing elephant from high-density areas, such as the Chobe National Park in northern Botswana (Metcalfe & Kepe, 2008). The idea is based on the presumption that the presence of corridors which link major PAs will serve to naturally regulate elephant populations thereby lowering the current impacts on the habitats of the PAs (Van Aarde & Jackson, 2006, 2007; De Garine-Wichatitsky & Fritz, 2017).

A large amount of research has examined the effects of elephant populations on the landscape or other species in various PAs of the KAZA (Ben-Shahar, 1993; Herremans, 1995; Skarpe et al., 2004; Valeix et al., 2007, 2011). For example, Skarpe et al., (2004) examined the effects of increasing elephant populations on the Chobe's ecosystem and processes. Similarly, Addy (1993) examined the effects of elephant induced vegetation change on the bushbuck populations of the Chobe *(Tragelaphus scriptus ornatus).* Furthermore, Valeix et al., (2007)

examined changes in vegetation structure and ungulate abundance due to elephant population increases in the Hwange National Park in Zimbabwe. However, this research tends to be focused on areas with already existing concentrations of elephants. Little research exists on the possible effects of elephant corridors for other areas, species and human populations. Aside from elephants, little focus has been placed on examining the potential effects of these corridors on the dispersal and habitats of other large mammal species. Similarly, the role of wildlife corridors in the dispersal of predators and other species within the KAZA TFCA has received little, if any attention.

The Creation of Adaptive Response Corridors:

Adaptive response corridors have been envisioned to assist species in coping with changes in habitat structure and plant species distribution as a result of changing climatic conditions. In these contexts, unless species are able to utilize appropriate corridors to extend their habitat ranges, they are likely to suffer local extinctions (Searns, 1995; Parmesan, 2006; Kostyack et al., 2011). However, scholars have argued that the implementation of adaptive response corridors is difficult given the wide variety of species involved within these processes and the unpredictability of these species' responses to climate change (Mech & Hallett, 2001; Cumming, 2011). Currently, a large amount of uncertainty exists in terms of the understandings of how various species respond to change. The current approaches used to predict species' responses to environmental change have focused on variations in spatial distribution or changes in abundance over a certain time period. However, these indicators often fail to accurately grapple with the extent or various dimensions of the environmental change (Hulme, 2005). Similarly, the maintenance of corridors for some specialist species and localized endemics is largely unfeasible (Mech & Hallett, 2001; Cumming, 2008). In light of the large amounts of uncertainty and current lack of research around the usability of adaptive response mechanisms, Cumming (2008) argues that the only guaranteed approach that can be feasibly applied to cope with climate change induced pressures, is to avoid the closing of existing corridors and linkages across the gradients of the KAZA.

The Risks Associated with Corridors

As mentioned above, corridors can be important for migration, dispersal and adaptive response of wildlife populations. However, it is important to consider that the simple

presence of corridors does not automatically contribute to improved conservation, and the increased connectivity between various areas can serve to facilitate a number of destructive processes, such as the spread of invasive species and transfer of diseases (Hobbs, 1992; Crowl et al., 2008). The movement of vectors such as the tsetse fly is a particular risk for the KAZA for example through corridors from Sebungwe through to the Hwange-Matetsi areas (Cumming, 2011). The spread of diseases such as *foot-and-mouth* and *bovine pleuropneumonia* have also been described as a risk in the KAZA (Cunningham, 1996; Bengis et al., 2001).

There are also the potential issues which arise when expanding territory for elephants and the possible effects of this expansion in terms of both people and the biomes in the receiving areas. Elephants have complex, scale-dependent effects on the environment and habitat structure. Elephant-induced vegetation changes in terms of both ecological structure and composition have been examined by a number of researchers in the field (e.g. Ben-Shahar, 1993; de Beer et al., 2006) and through modelling techniques (e.g. Baxter & Getz, 2005; Holdo, 2007). Cumming (2008) pointed to the dangers created by spreading elephants particularly for sensitive landscapes and habitats, such as riparian fringes that act as important habitats and corridors for a host of other species. Generally, the impact of elephant on woody vegetation results in a decrease in tree numbers and the creation of open or coppiced areas. The effects of these vegetation changes on other species, particularly large herbivores have not been widely researched (Valeix et al., 2011). However, researchers have pointed to the ways in which a number of species are dependent on specific habitats, for example, Palaearctic and Afrotropical bird migrants rely on the presence of acacia riparian woodlands, wetlands and pans. If these pans and riparian woodlands are degraded by high densities of elephants, there would be negative effects for these species (Cumming, 2008).

Finally, an important consideration when examining potential dispersals of the elephant is their effect on human populations and vice versa. Cumming & Jones (2005) critically assessed the dispersal corridors in terms of affected people, pointing out that most of the areas ‘available’ to absorb dispersing elephant populations (such as the land in this study) are communal land. Therefore, inhabitants would not readily accept increasing elephant densities in these areas without some form of benefit or adequate return. Therefore, these processes

would ultimately require the consumptive use of elephants and the creation of 'sinks' dynamics to regulate elephant populations in the region. However, there remains a risk that creating dispersal corridors and using these areas as 'sinks' for elephant populations will simply serve to transfer the overpopulation problem to new or less visible areas (Hoare, 2000; Cumming & Jones, 2005; Lamarque et al., 2009).

Analysing the Process of Expansion

The sections above highlighted the arguments made for and against the need for corridors and connectivity within the KAZA. The below section brings to light how these counter-arguments have helped to shape the complex expansion processes of the KAZA and how these processes helped to shape the situation on the ground today.

Translation from Plan to Practise

As examined above the processes of integration were largely carried out in response to the focus of the KAZA on restoring and developing various wildlife corridors across its territory. The need for these corridors was laid out in the KAZA 'Pre-feasibility Study' (Transfrontier Conservation Consortium, 2006), which indicated the need for corridors between Kafue National Park, Sioma Ngwezi National Park and the rest of the KAZA as well as a link between Botswana through to Angola. In this study, the requirements for these corridors were only broadly indicated and only made specific reference to dispersal routes for elephant, particularly referencing movement between Botswana and Angola (Cumming, 2008). Aside from these maps in the study and the broad dispersal routes later used in the KAZA Master Development Plan, other criteria and decision-making used for integrating various communal-land areas are unavailable. Officials and organizations involved in these initial expansion processes are no longer involved in the KAZA's activities now. This has led to general confusion around the integration processes from both officials and community perspectives.

This lack of communication around the motives for expansion has translated into a confusing and conflicting integration process whereby a number of communities are still uncertain of what their integration entails. During these expansion phases and the development of IDP for

the Botswana portion of the KAZA, the following consultative process was carried out. Firstly, a high-level process negotiation took place between the Botswana government, PPF and Kreditanstalt für Wiederaufbau (KfW) in Gaborone in February 2010. Following this, a national consultative stakeholder workshop was carried out in Maun in March 2011. Finally, district level consultation meetings were held in Gumare, Maun, Lethlakane, Nata and Kasane (MEWT, 2013). The national and district level stakeholder processes invited various community leaders to attend the meetings. However aside from these meetings, the engagement between the KAZA and communities had been limited:

> "I once went for a meeting in 2011/2012 at Maun Lodge. But aside from that we have heard nothing from KAZA (Community Leader; personal communication, 02/01/2018)
>
> We are not even called for some of the [KAZA] meetings" (Tribal Authority; personal communication, 02/01/2018).
>
> "There were several meetings after the one I was talking about, that took place, but we were not even invited" (Tribal Authority; personal communication, 02/01/2018).

Despite these areas now being part of the KAZA for nearly seven years, local community knowledge and understanding of the KAZA processes are generally limited. Those in positions of leadership who attended the initial consultation processes are generally aware of the national KAZA processes:

> As far as we know this area is part of the KAZA, but it makes no difference to us (Tribal Authority; personal communication, 02/01/2018).

However, aside from the *Kgotla* members and chiefs who attended the initial meetings, there was little knowledge of the KAZA within the communities and responses to questions on the KAZA presented similar responses:

> I didn't even know this area is included on the KAZA (Nata resident; personal communication, 03/01/2018)
>
> I don't know, I can't say anything about KAZA because I don't know. We only see T-shirts and people wearing KAZA T-shirts, we don't know what is KAZA (Nata resident; Personal Communication, 02/01/2018).
>
> How can I answer questions [on the work of the KAZA] if I don't know anything about the KAZA? (Zoroga resident; personal communication, 02/01/2018).

The responses from various respondents depict a disconnection between local people and the KAZA's conservation processes. However, this phenomenon is not a unique finding of the KAZA as other TFCAs across the region have the same experiences. For example, the research by Ferreira (2006) highlights similar findings in the establishment of the Great Limpopo TFCA (GLTFCA). When the preliminary report to explore the impacts of the park on local livelihoods was carried out by the Refugee Research Programme (RRP) in 2002, it found that less than 40% of those interviewed had any knowledge of the TFCA. For those that had, there was a much confusion in what the TFCA was and what it was trying to do. The consensus from these interviews was that people on both sides of the GLTFCA felt they had not been adequately consulted about livelihood options or the prospects of relocation (Ferreira, 2006). Similar findings within the GLTFCA have also been noted by Draper et al. (2004), Spierenburg et al. (2006) and Spierenburg et al. (2008),

What Integration Entails

As demonstrated above, the territorial expansion of the KAZA was a plainly identifiable process on paper. However, the physical expansion and what this expansion entails for those residing within these areas was far more complex. This expansion involved multifaceted discourses unique to the setting in which they took place, which involves numerous interactions between different actors operating at different scales (Mogende, 2016). In the case of the KAZA's expansion, these ideals related to the ways in which land was to be utilized and managed within its extended boundaries.

This chapter found that the arguments relating to the KAZA's expansion are strongly directed towards the creation and maintenance of wildlife corridors and dispersal routes. However, what this integration meant for the communal-areas supposedly available to accept wildlife and facilitate migratory movements was unclear. For these communities, the prospect of increased wildlife movement was something they may neither actively encourage nor benefit from. However, these arguments of the costs and benefits of increased wildlife, resource rights, land use, access and authority have been lost or silenced in the context of the KAZA's territorial expansion processes.

Conclusion

The aim of this chapter was to understand the expansion processes of the KAZA TFCA that had been carried out in Botswana. It assessed the processes of land integration from 2010 to present (2018) and the types of land incorporated in these processes. It then examined the motivations for incorporating these areas looking at the KAZA's desire to create connectivity across the landscape and restore or extend wildlife corridors. This resulted in the expansion of the TFCA to incorporate land in areas identified as able to facilitate the movement of wildlife. However, this study also examined some of the counter-arguments and critiques challenging the creation of these corridors. These critics maintained that the true biological value of corridors remains inconclusive because of a general lack of evidence and explicit nature of the problem. In terms of the KAZA, scarce research exists to conclusively argue the need for specific corridor recommendations and increased research is required to examine what uses the creation of wildlife corridors may serve within TFCA. The result of these arguments is a confusing and complex integration process largely governed by a lack of transparency in the need for expansion and the potential effects this expansion will have for the integrated communal land areas. The next chapter examined the context of these areas and the experiences of communities facing the challenges of balancing new conservation objectives with traditional livelihoods.

CHAPTER 6

Experiences of the KAZA in Local Contexts

The previous chapter examined the processes of territorial expansion of the KAZA that took place in Botswana. These processes of expansion and land integration have been done with the focus on establishing large-scale ecological corridors and migration routes for wildlife. This chapter discuss the local contexts of the communal land areas that have been integrated into the KAZA within these expansion processes. It focused on the experiences of communities in these areas who have been affected by the shifting boundaries and changing conservation setting. The chapter begins with a description of the areas and communities living therein. This is followed by a discussion on the kinds of impacts being experienced in these areas as well as the experiences of the communities. The final section goes on to examine the benefits of the KAZA's governance system for these contexts.

The Integrated Areas & Communities

Andersson et al., (2017) described the experiences of many communities in Southern Africa who have existed around the edges of existing PAs and found themselves integrated into the TFCA territories;

> Many people living on the edge of protected wildlife areas now find themselves residing in newly designed TFCAs, but with little clue as to what that actually means. Often displaced from the formation of protected areas decades earlier, they have neither participated in the formation of this new type of conservation area, nor have they started to 'reap the benefits'. With 'conservation' in these transfrontier conservation areas still ill-defined, they continue to live on the wildlife frontier and are exposed to the risks that come with it, while depending on these agro-ecologically marginal environments (Andersson, et al., 2017: 1).

This rhetoric of integration played out in the KAZA's processes of territorial expansion. Although the areas integrated into the TFCA have been selected for to their ecological significance, these areas are not 'empty land', but consist of a mosaic of land use consisting

of different urban areas and communities involved in various activities. The expansion examined in this research is located in the northern sections of the Central District which is divided into the sub-districts of Tutume and Boteti. Within the Tutume subdistrict, the towns of Gweta, Nata, Sowa and Zoroga have been incorporated. There are also a number of smaller villages such as Tshokatshaa, Maposa, Sepako and Mmanxoate. Within the Boteti sub-district, the villages incorporated include Mopipi, Rakops and Xhumo and smaller localities of Toromoja Mosu and Mmatshumo.

Area Population

Although statistics from this area are limited data from the most recent 2011 census reflects approximately 42 500 people residing in the area. **Table 6.1** below reflects the distribution of this population across the towns and villages in the area.

Table 6.1. Population Numbers in the Study Area

Location	Population
Nata and surrounds	7732
Gweta and surrounds	7016
Rakops (Tsienyane) and surrounds	7240
Mopipi and surrounds	5247
Sowa and surrounds	3598
Mosu and surrounds	2694
Xhumo and surrounds	2304
Zoroga and surrounds	1418
Mmatshumo and surrounds	1650
Toromoja and surrounds	1157
Sepako and surrounds	736
Tshokatshaa and surrounds	634
Maposa and surrounds	423
Mmanxotae and surrounds	725
Total	42 574

(Source: Adapted from Statistics Botswana, 2016)

Figure 6.1 below indicates the population density of the expansion area, created using GIS with data from the 2011 Census and other demographic data from the Statistics Botswana online archives (Statistics Botswana, 2018). The population density tends to be low overall with an average density of 3.5 people per square km. Densities are highest in the widespread communal-land areas, particularly along major arterial road routes such as the A3 and A30. Densities tend to be lower in the WMAs comparative to communal-land areas and lowest in the central areas where salt pans tend to dominate the landscape.

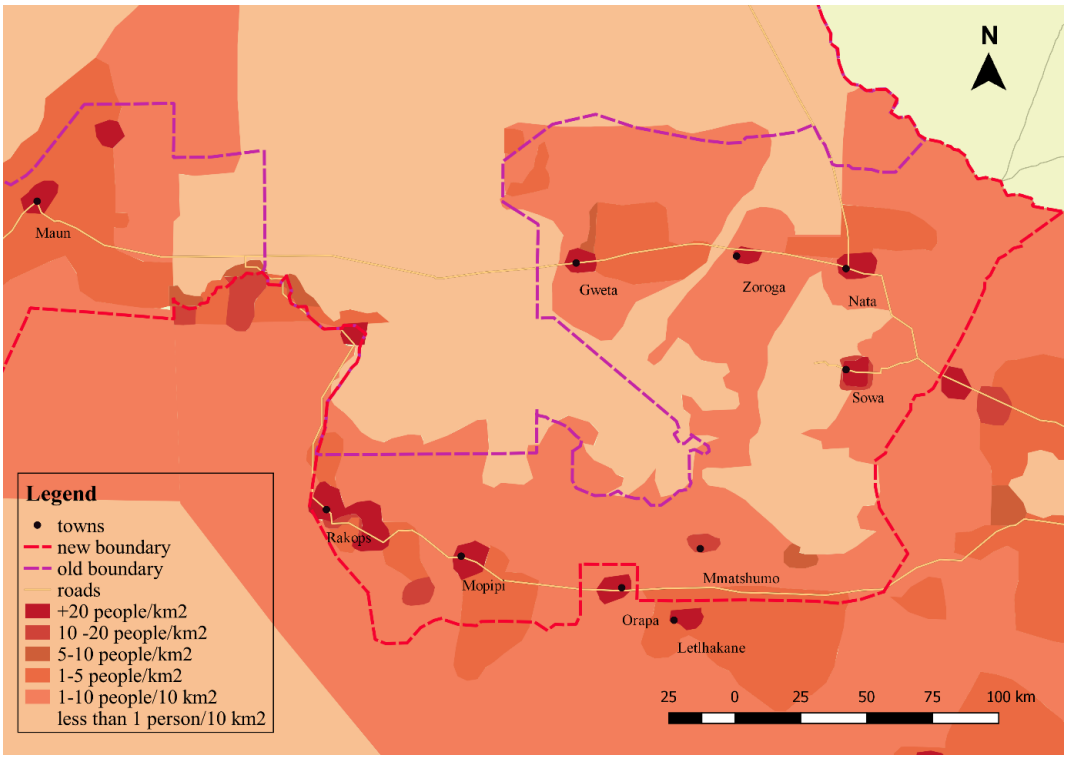

Figure 6.1 Population Density of the Study Area

(Source: Created using data from Statistics Botswana, 2016)

Population Growth in the Area

It is important to consider the ways in which rural population growth contributes to growing land transformation through both urban sprawl or livestock and crop production. In the KAZA, urbanization has resulted from the growth of existing settlements, but also as a consequence of the migration of people to the area caused by the increasing wealth generation by growing industries such as tourism (known as a honey-pot effect) (Cumming,

2008). These factors are important in understanding the land use changes being experienced in an area. The Botswana 2011 Census indicates that the Central District was experiencing a population increase of 1.9% annually with a similar rate to other districts. Villages which recorded significant growth over the period between 2001 and 2010 were Manxotae at 53.9% and Nata at 50.7%. Just like the rest of the country, the district has a youthful population with infants aged a year and below making up 5.6% of the population and those aged less than five years making up 13.7% (Statistics Botswana, 2016). Since 2011, these numbers are likely to have increased somewhat, with a steady increase of 1.8% being recorded nationally in 2016 (United Nations Population Division, 2016).

Land-Use & Livelihood Activities

Botswana is considered to be a relatively wealthy African nation that is able to provide various levels of healthcare, education and social security to its population. Although these provisions have ensured a minimum level of welfare in the country, both rural poverty and unemployment remains high, with significant dependence on natural resources (cf. 40%) (Blaikie, 2006). Across Botswana and the KAZA, there is a high dependence on a variety of natural resources including water, firewood, sand and clay, construction poles, thatching grass, reeds, fish and edible plants. A lesser dependency is placed on other resources including birds, honey, insects, palm leaves and small mammals (Glatz-Jorde et al., 2014).

Within the study area, Sallu et al., (2010) documented the ways in which ecosystem goods and service provision are largely controlled by the extreme environmental conditions present in the area which influence water availability as well as soil and landscape conditions. Due to the low soil fertility and deficiencies in key nutrient contents; nitrogen (N), phosphorus (P) and potassium (K), the region is generally considered unsuitable for agricultural production (Buckley et al., 1987, Tolsma et al., 1987, Ministry of Agriculture, 1990). As a result of these conditions, rural livelihoods have traditionally relied on various consumptive natural resources such as veld products, arable land for cattle-posts and hunting.

Despite poor soil fertility and low rainfall, much of the population in this area relies on livelihoods built upon pastoralism and varying forms of arable cultivation. The predominant source of income for those in the area is from the keeping of livestock, such as cattle and

goats (Meynell & Parry, 2002; Statistics Botswana, 2016). Other primary forms of livelihood activities include small businesses selling goods such as alcohol, chickens/eggs, baking and crafts as well as veld product collection, vegetable gardening and illegal hunting (Sallu et al., 2010). Unemployment for the sub-district was estimated at 13.1% and showed a similar picture to other districts where females have a lesser unemployment rate than their male counterparts (Statistics Botswana, 2016). Other forms of resource reliance are primarily in the form of energy and water needs. In developing countries, cooking requirements account for approximately 90% of all household energy consumption. Generally, this energy is sourced from either charcoal, firewood, agricultural residues and dung. In this area, the 2011 census reflected that over 71% of the population rely on wood for cooking and 72.8% of them rely on wood as a primary source of heating (Statistics Botswana, 2016).

Balancing Conservation & Cattle-Keeping

Because of the reliance on natural resources, land use in the area particularly around the existing PAs has long been subject to conflicting pressures from various activities. These activities include increasing needs for conservation and tourism development as well as competing demands for urban growth and agricultural activities. Of the KAZA's total area, PAs such as national parks make up only 17.6% of the overall area (Cumming, 2008). Nearly half of the KAZA is made up of land with only some form of conservation status such as controlled hunting areas (CHAs) or WMAs, where people utilize traditional systems of communal land tenure. The remainder of the land in the KAZA is not under any form of conservation status (Cumming, 2008). These numbers draw attention to how much land in the KAZA is under communally controlled land tenure systems. Because this communal land is surrounding conservation land, conflict tends to arise between the two in terms of resource access, human-wildlife conflict and connectivity.

Communal-land in Botswana is primarily used for cattle-keeping activities. Cattle-keeping has historically been based upon the 'cattle-post system', a system that has remained largely unchanged for centuries (Denbow, 1982). Due to the scarcity and unreliability of surface water, this system relies on the use of boreholes and drilling for groundwater. Traditionally in rangeland areas, small-scale cattle farmers erect cattle-posts, which according to colonial legislation stipulated they had to be approximately 8km apart. These cattle-posts consist of a

borehole surrounded by the kraal and adjoining houses. Kraals are thorn bush lined or fenced enclosures erected around the borehole or waterpoint. Infrastructure costs are generally minimal but do vary between communities and individuals (Perkins, 1995).

The traditional systems of cattle-keeping have had a long history of criticism by various authorities. From the 1970s, a number of ecological reports arose relating to the environmental degradation of communal rangeland in areas of Eastern Botswana and the Kalahari (Blaikie, 2006). Cattle-posts were criticized for this ecological deterioration due to instances of illegal borehole drilling, overstocking, over-grazing and the impacts these systems have on wildlife populations (Williamson & Williamson, 1984; Cooke, 1985). The result of this was a widespread perception amongst local authorities that the majority of communally owned areas were undergoing widespread deterioration as a result of livestock-related activities. This perception dates back to Colonial reports by District Administrators who widely reported: "the urgent need to destock and conserve rangeland if the inevitable collapse of grazing systems and subsequent population upheaval was to be averted" (Perkins, 1995: 506).

As a result of these growing perceptions, the TGLP of 1975 was initiated followed later by the implementation of a fencing component of the National Policy on Agricultural Development (NPAD) of 1991. These policies advocated for the creation of commercial ranches in designated in various sandveld areas to replace traditional cattle-posts. Commercial ranches were considered to be perimeter fenced areas, with internal paddocks and systems of rotational grazing and water reticulation. These ranches were allocated by the state and managed on a 99-year lease (Perkins, 1995). Blaikie (2006) identified the ways in which Hardin's (1968) theory on the Tragedy of the Commons can be used to understand the degradation of Botswana's communal-land areas. This degradation has been used to justify the creation and expansion of commercial cattle ranches which serve to replace traditional cattle-posts. The administrators guiding these processes advocated for the idea that communities could not manage local resources and, therefore, the privatization of land was required. Privatization was done through fencing processes and the exclusion of local cattle from grazing in these areas. These processes of rangeland invasion served to dislocate the

community from their land and made them invisible in local land management processes (Blaikie, 2006).

The Impacts & Experiences of the KAZA's Expansion

The shifting boundaries of the KAZA have meant that the areas that have been integrated are being re-valued for their conservation potentials, particularly in relation to the establishment of wildlife migration routes. However, these processes have served to exacerbate existing tensions over land use or resource access in the area. The following sections examine the dynamics of increasing resource restrictions, land use and human-wildlife conflicts and fencing contestations experienced by communities in the area.

Increasing Resource Restrictions

The Botswana government has placed a strategic national focus on the development of a tourism industry based on wildlife conservation. Botswana's prioritization of conservation in line with the expansion of conservation estates such as the KAZA has meant modifying local resource management structures and tightening resource use and access for local communities within the TFCA. In doing so, the KAZA's governance has impacted on the CBNRM system that was initiated in Botswana in 1993 with the aim of natural resource conservation, particularly focused on wildlife and reducing levels of human-wildlife conflict.

CBNRM was first initiated in Botswana in 1993 with the registration of the Chobe Enclave Conservation Trust (Mbaiwa, 2015). Initially, and in the absence of integrated legislation at the time, CBNRM was overseen by the DWNP in conjunction with various Land Boards, District Councils and other interested parties. Therefore, CBNRM projects were carried out in the form of wildlife-based management in demarcated WMAs (Swatuk, 2005). WMAs are either designated for commercially controlled use such as for hunting or photographic safari activities, or community-controlled activities (Hitchcock, 1999; Twyman, 2000). Community CHAs can be utilized in various forms of natural resource, however, the majority of these CBOs tend to form joint venture partnerships (JVPs) with the private sector. JVPs was a model developed by the Department of Wildlife & National Parks (DWNP), which allow CBOs to sub-lease their concession areas to private sector entities such as safari companies.

In return, the trust and its community receive a rental income for the CHA and various employment opportunities (Cassidy, 2000; Mbaiwa, 2015). In 1997, CBNRM initiatives were broadened beyond wildlife use to include the management of historical sites, scenic landscapes, veld products, and other natural resources. This broadening of the resource base was formalized in the 2007 CBNRM policy (Centre for Applied Research, 2016). This new CBNRM policy also represented a major shift in the distribution of benefits obtained from resource management. Firstly, it introduced a national conservation fund, in which 65% of the income obtained by CBOs was to be allocated. In addition, the policy gave additional regulatory power to district councils and central government particularly that of the Ministry of Environment, Wildlife, and Tourism (MEWT) (Hoon, 2014; Mbaiwa, 2015). In essence, this policy served to recentralize Botswana's resource management and curtail local management capacities. By 2005, several aspects of decision-making for CBNRM had been transferred from the DWNP to the Botswana Tourism Board (BTB), a parastatal organization created for the purpose of marketing tourism and the enterprise development of Botswana's growing ecotourism industry.

Despite the 2007 policy changes to refocus the CBNRM resource base on non-consumptive resources and centralize authority in the eco-tourism industry, the majority of WMAs remained focused on wildlife management. In 2012 hunting was recorded as the dominant CBNRM activity with over 45% of CBOs involved. After the imposition of the national hunting ban in 2014, many CBOs attempted to diversify their activities to focus on agricultural and cultural activities. However, it has been noted that the frequency of ecotourism involvement has not increased (Centre for Applied Research, 2016). In 2015/2016 there were 147 CBNRM CBOs created, of which only 53 were active (**Figure 6.2)**

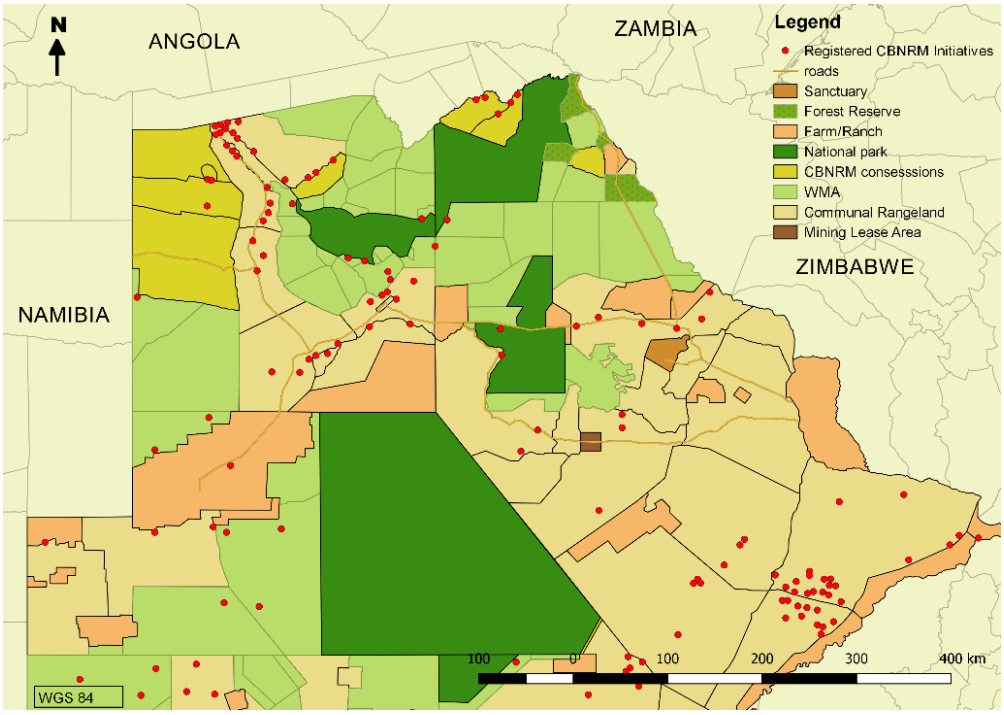

Figure 6.2 Location of CBRM Initiatives in Botswana

(Source: Created using data from USAID, 2016 & Mbaiwa,2015)

There are eight CBOs which are located and operate within the study area. These are *the Botlhale Jwa Phala Trust, the Gaing-O Community Trust, Gweta Community Trust, Nata Conservation Trust* and the *Sepako Quota Management Committee*. These CBOs engage in several forms of resource management, but with levels of activity and engagement varying between areas and communities. The expansion of the KAZA's conservation footprint and the more recently imposed ban on hunting by the Botswana government are being understood by many of these CBOs as part of a long line of coercive conservation, that serves to separate local people from utilizing their surrounding resources (Group Interviews; personal communications).

Hitchcock (1995) traced the ways in which both colonial and post-colonial state conservation policies have affected the Tyua located within the study area. These policies were aimed at increasing state control over resources such as wildlife and salt from the pans, at the expense of local community access. Botswana's CBNRM system served to pursue an even greater tightening of resource utilization for CBOs in the last decade. Prior to 2014, hunting quotas for wildlife were allocated to communities by DWNP on an annual basis. Many have

attributed this wildlife quota system as a critical component behind the success of Botswana's CBNRM systems, whereas others have viewed the creation of the rigid Trust system and their quota allowances as a means of reducing the availability and amount of wildlife obtainable for local communities (Mbaiwa, 2015). Furthermore, official attempts to encourage communities to form Trusts were seen as an added attempt to deprive individuals of land and resource access (Blaikie, 2006).

Prior to 2014, several communities leased concessions in CHAs located to the north of Nata and Gweta. Many individuals were also involved in work within the commercial hunting industry employed as trackers, skinners and camp staff (personnel communication group discussions; 17/01/2018). These former CHAs were largely located in outlying rural areas whose possibilities for developing photographic tourism are far less lucrative than that of leasing the land for hunting quotas – "no-one wants a hundred thousand hectares of Mopane, nobody except the hunters" (Community Representative; personal communication, 18/01/18).

These concerns and objections to the hunting ban and other restrictions have been raised by several community organizations at forums such as the annual CBNRM forum. This is due to a number of reasons relating to declining livelihood opportunities and income decline. There has been concern that the hunting ban will cause a significant income decrease for a number of CBNRM projects and their communities. The annual CBNRM reports echo this, depicting that consumptive tourism which includes safari hunting, creates more money for communities from CBNRM activities than non-consumptive tourism (Mbaiwa, 2017; Mbaiwa, 2012). In the 2009 CBNRM status report, Johnson (2009) argued that there would be consequences of the hunting ban for communities which have become accustomed to selling hunting quotas to safari companies or professional hunting outfitters. These quotas have in the past been sold for large sums of money, most in excess of P1 million a year. However, the ban would mean these communities would now lose this important source of income. There are widespread feelings amongst these communities that hunting was simply banned without a suitable income replacement: "The government took away hunting and replaced it with nothing." (Community representative; personal communication, 18/01/18). The *Socio-Economic Baseline Study for the KAZA has reflected these concerns* highlighting the way in which 'wildlife' is considered to be the most restricted resource for communities in the TFCA

followed by river and forest resources, with water being the least restricted (Glatz-Jorde et al., 2014).

A significant off-shoot of this ban are the restrictions it has posed on access to 'bushmeat'. *Bushmeat* is an African term that relates to all wildlife species used for food (Bennet et al., 2006). It has been an integral part of the African culture and has extensively been used as a coping and survival strategy at different intensities in many parts of the continent (Mbotiji, 2002). In other parts of Africa, particularly West and Central Africa, a 'bushmeat crises' has developed due to overhunting and unsustainable utilization posing threats of wildlife extinction (Robinson & Bennett, 2002; Bennet et al., 2006; Lindsey et al., 2013; Mbotiji, 2002). As such, bushmeat hunting is often perceived as an unsustainable practice that is threatening biodiversity (Rogan et al., 2017). Botswana has not faced the same 'bushmeat crisis' as experienced in other parts of Africa. This is possibly attributed to Botswana's controlled system of wildlife hunting quotas. Despite this, the use of bushmeat in Botswana has still been criticized by conservationists for its contribution to poaching, biodiversity decline and effects on wildlife numbers as well as transmission of disease (Rogan et al., 2015). However, Botswana's ban on hunting bushmeat and quota hunting played an important role in many communities' food security. When discussing the Botswana government's decision to ban hunting many individuals suggested some leniency or allowances should have been given to local communities:

> So ok, let's say no elephants that's fine, they lose a tremendous amount of revenue, but I mean there are impala, there are kudu, there are buffalo, there are other populations of animals out there that are increasing tremendously, and I think there could be given quota for game meat, in compensation for the losses from hunting. But nothing has been replaced, the government has just said – 'no you must just do photographic safaris' (Community Representative; personnel communication 24/01/18).

The paragraphs above demonstrate the complexities of equitable resource management being experienced in the study area. A number of academics have traced the ways in which power asymmetries and structural conditions within the TFCA framework have served to work against the development of appropriate institutions for local conservation by local actors themselves (Neumann 1997; Zerner 2000; Duffy 2002; Brosius and Russell 2003; Wolmer

2003). Similar land and resource dynamics have emerged in various forms in TFCAs across the region. Spierenburg et al. (2008) has examined different experiences of local communities living within the Great Limpopo TFCA (GLTFCA) in Mozambique and South Africa. Their research highlights how the institutional arrangements of national governments, wider networks of national and international NGOs as well as private companies have shaped the experiences of communities in the TFCA. Like that of KAZA, these arrangements have left communities - particularly those on the Mozambican side of the TFCA with very little bargaining power to engage with resource management practices. This combined with greater restrictions on land use and the increased wildlife presence is threatening their livelihoods (Spierenburg, et al. 2008).

Cumming (2011) has described how within TFCAs in the region, existing policies by states are serving as major constraints to effectively manage resource access in communal-land areas. This is largely a result of conflicting policies and agendas by competing actors including state departments, ministers, conservation NGOs and aid organizations. Even within the environmental sector, resource management authority is divided across a number of separate state departments such as wildlife, forestry and fisheries. The result is often a confusing and sometimes conflicting resource management regime, which prohibits communities in the TFCA from accessing or managing resources in a holistic way (Metcalfe, 2006; Metcalfe & Keep, 2008).

Resource Conflict Over Grazing & Water Resources

The following section analyses the land use conflicts arising within the expansion area in terms of access to land and water resources. These conficts have arisen from long-standing contestations between conservation and agricultural activities. but are being exacerbated in the expansion area where land is being reprioritized for its conservation and tourism potential. Because cattle-keeping is the primary livelihood activity in the area, communities tend to be highly reliant on access to grazing and water sources. Within the study area competition for access to these resources is made more prominent by the arid environmental conditions creating surface water scarcity as well as poor soils. This competition has been made more prominent in the KAZA where the changing conservation agenda has meant land is prioritized for wildlife rather than agricultural activities.

An example of this can be seen in the creation of the Nata Bird Sanctuary, a community-run conservation project in the area. A critical feature of the sanctuary's creation was the conversion of communal land to 'protected land' when the bird sanctuary was established, which resulted in the loss of cattle grazing-land for the communities in the area. Although the income generated from sanctuary is utilized by the community, the loss of land is a contested issue. Group discussions in Nata indicated an apprehensiveness towards the sanctuary as a result of the perceived loss of land. Some members felt the land would be 'more useful' if the community were able to use the land for cattle instead. Similar narratives are depicted by Stone & Rogerson (2011), where respondents in Nata perceived that the sanctuary 'took their land' from them without their will. In the areas of Maposa, Mmanxotae, and Sepako, respondents expressed feelings that they did not 'own' the land, due to where the project was situated and as a result, the land was 'owned' by the Nata community. Therefore, that resulted in the Nata community alone having the decision on how to use the land. These perceptions of apprehension or antagonism towards the community conservation project can be traced to the communities' involvement or lack thereof within the CBO processes and the benefits they receive from this.

Within this research, the Nata Bird Sanctuary is just one example of a site of contested land use or ecosystem services in the study area. When looking at the issues of access to grazing and surface water for livestock, increasing pressure can be seen between wildlife and human needs. These issues are being accentuated in the communal-land areas of the KAZA where conservation agendas are increasingly important and more heavily enforced. The result of this is that conservation is being progressively prioritized in projects and plans for land use in the area, resulting in even greater contestation about the way land is used and distributed. Emerging land use conflict as a consequence of the prioritization of conservation has been illustrated by academics in other TFCAs in the region (Jones, 2003; Whande, 2007; Spierenburg et al., 2008; Sinthumule, 2014; 2016). For example, Sinthumule (2016) explores the complexities of multiple land uses in the Greater Mapungubwe TFCA. Within this TFCA, the transformation of land use for the purposes of conservation has placed increasing economic and social pressures on farmers and local communities. These land use pressures are coupled with increasing wildlife in the area resulting in greater instances of livestock loss, crop damage and human/wildlife conflict.

Human-Wildlife Conflict

The section below examines a second form of land use conflict being experienced in the study area between people and wildlife. Across Southern Africa TFCAs there is increasing competition for land and resources as human populations grow and the impacts of the human-wildlife interface on communities, crops and livestock increases (Hanks, 2003). A key challenge for the study area and its communities is the human-wildlife conflict (HWC), particularly relating to elephant populations.

When asked about land use conflict and issues in the area, the majority of community members interviewed cited an increasing elephant presence as a major problem, "now they [the elephants] are getting worse, because they are everywhere" (Nata resident; personal communication; 17/01/18). Antagonism relating to elephant presence in these areas largely relates to issues of crop destruction, property damage and the perceived threat of life. When discussing with the Department of Wildlife what the biggest land use conflicts were in the area, the response also indicated an elephant problem:

> Elephants- due to crop damage, especially during ploughing season after ploughing season they come into the fields and destroy the crops. Even during the dry season, they come around, if you have something like a borehole in your field, or the big jo-jos [water tanks]. The elephants come and break the jo-jos to find water (DWNP Officer; personal communication, 17/01/2017
>
> What we are seeing is that elephants are now moving within the villages. Those people who are ploughing, those animals are destroying their fields, and the compensation is little (Traditional Authority; personal communication, 17/01/18).

A general sense of anger and frustration is present amongst all the communities in the study area due to costs of crop damage implicated by elephants:

> They [the community] are so much frustrated, so much they decide not to plough. Because even if they plough the animals destroy the fields and they are given nothing (Traditional Authority; personal communication, 17/01/18)

The context of increasing conflict between an elephant and human populations in the area is a complex situation exacerbated by a number of factors. Firstly, there is the case of actual increases in elephant populations in the area, however, there is also a context of 'perceived increases' as a result of the hunting ban and the increasing interface between human settlement and wildlife. This is coupled with a 'flawed' compensatory system as a mitigatory scheme to deal with the conflict.

With regards to the measurement of actual elephant population numbers, approximately 10 aerial surveys have been done in northern Botswana from 1993 up until 2010. The survey by *Elephants Without Borders*' in 2010 reflects that:

> *Elephant population estimates derived from the nine aerial surveys suggests that northern Botswana's elephant population increased during the early 1990s. From 2004 however, elephant population estimates in Chobe and Ngamiland have remained similar or declined respectively in the protected areas within the two districts. This suggests that the elephant population has remained stable. Elephants were found however to have increased significantly in Makgadikgadi and Nxai Pan National Parks. During the survey only bull elephants were observed within Makgadikgadi NP, therefore, this increase suggests a recent dispersal of bulls occurring towards the Boteti River where elephants have been expanding their range west towards the central Kalahari and Kwebe hills* (Chase, 2011: 20).

This research highlights how a dispersal of the elephant in the KAZA has occurred in recent years, from the highly concentrated areas of the Chobe and Ngamiland to the areas in and around the Makgadikgadi and Nxai Pans. Similarly, Botswana's elephant management policy states that between 1997 and 2002 there were on average 150 cases of HWC reported per year, most of which came from the Central District (not the Ngamiland or Chobe Districts known for traditionally high elephant populations) (MEWT, 2003). These statistics indicate a growing number of elephants becoming increasingly present in the area. Contributing to these tensions is the possible implications of Botswana's hunting ban on an already increasing elephant population:

> Our elephant population is increasing at maximum, to the point where elephants are now popping up in Gaborone and the Kalahari…….and now they've taken elephant hunting away (NGO Affiliate; personal communication, 24/01/2018).

> The problem is getting worse, especially, you see we used to have hunting. I think the hunting was closed in 20 – 2014, I think it was 2014. Since that time the number [of animals] has increased. I think hunting was important because it reduces numbers, because some elephants were hunted and other species were. Since hunting stopped the problems, especially the number of elephants they are everywhere. Even in areas where we used to not have elephants we are experiencing them. They have increased! (DWNP Officer; personal communication, 17/01/18).

Current monitoring to measure the effects of the hunting ban on both elephant populations and local communities is limited and difficult to gauge. However, it is not the elephant population increases alone that are attributing to the conflict in the area. A third factor contributing to conflict is human population increases and rural sprawl in the area. Rural sprawl refers to "a tendency of rural populations to start new settlements to access land for crop cultivation or livestock production" (Van Der Post, 2004: 125). Rural sprawl is driven by increased population growth where the 'opening up' of new areas are used to absorb various pressures and environmental stresses, by expanding the area available for cultivation, grazing or employment (Van Der Post, 2004). Rural sprawl has been prevalent across Botswana in recent years, whereby settlements are expanding into areas previously utilized, particularly concession areas formerly used for hunting.

> Human/wildlife conflict has increased, but it depends on what time-scale your talking about, but its increased largely because largely because the interface between human settlement and wildlife has increased, particularly in Botswana: (NGO Affiliate; personal communication, 24/01/18).

> I am not convinced though that the wildlife conflict is a factor of KAZA. I think it is a factor of more people - our population has grown and we have moved into areas where people weren't before and wildlife was. In actual fact I don't think it's the KAZA corridors that have increased wildlife conflict, I think its people – people have increased wildlife conflict by going into these areas (Community Representative; personal communication, 18/01/2018).

> People are now putting crops in where there didn't used to be crops before. So now the government is being hit with all these compensatory claims, whereas before those compensatory claims, that have always been available, didn't materialize because the people weren't there (Community Representative; personal communication, 18/01/2018).

In response to damages incurred from wildlife, the Botswana government applies a policy of monetary compensation. Botswana is the only member of the KAZA, as well as the entire SADC block to employ a system of state-funded compensation for wildlife damages (Hemson, 2003). The concept of compensation originated from British Colonial administration, whereby farmers and landowners were given permission to kill animals that caused damage to people or property. The resultant trophies from these activities were considered the property of the colonial administration or the customary authority if occurring in tribal land areas. In return, the farmer would be paid a monetary compensation by the colonial administration for their efforts. Post-independence, this policy was continued through the Fauna Conservation Act, but was amended in 1979 to allow farmers to kill wildlife if they threatened livestock, crops or infrastructure and they could keep or sell the skin and meat (De Motts, 2012). However, this provision resulted in a number of abuses in which wildlife was often killed without reason or higher value trophy animals targeted as opposed to those that actually caused the damage (Neme, 1995). As a result, the DWNP later introduced a system of monetary compensation to farmers. Farmers are therefore no longer permitted to kill problem animals when damages occur. These policy changes not only indicated the growing importance of wildlife value in terms of tourism, but they also demonstrated how wildlife has historically been understood through narrow incentive-based interactions guided by top-down policies (De Motts & Hoon, 2012).

In terms of the DWNP policy, people who have suffered losses from certain wildlife species[3] can claim for compensation for damages incurred on property, crops or livestock. However, these payments do not cover the full extent of the damage and are generally to the value of up to 80% of the loss (DWNP, 1998). When these damages have occurred, individuals must

[3] Species compensated for in terms of NWNP policy: leopard, lion, elephant, rhinoceros, buffalo, crocodile, spotted hyaenas and wild dogs (DWNP, 1998).

apply for compensation and a process of evaluation is carried out. There are a number of practical difficulties relating to the execution of evaluation systems causing the process to be lengthy and time-consuming. Not only does this result in local perceptions of the DWNP as being unhelpful to communities, but also distrust of the process of monetary compensation (Bendsen 2005a, 2005b).

> It's giving us a headache. I don't know what can be done, because even if the government is paying compensation it is not enough. The money sometimes finishes, like for now the last time we paid was in October. The government does not have enough money for now (DWNP Official; personal communication, 17/01/2018).

There is also a widespread perception that when compensation is paid, the money is insufficient to cover the costs of damage; "This thing of compensation, the farmers are not in good terms with it. They feel the compensation is not enough" (DWNP Official; personal communication; 17/01/2018). These complaints often feed government suspicion of exaggeration, where Wildlife officials comment that local residents exaggerate losses and at the same time local residents' frustrations become criticisms of the resource management and conservation policy.

Aside from compensation schemes, means to manage HWC are generally limited. Several methods of wildlife deterrence have been encouraged such as olfactory deterrents and targeted fencing strategies.

Olfactory deterrents (chilli methods): e.g. the use of chilli-based olfactory repellents to deter elephants from entering crop fields or human habitation should also be opportunistically used on cheap fencing that uses sisal string strung between bush-cut poles or existing trees surrounding crop fields (KAZA Affiliate; personal communication, 07/02/2018).

> The government has some mechanisms – like do you know this thing – the chili pepper. The government has introduced that we teach farmers how to use chili-pepper, it's also a method than can be used to scare away elephants. But sometimes farmers do not agree with that, they just feel it's a waste of time. Because for you to use that chili-

> pepper you need to be staying at your fields. After ploughing you have to stay at your field so that when they come you sue this chili-pepper to scare away elephants. Sometimes you'll find that most of the farmers round here they just plough the fields and then they stay in town. The elephants then come at night when there is nobody there and they destroy their fields (DWNP Official; personal communication, 17/01/2018).

Targeted fencing: by using Model 3 fencing (four-strand electrified fence) encircling clusters of villagers' crops and facilities would intuitively be the most desirable fencing that could be adopted in the KAZA TFCA, as part of an integrated approach to mitigating human-elephant conflicts. But its success will depend on the sustainable mechanisms for regular maintenance and prevention of vandalism (KAZA Affiliate; personal communication; 07/02/2018).

There are also several examples of more localized methods being employed by communities as a means of trying to cope with the wildlife conflict in the area. For example, the use of kraals or paddocks to protect livestock made of thorn bush or mopane branches, wire or gum-poles (personnel observations). Interviews with people from the communities in the study area carried out by Hemson (2003) highlighted the ways in which people employ the use of herders or dogs to protect kraals from predators. They may also light fires or use torches, firearms, pots and pans to deter wildlife. Hemsom (2003) also described less orthodox methods employed, for example some farmers stated the use of black Polyvinyl chloride (PVC) piping on the ground was effective, as lions and other predators would not step over it thinking it was a snake. Other reports claimed the use of animal-part and plant mixtures placed in trees or buried around the kraal would deter animals (Hemson, 2003).

The Separation of Land by Veterinary Fences

This section examines a third form of land use conflict arising in the areas related to the presence of veterinary fences used to control wildlife movement. These fences have been used to separate wildlife and cattle in order to contain the spread of disease. However, with the expansion of the KAZA and its focus on enabling wildlife dispersal routes, these fences are now being even more contested by the conservation agenda of the area.

The construction of fences is generally used for people to define land ownership and to control access (Boone & Hobbs, 2004). Across this portion of the KAZA fences, 'veterinary cordon sanitaires' or 'buffalo fences' have been erected to separate wildlife such as buffalo which are known for transmitting foot-and-mouth, as well as other species separate from cattle populations. As mentioned in Chapter 4, these fences have served to interrupt the migratory routes for many large mammals resulting in the major decline of many species such as zebra, wildebeest and hartebeest.

As can be seen in **Figure 6.3** below, Botswana is criss-crossed with a myriad of veterinary fences. Within the study area, the 100km long Nxai Pan Buffalo Fence was built in 1968 which splits the existing PAs from their neighbouring communal rangelands (Albertson, 1998). The fence has now been decommissioned and around 30km removed and is no longer maintained as a veterinary fence (Albertson, 1998; Keene-Young, 1999). This decommissioning of this particular fence is a result of the stagnation of Botswana's beef industry and the decline of exports in recent years. Prior to 1975, preferential access was given to Botswana beef which allowed for duty-free access to the EU markets (Dunlop, 1999; Solignac-Lecomte, 2001). However, in 2011 these agreements were dismantled, halting exports to Europe but the agreements to resume these imports are ongoing (Selekaa & Kebakileb, 2017). From the 1970s, the beef industry has been in steady decline, overtaken by the chief export of diamonds in the late 1970s and by tourism (Mbaiwa, 2005). However, despite these economic changes and the lessening need for veterinary fences, they continue to stay in place. Regardless of the Nxai Pan fence's decommissioning, the goal of separating livestock from wildlife remains intact.

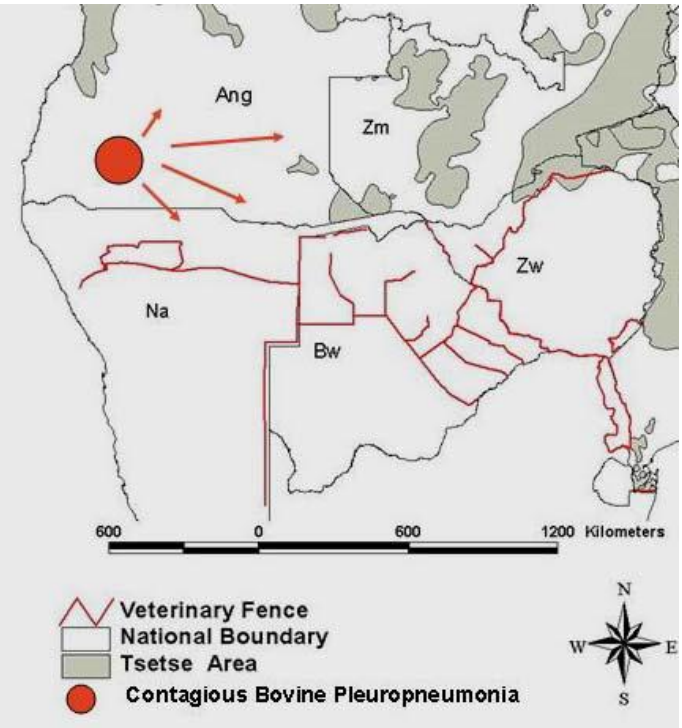

Figure 6.3. Distribution of Major Cordon Sanitaire (veterinary fences) in the Region

(Source: Cumming, 2008)

The Botswana Government has been criticized both locally and internationally for the continued presence of the veterinary fences which criss-cross across the country's communal-land areas. Many researchers have noted that the presence of the fences conflicts with Botswana's national development priorities for conservation and tourism (Perkins, 1996; Anderson, 1998; Boone & Hobbs, 2004; Mbaiwa & Mbaiwa, 2006). However, the fact is that these fences were a direct result of the EU's insistence on the control of foot-and-mouth disease and so were a mandatory pre-requisite for access to this market and continued beef subsidies has often been ignored or given little recognition during most debates (Perkins, 1996).

Although these fences and systems of disease control are not directly associated with the KAZA, they have had a significant impact on the operation of the KAZA systems (Cumming, 2008). The fences also conflict with the key objectives of the KAZA:

> The veterinary fences are not complimenting the trans-frontier conservation area initiative because in the trans-frontier conservation area initiative you need to have free access of wildlife and most of the veterinary fences in my opinion don't serve a purpose (KAZA Secretariat; personal communication, 11/01/2018).
>
> Connectivity within transfrontier conservation is one of the aspirations of the five countries, but now if we continue to have the veterinary fences they are going to block that free movement and also I think that they will reduce the opportunities of the communities of the benefits they could get from those areas because there are tourism opportunities in those areas (KAZA Secretariat; personal communication, 11/01/2018).

The dismantling of Botswana's veterinary fence network has been recommended by conservationists for a long time, however, it has become more prominent with Botswana's national focus on eco-tourism in recent years. For example, work by the Kalahari Conservation Society (2005) demonstrated how the dismantling of parts of the Nxai Pan and the Setata Fences have the potential to significantly increase wildlife in the area by reducing instances of herd separation, entanglement, stress and death. Cumming (2008) argued that the continued presence of these fences is likely to heavily impact the KAZ, its corridors and its adaptive management strategies to cope with environmental changes.

The prospect of removing Botswana's veterinary fences must be examined in the context of the constant struggle to balance conservation, cattle-keeping and rural livelihoods in Botswana's portion of the KAZA. The removal of veterinary fences in the area would benefit conservation in terms of facilitating migratory routes and potentially bolstering wildlife numbers. However, their removal would also mean greater numbers of wildlife in communal-land areas. There are also risks for diseases associated with the removal of these fences. There are a variety of diseases carried by wildlife that can affect domestic animals and people KAZA region such as trypanosomiasis, rabies bovine tuberculosis, cysticercosis, rift valley fever and echinococcosis (Renwick et al., 2007; Cumming, 2008; Steverding, 2008; de Garine-Wichatitsky, 2010). For example, contagious bovine pleuropneumonia was introduced as a disease that is now endemic across Angola and whose spread poses a particular risk for this region (Windsor & Wood, 1998; Mangani, 2007; Musisi et al., 2007; Amanfu, 2009). Within the context of the spread of disease, it is also important to consider to

what extent climate change may impact and alter the current distribution of diseases across the region as well as influence the emergence and spread of new zoonotic diseases (Cumming, 2008). The complex interactions between communities, patterns of land and resource use, wildlife, disease and resistance have the potential to be major drivers in influencing the sustainability of the KAZA.

The Benefits of the KAZA for Communities

The culmination of resource restrictions, land use conflict and HWC in the area has raised questions around the benefits of being part of the KAZA and conservation for local communities. The following sections examine the current debates around the 'perceived benefits' from living in a conservation area, or lack of them as they were felt by communities living in the study area. To do this it firstly examines the intended benefits of expanding the TFCA that have been used by the KAZA to leverage support for its territorial expansion. It then goes on to look at discrepancies between these intended benefits and actual outcomes occurring in the area. These discrepancies include a lack of leadership and capacity building, greater instances of land use conflict and difficulties in infrastructure development.

The Intended Benefits

TFCAs have been envisioned as conservation initiatives that promote sustainable forms of land use, that result in the generation of income for local communities (particularly from tourism) and the resultant reduction of poverty levels (Barnes, 1998). The KAZA's mission laid out at its initiation reiterated the intentions to achieve "best conservation and tourism models for the socio-economic well-being of the communities and other stakeholders in and around the eco-region" (KAZA TFCA, 2014: 81). The livelihood benefits for those living in this 'eco-zone' are envisioned to come from the various CBNRM programs in each country, that encourage both the community empowerment over land and natural resources, as well as the development of strong local institutions that can engage with larger initiatives in sectors such as tourism (Murphee, 2008). CBNRM is perceived as a means to achieve local involvement in sectors of tourism and resource management by allowing for the devolution of the natural resource management process. This requires a process whereby power and responsibility are transferred from the state's central command and controls systems to that of

local scale actors such as communities (Ostrom, 1990; Bromley, 1992; Boggs, 2000). The KAZA places a heavy strategic focus on engagement with local communities and the development of various partnerships as a means of enabling effective resource management. This can be seen in objectives (a) and (c) of the KAZA Treaty (KAZA TFCA, 2011);

a. Promote alliances in the management of biological and cultural resources and encourage social, economic and other partnerships among their Governments and stakeholders;
c. Develop mechanisms and strategies for local communities to participate meaningfully in, and tangibly benefit from, the TFCA.

This is reiterated in the IDP for the Botswana Portion which identifies community-area development as a programmatic area for project focus, along with PA management and cross-cutting projects to link conservation and development areas (MEWT, 2013). These aspirations to use CBNRM effectively to govern resources within the TFCA and promote tourism have been used to leverage local community support for the expansion of the KAZA:

> We were told that the free movement of the animals will benefit the communities, and they will have those partnerships and tourism, game drives etc. (Traditional Authority; personal communication; 02/01/2018).

However, across a number of communities in the KAZA both resource rights and local institutions remain weak, resulting in limited capacity to effectively manage resources or engage in private sector activities such as tourism (Suich, 2008; Mbaiwa & Stronza, 2010; Mbaiwa, 2017). The next section analyses the disparities occurring within the newly expanded areas of the KAZA between the intended benefits of the TFCA and actual outcomes.

Local Capacity Building & Project Support

Despite this focus on community engagement laid out in the KAZA policy and objectives, the actual engagement between the KAZA and communities in the study area remains limited with little face-to-face interaction taken place. There are several CBNRM projects in operation within the study area through CBOs in the various villages. Some of the CBOs within the study area did engage in various forms of conservation, resource management or tourism activity in order to generate income.

The Nata Bird Sanctuary is one of the more significant partnerships within the area, run by the *Nata Conservation Trust*, formed by the communities of Nata, Maposa, Sepako and Mmanxotae. The sanctuary is an area of approximately 230 square kilometers, established in 1988 and operationally opened in 1993 with the aim of wildlife conservation. The primary focus of the initiative was that of birdlife conservation and attracting tourism to the 165 different bird species that have been recorded in the area, which includes large groups of migratory lesser flamingos, greater flamingos, and great white and pink-backed pelicans (Stone & Rogerson, 2011). Income from the sanctuary is generated from tourist entry and camping fees as well as donations from organizations such as the Botswana Tourism Organization (BTO) (NATA Sanctuary Official, personnel communication; 02/01/2018). The income generated is distributed across the four villages according to the proportion to each village's representation on the Board of Trustees.

Another functioning CBO is the *Gain-O Community Trust*. This trust operates from Lekhubu Island, a heritage site located within the Makgadikgadi pans near Sua Pan, consisting of a raised rock outcrop on the pan surface. The island is characterized by a small colony of baobab and African chestnut trees (Riedal et al., 2012). Historically, Lekhubu is believed to have been used for spiritual and other ritual purposes by different ethnic groups in the Boteti area. The campsite is run by the *Gaing O Community Trust* which was established in 1997, largely by the community of Mmatshumo and surrounding villages. The intention of this trust is to act "as a vehicle to manage and derive benefits through sustainable utilization of natural resources" (Gaing O Community Trust website, n.d.). Among the reasons given for developing a community-based tourism venture at Lekhubu Island was the continued uncontrolled visits to the site by tourists, resulting in disturbance and degradation to the resources. The result was that the community felt free access to the site deprived them of potential economic benefits from visitors. As a result, the *Trust* was created implementing camping fees to visitors in return for management and upkeep of the area (Lenao, 2017).

Both of these CBOs as well as others in the area operate without any assistance, funding or general interaction with the KAZA institutions. When interviewed many of the Trust officials stated they had no knowledge of the KAZA or its operations (*personnel communications*).

These CBOs do however receive support through BOCOBONET, an umbrella organization for CBNRM initiates in Botswana, and receive technical and financial support from the government, local NGOs and international cooperating partners (ICPs). When discussing the integration of the Nata area into the KAZA, the following response was offered by a community leader:

> The Nata Conservation Trust which was supposed to benefit, because it represents four villages: Nata, Maposa, Sepako and Mmanxotae. So we are expecting the trust to benefit something out of the KAZA relations, but there has been nothing (Tribal Authority; personal communication; 02/01/2018).

Similar concerns have been raised from other communities in the area. They cited disappointment with the lack of official engagement or presence of the KAZA representatives with communities and CBOs in the area. "Nothing has happened, and we don't even know if the KAZA plans are still existing" (Tribal Authority; personal communication, 02/01/2018). When asked about projects and strategies for the area, another community-leader joked that the KAZA Secretariat may have forgotten that their community was integrated into the KAZA, because they have not seen anyone from the KAZA since its inauguration (Tribal Authority; personal communication, 02/01/2018). These testaments reflected a lack of communication between local level actors and the TFCA operations at larger scales. This absence in engagement has also translated into a lack of capacity building occurring in the area.

Although a focus of developing CNBRM projects was mentioned across both the KAZA Master IDP and the IDP for Botswana as well as many supporting documents, the actual means of support is not mentioned. The community-area projects identified in the IDP makes reference to the development of management plans for communal land, as well as the business initiatives in these areas. However, these do not relate directly to CBNRM or resource management projects, and, of the individual projects mentioned none are located within the study area. This lack of focus on CBNRM development in the newly integrated communal areas of the KAZA was reiterated in the *Operational Plan for 2016 and 2017*, where regional project results for Botswana focused on facilitating tourist access to PAs such as the Makgadikgadi, tourism-diversification projects and the creation of management plans in tourist orientated areas such as the Kasane forest reserves. Although 'supporting

communities to develop income generation through conservation enterprises' is mentioned as the 7th result, this has been largely focused on areas in and around existing PAs in Chobe and Ngamiland areas (KAZA TFCA, 2017).

Support with Land Use & HWC Conflict

The lack of capacity building in the area was clearly seen in the struggle to cope with the increasing pressures on land use and HWC. A key challenge for the functioning of CBOs and resource management projects in the study area related to contestations over land use and the ability to effectively manage resources.

Both the IDP for the Botswana Portion and the Master IDP for KAZA made reference to the prevalence of land use conflict in the study area with regards to integrating conservation and communal rangeland. The MIDP states that the current land uses are conflicting and incompatible and are increasing instances of resource competition and HWC (MEWT, 2013). The KAZA describes the mosaic of grazing and conservation land in the study area as largely incompatible, "the areas of greatest incompatibility are livestock ranching and wildlife dispersal" (KAZA TFCA, 2014: 61). Habitat fragmentation as a result of fences and incompatible land uses was identified as probably the biggest threat to the effective functioning of the ecosystem that supports the Botswana Component. This incompatibility was a result of farm fences and veterinary cordon fences restricting wildlife movement and competition for grazing and water resources (MEWT, 2013: 26). The increasing incidences of HWC have also been identified as a major constraint to development in the KAZA. "HWC is throughout the area is a significant threat to people's livelihoods and wildlife causing damage……. HWC has tended to impoverish subsistence farmers. Compensation is selective (only damage by five animal species is compensated) and bureaucracy has led to alienating communities' attitude towards wildlife" (MEWT, 2013: 26).

Despite these understandings of the extent of conflict taking place in the KAZA, an acknowledgement that these have intensified in communal-land areas, effective resource management and mitigation plans in the study area remain limited. The IDP for the Botswana Component has identified several projects, as a means of mitigating land use and wildlife conflict in the area (MEWT, 2013):

- The Gwezotshaa Community Trust is proposing game farming in the (NG 51) area as well as trade in veldt products, including Morula
- The establishment of buffer farms along the buffalo fences has been proposed by the KAZA in the Nata & Gweta areas.
- The development of a comprehensive management plan for CT11 has been proposed.
- The development of an agricultural strategy for CH5 (an agricultural area) has been proposed
- The implementation of an approved management plan for the Southern Sua Flamingo Sanctuary.
- The development of an 'Alternative Livelihoods Options Strategy' has been proposed.

However, many of these projects remain in the planning or preliminary phases and the communities and CBOs in the area have no knowledge of the projects or status (group discussions). More broadly, in response to the increasing presence of conflict, there has been an effort by the KAZA to promote the movement of communities away from farming and the consumptive use of natural resources into tourism activities through its CBNRM Policy (Government of Botswana, 2007) and Tourism policy (Government of Botswana, 1990). This is done through the development of strategies such as the KAZA's 'Alternative Livelihood Options Strategy' which focuses on creating institutional structures at various levels to develop alternative livelihood options such as cultural tourism (MEWT, 2013; KAZA TFCA, 2014).

Development Support

The costs of increased wildlife and land use conflict in the study area have been environed to be mitigated through increased tourism and public-private partnerships. As can be seen from the examples of *Lekhubu* and the *Nata Bird Sanctuary*, there are cases of community-based tourism being carried out in the area. However, the number and capacity of these projects are still largely limited to longstanding initiatives that focus on revenue from low-end tourist activities such as camp-sites and entry fees. This lack of development was not due to a lack of tourist presence in the area, as the number of tourists present in the area has steadily increased in recent years (Group Discussions, 03/01/2018).

> "This area is the gateway to the Makgadikgadi…. when I grew up because I was born in the village. When I grew up the people that were coming into the village to tour the Makgadikgadi, I recall they were seasonal. But now from about five or ten years back, it's no more longer just seasonally, it's throughout the year" (Tribal Authority; personal communication, 02/01/2018).

However, despite growing tourist numbers in the area, actual local involvement within tourist enterprises remains limited.

> We were told that the free movement of the animals will benefit the communities, and they will have those partnerships and tourism, game drives etc etc. but nothing has happened, and we don't even know if the KAZA plans are still existing (Tribal Authority, personal communication, 02/01/2018).

> The villages' benefit nothing from this tourism. And again we have the, what can I call it - the safari camps. There are some camps on the south west of the village now if I recall the village, or the community let me say is not gaining anything from the presence of those camps (Tribal Authority; personal communication, 02/01/2018).

This lack of involvement of communities in the tourism industry was largely a result of the type of tourism taking place in Botswana and the lack of capacity of local communities to engage in it. The 2004 survey of tourism in the KAZA by Suich (2008) concluded that of Botswana's population (over one million people) only approximately 5 500 were employed within the tourism industry. In reality, the development of eco-tourism facilities in Botswana is a highly lucid industry, largely dominated by international companies and external funding. Tourism in Botswana has been described as a form of 'enclave tourism', whereby tourism activities are concentrated in outlying areas, but seems to fail to take into consideration the needs and wishes of surrounding communities (Mbaiwa, 2017). The goods and services provided by the tourism industry tend to be out of financial reach of local communities and any foreign currency which is retained tends to be minimal with little effects for the economy of the area (Ceballos-Lascurain, 1996; Mbaiwa, 2005). Enclave tourism has been referred to as 'internal colonialism', whereby the natural resources of a host area are used to mostly benefit outsiders at the expense of the majority of local needs (Drakakis-Smith & Willams,

1983; Dixon & Heffernam, 1991). This was been developed in Botswana through the domination of the tourism industry by foreign safari companies. For example, research by Mbaiwa (2005) highlighted how tourism in the Chobe and Okavango Delta regions was dominated by foreign safari companies and international investors. In these areas 53.8% of all accommodation facilities were found to be owned by foreign companies, approximately 28% were jointly owned, with only 18.5% fully owned by Botswana citizen companies. This translates into foreign companies having an approximate 82% influence of the accommodation market in the Okavango Delta (Mbaiwa 2005a, 2005b, 2012, 2017).

Conclusion

This chapter aimed to demonstrate the complex context within the integrated communal areas of the KAZA, where communities are finding themselves part of a newly defined conservation space. However, they are seen to be acting as bystanders to its processes neither actively participating in conservation nor economically benefiting from its outcomes. This situation has been accentuated by several key challenges being experienced by communities residing in the study areas relating to; difficulties in coping with national resource restrictions, managing land use and HWC. These issues form part of the complex landscape of the KAZA, and are accentuated in these communal areas due to the growing pressures of both urban growth and the newly oriented conservation status of the area. These are also felt more prominently for communities in this area because of the perceived lack of benefits or returns for carrying the costs of conservation and lack of institutional assistance from the TFCA to cope with these issues. In light of these challenges the next chapter will assess some of the emerging consequences of these conflicts for both conservation and communities within this portion of the KAZA.

CHAPTER 7

The Implications of Expansion & Land Use Conflict

The previous chapter examined the context on the ground in this new area of the KAZA, whereby national resource restrictions in combination with land use conflict and a perceived lack of benefits from wildlife have created an uneasy conservation context, between local communities and the TFCA. This chapter examines these relations using literature on land control and primitive accumulation to understand the implications of the TFCA expansion on long-term conservation governance in the region. To do this it will firstly examine process of governance, and the ways in which this has resulted in a loss of local voices in the TFCA rhetoric of resource management in the area. It will then look at how this lack of ground level interaction is serving to embed a dichotic narrative of 'people versus conservation' perpetuating further conflict, affecting both communities and wildlife. In light of these conflicts in the area, the final section then goes on to examine what benefits are being derived from the TFCA's conservation strategy and to whom these benefits are directed.

The Loss of Local Voices

The literature examined in Chapter 2 (Peluso, 1993; Peluso & Lund, 2011; Kelly, 2011) highlighted the ways in which conservation processes such as the expansion of PAs or the development of TFCAs have in many cases served to disempower those living in and around these spaces through various processes of primitive accumulation. This section examines how the implementation of the TFCA's conservation agendas in the study area have resulted in the exclusion of local communities from resource access and management mechanisms. In doing this it assesses how the KAZA's strategy of resource governance remains top-heavy, and the ways in which current CBNRM strategy and community conservation within the area fail to counter this structure. As a result of these governance conditions, there is an overall lack of engagement between local communities and resource management authorities at various scales within the TFCA system.

A Top-Heavy System of Governance

A number of reviews have been done to examine the governance structures and policy of TFCAs in southern Africa (Singh, 1999; Mohamed-Katerere; 2001; Jones, 2008; Cumming, 2011). These reviews all highlighted issues of state capacity, top-down implementation and an inability to harmonize policy as key issues for the TFCAs in the region. Munthali (2007) argued that TFCA creation in Southern Africa has been governed by a top-down approach, dominated by government officials. Stakeholders such as communities, private stakeholders and individuals who utilize the land and resources within the TFCAs have largely been ignored within these development processes (Draper et al., 2004; Munthali, 2007; Spierenburg, 2008; Andersson et al., 2013).

The issue of top-down implementation is one that is particularly prominent in the KAZA. When looking at the KAZA's governance structure, it can be understood that the KAZA Secretariat has been taking on a faciliatory role in achieving the objectives it laid out for its member states:

> The KAZA Secretariat is responsible for facilitating the five development needs of the KAZA; natural resource management, land use, tourism, livelihoods and infrastructure. To achieve these the Secretariat is responsible for facilitating movement and integration between the members states. Although we facilitate different projects and issues between the member states we are not involved in operations within each country. Funding to achieve different development needs is distributed by us to its member states, who are in charge of facilitating all operations at the project level (KAZA Secretariat; personal communication, 11/01/2018).

The role of the KAZA Secretariat outlined in the TFCA's Master IDP is that of development for regional projects: KAZA TFCA Secretariat (KAZA TFCA, 2013: 30) provides support in the following areas, all of which are described in more detail below:

- Securing financing
- Promoting transboundary cooperation and communication
- Encouraging partnerships with existing structures
- Integrating climate change planning into project design

- Promoting good quality monitoring and evaluation

The KAZA Secretariat advises that in terms of management strategy within the TFCA, the responsibility still largely falls on each of its member states to cope with their issues internally. Therefore, within the TFCA structure, it is the responsibility of state organs such as MEWT, DWNP and Land Board to facilitate management strategies within their portions of the KAZA. This system of resource governance is therefore dominated by traditional state command and control systems. This has created a 'top-heavy' process, whereby the state resumes management control of resources. In the study area, this kind of top-down management included the issues of resource management, HWC and the control of animal diseases. The result of this was that these issues are perceived as 'state problems' by local people because they have always typically been managed through centralized command and control systems. Examples of these centralized systems are the Botswana government's compensation program used as the primary means of dealing with HWC or the use of veterinary fences to deal with the disease.

This top-down approach can be seen playing out in the KAZA's resource land and resource governance decisions such as the arguments made for the need for territorial expansion to accommodate dispersal routes and corridors for wildlife. These arguments have been driven by NGOs and conservation agencies at national and intentional scales highlighting the need for connectivity between PAs in order to maintain species biodiversity. Because of Botswana's strong tourism agenda, national priorities align with these global arguments for conservation and result in policy formation that has led to new communal-land areas being integrated into the KAZA. These kinds of decisions have had effects for the actors at local levels, who are not involved in the decision-making process in any way.

Within this system, decisions on resource governance are made by the state and its organs on national levels which then trickle down to systems at the local level. However, this flow of information through the state is often poorly communicated and excludes and alienates those on the ground from being able to make positive contributions (Cumming et al., 2015). When conducting interviews, a number of respondents cited this state-driven intervention and a lack

of interaction between national and international decision-making and local processes as key problems for the KAZA's resource governance strategies.

> They [the KAZA] are trying a top-down strategy as far as I'm concerned, they have these constant meetings; these high-level meetings and I think they need more grassroots with communities etc. (Community Representative; personal communication, 18/01/2018).

Mohamed-Katerere (2001) highlighted how within the TFCA structure there is a divide between various scales; there are no mechanisms to make states accountable to their commitments in TFCA agreements and no mechanisms for citizens to hold states to these commitments (Mohamed-Katerere, 2001). This process meant that many stakeholders felt that the KAZA is a state-centric process of resource management with little focus placed on community engagement, therefore failing at its intended objectives.

> The project is failing, there is just not enough on the ground involvement from local communities within the trans-boundary areas, and stake-holders within the five countries. They are starting now to try and implement a lot of that, but I think it should have happened not necessarily at the same time, but once the countries – the governments had agreed to sign the agreement documents regarding the transfrontier conservation area, they should have immediately started negotiating with communities, because at the end of the day, those are the people who are living in this conservation area (NGO Affiliate, personnel communication, 24/01/2018).

The Lack of Local Level Engagement in Conservation

Because of a lack focus given to local ownership within the KAZA's resource governance structure, the community conservation and CBNRM initiatives in the area have struggled to achieve appropriate devolution of rights and responsibilities for natural resource management. Presently, the KAZA and the TFCA policy does not currently have either a focused CBNRM strategy nor a framework to adequately cope with the common problems experienced in CBNRM initiatives such as HWC and the equitable distribution of benefits (Cumming et al., 2015). In most CBNRM cases within the area support services to

communities have been insufficient to allow for successful management capacities to develop. In general, even within these CBNRM projects the responsibility of resource management is still bestowed on intermediate institutions such as rural district councils who are legal entities created by and accountable to the state. It was these councils or similar entities that are involved in private sector partnerships such as safari operators to exploit natural resources. Although these councils claim to be acting on behalf of the local communities, they often serve to represent their own interests. Even in cases where the councils' involvement has been limited, the authority to manage resources is rarely given to community institutions that are downwardly accountable (Andersson et al., 2013). Metcalfe (2003, 2004) argued that this flawed devolution and inadequate institutional development within community conservation projects meant that decisions over resource management remained dominated by the state, in league with a wealthy private sector, which overrides community voices.

In summary, the section highlighted that although TFCA's endorse themselves as 'new conservation' governance regimes allowing for devolved resource governance, these processes are still largely dominated by the state's command and control. Kelly (2011) argued that in light of the global trend of neoliberalizing nature and rendering resources as commodities, it is critical to examine what form resource control is taking on to understand the accumulation processes at play. Within the KAZA there is a complex structure of resource control that is perpetuating the exclusion of local resource users.

People Versus Conservation

The result of the top-heavy governance structure described above was that communities are acting as bystanders to the conservation processes happening around them. The result of this was that in cases such as that of the study area, communities are increasingly being seen as an element of conflict with the environment, in opposition to the conservation processes at play. Chapter 2 highlighted the way in which nature was increasingly being used as a means of achieving capital accumulation through neoliberal conservation strategies (Kelly, 2011). The expansion of conservation areas such as PAs and TFCAs are an important part of these processes, by extending the spaces available for capital accumulation, through activities such as tourism. However, scholars such as Andersson et al., (2013) argued that these processes of

nature neoliberalization and the focus on achieving development through conservation has clouded many of the realities of people living in a wildlife frontier. The section below highlights the ways in which the costs of conservation and the ideological disjunctures of the conservation context are serving to accentuate the rhetoric of communities versus conservation in the communal-land areas of the KAZA.

Ideological Disjunctures

What is accentuating the conflicts between communities and the conservation agenda of the area is a conceptual struggle which has emerged relating to the integration of the communal areas into the KAZA. Ideologically, this relates to a lack of general understanding of why these communal areas are now considered part of the TFCA's conservation estate and what the KAZA means for processes on the ground. Physically, this relates to issues such as the need for wildlife dispersal routes through communal-land areas, the need for veterinary fences, land use, the importance of wildlife and the juxtaposition between conservation and traditional cattle-keeping activities.

The Use of Land & Facilitation of Wildlife the Area:

The advocates for the KAZA which includes politicians and conservationists as well as many residents see the communal-land integrated into the TFCA as an important ecological unit that forms part of a connected landscape with significant opportunities for tourism development. From these perceptions, conservation, particularly that of wildlife should be the primary focus of the area. On the other hand, communities perceive this conservation agenda playing out in the area as a livelihood threat and a cause of alienation from their land and natural heritage. For these communities, the increased presence of wildlife in these agricultural and cattle orientated areas was not currently seen as beneficial.

Currently, the KAZA initiative has failed to harmonize these divergent views and fulfil the TFCA's agenda for integrating people and conservation.

> And this is one of the sadness's of this whole thing is that, the whole aim of KAZA was to develop this transboundary area – the biggest in the world and get tourism and wildlife conservation to pay for their survival, and have communities involved and part

> of that whole process. And they could still have cattle in those areas, it wasn't going to become a whole big national park, it was just a conservation area, and they weren't going to kick people out, but people were going to live in harmony with nature, and tourism was going to pay for it. That was the grand idea behind KAZA, and yet they haven't managed to deal with the on-the ground perceptions of people living in a conservation area, especially the farmers, especially the rural populations that keep talking about human-wildlife conflict (NGO Affiliate; personal communication, 24/01/2018).

The Conceptualization of the KAZA:

Part of the struggles around land use and wildlife in the area described above relate directly to the ideology of the KAZA itself and what the institutions of the TFCA. There was a clear discrepancy in the understandings of the KAZA between those initiating the processes at national and international levels and the communities involved within them on the ground. Munthali (2007) highlighted that there was a critical disparity between the ideals of those who created the TFCA concept and the way in which they are implemented. Those who conceptualized the TFCA concept asserted that it is intended to be used as a strategic spatial development programme intended to consolidate natural resources, integrate regional management procedures and consequently broaden the opportunities available for both conservation and rural development. However, the implementation of TFCAs has come to be seen as a program in which the state is extending control over resources through the expansion of protected areas across national boundaries, at the expense of rural communities' interests (Munthali, 2007). This aligns with broader criticisms on the ways in which tourism agencies, international NGOs, local authorities and foreign nations are using the expansion of PAs and a means of governing land through national governments and local communities (Chapin, 2004; Zoomers, 2010; Kelly, 2011). The result of this inability to aptly conceptualize the TFCA framework has translated down into different understandings of what the role of the KAZA is within its boundaries and confusion on what it is trying to achieve.

Because of the misconception of what the KAZA is, a disagreement has emerged on what the KAZA was supposed to be doing in terms of resource governance. The communities living

within the area as well as many local state organs have communicated that there was a presumption that as these areas have been integrated into the TFCA. They faced the challenges that came with this integration and asserted that the KAZA should be involved with facilitating these issues. There was a general belief that the KAZA institutions are supposed to be actively involved in assisting with conservation issues such land use conflict, HWC, climate change, habitat fragmentation and developing plans and projects to facilitate mitigation strategies within its member states. There was also a perception that the KAZA should be distributing funding to assist and address these issues. However, the KAZA maintains it was supposed to be taking on a position of national 'mediator' and 'advisory' uninvolved in conflicts at local scales.

> They [the KAZA] don't want to take an active role, and the thing is that if they don't take an active role then the process is not going forward, then we are just doing what we've always done, and that's one ministry talking to another ministry anyway. You know we've got joint security forces that talk to each other about poaching and everything like that. So if KAZA are just there to mediate, then we don't need them really do we*?* (NGO Affiliate; personal communication, 24/01/2018).

Many researchers criticized the ways in which the idea development and the use of conservation to achieve this have been used to leverage support and legitimacy for the TFCA initiative particularly in rural areas (Katerere et al., 2001; Büscher, 2010; Andersson et al., 2013). A common criticism in the implementation of TFCAs is that expectations are raised and not delivered (Murphy, 2008).

Carrying the Costs of Conserving

Peluso & Lund (2011) examined the ways in which the enclosing of land for conservation often results in forms of land-control that restricts the access and utilization of resources for other groups, most often local communities living in the area. Conservation has had a long history of being synonymous with dispossession. The establishment of many PAs across Africa has been associated with the displacement of local communities from their land and resource access. The focus on TFCAs as the contemporary form of environmental management has not proven to have been exempt from these processes and the establishment of a number of TFCAs in the region has led to various forms of local land or resource dispossession. There was therefore a real and widespread perception amongst local

communities that live around existing PAs that the development of a TFCA would result in the area becoming a play area to the rich while neglecting local needs and resulting in a loss of resource access, agricultural and grazing land (de Villiers, 1999; Andersson et al., 2013). These opposing views have resulted in a context in which many local communities have a legitimate belief that they carry the cost of sharing space with wildlife usually for someone else's gain, either the state and/or the private sector (Metcalfe & Kepe, 2008).

Managing the Increasing Conflict:

The KAZA's proposed wildlife corridors traverse land under a number of tenure regimes including protected, communal and agricultural. These manifest themselves into growing demands for land and resource use and increasing competition from various interests including those of communal, agricultural, conservation and tourism (Metcalfe & Kepe, 2008). The KAZA Pre-feasibility Study undertaken in 2006, made strong recommendations for attention by the member states to be given HWC 'hot spots' in and around these corridors and the urgent need to introduce programs to mitigate the impacts of this conflict on communities and their livelihoods. These issues were highlighted as a matter of priority for the KAZA (Transfrontier Conservation Consortium, 2006).

Despite the concerns laid out in the KAZA *Pre-Feasibility Study*, a clear strategy for assisting communities with the growing conflict in the communal-land areas of the KAZA has not been outlined. Focus remains on the monetary compensation system by the state to cover the costs of conflict. However, this system was inadequate to accurately cope with the breadth and complexities of the conflicts emerging. In general, there has been a growing acknowledgement in conservation circles that the presence of HWC are often a depiction of social conflicts (Treeves et al., 2006; Dickman, 2010; Redpath et al., 2013). Perceptions of wildlife conflict were not only based on reality and experience, but also stemmed from a complex range of other factors including cultural and societal norms, wider experiences, expectations and beliefs. These social aspects as well as the environmental context in which they are situated shaped the ways that conflict was understood and interpreted. These understandings can be crucial to engaging with and managing human-wildlife conflict however they were rarely considered in resource management strategies (Dickman, 2010). In

Botswana, these perceptions related to increasing wildlife numbers, enlarged wildlife movements and the implications of the ban on hunting.

Despite these growing understandings of conflict, the majority of global conflict resolution schemes tended to be narrowly managerial with a focus on a system of simply identifying the problems, developing alternatives, and evaluating outcomes (De Motts, 2012; Baruch-Mordo et al., 2009). As a result, the methodologies for conflict resolution tended to focus on the measurement of the direct impact and economic damages. Despite Botswana's goals of proactive natural resource management (Republic of Botswana, 2003), compensation as the focal means of dealing with conflict is reactionary in nature and is limited in its ability to aptly cope with growing conflict particularly in the long-term. This is because it is a means of management that focuses on only the direct, immediate and economic elements of conflict and fails to grapple with the complex context. It also leads to assertions that local involvement in the debates about land use conflict and HWC are negative rather than positive and that people living with wildlife exaggerate the extent of problems and respond disproportionately (De Motts & Hoon, 2012). However, mitigating land use conflict through monetary compensation only serves as a short-term solution, what is ultimately required is the significant enhancement of the livelihood benefits of those who live in these areas (Metcelfe & Kepe, 2008).

The Failures of Benefit Systems:

The KAZA has highlighted that livelihood benefits from conservation to those in rural areas, are expected to be delivered by the various CBNRM programs in these areas. These programs attempted to align or mitigate the costs of living alongside wildlife such as elephants by providing economic returns through activities such as tourism and trophy hunting (Jones, 1999; Hulme & Murphree, 2001; Mbaiwa, 2015). However as described in the previous chapter, the CBNRM programs within the study area are failing to bring about the appropriate level of benefits to mitigate the growing conservation costs felt in the area.

> The whole principal behind CBNRM is that the negative aspects of living with wildlife are off-set by the positive aspects. If the negative impacts totally out-way the positive, why would communities have an interest in conserving. So there have to be benefits,

> and one of the biggest benefits people had in this country was hunting, and they have taken that away (NGO Affiliate; personal communication, 24/02/2018).

Part of this problem is the way in which resources are governed through a national CBNRM system that in most cases has failed to bring about adequate returns. This lack of returns has been largely due to a deficiency in devolved resource management and an inability for communities to utilize resources such as wildlife. Therefore, a heavy focus has been placed on eco-tourism development across the CBNRM program, however as described in the previous chapter this is a highly lucrative industry, inaccessible or unusable for many CBOs.

> They are trying to incorporate a broad model [of conservation] that doesn't work everywhere for five different countries, with multiple tribes, different cultures and for each one a different model needs to be at play. And ya, they need to look at different models of how other people have managed to create corridors in other places. And there also needs to be compensation, people need to actually… they need money in their pocket. If you're going to get a community to embrace wildlife corridors and the tourism that comes with that, then those people need to get money in their pocket (Community Representative; personnel communication, 18/01/2018).

The apparent inabilities of CBNRM structures to achieve the desired objectives of the TFCA framework have also been noted in other contexts across Southern Africa. Metcalfe & Keep (2008) have explored a similar context in the communal areas of the Zambian component of the KAZA. Here, landholders, who are affected by wildlife lack sufficient incentives to accommodate the conservation costs. This is largely a result of a state-dominated natural resource tenure policy, asymmetrical power relations and inefficient community–public sector governance which are exacerbating social–ecological mismatches. Work by Ferreira (2006) and Duffy (2006) depicts how CBNRM projects within other TFCAs such as the GLTP and Lubombo TFCA in parts of Mozambique, South and Zimbabwe have failed to establish visible, credible links between conservation and ecotourism and the generation of revenues for local communities. Similarly, Thondhlana et al. (2015) have examined the institutions and actors put in place to facilitate collaborative resource governance in the Kgalagadi Transfrontier Park. They demonstrate how these initiatives are hampered by a lack of participation in decision-making, poor information dissemination, power relations,

divergent interests, unequal access to resources and issues of transparency, trust and accountability. Various researchers have raised questions about the use of CBNRM as a tool within transfrontier initiatives, and if it would be used as a means of achieving potential development for communities or if it would simply serve to extend top-down control while promising a 'trickle down' of benefits (Murphee, 1993; Metcalfe, 1994; Schuerholz, 2007; Andersson et al., 2013). These critiques align with arguments that CBNRM was being used as a contemporary means of land control within conservation spaces, serving to extend processes of capital accumulation by restricting resource use and forcing users into new market economies such as tourism (Dressler & Büscher 2008).

Conservation for Who?

The expansion of KAZA has served to make more land in Botswana available for conservation. However, within this expansion area conflict between communities and conservation appears to increase with implications for both sides. There is a need to understand the real driving agendas for this expansion process. In doing so, this final section has used the lens of primitive accumulation to understand the agendas driving the conservation arguments for territorial expansion and understand the actual beneficiaries behind these processes.

The Driving Agendas

The expansion of the KAZA has been driven by arguments for the need for biological connectivity and more effective management of the areas around existing PAs. However, the KAZA's means of effectively managing these areas are largely limited. The following section examine the lack of focus and funding placed on managing conservation issues particularly those relating to land use conflict, HWC and habitat fragmentation. In light of these deficits, the section goes on to examine the focus placed on tourism in the TFCA and how funding has been directed towards this industry's development.

The Lack of Focus on Mediating Land use Conflicts:

The previous chapters outlined the issues of land use and HWC increasing in the communal-land areas of the study. In the IDP for the Botswana component, acknowledges of these

conflicts are increasing in the TFCA as the interface between wildlife and people increases. It also highlights the need to develop strategies to cope with issues of HWC, competition for surface water, issues of fencing, fire and fragmentation (MEWT, 2013). However, little focus was given to the means of management or how to effectively integrate the mosaic of land use and resource conflict occurring on the ground. The result of this lack of a guiding framework for the implementation of resource management on the ground was a process of conservation guided by national conservation agendas, ineffectively implemented at local levels.

The 2011 aerial wildlife survey of Northern Botswana reflects that the PAs adjacent to the communal-land areas such as the Makgadikgadi and Nxai Pan NPs were the only areas experiencing wildlife population increases (for all wildlife analysed except springbok) (Chase et al., 2011). These population increases highlighted the growing competition for land in the area and were likely to require increased management capacity in order to maintain issues of HWC, fence mortality, habitat fragmentation and poaching which were all present in the area. These issues are likely to be worsened by the presence of population growth, increasing urban sprawl and farming and field expansion in the communal-land areas adjacent to these PAs (Munthali, 2007; Chase et al., 2011). The Makgadikgadi Framework Management Plan (McCulloch et al., 2010) made reference to the following issues occurring in and around the PAs in the area as a result of human impacts:

- Agricultural & waste pollution,
- Pollution from domestic and industrial waste in the catchment & at the edge of the pans
- Fences hindering migrations and river access in the dry season
- Overgrazing of communal rangeland resulting in the diminishing of grazing quality and negating seasonal recovery,
- Poaching and poisoning of threatened species
- Problem animal control and consequent poisoning threatening predator and scavenger populations
- Excess tracks and visitor numbers disturb wildlife and birdlife breeding

Although the KAZA expanded its conservation territory in recent years, the budgets directed to managing the area remained low. A body of research pointed out that the current budget

allocations for PA management within the KAZA are insufficient to ensure effective conservation (Cumming, 2004, 2008; Munthali, 2007; Martin, 2008). According to this research, the budgets for all the PAs across the TFCA are inadequate to fully protect their wildlife populations, even at moderate poaching and HWC levels (Cumming, 2011). The resource and funding provisions for wildlife protection outside of PAs was scarcer making protection largely unattainable (Martin, 2008). The consequences of these insufficient budgets are a limited capacity to cope with increasing HWC and an inability to fully protect wildlife species, particularly those considered endangered or valuable (Cumming, 2011). The lack of capacity to manage conservation issues in the study area was even more apparent due to fragmented landscape and the juxtaposition of PAs surrounded by human settlement and transformed land uses. This again raised questions in the area around what returns were offered or required to balance conservation objectives and offset the costs of living with wildlife.

Questioning the Conservation Agenda:

As described above, a conservation setting emerged in the communal land of the study area where both increasing wildlife numbers and growing populations were in competition for land and resources. This was coupled with a lack of capacity or funding to aptly manage these issues. It was these kinds of conflicts relating to resources, wildlife and local communities that the growth of the KAZA had aimed to harmonize (KAZA TFCA, 2013). However, since the integration of this land into the TFCA territory, these issues had only been perpetuated.

Broadly, the primary objective of TFCAs is to achieve biodiversity conservation, and in doing so promote sustainable development for the people living within their boundaries (Hanks, 2006; Cumming, 2011). Conservation has therefore been considered to be one of the key premises upholding the legitimacy of the TFCA concept. Within the KAZA, the arguments for conservation have driven its development and uptake by its member states, particularly that of Botswana as well as for TFCA's expansion (Mogende, 2016). Each of the country's signatory to the KAZA initiative has in essence committed themselves to achieve effective conservation governance within their portion of the TFCA. These arguments for the

need for large-scale conservation processes are also what has been used to endorse the need for territorial expansion in more recent years.

Despite these arguments, KAZA's MoU (KAZA TFCA, 2006) does not explicitly include the conservation of biodiversity (or fauna and flora) in its objectives. These objectives focus on:

a) Foster trans-national collaboration and co-operation in implementing ecosystems and cultural resource management through the establishment and development of the TFCA;
b) Promote alliances in the management of biological and cultural resources and encourage social, economic and other partnerships among their Governments and stakeholders;
c) Enhance ecosystem integrity and natural ecological processes by harmonizing natural resources management approaches and tourism development across international boundaries.

Often these transnational treaties such as those curated for TFCAs do not provide detailed objectives for each country, rather there has been an expectation for specific conservation objectives to be placed in the individual management plans created to make the treaties operative. The IDP for the Botswana Component does give reference to an idealized state of the environment, however, like the IDPs of the other member states it tended to largely focus on the administration and management activities of the TFCA. However, it does not give details of the means of implementation for these activities or what they are expected to deliver in terms of sustainable development or conservation efforts (Cumming, 2011). In general, Cumming (2011) argued that the KAZA policy shows a lack of general focus on conservation and rather places its primary focus on development with development objectives that tend to be vague and lack clear indications to gauge what might be expected on the ground. The following section examine the form of development that was currently taking place; that of eco-tourism both in the study area and across the KAZA.

Augmenting Eco-Tourism:

The above sections highlighted the ways in which neither conservation nor communities in the study area appeared to be the focus of the KAZA's current development initiatives. However, what was a benefit from the KAZA and its drive to extend its wildlife corridors and

land available for conservation is a growing tourism industry. The KAZA TFCA website describes its territory as "*Tourism without boundaries*" (www.kavangozambezi.org), describing a clear strategic focus on the development of a 'premier' tourist destination, giving little reference in this explanation on its elements of conservation of community development.

Chapter 4 had examined the ways in which this focus on tourism development reinforces and aligns with the Botswana state's focus on growing its luxury tourism industry. The KAZA not only served to facilitate the territory available for conservation required for this industry but also provided important funding and infrastructural development to this process. Botswana along with Namibia and Zambia have been the main beneficiaries of KAZA funding since its initiation. This funding has been distributed through two agreements for the facilitation of the KAZA objectives. The *Phase 1 Agreement* was signed in 2011 for EUR 8 million. This funding was distributed with the objectives of establishing KAZA infrastructure and appropriate structures at regional, national and local levels. The *Phase 2 Agreement* was signed in 2014 for EUR 12 million. This funding was given with the consolidation of the organizational structure of the KAZA, securing and rehabilitating wildlife corridors, monitoring improvements in biodiversity and wildlife population distributions and improving socio-economic conditions of local populations (KAZA TFCA, 2015).

The funding was distributed between the members' states via their operational plans aligned with the Agreements. The programs and projects identified within the Operational Plans are identified by each of the counties' national steering committees and facilitated and implemented by the KAZA Secretariat (KAZA TFCA, 2015). In Botswana, this funding has largely been channeled into achieving these tourism-related objectives. The KAZA Operational Plan for 2016 and 2017 identified the following results from *Phase 1* funding use in Botswana:

- Facilitating tourist access to the Makgadikgadi through the construction of the Kumaga bridge
- Securing easy movement of tourists through rehabilitation of the Matlapana Bridge in Ngamiland

- Improving the living conditions of wildlife management personnel through the construction of houses.
- Improving appreciation of the TFCA programs through advocacy and awareness programs
- Supporting the Botswana government in the development of management plans for the Kasane Forest Reserves
- Supporting the Botswana government in diversifying tourism products through the development of a Heritage Trail Map and atlas inventory for eco-tourism
- Support local communities to develop income generation activities through conservation and tourism enterprises.

This funding as well as the Botswana IDP prioritization of projects highlighted the ways in which focus was concentrated on developing tourism capacity in the area.

The Processes of Accumulation at Play

In general, capitalist production was carried out through several processes. Firstly, there was an expansion in the area available for production or the reach of the market economy to allow greater investment. Secondly, actors then created the necessary conditions for capitalist production by ensuring a continual supply of cheap wage labour. Finally, these actors are then responsible for maintaining the conditions necessary for continued primitive accumulation (Kelly, 2011). Chapter 2 demonstrated the ways in PAs and other conservation areas are acting as sites for this production through their exclusion of residents and creation of a 'natural' landscape to create a pleasing environment for wildlife tourists.

The focus of Botswana to expand the TFCA's conservation estate in Central Botswana can be seen as a process of capital accumulation:

> The planned network of Transfrontier Conservation Areas as promoted by the Peace Parks Foundation (the Kgalagadi Transfrontier Park between Botswana and South Africa is the first of these) has the potential to establish the largest circuit of interlinked wilderness areas in the world and Botswana should ensure that it capitalizes as best possible on this development. This will require the establishment of a strong,

> differentiating brand positioning in the region, the proactive development of air routes and competitive air access and the implementation of a seamless and hassle-free emigration system (Leechor & Fabricius, 2004: 16).

The study area, with the presence of the Makgadikgadi Pans and links to the Central Kalahari in the south, had been identified as important potential sites for Botswana's tourism diversification strategy. This strategy aimed to extend tourism capacity of the area, away from concentrated sites such as the Okavango and Chobe regions (Leechor & Fabricius, 2004). To do this, the Botswana *Tourism Development Framework* (Department of Tourism, 2001) provided various suggestions to connect these areas in the tourism circuit through ideas such as a network of visitor centres, the development of the Kalahari Wilderness Trail as well as road improvements and specific site development zones. Tourism diversification activities promoted in the area includes the development of sky diving, airshows and cultural festivals. An example is the *Makgadikgadi Epic* an air-festival held at Sua-Pan which brings thousands of visitors to the area annually. This event is a collaboration between the Botswana Tourism Organisation (BTO), Skydive Botswana a private business, and the Nata Bird Sanctuary CBO (Personal Communications).

National tourism diversification strategies have been coupled with the goal of shifting tourism from low-end to luxury tourism to significantly increase the financial returns from tourism (Government of Botswana, 1990). However, these strategies meant that although the tourism development base has expanded, citizen investors and companies are economically excluded and disempowered due to the incapacity to compete with international tourism agencies. For example, citizen companies have often failed to win tenders in many of the concessions due to a lack of experience, skills and capital (Mbaiwa, 2017). Therefore, a process emerged that excludes local communities from capital benefits but requires their labour and resources for its continued progression.

The Beneficiaries

The following sections aims to use the context described above to understand what actors are involved and who benefits from these processes. Duffy (2006) argued that TFCAs entails a complex governance structure with a multitude of power relations that extend across global

and local scales and interact in public and private domains. These domains entail a variety of actors including international NGOs and financial institutions, government departments, scientists, private businesses and local communities, acting as 'producers of nature' within the TFCA process (Duffy, 2005). However, Munthali (2007) argued that within the context of TFCAs in Southern Africa, several of these actors including the private sector and local communities have been excluded from the developmental processes.

The Role of the State:

A number of scholars argued that when examining contexts of land control in contemporary environments it is important to understand that contemporary landowners are likely to be corporate entities or state actors rather than traditional local elites. This makes them less familiar to local land users, yet powerful influencers in land control processes (Lucas & Warren, 2003; McKeon et al., 2004; Peluso & Lund, 2011). The sections above demonstrated the ways in which the KAZA's workings are guided by a top-down system of governance, dominated by government officials. The Botswana state, in particular, has been prominent in shaping the KAZA's decision-making:

> Botswana really has only been the only country 'really' involved in this. The other four countries have been meeting places, and they agree but they haven't had a very active role in administration of the whole process (NGO Affiliate, Personnel Communication, 24/01/2016).

The Botswana state has been integral in driving the KAZA's growth and facilitating its expansion in the region (KAZA TFCA, 2014). The expansion of the KAZA meant an extension of Botswana's conservation estate and means of facilitating wildlife movement and tourism opportunities away from concentrated areas such as the Chobe and Okavango regions. In many ways, these expansion processes demonstrate an extension of state power to facilitate national objectives. These processes fit into a well-established pattern of state institutions using conservation as a tool for exerting control and authority over a space. This context also echoes initial predictions that TFCAs such as the Great Limpopo TFCA (GLTP) and the KAZA would be used to consolidate state sovereignty over the territory the incorporate.

External Actors:

Although states play an important role in driving the KAZA processes, there are other actors driving agendas as well. An important influence on decision-making within TFCAs was that of international donors, NGOs and in development institutions (Büscher, 2009). As described in Chapter 2, the global drive to expand the land available for conservation was a process that has been driven and supported by a number of international NGOs and international organizations. These organizations play an important role in not only legitimizing the arguments for PA expansion but providing finical and technological support for their processes. Wolmer (2003) suggested that TFCAs can be examined as the newest in a long line of top-down, market-oriented interventions into the environmental discourse by international entities such as the World Bank, conservation NGOs and aid organizations (Wolmer, 2003). Büscher (2009) demonstrated this by highlighting how the majority of funds within the TFCA context for development and infrastructure provision are provided by the donor community.

Within the KAZA, funding from KfW has been used for various activities to facilitate the TFCAs institutional development processes such as the formation of the KAZA Treaty, the creation of the Indicative Development Framework, and the demarcation of the TFCA boundaries (KAZA, 2011). The Botswana government's decision to extend the TFCA boundaries to support greater wildlife mobility aligned with the work done by Conservation International and the Wildlife Conservation Society in the region to extend the land available for wildlife migrations. Conservation International has played a significant role in the formation of the KAZA and has been an important actor in shaping the regions conservation processes since 1992 (KAZA TFCA, 2011).

Conclusion

This chapter used the literature on land control and primitive accumulation processes to understand the implications and outcomes of the conservation context in the study area. Firstly, it has examined the way in which the overall system of land and resource governance in the TFCA has served to extend state control in communal-land areas of the KAZA and disempower local communities from engaging in these processes. It has shown how this lack

of community involvement along with contestation of how land should be used and what the TFCA is trying to achieve has created a dichotic conservation context. This dichotic conservation context is serving to perpetuate the idea that the community was against conservation processes in the area. In light of this struggle to manage conservation and human agendas, the final section examined what kind of benefits are being derived out of the KAZA's expansion. In doing so, it showed the focus placed on developing an eco-tourism industry across the KAZA. However, this industry is failing to assist in community development or provide infrastructure for conservation processes in the study area. In light of the failings on the side of local processes, this chapter has also examined who was benefiting from these capital accumulation processes, namely the state and its tourism industry and external actors using the KAZA to drive and control local agendas.

CHAPTER 8

Reflecting on the Territoriality of TFCAs

The previous chapters highlighted the complexities of land use and land governance within the KAZA TFCA, where various processes of resource control, access and exclusion are at play. This final chapter presents the key findings of this research, in terms of the TFCAs expansion processes, the actors and arguments behind these decisions as well as the effects of these processes on local land and resource governance in the area. This research examined the ramifications for resource access and restrictions, land use conflict and issues around local level engagement being experienced within the more newly incorporated communal land areas of the KAZA. This chapter will use insights from the various chapters to conceptualize the importance of examining TFCA's in the context of territory. This conceptualization is useful for TFCAs as contemporary conservation spaces that have been created to manage the ways in which land is used and controlled by various actors.

Key Findings

This research has found that TFCA's have emerged as important resource management techniques that form part of the wave of 'new conservation' strategies being adopted in recent years. Trans-boundary initiatives such as TFCAs have emerged as a contemporary conservation strategy because of their envisioned ability to achieve both conservation and socio-economic development. In order to understand the expansion and development of these complex resource management initiatives, this research utilised the theory of 'territory' to understand how land within these spaces is valued, accessed and controlled, and the implications of these controls for different resource users. Examining conservation spaces through the lens of territory draws attention to the way that this land has been governed by different authorities, legitimizing control through various protectionist paradigms. In many places around the globe, conservation has allowed various actors to seek control or 'open up' new areas previously out of capitol's control and enable processes of primitive accumulation to take place (Kelly, 2011). These capital accumulation processes re-conceptualize or

reprioritize land and resource values within these spaces and often serve to limit or restrict access by other resource users.

Utilizing the theory of territory and understandings of land control, this research examined the processes of territorial expansion of the KAZA TFCA in Botswana. These processes have served to integrate various parcels of communal land into the TFCA, from its inception until present. This expansion has been driven by arguments for the need to open up and restore various wildlife migration routes in the area, particularly for the large elephant populations concentrated at the KAZA's core. These justifications for the need to expand the TFCA's estate to make more land available for conservation and wildlife movement, align with national strategies to further develop a luxury tourism industry focused on wildlife, both in Botswana and across the region. However, as this research showed, the justifications made for the need for wildlife corridors in the KAZA has not gone unchallenged, with questions being raised around both the evidence and motives of these connectivity arguments.

This research highlighted the ways in which these corridors have been used as a strategy by conservationists, government agencies and NGOs to reconstruct the territory for wildlife. Within this territory, land is now increasingly being revalued for both its conservation potential for wildlife and for its tourism appeal. However, these changes in land utility and value are serving to perpetuate a complex and sometimes conflicting land and resource context between the national conservation and tourism objectives of the TFCA and local interactions over land and resource access.

For local communities in the area, one such conflict relates to increasing restrictions placed on resources, particularly those of grazing land and wildlife. These restrictions relate to national resources restrictions imposed over the last 50 years, which culminated in the state's decision to restrict the consumptive use of natural resources and ban hunting in 2013. This ban firstly meant a direct loss of livelihoods for many in the area who were involved in the commercial hunting industry or leasing of land for these activities. However, it has also signified changes in land and wildlife values, particularly for the previous hunting concessions, which are being re-conceptualized to attract a new tourist market through the development of various forms of eco-tourism based on wildlife. These activities aligned with

the KAZA's agenda to move communities within its territory away from consumptive resource activities and agriculture, towards non-consumptive resource livelihoods such as tourism. For local communities, these changes are seen as a further extension in a long succession of resource restrictions, preventing people from utilizing resources such as water, grazing and bushmeat or from protecting their livelihoods from wildlife.

These resource restrictions coinciding with and accentuating various land use conflicts felt to be increasing as a consequence of the changing conservation dynamics in the expansion area. This type of land use conflict was complex in character with an important element of actual conflict taking place but intensified by ideological conflicts which serve to divide communities and conservationists. Actual conflicts can be seen in the form of territorial conflict between agricultural and conservation activities, as well as increasing human/wildlife conflict occurrences particularly relating to elephants and local farmers. Ideological conflicts can also be seen around the contestation of land rights and access in the area, ideas of increasing wildlife numbers and the need for the continued use of veterinary fences.

The culmination of resource restrictions and increasing land use conflict, enhanced by an existing CBNRM system with limited capacity caused local communities to feel they were not being given the opportunity to engage in resource management or benefit from the conservation activities. This context was accentuated by the KAZA's system of resource governance which is largely top-down and state-centred, therefore limiting local-level engagement. Consequently, communities found themselves acting as bystanders to the resource governance of the area, neither able to actively participate in conservation nor economically benefiting from its outcomes. This research argued that despite the KAZA's commitments to harmonizing resource governance and development agendas, these objectives are not being successfully translated on the ground. In reality, the TFCA's expansion was serving to further dislocate local land-users from resource governance activities and perpetuate the idea that communities are against conservation processes in the area. As such, the benefits of the TFCA's conservation processes were being orientated towards the state, external NGOs and transnational tourism companies.

Examining TFCAs as Territories

Considering the implications of the KAZA's expansion context described above, this section showcases the usefulness of examining TFCA's in the context of territory. The sections below highlight the importance of examining land control within conservation spaces, both for local actors and for conservation strategy.

Trends in Territoriality and Land Governance Processes

Territory is a useful concept with which land tenure and resource rights can be critically examined. As mentioned in previous chapters, territory is an important consideration because it draws attention to the use of space and how land within that space is valued, used and accessed. In terms of this research, a focus was placed on 'new conservation spaces' and how these spaces are shaped and controlled by contemporary land governance structures. The contemporary transformations of national and global land governance are complex, involving multiple trends and actors operating at different scales. The following sections briefly describe the contemporary changes in global land governance, away from traditional state-centred territories to more complex structures of land control.

From Traditional Territory to Flow-Systems:

In order to understand current contexts of land control, it is necessary to understand the ways in which global land governance i.e. the regulations instituted to promote and facilitate desirable forms of land use have changed in recent years. Traditionally, land has been governed through classic territorial forms of control enacted by the nation-state. These processes have been dominant for much of the last few centuries, entailing traditional state-centred land use structures whereby the regulations which govern land use was made by central governments, land use planning activities were undertaken by local governments and the management of land use activities carried by local communities (Sikor et al., 2013). Whitehead et al., (2007) described state territorialization within the context of the historical relations between nature and society as the processes that served to make nature a subject of state governance and authority.

However, in recent years global land governance has moved away from these traditional territorial structures towards flow-centered arrangements. As such, new structures and means of land governance emerged out of the neoliberalization of nature, centred the flows of certain goods and resources. New instruments are increasingly used to govern natural systems, such as financial structures which include subsidies, taxes and payments for ecosystem services. In the context of TFCAs, these mechanisms relate to shared pool resource strategies, landscape prioritization exercises and transnational governance structures to manage and control land. These instruments have been purposely initiated by a range of stakeholders and groups who are either trying to overcome the perceived restrictions created by traditional territorially based governance systems or are attempting to initiate new means of managing commodities (Auld, 2014). These flow-centred governance structures are complex and tend to be dominated by powerful actors, such as transnational corporations, NGOs and industry groups.

Bridge (2014) described these processes as a loosening in the traditional bindings between nature and the state's territories, which allow for a variety of new territorial formations 'beyond the state' to emerge. Similarly, Duffy (2006) argued that the development of TFCAs served to shift power and resource governance away from the state. However, the current research showed that the expansion of the KAZA has simply served to reconfigure state command and control under the guise of the TFCA. This aligns with arguments by responding scholars that highlighted the ways in which the state continues to play the role of the facilitator in land and resource governance processes, therefore acting as 'carriers of neoliberal reform' (Wilshusen, 2010; Kelly, 2011; Bridge, 2014). This facilitation was characterized by new methods of governance focused on deregulation, privatization and marketization of the mechanisms used to access and allocate natural resources (Bakker, 2010; Castree, 2008). Researchers such as Sikor & Lund (2009) built on this to argue the way in which the state emerged as a critical actor in shaping 'new resource geographies' relating to property and land ownership through its power to exert legal and extra-legal authority.

The Revaluation of Land:

The section above demonstrated how a new territorial structure of land governance has emerged in recent years, focused on the flow of resources through market-based systems.

These changes have served to facilitate and respond to radical revalorizations of land and resources across the globe in response to the need few new resource markets. Revalorization is the process whereby new values which can be in quantitative or qualitative terms, are given to specific lands, which differ from those that already exist. These new values might be in the form of monetary potential i.e. through the creation of new commodities or shifting terms of trade, or they may have political and cultural values as when land is given new significance or meaning (Kelly, 2011; Sikor et al., 2013). The most noticeable land revalorizations can be seen within the growing agricultural industry, wherein the last few decades concern over food security has driven large-scale land acquisitions by states, financial institutions and transnational corporations (Borras et al., 2011; McMichael, 2012; White et al., 2012). However, these processes are not restrictive to the agricultural industry and land acquisitions have been examined in terms of enabling a number of market-driven industries including carbon forestry, biofuel, ecosystem services, biodiversity and tourism, amongst others (Sullivan, 2010, 2013; Kelly, 2011; Fairhead et al., 2012; Kelly & Ybarra, 2016).

This revalorization of land for global crises' such as food security, energy, climate change or in the case of for TFCA's for biodiversity loss, have been used to legitimize state and non-state actor interventions to acquire and/or mobilize natural resources. This has perpetuated the emergence of new 'resource frontiers', whereby parcels of land previously existing outside of traditional 'value economies' are being re-valued for their resource potentials (Bridge, 2012). In the case of the KAZA land revalorization can be seen in terms of the integration of the communal-land previously outside of the boundaries of the TFCA. Within these processes this land has been re-valued beyond its previous perceived value for agriculture and cattle keeping, for its ability to accommodate migratory routes for wildlife, and therefore widen the conservation capacity of the area. In doing so this area has a significant potential for increased tourism development, particularly in the areas around the existing PAs in the in the former hunting concession areas.

The Creation of New Territories:

The contemporary transformations of global governance described above, can be seen to move away from traditional territorial structures. However, these systems are perpetuating the creation of 'new territories' where land has been given new geopolitical prominence as a

result of growing urbanization and the financialization of natural resources, to create new markets and industries (Kelly, 2011; Baird & Le Billon, 2012; Neville & Dauvergne, 2012). TFCAs can be seen as one of these new territorial forms, that transcend traditional state boundaries and conservation techniques, and re-values land for its ecological and tourism potential. Within these processes the role of state has changed from that of sovereign entity controlling land and maintaining boundaries, to that of a mobilizer of land and resources, endorsing the emergence of 'neoliberal' landscapes economies (Bernstein, 2010; Borras et al., 2011; Hall et al., 2011; Fairhead et al., 2012; Bridge, 2013; Hall, 2013; Mehta et al., 2012). However, there is also a need to understand the new coalitions of international actors perpetuating these processes.

An important cause, central dynamic and significant effect of these contemporary territorialisation processes was the escalating competition over land and resultant land use conflict between resource users. Within these spaces, there has been a tendency of traditional flow-based governance arrangements to favour large industrial interests, which often results in the exclusion of smallholder producers or those that are dependent on this land and resources (Peluso & Lund, 2011; Sikor et al., 2013). This exclusion may be a direct loss of access or may come about in more indirect terms limiting local users from accessing resources or their markets. This includes examples of unfavourable terms of trade in commodity markets, un-competitive production or certification standards, increased resource taxation, or trade advantages for outside users (Sikor et al., 2013). In the case of the KAZA's land integration and management, there was a tendency for resource governance processes to favour national conservation agendas and transnational tourist agencies over local resource users. This has both direct effects in terms of land use conflict and restrictions in access, as well as indirect effects in terms of the inability for communities to access tourist markets.

Research Insights

The sections above highlight the ways in which changes in resource governance have served to create new territories of land control and resource frontiers, which are driving land use change. TFCAs can be examined as a form of these contemporary transformations in land-governance; spaces created as a new means of effectively governing and conserving land across national borders. Therefore, they need to be examined as a new resource frontier,

where the natural resources found within these spaces are increasingly being viewed in terms of facilitating new markets. The central issues for TFCAs in terms of achieving both conservation and development, revolve around the themes of resource rights, access and land use conflict, and the management of these issues at appropriate scales (Cumming et al., 2015). These issues demonstrated the importance of understanding TFCA's in the context of territory and examining processes of access, value and land control. Therefore, in order for the TFCAs such as the KAZA to achieve their objectives of achieving cross-border landscape connectivity, sustainable land use, biodiversity conservation and development, considerations of 'land-tenure and resource rights' and 'devolved resource governance' need to be critically engaged with.

Understanding Land use & Resource Conflict

Many academics engaging with the themes of territory and global land governance have pointed to the emergence of various forms of conflict as a consequence of land and resource competition (De Bruijn et al., 2005; Evans, 2011; Sikor et al., 2012). TFCAs presents an example of spaces where a number of actors including communities, private businesses, the state, conservationists and tourists are competing for access to various parcels of land and resources. These processes vary from those that exist in traditional PAs because they not only transcend traditional boundaries but also comprise of a complex mosaic of land use, consisting of biodiversity-rich PAs, surrounded by both private land and that under communal tenure (Jones, 2008). The TFCA concept aims to utilize these communal-land areas (which are considered insubstantial for traditional agricultural activities) for more effective biodiversity conservation and tourism development (Munthali, 2007). However, as the theory above described, without effective management areas of higher biodiversity are going to emerge as sites of conflict.

Despite these arguments made for the need for better resource management in biodiversity-rich areas across the TFCAs in the region, the resources and capacity to effectively ensure this remains limited. Currently, the budgets to effectively manage and protect the region's existing PAs are inadequate, and states do not have the resources to enforce conservation in the areas outside of PAs (Cumming, 2011). The variations present in capacity, resources and policy between and across states involved in Southern Africa's TFCA has been documented

in a number of policy reviews (Sing, 1999; Mohamed-Katerere, 2001; Cumming, 2008; Jones, 2008, 2009). In the KAZA, these variations related to administration capacity, land use and conflict management strategies and infrastructural funding between tourist-rich areas such as the Chobe or Okavango and that of communal-land areas on their peripheries. However, what none of these reviews examined are the policies and legal aspects of land use conflicts, which currently emerge as a crucial constraint to effective diversity conservation and the development of TFCAs. This is particularly true for TFCA contexts such as the KAZA where large areas of communal-land have been incorporated, where domestic livestock and agriculture are a significant component of peoples' livelihoods (Cumming, 2011).

Enabling Conservation

The insights provided by the theory on territory and new land governance argued for the need to analyse land use conflict in light of the processes of accumulation that occur within new territories of resource control. They caution against the idea that the creation of transnational institutions and networks with authority to control land will result in better land management practises (Sikor et al., 2013). Therefore, this literature promoted that creation of transnational governance structures such as TFCAs would not necessarily lead to better resource governance across the landscape, if not supported and facilitated at lower scales. Sikor et al., (2013) argued that in order for land governance to be effective in these new resource contexts, it requires the combination of both territorial and flow-centred arrangements at multiple levels. In doing this the key challenges would be to reinforce the democratic accountability of flow-centred arrangements as well as better align their interactions with those of territorial governance structures.

In terms of TFCAs, this means that conservation and development objectives require effective synergies from structures at different scales. However, TFCAs have a high potential for their large-scale objectives to be ill-matched with the local scale at which community-based natural resource initiatives operate. This was due to the level of control and decision-making within the TFCA context which tends to take place at national or international scales. This was also complicated by the fact that these contexts typically deal with multiple, diverse and interconnected common-pool resources, including fugitive and mobile resources such as

wildlife, which adds to the complexity of managing common pool resources (Ostrom, 2009). Therefore, in order for there to be successful management, the scale of decision-making for resource control should be local. This same scale should be the one to effectively manage and receives benefits of that control (Murphree, 1997). Therefore, the conservation success of the regions TFCAs would be determined by the extent to which communities, can access and control their land in ways that support conservation objectives at national and transnational scales. However, as this research argued this will only be possible if the benefits derived from these conservation objectives are able to outweigh alternative land and resource uses.

Final Remarks

In conclusion, this research has set out to critically examine the geographical expansion of the KAZA TFCA territory in Botswana. In doing so it sought to understand Botswana's objectives in terms of the TFCA and the rationales behind the expansion processes. It also sought to identify the ways in which different land uses were involved in these processes and the effects this land integration has had and continues to have on local communities in these areas. To understand these processes, the research contextualized the emergence and expansion of TFCAs within broader narratives of conservation and PA management. TFCAs can be seen as the latest in a line of 'new conservation' practices, arising over the last few decades in response to the critiques of traditional fortress conservation practices. The proponents of TFCAs have claimed that they promote a more holistic approach to managing PAs by effectively integrating conservation and development ideals. This development is envisioned to come out of the establishment of CBRM initiatives that focus on eco-tourism and the sustainable use of natural resources. TFCAs are therefore established on ecological, economic and political rationales. However, TFCAs havebeen criticized for failing to achieve their desired objectives of local development and conservation. They have also been criticized for their top-down approaches to resource management, limiting local level engagements and land evictions.

This research has utilized the concept of territory as a lens through which the rationales for the expansion of TFCAs in Africa could be explored. This lens draws attention to the ways in which land is accessed and controlled within these spaces. It allows us to understand the ways in which TFCAs are a contemporary form of resource governance that extend past national

boundaries and traditional configurations of sovereign land control. Within these processes the functioning of TFCA relies on a shift in authority over resource governance from the state to various non-state actors usually operating from outside these spaces. More broadly, their emergence can be seen as part of a global drive to expand the land available for conservation. These processes serve to facilitate contemporary capital accumulation through the enclosing of new land, both in and around already established PAs. In doing so access to land and resources are controlled and restricted particularly for local resource users. These processes are enabled through interventions by a complex array of actors including NGOs, national governments and the private sector at both global and local scales.

For this research, territory provides a useful perspective with which land and resource valuation, land-use conflict and resource rights within the TFCA's boundaries can be critically engaged with. From this territorial orientation this research has examined the context of the KAZA's land expansion processes in Botswana. The findings show that, in the last two decades, Botswana placed a strong strategic focus on the development of a luxury tourism industry which is based on wildlife and the non-consumptive use of natural resources. This focus aligns with the growth of the KAZA, which aims to develop the region's conservation potential and create a premier tourist destination. In order to fulfil this aim, one of the main objectives of the TFCA has been to restore ecological connectivity across the TFCA landscape. Connectivity has been envisioned by incorporating land around existing PAs in order to extend wildlife corridors and restore historical migration routes. These processes have resulted in the expansion of the TFCA to incorporate land identified as able to facilitate the movement of wildlife. The areas that have been incorporated are largely communal land in the form of towns, villages and agricultural land.

The re-valuation of land and resources for their ecological potentials has translated into changing land dynamics in these communal land areas. For communities, this has led to increasing resource restrictions, land-use and resource conflict as well as increasing human-wildlife conflict. Botswana's CBNRM system is currently hamstrung by weak institutions and a state-led, donor driven framework which is failing to adequately address these issues. It therefore has been unable to foster the levels of community engagement and collaborative resource management required to actively mitigate environmental conflicts or balance the costs of conservation. in the is therefore a contradiction between access to resources by locals and the conservation agendas in the area. Within these processes, land and natural

resources are increasingly being seen as a means of revenue and capital accumulation in the KAZA region, leading to increasing pressures at the local scale.

REFERENCE LIST

Adams, W.M. & Hulme, D. 1998. *Conservation and communities: Changing narratives, policies and practices in African conservation*. Working Papers, No 4. Manchester: UK Institute for Development Policy and Management.

Adams, W.M. & Hulme, D. 2001. If community conservation is the answer in Africa, what is the question?. *Oryx, 35*(3): 193-200.

Adams, M. & Knight, R. 2012. Land Policy Developments and Setbacks in Southern Africa. In *Southern African Development Community Land Issues: Towards a New Sustainable Land Relations Policy*. B. Chigara, Ed. London: Routledge, 27-57.

Adams, M., Kalabamu, F. & White, R. 2003. Land tenure policy and practice in Botswana Governance lessons for southern Africa. *Journal fur Entwicklungspolitik, 19*(1): 55-74.

Adams, J.S. & McShane, T.O. 1992. *The myth of wild Africa: conservation without illusion*. Berkeley: University of California Press.

Adams, W.M. & Mulligan, M. Eds. 2003. *Decolonizing nature: strategies for conservation in a post-colonial era*. London: Earthscan.

Addy, J.E., 1993. *Impact of elephant induced vegetation change on the Chobe bushbuck (Tragelaphus scriptus ornatus) along the Chobe River, northern Botswana*. MSc Thesis, Faculty of Science. University of the Witwatersrand, South Africa.

African Wildlife Foundation. 2004. *The Four Corners Transboundary Natural Resources Management Area initiative*. Final Technical Program Report for 2001-2004. Livingstone, Zambia: African Wildlife Foundation.

AHEAD Working Groups. 2003. Kavango-Zambezi TFCA Map . Available: http://www.wcs-ahead.org/kaza/kaza_map.html [2019, January 25th].

Alexander, D. 1990. Bioregionalism: science or sensibility*?. Environmental Ethics*, 12(2): 161-173.

Ali, S.H. Ed. 2007. *Peace parks: conservation and conflict resolution*. Massachusetts: MIT Press.

Albertson, A. 1998. *Northern Botswana Veterinary Fences: Critical Ecological Impacts*. Maun, Botswana: Okavango People's Wildlife Trust.

Amanfu, W. 2009. Contagious bovine pleuropneumonia (lungsickness) in Africa. *Onderstepoort Journal of Veterinary Research, 76*(1):13-17.

Anderson, A. & Jenkins, C. 2005. *Applying nature's design: corridors as a strategy for biodiversity conservation.* New York: Columbia University Press.

Andersson, J., de Garine-Wichatitsky, M., Cumming, D., Dzingirai, V. & Giller, K. Eds. 2017. *Transfrontier conservation areas: People living on the edge*. Oxon: Routledge.

Andersson, J. & de Garine-Wichatitsky, M. 2017. People at wildlife frontiers in southern Africa. In *Transfrontier Conservation Areas*. J., Andersson, et al. Eds. Oxon: Routledge, 25-35.

Archabald, K. & Naughton-Treves, L. 2001. Tourism revenue-sharing around national parks in Western Uganda: early efforts to identify and reward local communities. *Environmental conservation, 28*(2): 135-149.

Armbruster, P. & Lande, R. 1993. A population viability analysis for African elephant (*Loxodonta africana):* how big should reserves be?. *Conservation Biology, 7*(3): 602-610.

Arntzen, J.W., Molokomme, D.L., Terry, E.M., Moleele, N., Tshosa, O. & Mazambani, D., 2003. *Main findings of the review of CBNRM in Botswana*. Occasional Paper No. 14. Gaborone, Botswana: IUCN/SNV CBNRM Support Programme.

Auld, G. 2014. Private market-based regulation: what they are, and what they mean for land-use governance. In *Rethinking Global Land Use in an Urban Era*. K. Seto & A. Reenberg, Eds. Cambridge: MIT Press, 217-238.

Bahaire, T.& Elliott-White, M. 1999. The application of geographical information systems (GIS) in sustainable tourism planning: A review. *Journal of Sustainable Tourism, 7*(2): 159-174.

Baird, I.G. 2011. Turning land into capital, turning people into labor: primitive accumulation and the arrival of large-scale economic land concessions in the Lao People's Democratic Republic. *New Proposals: Journal of Marxism and Interdisciplinary Inquiry, 5*(1): 10-26.

Baird I.G. & Le Billon P. 2012. Landscapes of political memories: War legacies and land negotiations in Laos. *Political Geography, 31*(5): 290–300.

Balmford, A., Bruner, A., Cooper, P., Costanza, R., Farber, S., Green, R.E., Jenkins, M., Jefferiss, P., et al. 2002. Economic reasons for conserving wild nature. *Science, 297*(5583): 950-953.

Barnes, J. I. 1998. *Wildlife Economics: a study of direct use values in Botswana's wildlife sector*. PhD Thesis, Department of Economics. University College of London: London.

Barrow, E. & Murphree, M. 2001. Community conservation from concept to practice: a framework. In *African Wildlife and Livelihoods: The Promise and Performance of Community Conservation*. D. Hulme & M. Murphree, Eds. Manchester: University of Manchester, 24-37.

Bartlam-Brooks, H.L., Bonyongo, M.C. & Harris, S. 2011. Will reconnecting ecosystems allow long distance mammal migrations to resume? A case study of a zebra *equus burchelli* migration in Botswana. *Oryx, 42*(2): 210-216.

Baruch-Mordo, S., Breck, S.W., Wilson, K.R. & Broderick, J., 2009. A tool box half full: how social science can help solve human–wildlife conflict. *Human Dimensions of Wildlife, 14*(3): 219-223.

Baxter, P.W. & Getz, W.M. 2005. A model-framed evaluation of elephant effects on tree and fire dynamics in African savannas. *Ecological Applications, 15*(4): 1331-1341.

Beier, P. & Noss, R.F. 1998. Do habitat corridors provide connectivity?. *Conservation Biology, 12*(6): 1241-1252.

Beinart, W. & McGregor, J. 2003. *Social history and African environments*. Oxford: James Currey.

Bendsen, H. 2005a. *Issue grouping according to components*. Second round of Kgotla meetings, Database of comments, ODMP process. Maun, Botswana: Harry Oppenheimer Okavango Research Centre.

Bendsen, H. 2005b. *Results and analysis of the feedback community consultation process on the ODMP*. Second round of Kgotla meetings. Maun, Botswana: Harry Oppenheimer Okavango Research Centre.

Bengis, R.G., Kock, R.A. & Fischer, J. 2002. Infectious animal diseases: the wildlife/livestock interface. *Revue Scientifique et Technique-Office international des épizooties*, *21*(1), 53-66.

Benjaminsen, T.A. & Bryceson, I. 2012. Conservation, green/blue grabbing and accumulation by dispossession in Tanzania. *Journal of Peasant Studies*, *39*(2): 335-355.

Benjaminsen, T.A & Svarstad, H. 2010. The death of an elephant: Conservation discourses versus practices in Africa. *Forum for Development Studies, 37*(3): 385-408.

Bennett, A. F. 2003. *Linkages in the landscape: the role of corridors and connectivity in wildlife conservation*. Gland: IUCN.

Bennett, E.L., Blencowe, E., Brandon, K., Brown, D., Burn, R.W., Cowlishaw, G., Davies, G., Dublin, H., et al. 2007. Hunting for consensus: reconciling bushmeat harvest, conservation, and development policy in West and Central Africa. *Conservation Biology*, *21*(3): 884-887.

Ben-Shahar, R. 1993. Patterns of elephant damage to vegetation in northern Botswana. *Biological Conservation*, *65*(3): 249-256

Bergin, P. 2001 Reforming a conservation bureaucracy in Tanzania: TANAPA and community conservation. In *African Wildlife and Livelihoods: The Promise and Performance of Community Conservation*. D. Hulme & M. Murphree, Eds. Oxford: James Curry, 88-105.

Berkes, F. 2004. Rethinking community-based conservation. *Conservation Biology*, *18*(3): 621-630.

Bernstein, H., 1977. Notes on capital and peasantry. *Review of African Political Economy*, *4*(10): 60-73.

Bernstein, H. 2010. Class Dynamics and Agrarian Change. Sterling, Virginia: Kumarian Press.

Blaikie, P. 2006. Is small really beautiful? Community-based natural resource management in Malawi and Botswana. *World Development*, *34*(11): 1942-1957.

Boggs, L. P. 2000. *Community power, participation, conflict and development choice: Community wildlife conservation in the Okavango Region of northern Botswana.* London: International Institute for Environment and Development.

Boone, R.B. & Hobbs, N.T. 2004. Lines around fragments: effects of fencing on large herbivores. *African Journal of Range and Forage Science, 21*(3): 147-158.

Borras, Jr, S.M., Hall, R., Scoones, I., White, B. & Wolford, W. 2011. Towards a better understanding of global land grabbing: an editorial introduction. *Peasant Studies*, *38*(2): 209-216.

Borras, S.M. & Franco, J.C. 2012. Global land grabbing and trajectories of Agrarian change: a preliminary analysis. *Agrarian Change, 12*(1): 34–59.

Borras, S.M., Franco, J.C., Gómez, S., Kay, C. & Spoor, M. 2012. Land grabbing in Latin America and the Caribbean. *Peasant Studies*, *39*(3–4): 845–872.

Bottrill, M.C., Joseph, L.N., Carwardine, J., Bode, M., Cook, C., Game, E.T., Grantham, H., Kark, S., et al. 2008. Is conservation triage just smart decision making? *Trends in Ecology & Evolution*, *23*(12): 649-654.

Bowen, G.A. 2009. Document analysis as a qualitative research method. *Qualitative Research Journal*, *9*(2): 27-40.

Bowne, D.R., Peles, J.D. & Barrett, G.W. 1999. Effects of landscape spatial structure on movement patterns of the hispid cotton rat (Sigmodon hispidus). *Landscape Ecology*, *14*(1): 53-65.

Brail, R.K. & Klosterman, R.E. Eds. 2001. *Planning Support Systems: integrating Geographic Information Systems, Models, and Visualization Tools*. Redlands California: ESRI Press.

Brandon, K., Redford, K.H. & Sanderson, S.E. Eds.1998. *Parks in Peril: People, Politics and Protected Areas.* Washington DC: Island Press.

Brechin, S.R., Wilshusen, P.R., Fortwangler, C.L. & West, P.C. 2003. *Contested nature: promoting international biodiversity conservation with social justice in the twenty-first century*. New York: State University of New York Press.

Bridge, G. 2014. Resource geographies II: The resource-state nexus. *Progress in Human Geography*, *38*(1): 118-130.

Brighenti, A.M. 2010. On territorology: Towards a general science of territory. *Theory, culture & society*, *27*(1): 52-72.

Brockington, D. 2002. *Fortress conservation: the preservation of the Mkomazi Game Reserve, Tanzania*. Indiana: University Press.

Brockington, D. 2004. Community conservation, inequality and injustice: Myths of power in protected area management. *Conservation and Society*, *2*(2): 411-432.

Brockington, D. & Duffy, R. 2010. Capitalism and conservation: the production and reproduction of biodiversity conservation. *Antipode*, *42*(3): 469-484.

Brockington, D., Duffy, R. & Igoe, J. 2008. *Nature Unbound. Conservation, Capitalism and the Future of Protected Areas*. London: Earthscan

Brockington, D., Igoe, J. & Schmidt-Soltau, K.A.I., 2006. Conservation, human rights, and poverty reduction. *Conservation Biology*, *20*(1): 250-252.

Brockington, D. & Schmidt-Soltau, K. 2004. The social and environmental impacts of wilderness and development. *Orvx, 38*(2):140-142.

Bromley, D. 1992. *Making the commons work*. San Francisco: Institute for Contemporary Studies.

Bowne, D. R., J. D. Peles, and G. W. Barrett. 1999. Effects of landscape spatial structure on movement patterns of the hispid cotton rat (Sigmodon hispidus). *Landscape Ecology*, *14*:53-65

Brown, K. 2002. Innovations for conservation and development. *Geographical Journal*, *168*(1): 6-17.

Büscher, B. 2009. Letters of gold: Enabling primitive accumulation through neoliberal conservation. *Human Geography*, *2*(3): 91-93.

Büscher, B. 2010. Anti-politics as political strategy: Neoliberalism and transfrontier conservation in southern Africa. *Development and Change, 41*(1): 29-51.

Büscher, B. 2013. *Transforming the frontier: peace parks and the politics of neoliberal conservation in Southern Africa*. Duke: University Press.

Büscher, B. & Whande, W. 2007. Whims of the winds of time? Emerging trends in biodiversity conservation and protected area management. *Conservation and Society*, *5*(1): 22-43.

Campbell, A. C. 1995. Utilisation of wildlife in Botswana from earliest times to AD 900. In *The Present Status of Wildlife and Its Future in Botswana*. Gaborone, Botswana: Kalahari Conservation Society & Chobe Wildlife Trust, 45–67.

Caro, T., Jones, T. & Davenport, T.R. 2009. Realities of documenting wildlife corridors in tropical countries. *Biological Conservation, 142*(11): 2807-2811.

Cassidy, L. 2000. *CBNRM and legal rights to resources in Botswana*. No. 4. IUCN Botswana.

Castree, N. 2001. Socializing nature: Theory, practice, and politics. In *Social nature: Theory, practice, and politics*. N Castree & B.Braun, Eds. United Kingdom: Blackwell, 1-21.

Ceballos-Lascurain, H. 1996. *Tourism, Ecotourism and Protected Areas.* Gland: IUCN.

Centre for Applied Research. 2016. 2016 *Review of Community-Based Natural Resource Management in Botswana*. Report prepared for Southern African Environmental Programme (SAREP). Gaborone Botswana: Centre for Applied Research.

Chapin, M. 2004. *A challenge to conservationists*. World Watch Magazine Nov/Dec:17-31.

Chase, M. 2011. *Dry season fixed-wing aerial survey of elephants and wildlife in northern Botswana, September-November 2010*. Kasane, Botswana: Elephants Without Borders with the Department of Wildlife and National Parks, Botswana and the Zoological Society of San Diego, California, USA.

Chase, M.J., Schlossberg, S., Griffin, C.R., Bouché, P.J.C., Djene, S.W., Elkan, P.W., Ferreira, S., Grossman, F., et al. 2016. Continent-wide survey reveals massive decline in African savannah elephants. *Peer Journal, 1 – 24.*

Chengeta, Z., Jamare, J., & Chishakwe, N. 2003. *Assessment of the status of transboundary natural resources management activities in Botswana*. Gaborone, Botswana: IUCN.

Clerici, N., Bodini, A., Eva, H., Grégoire, J.M., Dulieu, D. & Paolini, C. 2007. Increased isolation of two Biosphere Reserves and surrounding protected areas (WAP ecological complex, West Africa). *Journal for Nature Conservation*, *15*(1): 26-40.

Colchester, M. 2000. Self-determination or environmental determinism for indigenous peoples in tropical forest conservation. *Conservation Biology*, *14*(5): 1365-1367.

Colchester, M. 2004. Conservation policy and indigenous peoples. *Environmental Science & Policy*, *7*(3): 145-153.

Collins, M.G., Steiner, F.R. & Rushman, M.J. 2001. Land-use suitability analysis in the United States: historical development and promising technological achievements. *Environmental Management*, *28*(5): 611–621.

Conservation International. 2006. *Towards rationalising transboundary elephant management and human needs in the Kavango/mid-Zambezi region*. Workshop Proceedings, May 2006, Gaborone, Botswana: Conservational International.

Convention on Biological Diversity. 2004. *Programme of Work on Protected Areas (CBD Programmes of Work*. Montreal: Secretariat of the Convention on Biological Diversity.

Cooke, H.J. 1985. The Kalahari today: a case of conflict over resource use. *Geographical Journal, 151*(1): 75–85.

Corbin, J., & Strauss, A. 2008. *Basics of qualitative research: Techniques and procedures for developing grounded theory*. 3rd ed. Thousand Oaks, California: Sage.

Corson, C. & MacDonald, K.I. 2012. Enclosing the global commons: the convention on biological diversity and green grabbing. *Peasant Studies*, *39*(2): 263-283.

Craigie, I.D., Baillie, J.E., Balmford, A., Carbone, C., Collen, B., Green, R.E. & Hutton, J.M. 2010. Large mammal population declines in Africa's protected areas. *Biological Conservation, 143*(9): 2221-2228

Crowl, T.A., Crist, T.O., Parmenter, R.R., Belovsky, G. and Lugo, A.E. 2008. The spread of invasive species and infectious disease as drivers of ecosystem change. *Frontiers in Ecology and the Environment*, *6*(5): 238-246.

Cumming, D. H. 1999. *Study on the development of transboundary natural resource management areas in southern Africa – environmental context: natural resources, land use, and conservation.* Washington, DC: Biodiversity Support Program.

Cumming, D.H. 2004a. *Sustaining animal health and ecosystem services in large landscapes-2nd draft-Concept for a programme to address wildlife, livestock and related human and ecosystem health issues in the Greater Limpopo Trans-frontier Conservation Area*. New York: Wildlife Conservation Society.

Cumming, D. H. 2004b. Movements and migrations of large mammals in the Four Corners area. *Biodiversity of the Four Corners Area: Technical Reviews, Volume Two*. J. R. Timberlake & S. L. Childes, Eds. Bulawayo, Zimbabwe: Biodiversity Foundation for Africa.

Cumming, D.H. 2008. *Large scale conservation planning and priorities for the Kavango-Zambezi Transfrontier Conservation Area.* Unpublished Report. Conservation International.

Cumming, D. H. 2011. *Constraints to Conservation and Development Success at the Wildlife Livestock-Human Interface in Southern African Transfrontier Conservation Areas: A*

Preliminary Review. Technical Report the Wildlife Conservation Society's AHEAD Program. New York: Wildlife Conservation Society.

Cumming, D.H., Osofsky, S.A., Atkinson, S.J. and Atkinson, M.W. 2015. Beyond Fences: Wildlife, Livestock and Land Use in Southern Africa. In *One health: The theory and practice of integrated health approaches*. J. Zinsstag et al., Eds. Oxfordshire: CABI. 243 - 257.

Cumming, D., & Jones, B. 2005. Elephants in southern Africa: management issues and options. (Occasional Paper Series No. 11). Harare, Zimbabwe: WWF-SARPO.

Cumming, G.S., Allen, C.R., Ban, N.C., Biggs, D., Biggs, H.C., Cumming, D.H., De Vos, A., Epstein, G., et al. 2015. Understanding protected area resilience: a multi-scale, social-ecological approach. *Ecological Applications, 25*(2): 299-319.

Cunningham, A.A. 1996. Disease risks of wildlife translocations. *Conservation Biology*, *10*(2): 349-353.

Dearden, P., Bennett, M. & Johnston, J. 2005. Trends in global protected area governance, 1992–2002. *Environmental Management*, *36*(1): 89-100.

Denbow, J.R. 1982. *The Toutswe tradition: a study in socio-economic change.* Proceedings of a Symposium on Settlement. Gaborone, Botswana: The Botswana Society.

Denzin, N. 1970. *The research act in sociology: A theoretical introduction to sociological method*. London: Butterworths.

Department of Wildlife and National Parks (DWNP). 1998. *Guidelines for Compensation.* Gaborone, Botswana: Department of Wildlife and National Parks.

Dey, I. 2003. *Qualitative data analysis: A user friendly guide for social scientists*. New York: Routledge.

De Beer, Y., Kilian, W., Versfeld, W. & van Aarde, R.J. 2006. Elephants and low rainfall alter woody vegetation in Etosha National Park, Namibia. *Journal of Arid Environments, 64*(3): 412–421.

De Bruijn, M., van Dijk, H., Chabal, P., Engel, U. & Gentili, A.M. 2005. Natural resources, scarcity and conflict: a perspective from below. In *Is violence inevitable in Africa*: *Theories of Conflict and Approaches to Conflict Prevention.* P. Chabal, U. Engel, & A. Gentilip, Eds. The Netherlands: Koninklijke Brill NV, Leiden, 55-74.

De Fries, R., Hansen, A., Newton, A.C. & Hansen, M.C. 2005. Increasing isolation of protected areas in tropical forests over the past twenty years. *Ecological Applications, 15*(1): 19-26.

De Garine-Wichatitsky, M., Caron, A., Gomo, C., Foggin, C., Dutlow, K., Pfukenyi, D., Lane, E., Le Bel, S., Hofmeyr, M., Hlokwe, T. and Michel, A. 2010. Bovine tuberculosis in buffaloes, Southern Africa. *Emerging Infectious Diseases*, *16*(5): 884.

De Garine-Wichatitsky, M. & Fritz, H. 2017. Consequences of animals crossing the edges of transfrontier parks. In *Transfrontier Conservation Areas*. J. Anderson, et al. Eds. Oxon. Routledge, 137-162.

De Garine-Wichatitsky, M., Miguel, E., Mukamuri, B., Garine-Wichatitsky, E., Wencelius, J., Pfukenyi, D.M. & Caron, A. 2013. Coexisting with wildlife in transfrontier conservation areas in Zimbabwe: Cattle owners' awareness of disease risks and perceptions of the role

played by wildlife. *Comparative Immunology, Microbiology and Infectious Diseases, 36*(3): 321-332.

De Motts, R. & Hoon, P. 2012. Whose elephants? Conserving, compensating, and competing in Northern Botswana. *Society & Natural Resources, 25*(9): 837-851.

Dickman, A.J. 2010. Complexities of conflict: the importance of considering social factors for effectively resolving human–wildlife conflict. *Animal Conservation, 13*(5): 458-466.

Dixon, C. & Heffernam, M. 1991. *Colonialism and Development in the Contemporary World*. London: Mansell.

Dowie, M. 2009. *Conservation refugees: the hundred-year conflict between global conservation and native peoples*. Cambridge: MIT Press.

Drakakis-Smith, D. & Willams, S. 1983. *Internal Colonialism: Essays Around a Theme. Developing Areas Research Group*. Edinburgh: Institute of British Geographers.

Draper, M., Spierenburg, M. & Wels, H. 2004. African dreams of cohesion: Elite pacting and community development in transfrontier conservation areas in Southern Africa. *Culture and Organization, 10*(4): 341-353.

Dressler, W. & Büscher, B. 2008. Market triumphalism and the CBNRM 'crises' at the South African section of the Great Limpopo Transfrontier Park. *Geoforum, 39*(1): 452-465.

Dressler, W., Büscher, B., Schoon, M., Brockington, D.A.N., Hayes, T., Kull, C.A., McCarthy, J. & Shrestha, K. 2010. From hope to crisis and back again? A critical history of the global CBNRM narrative. *Environmental Conservation, 37*(1): 5-15.

Dudley, N. Ed. 2008. *IUCN Guidelines for Applying Protected Area Management Categories.* Gland: IUCN.

Duffy, R. 2006. The potential and pitfalls of global environmental governance: The politics of transfrontier conservation areas in Southern Africa. *Political Geography, 25*(1): 89-112.

Duffy, R. & Moore, L. 2010. Neoliberalising nature? Elephant-back tourism in Thailand and Botswana. *Antipode, 42*(3): 742-766.

Dunlop, A. 1999. *What Future for Lome's Commodity Protocols?.* Discussion paper. Maastricht, Netherlands: ECDPM.

Du Plessis, A.J.E. & Rowntree, K.M. 2003. Water resources in Botswana with particular reference to savanna regions. *South African Geographical Journal, 85*(1): 42-49.

Dyer, J., Stringer, L.C., Dougill, A.J., Leventon, J., Nshimbi, M., Chama, F., Kafwifwi, A., Muledi, J.I., Kaumbu, J.M., Falcao, M. & Muhorro, S. 2014. Assessing participatory practices in community-based natural resource management: Experiences in community engagement from southern Africa. *Journal of Environmental Management, 137*: 137-145.

Edwards, L. 2005. Has South Africa Liberalised its Trade?. *South African Journal of Economics, 73*(4): 754-775.

Eisner, E.W. 1991. *The enlightened eye: Qualitative inquiry and the enhancement of educational practice.* Toronto: Collier Macmillan Canada.

Elden, S. 2007. Governmentality, calculation, territory. *Environment and Planning D: Society and Space, 25*(3): 562-580.

Elden, S. 2013. The significance of territory. *Geographica Helvetica*, *68*(1): 65-68.

Elephants Without Borders. 2016. *Elephant Research.* Available: https://elephantswithoutborders.org/projects/elephant-research/ [2019, August 23rd].

Estes, R.D. 1969. Territorial Behavior of the Wildebeest (*Connochaetes taurinus Burchell*, 1823). PhD Thesis. Faculty of the Graduate School of Cornell University, New York.

Evans, A. 2011. *Resource scarcity, climate change and the risk of violent conflict*. World Development Report. New York University: Centre on International Cooperation

Fairhead, J., Leach, M. & Scoones, I. 2012. Green Grabbing: a new appropriation of nature. *Journal of Peasant Studies*, *39*(2): 237-261.

Fahrig, L. 2003. Effects of habitat fragmentation on biodiversity. *Annual Review of Ecology, Evolution, and Systematics*, *34*(1): 487-515.

Ferreira, S. 2004. Problems associated with tourism development in Southern Africa: The case of Transfrontier Conservation Areas. *GeoJournal*, *60*(3): 301-310.

Ferguson, K. & Hanks, J. 2012. The effects of protected area and veterinary fencing on wildlife conservation in southern Africa. *Parks*, *18*(1): 49.

Folke, C., Holling, C.S. & Perrings, C. 1996. Biological diversity, ecosystems, and the human scale. *Ecological Applications*, *6*(4): 1018-1024.

Gadd, M.E. 2012. Barriers, the beef industry and unnatural selection: a review of the impact of veterinary fencing on mammals in Southern Africa. In *Fencing for conservation*. M.J. Somers & M. Hayward, Eds. New York: Springer, 153-186.

Gaing O Community Trust. N.d. *Kubu Island*. Available: http://www.kubuisland.com/ [2018, May 3rd].

Garland, E. 2008. The elephant in the room: confronting the colonial character of wildlife conservation in Africa. *African Studies Review*, *51*(3): 51‑74.

Ghimire, K.B. & Pimbert, M.P. Eds. 1997. *Social change and conservation: Environmental politics and impacts of national parks and protected areas*. Unites Kingdom: Earthscan.

Gibson, D. 1995. *Wildlife conservation in northern Botswana: final report aerial surveys.* Gaborone, Botswana: Department of Wildlife and National Parks, Ministry of Commerce and Industry.

Glassman, J. 2006. Primitive accumulation, accumulation by dispossession, accumulation by 'extra-economic' means. *Progress in Human Geography*, *30*(5): 608-625.

Glatz-Jorde, S., Huber, M., Mosimane, A., Kirchmeir, H. Lendelvo, S., Topp T., Mukvavi, G., Mulenga, O. et al. 2014. *Final record of consulting services for the socioeconomic baseline survey for the Kavango Zambezi Transfroniter Conservation Area (KAZA TFCA) and the development of a framework for monitoring and evaluating the impacts of the KAZA TFCA Programmes on rural livelihoods*. Stellenbosch: Peace Parks Foundation.

Gloyne, C.C. & Clevenger, A.P. 2001. Cougar Puma concolor use of wildlife crossing structures on the Trans-Canada highway in Banff National Park, Alberta. *Wildlife Biology*, *7*(2): 117-124.

Government of Botswana (GoB). 2007. *Community-based natural resource management policy.* Gaborone, Botswana: Government Printer.

Government of Botswana (GoB). 1990. *The Tourism Policy.* Gaborone, Botswana: Government Printer.

Goodman, D. 1999. Agro-food studies in the 'age of ecology': nature, corporeality, bio-politics. *Sociologia Ruralis*, *39*(1): 17-38

Gottmann, J. 1973. *The Significance of Territory.* Charlottesville: University of Virginia Press.

Hall, D. 2013. Primitive accumulation, accumulation by dispossession and the global land grab. *Third World Quarterly*, *34*(9): 1582–1604.

Hall, D., Hirsch, P. & Li., T. 2011. *Powers of Exclusion: Land Dilemmas in Southeast Asia*. Singapore: National University of Singapore Press.

Hanks, J. 2003. Transfrontier conservation areas in Southern Africa: their role in conserving biodiversity, socioeconomic development and promoting a culture of peace. *Journal of Sustainable Forestry*, *17*(1-2): 127-148.

Hardin, G. 1968. The tragedy of the commons. *Science*, *162*: 1243–1248.

Harrison, S. & Bruna, E. 1999. Habitat fragmentation and large-scale conservation: what do we know for sure?. *Ecography*, *22*(3): 225-232.

Harvey, D. 2003. *The New Imperialism*. Oxford: Oxford University Press.

Hatch, J.A. 2002. *Doing qualitative research in education settings*. Albany: New York Press.

Heller, N.E. & Zavaleta. E. 2009. Biodiversity management in the face of climate change: A review of 22 years of recommendations. *Biological Conservation*, *142*(1): 14–32.

Hemson, G.A. 2004. *The Ecology of Conservation of Lions: Human Wildlife Conflict in Semi-arid Botswana*. PhD Thesis. University of Oxford: Oxford.

Herremans, M. 1995. Effects of woodland modification by African elephant Loxodonta africana on bird diversity in northern Botswana. *Ecography*, *18*(4): 440-454.

Hess, G. 1994. Conservation corridors and contagious disease: a cautionary note. *Conservation Biology*, *8*(1): 256-262.

Hilty, J.A., Lidicker Jr, W.Z. & Merenlender, A. 2012. *Corridor ecology: the science and practice of linking landscapes for biodiversity conservation*. Washington DC: Island Press.

Hitchcock, R. K. 1995. Centralization, Resource Depletion, and Coercive Conservation among the Tyua of the Northwestern Kalahari. *Human Ecology*, *23*(2): 169-98.

Hitchcock, R.K. 1999. *Community based natural resource management in Botswana.* Fredericksburg, Virginia: First Nations Development Institute.

Hoare, R.E. & Du Toit, J.T. 1999. Coexistence between people and elephants in African savannas. *Conservation Biology*, *13*(3): 633-639.

Hoare, R. 2000. African elephants and humans in conflict: the outlook for co-existence. *Oryx*, *34*(1):34-38.

Hobbs, R.J. 1992. The role of corridors in conservation: solution or bandwagon?. *Trends in Ecology & Evolution*, *7*(11): 389-392.

Holdo, R.M. 2007. Elephants, fire, and frost can determine community structure and composition in Kalahari woodlands. *Ecological Applications*, *17*(2): 558-568.

Hoon, P. 2014. Elephants are like our diamonds: recentralizing community based natural resource management in Botswana, 1996-2012. *African Studies Quarterly*, *15*(1): 55.

Hopkins, L. 1977. Methods for generating land suitability maps: a comparative evaluation. *Journal of the American Institute of Planners*, *43*(4): 386-400.

Hutton, J., Adams, W.M. & Murombedzi, J.C. 2005. Back to the barriers? Changing narratives in biodiversity conservation. *Forum for Development Studies*, *32*(2): 341- 370.

Hulme, D. & Murphree, M. 1999. Communities, wildlife and the 'new conservation' in Africa. *Journal of International Development*, *11*(2): 277- 285.

Igoe, J. & Brockington, D. 2007. Neoliberal conservation: a brief introduction. *Conservation and Society*, *5*(4): 432-449.

Jenkins, C.N. & Joppa, L. 2009. Expansion of the global terrestrial protected area system. *Biological Conservation*, *142*(10): 2166-2174.

Johnson, S. 2009. *State of CBNRM Report 2009*. Gaborone, Botswana: Botswana National CBNRM Forum.

Johnson, B. & Turner, L.A. 2003. Data collection strategies in mixed methods research. In *Handbook of mixed methods in social and behavioral research*. A. Tashakkori, & C. Teddle, Eds. Thousand Oaks, California: Sage Publications, 297-319.

Johnston, R., 2001. Out of the 'moribund backwater': territory and territoriality in political geography. *Political Geography*, *20*(6): 677-693.

Jones, B. 1999. Policy lessons from the evolution of a community-based approach to wildlife management, Kunene region, Namibia. *Journal of International Development*, *11*(2): 295-304.

Jones, B. 2008. *Legislation and policies relating to protected areas, wildlife conservation, and community rights to natural resources in countries being partner in the Kavango Zambezi Transfrontier Conservation Area*. Windhoek, Namibia: A Review commissioned by Conservation International, African Wildlife Foundation and Swiss Agency for Development and Cooperation.

Jones, B. T. B. 2009. *A study of the policy and legal framework governing transboundary natural resource management in the Great Limpopo Transfrontier Conservation Area*. A Review commissioned by IUCN South Africa, in collaboration with Cooparazione E Sviluppo (CESVI), supported by Cooparazione Italiana (with contributions from Simon Metcalf and Roberto Zolho).

Jones, J. L. 2006. *Dynamics of conservation and society: the case of Maputaland, South Africa*. PhD Thesis, University of Pretoria, Pretoria.

Kalabamu, F.T. 2000. Land tenure and management reforms in East and Southern Africa–the case of Botswana. *Land Use Policy*, *17*(4): 305-319.

Kalahari Conservation Society. 2005. *Kalahari Conservation Society Assessment Report: Removal of Decommissioned Veterinary Fences in Ngamiland District, Botswana*. Gaborone, Botswana: Sierra Club, Kalahari Conservation Society and The WILD Foundation.

KAZA TFCA. 2006. *Memorandum of Understanding (MoU).* Vitoria Falls Zimbabwe: KAZA TFCA, 1-16.

KAZA TFCA. 2011. *Kavango Zambezi (KAZA) TFCA Treaty*. Available: https://www.kavangozambezi.org/en/publications?task=document.viewdoc&id=6 [2019, January 31st]

KAZA TFCA. 2014. Kavango Zambezi (KAZA) TFCA master integrated development plan, 2015-2020. Available: http://www.kavangozambezi.org/sites/default/files/Publications%20%26%20Protocols%20/KAZA%20Master%20IDP%20Web%20Resolution.pdf [2017, May 27th].

KAZA TFCA. 2015. *Kavango Zambezi Transfrontier Conservation Area: Operational Plan for 2017 and 2017.* Kasane, Botswana: KAZA Secretariat, 1-123.

KAZA TFCA Website. Kavango Zambezi (KAZA) TFCA. Available: https://www.kavangozambezi.org/en/ [2019, January 31st]

Keene-Young, R. 1999. A thin line: Botswana's cattle fences. *Africa Environment and Wildlife*, *7*(2): 71-79.

Kellert, S.,Mehta, J., Ebbin, S. & Lichtenfeld, L. 2000. Community natural resources management: promise, rhetoric and reality. *Society and Natural Resources*, 13(8): 705-715.

Kelly, A.B. 2011. Conservation practice as primitive accumulation. *Journal of Peasant Studies, 38*(4): 683-701.

Kelly, A.B. & Ybarra, M. 2016. Introduction to themed issue: Green security in protected areas. *Geoforum, 69:* 171-175.

Kostyack, J., Lawler, J.J., Goble, D.D., Olden, J.D. & Scott, J.M. 2011. Beyond reserves and corridors: policy solutions to facilitate the movement of plants and animals in a changing climate. *BioScience*, *61*(9): 713-719.

Kramer, R.A., Van Schaik, C.P. & Johnson, J. Eds. 1977. *Last Stand: Protected areas and the defense of tropical biodiversity.* New York: Oxford University Press.

Kumar, C. 2006. Whither 'Community-Based' Conservation?. *Economic and political weekly*, 5313-5320.

Lamarque, F., Anderson, J., Fergusson, R., Lagrange, M., Osei-Owusu, Y. & Bakker, L. 2009. Human-wildlife conflict in Africa: causes, consequences and management strategies. FAO Forestry Paper, 157. Rome, Italy: Food and Agriculture Organization of the United Nations (FAO).

Lance, T. 1995. *Conservation Politics and Resource Control in Cameroon: The Case of Korup National Park and its Support Zone*. Paper presented at the African Studies Association Annual Meeting, 4 November. Orlando, Florida.

La Polla, V. N. & Barrett, G.W. 1993. Effects of corridor width and presence on the population dynamics of the meadow vole (Microtus pennsylvanicus). *Landscape Ecology, 8*(1): 25-37.

Laurance S.G. & Laurance W.F. 1999. Tropical wildlife corridors: use of linear rainforest remnants by arboreal mammals. *Biological Conservation, 91*(2-3): 231-9.

Leach, M. & Mearns, R. 1996. *The Lie of the Land: Challenging Received Wisdom on the African Environment.* London: Heinemann and James Currey.

Leader-Williams, N. & Albon, S.D. 1988. Allocation of resources for conservation. *Nature, 336*(6199): 533-535.

Leechor, C. & Fabricius, M. 2004. *Developing tourism in Botswana: progress and challenges.* Botswana Export Diversification Study. Gaborone Botswana: World Bank-BIDPA.

Lenao, M. 2017. Community, state and power-relations in community-based tourism on Lekhubu Island, Botswana. *Tourism Geographies, 19*(3): 483-501.

Li, T.M. 2008. Contested commodifications: struggles over nature in a national park. In: *Taking South East Asia to market: commodities, nature and people in the neoliberal age.* J. Nevins & N.L. Peluso, Eds. Ithaca: Cornell University Press.

Lindsey, P.A., Balme, G., Becker, M., Begg, C., Bento, C., Bocchino, C., Dickman, A., Diggle et al. 2013. The bushmeat trade in African savannas: Impacts, drivers, and possible solutions. *Biological Conservation, 160*: 80-96.

Litfin, K. 1994. *Ozone discourses: science and politics in global environmental co-operation.* New York: Columbia University Press.

Locke H. 2014. Nature needs half: a necessary and hopeful new agenda for protected areas in North America and around the World. *George Wright Forum, 31*(3):359–371

Lomba, R. 1991. *Buffalo Fences: Botswana's Shame. The Death Trap*. Unpublished collection of documents concerning the northern buffalo fence. Gaborone, Botswana: Department of Wildlife and National Parks Library.

Lucas, A. & Warren, C. 2003. The state, the people, and their mediators: the struggle over agrarian law reform in post-New Order Indonesia. *Indonesia, 76*: 87-126.

Lunstrum, E., 2016. Green grabs, land grabs and the spatiality of displacement: eviction from Mozambique's Limpopo National Park. *Area*, 48(2): 142-152.

MacArthur, R. & Wilson, E.O. 1967. The theory of island biogeography. Princeton: Princeton University Press.

MacKenzie, J. M. 1989. *The Empire of Nature: Hunting, Conservation and British Imperialism.* Manchester: Manchester University Press.

Madrigal, M. & McClain, B. 2012. Strengths and Weaknesses of Quantitative and Qualitative Research. UXM Matters. Available: https://www.uxmatters.com/mt/archives/2012/09/strengths-and-weaknesses-of-quantitative-and-qualitative-research.php [08/06/2018].

Makoni, P.L. 2015. Foreign direct investment -The case of Botswana. *Accta Universitatis Danubius, Œconomica 11*(4): 160 – 173.

Mangani, M. P. C. 2007. Contagious bovine pleuropneumonia in Zambia. Available: http://www.fao.org/docrep/007/y5510e/y5510e0y.htm [2019, January 5th].

Mann, C.C. & Plummer, M.L. 1995. Are wildlife corridors the right path?. *Science*, *270*(5241): 1428.

Masale, G. 1988. Policy formulation for land tenure reorganisation: a case study of Botswana's grazing land policy. In *Mobilization of Resources for National and Regional Development in Southern Africa*. L. Kandoole, Ed. Zomba, Malawi: Southern Africa Universities Social Science.

Margules, C.R. & R.L. Pressey, 2000. Systematic conservation planning. *Nature*, 405(6783): 243-253.

Massé, F. & Lunstrum, E. 2016. Accumulation by securitization: Commercial poaching, neoliberal conservation, and the creation of new wildlife frontiers. *Geoforum, 69:* 227-237.

Martin, R. B. 2008. *Development of Strategic Options to Improve the Performance of The Botswana. Department of Wildlife and National Parks.* Final Report. Consultancy for the company Atos Origin (Belgium) done under the Wildlife Conservation and Management Programme jointly funded by the European Union and the Government of Botswana (8 ACP BT 10).

Marton-Lafevre, J. 2007. *Peace parks: conservation and conflict resolution*. Cambridge, Massachusetts: Mit Press.

Marx, K. 1906. *Capital: a critique of political economy*. New York: Random House, Inc.

Mathambo, K. 2014. *Botswana Budget Speech of 2014/15 Financial Year*. Gaborone Botswana: Government Printer.

Mbaiwa, J. E. 2005a. Enclave tourism and its socio-economic impacts in the Okavango Delta, Botswana. *Tourism Management*, *26*(2): 157–72

Mbaiwa, J. E. 2005b. The Problems and Prospects of Sustainable Tourism Development in the Okavango Delta, Botswana. *Journal of Sustainable Tourism, 13*(3): 203–227.

Mbaiwa, J. E. 2012. *CBNRM Status Report of 2010–12*. Gaborone, Botswana: Kalahari Conservation Society.

Mbaiwa, J.E. 2015. Community-based natural resource management in Botswana. In Institutional arrangements for conservation, development and tourism in Eastern and Southern Africa. R. van der Duim, M. Lamers & J. Van Wyk, Eds. Dordrecht: Springer, 59-80.

Mbaiwa, J.E. 2017. Poverty or riches: who benefits from the booming tourism industry in Botswana?. *Journal of Contemporary African Studies*, *35*(1): 93-112.

Mbaiwa, J.E. & Mbaiwa, O.I. 2006. The effects of veterinary fences on wildlife populations in Okavango Delta, Botswana. *International Journal of Wilderness, 12*(3): *17-41*.

Mbaiwa, J. E., & Stronza, A. L. 2010. The effects of tourism development on rural livelihoods in the Okavango Delta, Botswana. Journal of Sustainable Tourism, *18*(5): 635–656.

Mbotiji, J. 2002. *Sustainable use of wildlife resources: The bushmeat crisis.* Wildlife Management Workshop Paper No. 5. Rome Italy: Food and Agricultural Association of the United Nations (FAO).

McAfee, K. & Shapiro, E.N. 2010. Payments for ecosystem services in Mexico: nature, neoliberalism, social movements, and the state. *Annals of the Association of American Geographer*s, *100*(3): 579-599.

MacArthur, R.H. & Wilson, E.O. 1967. The theory of island biogeography. Princeton, New Jersey: Princeton University Press.

McCaig, B., McMillan, M.S., Verduzco-Gallo, I. & Jefferis, K. 2015. *Stuck in the Middle? Structural Change and Productivity Growth in Botswana.* Working Paper Series No. 21029. Cambridge, Massachusetts: National Bureau of Economic Research.

McCarthy, J. 2005. Devolution in the woods: community forestry as hybrid neoliberalism. *Environment and Planning A, 37*(6): 995-1014.

McCarthy, J.M., Gumbricht, T., McCarthy, T., Frost, P., Wessels, K. & Seidel, F. 2003. Flooding Patterns of the Okavango Wetland in Botswana between 1972 and 200G0. *Ambio, A Journal of the Human Environment, 32*(7): 453-457.

McCulloch, G., Brooks, C., Eckardt, F., Perkins, J., Atlhopheng, J., Meyer, T & Arntzen, J. 2010. *Makgadikgadi Framework Management Plan.* Technical Report, Volume 2. Gaborone, Botswana: Centre for Applied Research and Department of Environmental Affairs.

McGinnis, M.V. Ed. 1999. *Bioregionalism*. New York: Routledge.

McHarg, I.L. 1969. *Design with Nature*. New York: Doubleday.

McKeon, N., M. Watts, & Wolford, W. 2004. *Peasant associations in theory and practice*. Geneva: United Nations Research Institute for Social Development.

McMichael, P. 2012. The land grab and corporate food regime restructuring. *Peasant Studies, 39*(3-4): 681-701.

Mech, S.G. & Hallett, J.G. 2001. Evaluating the effectiveness of corridors: a genetic approach. *Conservation Biology, 15*(2): 467-474.

Mehta L, Veldwisch G & Franco J. 2012. Water Grabbing? Focus on the (re)appropriation of finite water resources. *Water Alternatives, 5*(2): 193–207.

Metcalfe, S. 1999. *Study on the development of transboundary natural resource management areas in southern Africa - community perspectives*. Washington, DC: Biodiversity Support Program.

Metcalfe, S., 1994. *CAMPFIRE: Z*imbabwe's Communal Areas Management Programme For Indigenous Resources. In *Natural Connections: Natural Perspectives in Community-based Conservation* . D. Western, M. Wright, & S. Strum, Eds. Washington D.C: Island Press, 161-192.

Metcalfe, S. 2003. Impacts of transboundary protected areas on local communities in three southern African initiatives. Workshop on Transboundary Protected Areas. Durban, South Africa: Governance Stream of the 5th World Parks Congress.

Metcalfe, S. 2005. *Transboundary protected area impacts on communities: Case study of three Southern African transboundary conservation initiatives*. Working papers, July 2005. Washington D.C: African Wildlife Foundation.

Metcalfe, S. 2006. *Communal Land reform in Zambia: governance, livelihood and conservation*. M.Phil. Dissertation. Programme for Land and Agrarian Studies (PLAAS), Faculty of Economic and Management Sciences. University of the Western Cape, Cape Town.

Metcalfe, S. & Kepe, T. 2008. "Your Elephant on Our Land" The Struggle to Manage Wildlife Mobility on Zambian Communal Land in the Kavango-Zambezi Transfrontier Conservation Area. *The Journal of Environment & Development*, *17*(2): 99-117.

Meynell, P.J. & Parry, D. 2002. *Environmental appraisal for the construction of a game proof fence around Makgadikgadi Pans National Park*. Gaborone, Botswana: Scott Wilson Kirkpatrick & Partners.

Ministry of Agriculture. 1990. *Soil Map of the Republic of Botswana.* Soil mapping and advisory service FAO/BOT/85/011, Scale 1:1,000,000. Gaborone, Botswana: Republic of Botswana.

Ministry of Environment, Wildlife, and Tourism (MEWT). 2003. Elephant management plan for Botswana. Gaborone, Botswana: Government of Botswana.

Ministry of Environment, Wildlife and Tourism (MEWT). 2013. *The integrated development plan for the Kavango Zambezi Transfrontier conservation area for the Botswana component*. Gaborone, Botswana: Government of Botswana.

Mogende, E. 2016. *The politics of Kavango-Zambezi (KAZA) TFCA in Botswana*. MPhil Dissertation, Department of Environmental and Geographical Science. University of Cape Town, Cape Town.

Mohamed-Katerere, J. 2001. Participatory natural resource management in the communal lands of Zimbabwe: What role for customary law. *African Studies Quarterly*, *5*(3): 1-27.

Mordi, R. 1989. The future of animal wildlife and its habitat in Botswana. *Environmental Conservation, 16*(2): 147–56

Morgan, D.L. 1998. Practical strategies for combining qualitative and quantitative methods: Applications to health research. *Qualitative Health Research, 8*(3): 362-376.

Munthali, S.M. 2007. Transfrontier conservation areas: Integrating biodiversity and poverty alleviation in Southern Africa. *Natural Resources Forum, 31*(1): 51-60.

Murithi, T., 2017. The African Union: pan-Africanism, peacebuilding and development. London: Routledge.

Murombedzi, J.C. 1992. *Decentralization or recentralization? Implementing CAMPFIRE in the Omay Communal Lands of the Nyaminyami District*. Ph.D. thesis, Centre for Applied Social Sciences. University of Zimbabwe, Harare.

Murphree, M. 1993. *Communities as resource management institutions*. IIED: London

Murphree, M. 1997. *Congruent objectives, competing interests and strategic compromise*. Paper presented at the Conference on Representing Communities: Histories and Politics of Community-Based Resource Management. Georgia, USA.

Murphy, A. 2008. *Living in the global commons-the case of residents of a national park in the Kavango-Zambezi Transfrontier Conservation (KAZA), Southern Africa*. Conservation International, 1-13.

Musisi, F. L., Dungu, B., Thwala, R., Mogajane, M. E. & Mtei, B. J. 2007. The threat of contagious bovine pleuropneumonia and challenges for its control in the SADC region. Available: http://www.fao.org/docrep/007/y5510e/y5510e0d.htm#bm13 [2019, January 5th].

Myers, N., Mittermeier, R.A., Mittermeier, C.G., Da Fonseca, G.A. & Kent, J. 2000. Biodiversity hotspots for conservation priorities. *Nature*, *403*(6772): 853-858.

Myers, N. 1988. Threatened biotas:" hot spots" in tropical forests. *Environmentalist*, *8*(3): 187-208.

Naidoo, R., Chase, M.J., Beytell, P., Du Preez, P., Landen, K., Stuart-Hill, G. & Taylor, R. 2016. A newly discovered wildlife migration in Namibia and Botswana is the longest in Africa. *Oryx*, *50*(1): 138-146.

Nash, W. 1982. *The American Mind*. Haraway: Primate Visions.

National Geographic Society, 2017. *GIS (Geographic Information System).* Available: https://www.nationalgeographic.org/encyclopedia/geographic-information-system-gis/ [2018, October 9th].

Neme, L. A. 1995. The political dynamics of environmental decision-making: A case study of Botswana's bureaucracy. Unpublished dissertation. Princeton University, Princeton.

Neves, K. & Igoe, J. 2012. Uneven development and accumulation by dispossession in nature conservation: comparing recent trends in the Azores and Tanzania. *Tijdschrift voor Economische en Sociale Geografie*, *103*(2): 164–179.

Neville, K. & Dauvergne, P. 2012. Biofuels and the politics of mapmaking. *Political Geography*, *31*(5): 279–289.

Neumann, R.P. 1992. The political ecology of wildlife conservation in the Mount Meru area, northeast Tanzania. *Land Degradation and Rehabilitation*, *3*(2): 85-98.

Neumann, R.P. 1997. Primitive ideas: protected area buffer zones and the politics of land in Africa. *Development and Change*, *28*(3): 559-582.

Neumann, R. P. 1998. *Imposing wilderness: struggles over livelihood and nature preservation in Africa*. Berkeley: University of California Press.

Neumann, R.P. 2002. Toward a critical theorization of conservation enclosures. In *Liberation ecologies: environment, development and social movements*. R. Peet & M. Watts, Eds. 179-194. New York: Routledge.

Neumann, R.P. 2003. The Production of Nature Colonial Recasting of the African Landscape. In *Political ecology: An integrative approach to geography and environment-development studies*. K.S. Zimmerer & T.J. Bassett, Eds. New York: The Guilford Press. 240-255.

Neumann, R.P. 2004a. *Making Political Ecology*. London: Hodder Arnold.

Neumann, R.P. 2004. Moral and discursive geographies in the war for biodiversity in Africa. *Political Geography*, *23*(7): 813-837.

Newmark, W.D. 2008. Isolation of African protected areas. *Frontiers in Ecology and the Environment*, *6*(6): 321-328.

Ng'ong'ola, C. 1996. Customary law, land tenure and policy in some African countries at the threshold of the twenty-first century. In *Property Law on the Threshold of the 21st Century*. G.E. van Maanen, & A.J. van der Walt Eds. Antwerp, Belgium: Maklu Uitgevers.

Nordstrom, C. 2004. *Shadows of war: violence, power, and international profiteering in the twenty-first century.* Berkeley: University of California Press.

Norton-Griffiths, M. & Southey, C. 1995. The opportunity costs of biodiversity conservation in Kenya. *Ecological Economics*, *12*: 125-139.

Noss, A.J. 1997. Challenges to nature conservation with community development in central African forests. *Oryx*, *31*(3): 180-188

Noss, R.F. & Cooperrider, A. 1994. *Saving nature's legacy: protecting and restoring biodiversity*. Washington: Island Press.

Oates, J.F. 1999. *Myth and reality in the rain forest: how conservation strategies are failing in West Africa*. Berkley: University of California Press.

Ogden, L.E. 2015. Do Wildlife Corridors Have a Downside?. *Bioscience*, *65*(4): 452-452.

Ojeda, D. 2012. Green pretexts: Ecotourism, neoliberal conservation and land grabbing in Tayrona National Natural Park, Colombia. *Peasant Studies*, *39*(2): 357-375.

Olff, H. & Ritchie, M.E. 2002. Fragmented nature: consequences for biodiversity. *Landscape and Urban Planning*, *58*(2): 83-92.

Ostrom, E. 1990. *Governing the commons: The evolution of institutions for collective action.* Cambridge: Cambridge University Press.

Parmesan, C. 2006. Ecological and evolutionary responses to recent climate change. *Annual Review of Ecology, Evolution, and Systematics*, *37*: 637-669.

Parson, J. 1981. Cattle, class and the state in rural Botswana. *Journal of Southern African Studies*, *7*(2): 236-255.

Peace Parks Foundation. 1998. *Annual report*. Stellenbosch: Peace Parks Foundation.

Peace Parks Foundation.2012. *Southern African Peace Parks*. Available: http://www.peaceparks.org/story.php?pid=100&mid=19 [2012, May 5th].

Peace Parks Foundation. 2017. Kavango Zambezi. Available: http://www.peaceparks.org/tfca.php?pid=27&mid=1008 [2017, May 29th].

Peace Parks Foundation 2018. *Annual Report.* Stellenbosch: Peace Parks Foundation.

Peluso, N.L., 1993. Coercing conservation?: The politics of state resource control. *Global Environmental Change*, *3*(2): 199-217.

Peluso, N.L. & Lund, C. 2011. New frontiers of land control: Introduction. *Peasant Studies*, *38*(4): 667-681.

Peluso, N.L. & Watts, M. 2001. *Violent environments.* Ithaca: Cornell University Press.

Perkins, J. S. 1996. Botswana: Fencing out of the equity issue, cattleposts and cattle ranches in the Kalahari Desert. *Journal of Arid Environments, 33*(3): 503–517.

Perkins, J.S. & Ringrose, S.M. 1996. Development co-operation's objectives and the beef protocol: The case of Botswana. *A study of livestock/wildlife/tourism/degradation linkages.* Gaborone Botswana*:* Department of Environmental Science, University of Botswana.

Peters, P.E. 1984. Struggles over water, struggles over meaning: cattle, water and the state in Botswana. *Africa, 54*(3): 29-49.

Ramutsindela, M. 2004. *Parks and people in postcolonial societies: experiences in southern Africa. Dordrecht.* The Netherlands: Kluwer.

Ramutsindela, M. 2007. Transfrontier conservation in Africa: At the confluence of capital, politics and nature. Oxfordshire: Cabi.

Ramutsindela, M. 2008. The contours of political transformation and conservation areas in Southern Africa. *Geography Compass, 2*(2): 359-374.

Ramutsindela, M. & Noe, C. 2012. Scalar thickening: Wildlife management areas and conservation scales in southeast Tanzania. *Singapore Journal of Tropical Geography, 33*(1): 137-151.

Ramutsindela, M. & Sinthumule, I. 2017. Property and difference in nature conservation. *Geographical Review, 107*(3): 415-432.

Raymond, C.M. 2014.Special Section: identifying and assessing conservation opportunity. *Conservation Biology, 28*(6): 1447.

Redford, K.H., 1991. The ecologically noble savage. *Cultural Survival Quarterly, 15*(1): 46-48.

Redford, K.H. 1992. The empty forest. *Bioscience,* Vol. 42(6): 412-422.

Redpath, S.M., Young, J., Evely, A., Adams, W.M., Sutherland, W.J., Whitehouse, A., Amar, A., Lambert, et al. 2013. Understanding and managing conservation conflicts. *Trends in Ecology & Evolution, 28*(2): 100-109.

Reid, R.S., Thornton, P.K. & Kruska, R.L. 2004. Loss and fragmentation of habitat for pastoral people and wildlife in East Africa: concepts and issues. *African Journal of Range and Forage Science, 21*(3): 171-181.

Renwick, A.R., White, P.C.L. & Bengis, R.G. 2007. Bovine tuberculosis in southern African wildlife: a multi-species host–pathogen system. *Epidemiology & Infection, 135*(4): 529-540.

Richards, P. 1996. *Fighting for the rain forest: war, youth and resources in Sierra Leone*. Oxford: James Currey.

Richards, P. 2001. Are forest wars in Africa resource conflicts? The case of Sierra Leone. In *Violent environments.* N. L. Peluso, & M. Watts, Eds. London: Cornell University Press, 64-82.

Riedal, F., Ekhardt, S., Chauke, C., Kossler, A., Shemang, E., & Tarasov, P. 2012. Evidence of a permanent lake in Sua Pan (Kalahari, Botswana) during the early centuries of the last millennium indicated by distribution of baobab trees (Adansonia Digitata) on Kubu Island. *Quaternary International, 253*: 67–73.

Robertson, M. 2010. Performing environmental governance. *Geoforum, 41*(1): 7-10.

Robinson, J.G., & Bennett, E.L. 2004. Having your wildlife and eating it too: an analysis of hunting sustainability across tropical ecosystems. *Animal Conservation Forum, 7*(4): 397-408.

Robinson, D., Hewitt, T. & Harriss, J. 2000. *Managing Development*. London: Sage.

Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin III, F.S., Lambin, E., Lenton, T., Scheffer, M., et al. 2009. Planetary boundaries: exploring the safe operating space for humanity. *Ecology and Society, 14*(2): 472-475.

Roe, E.M. 1991. Development narratives, or making the best of blueprint development. *World development, 19*(4): 287-300.

Roever, C.L., Van Aarde, R.J. & Leggett, K. 2013. Functional connectivity within conservation networks: Delineating corridors for African elephants. *Biological Conservation, 157:* 128-135.

Rogan, M.S., Lindsey, P.A., Tambling, C.J., Golabek, K.A., Chase, M.J., Collins, K. & McNutt, J.W. 2017. Illegal bushmeat hunters compete with predators and threaten wild herbivore populations in a global tourism hotspot. *Biological Conservation*, *210*: 233-242.

Rosenberg, D. K., Noon, B. R., Megahan, J. W. & Meslow, E.C. 1998. Compensatory behaviour of Ensatina eschscholtzii in biological corridors: a field experiment. *Canadian Journal of Zoology, 76*(1):117-133.

Rylance, A. 2008. Local economic development in Mozambique: an assessment of the implementation of tourism policy as a means to promote local economies. In *Responsible tourism: critical issues for conservation and development.* A. Spenceley, Ed. Earthscan: London, 27-39.

Sallu, S.M., Twyman, C. & Stringer, L.C. 2010. Resilient or vulnerable livelihoods? Assessing livelihood dynamics and trajectories in rural Botswana. *Ecology and Society, 15*(4): 1-35.

Sánchez-Azofeifa, G.A., Quesada-Mateo, C., Gonzalez-Quesada, P., Dayanandan, S. & Bawa, K.S. 1999. Protected areas and conservation of biodiversity in the tropics. *Conservation Biology, 13*(2): 407-411.

Sarkar, S. 2003. Conservation area networks. *Conservation and Society, 1*(2): v-vii.

Sarkar, S. & Montoya, M. 2011. Beyond parks and reserves: The ethics and politics of conservation with a case study from Perú. *Biological Conservation*, *144*(3): 979-988.

Sayer, A. 1992. *Method in Social Science: A Realist Approach*. London: Routledge.

Schapera, I. 1943. Native Land Tenure in the Bechuanaland Protectorate. Cape Town: The Lovedale Press.

Schroeder, R.A. 1999. Geographies of environmental intervention in Africa. *Progress in Human Geography, 23*(3): 359-378.

Schuerholz, G. & Baldus, R.D. 2007. Community based wildlife management in support of transfrontier conservation: the Selous-Niassa and Kawango Upper Zambezi challenges. Parks, peace and partnerships conference.

Searns, R.M. 1995. The evolution of greenways as an adaptive urban landscape form. *Landscape and Urban Planning, 33*(1-3): 65-80.

Seleka, T.B. & Kebakile, P.G. 2017. Export Competitiveness of Botswana's Beef Industry. *The International Trade Journal*, *31*(1): 76-101.

Shackleton, S., Campbell, B., Wollenberg, E. & Edmunds, D. 2002. Devolution and community-based natural resource management: Creating space for local people to participate and benefit. *Natural Resource Oerspectives*, *76*(1): 1-6.

Sheppard, D. 2000. Conservation without frontiers: The global view. In *The George Wright Forum, 17*(2): 70-80.

Sheppard, D. 2004. Durban World Parks Conference 2004. *Parks, 14*(2): 1 – 68.

Sikor, T. 2012. Tree plantations, politics of possession and the absence of land grabs in Vietnam. *The Journal of Peasant Studies*, *39*(3-4): 1077-1101.

Sikor, T., Auld, G., Bebbington, A.J., Benjaminsen, T.A., Gentry, B.S., Hunsberger, C., Izac, A.M., Margulis, M.E., Plieninger, T., Schroeder, H. & Upton, C. 2013. Global land governance: from territory to flow?. *Current Opinion in Environmental Sustainability*, *5*(5): 522-527.

Sikor, T. & Lund, C. Eds. 2009. *The Politics of Possession: Property, Authority and Access to Natural Resources*. Chichester: Wiley-Blackwell.

Simberloff, D. & Cox, J. 1987. Consequences and costs of conservation corridors. *Conservation Biology*, *1*(1):63-71.

Simberloff, D., Farr, J.A., Cox, J., & Mehlman, D.W. 1992. Movement corridors: conservation bargains or poor investments? *Conservation Biology 6*(4): 493-504.

Singh, J. & Van Houtum, H. 2002. Post-colonial nature conservation in Southern Africa: same emperors, new clothes?. *Geo-Journal*, *58*(4): 253-263.

Sinthumule, N.I. 2017. Unfulfilled Promises: An Exposition of Conservation in the Greater Mapungubwe Transfrontier. *Africa Today*, *64*(1): 55-73.

Siurua, H. 2006. Nature above people: Rolston and" fortress" conservation in the South. *Ethics and the Environment*, 71-96.

Skarpe, C., Aarrestad, P.A., Andreassen, H.P., Dhillion, S.S., Dimakatso, T., du Toit, J.T., Halley, D.J., Hytteborn, H., et al. 2004. The return of the giants: ecological effects of an increasing elephant population. *AMBIO: A Journal of the Human Environment*, *33*(6): 276-282.

Sletto, B. 2011. Conservation Planning, Boundary-making and Border Terrains: The Desire for Forest and Order in the Gran Sabana, Venezuela. *Geoforum, 42*(2): 197–210.

Sneddon, C. 2007. Nature's materiality and the circuitous paths of accumulation: Dispossession of freshwater fisheries in Cambodia. *Antipode*, *39*(1): 167-193.

Solignac-Lecomte, H. B. 2001. *Effectiveness of Developing Country Participation in ACP-EC Negotiations.* Overseas Development Institute Working Paper. London, UK: Overseas Development Institute.

Soule, M.E. & Gilpin, M.E. 1991. The theory of wildlife corridor capability. *Nature Conservation, 2*: 3-8.

Southern African Development Community (SADC). 1992. *Treaty of the Southern African Development Community*. Gaborone, Botswana: SADC Secretariat.

Southern African Development Community (SADC). 1999. Protocol on wildlife conservation and law enforcement. Lilongwe, Malawi*:* SADC.

Southern African Development Community (SADC). 2002. *Biodiversity focal point progress report, April 2000–December 2001*. Lilongwe, Malawi: SADC

Spenceley, A. Ed. 2008. Local impacts of community-based tourism in Southern Africa. In *Responsible tourism: Critical issues for conservation and development*. New York: Earthscan, 159-187.

Spenceley, A. & Schoon, M. 2007. Peace parks as social ecological systems: testing environmental resilience in southern Africa. *Peace parks: conservation and conflict resolution*. Massachusetts: MIT Press, 3-104.

Spierenburg, M., Steenkamp, C. & Wels, H. 2008. Enclosing the local for the global commons: community land rights in the Great Limpopo Transfrontier Conservation Area. *Conservation and Society*, *6*(1): 87-97.

Spinage, C.A. 1991. *History and evolution of the fauna conservation laws of Botswana.* Occasional Paper No. 3. Gaborone, Botswana: Botswana Society.

Spinage, C.A. 1998. Social change and conservation. *Oryx, 32*(4): 265-276.

Spinage, C.A. 1999a. A Reply to Colchster. Oryx, 33: 5-8.

Spinage, C.A. 1999b. A Reply to Martin. *Oryx,* 33: 282.

Spronk, S. and Webber, J.R. 2007. Struggles against accumulation by dispossession in Bolivia: The political economy of natural resource contention. *Latin American Perspectives*, *34*(2), 31-47.

Statistics Botswana. 2016. *Population and Housing Census 2011 Administrative and Technical Report*. Gaborone, Botswana: Government Printer.

Steverding, D. 2008. The history of African trypanosomiasis. *Parasites & Vectors*, *1*(1): 3.

Stone, M.T. & Rogerson, C.M. 2011. Community-based natural resource management and tourism: Nata bird sanctuary, Botswana. *Tourism Review International*, *15*(1-2): 159-169.

Struhsaker, T.T. 1998. A biologist's perspective on the role of sustainable harvest in conservation. *Conservation Biology, 12*(4): 930-932.

Suich, H. 2008. Tourism in transfrontier conservation areas: The Kavango-Zambezi TFCA. In *Responsible tourism: Critical issues for conservation and development*. A. Spenceley, Ed. New York: Earthscan, 187-204.

Suich, H., Busch, J. & Barbancho, N. 2005. *Economic impacts of transfrontier conservation areas: baseline of tourism in the Kavango-Zambezi TFCA*. Cape Town, South Africa: Conservation International.

Suich, H., Child, B. & Spenceley, A. Eds. 2009. *Evolution and innovation in wildlife conservation: parks and game reserves to transfrontier conservation areas*. London: Earthscan.

Sullivan, S. 2010. 'Ecosystem Service Commodities' - A New Imperial Ecology? Implications for Animist Immanent Ecologies, with Deleuze and Guattari. *New Formations, 69*(69): 111-128.

Sullivan, S. 2013. Banking nature? The spectacular financialisation of environmental conservation. *Antipode, 45*(1):198–217.

Swanson, T.M. 1992. Wildlife and wildlands, diversity and development. In *Economics for the Wilds.* T.M. Swanson & E.B. Barbier, Eds. London: Earthscan, 1-14.

Swatuk, L.A. 2005. From "project" to "context": Community based natural resource management in Botswana. *Global Environmental Politics*, 5(3): 95-124.

Tavuyanago, B. 2016. *Living on the fringes of a protected area: Gonarezhou National Park (GNP) and the indigenous communities of South East Zimbabwe 1934-2008*. Doctoral dissertation, University of Pretoria, Pretoria.

Taylor, R.D. & Martin, R.B. 1987. Effects of veterinary fences on wildlife conservation in Zimbabwe. *Environmental Management, 11*(3): 327-334.

Terborgh, J. 1999. *Requiem for Nature*, Washington DC: Island Press/ Shearwater Books.

Thomson, G.R., Penrith, M.L., Atkinson, M.W., Atkinson, S.J., Cassidy, D. & Osofsky, S.A. 2013. Balancing livestock production and wildlife conservation in and around southern Africa's transfrontier conservation areas. *Transboundary and Emerging Diseases, 60*(6): 492-506.

Timberlake, J. R. & Childes, S. L. Eds. 2004. *Biodiversity of the Four Corners Area.* Bulawayo, Zimbabwe: Biodiversity Foundation for Africa.

Tischendorf, L. & Fahrig, L. 2000. On the usage and measurement of landscape connectivity. *Oikos, 90*(1):7–19.

Tolsma, D.J., Ernst, W.H.O. & Verwey, R.A. 1987. Nutrients in soil and vegetation around two artificial waterpoints in eastern Botswana. *Journal of Applied Ecology, 24*(3): 991-1000.

Torquebiau, E. & Taylor, R. D. 2009. Natural resource management by rural citizens in developing countries: innovations still required. *Biodiversity and Conservation, 18*(10): 2537-2550.

Transfrontier Conservation Consortium. 2006. *Pre-feasibility study of the proposed Kavango-Zambezi Transfrontier Conservation Area.* Final report Vol. 1-3. Cape Town, South Africa: Transfrontier Conservation Consortium.

Treitz, P.M., Howarth, P.J. & Gong, P. 1992. Application of satellite and GIS technologies for land-cover and land-use mapping at the rural-urban fringe: a case study. *Photogrammetric Engineering and Remote Sensing, 58*(4): 439-448.

Treves, A., Wallace, R.B., Naughton-Treves, L. & Morales, A. 2006. Co-managing human–wildlife conflicts: a review. *Human Dimensions of Wildlife, 11*(6): 383-396.

Turner, S. 2004. *A crisis in CBNRM? Affirming the commons in southern Africa*. 10th IASCP Conference. *Oaxaca*, 9-13.

Twyman, C. 2000. Participatory conservation? Community-based natural resource management in Botswana. *The Geographical Journal*, *166*(4): 323-335.

United Nations Population Division. World Population Prospects: 2017. 2016. Available: https://data.worldbank.org/indicator/SP.POP.GROW [2018, June 12th].

Vale, P. & Maseko, S. 1998. South Africa and the African renaissance. *International affairs*, *74*(2): 271-287.

Valeix, M., Fritz, H., Dubois, S., Kanengoni, K., Alleaume, S. & Said, S. 2007. Vegetation structure and ungulate abundance over a period of increasing elephant abundance in Hwange National Park, Zimbabwe. *Journal of Tropical Ecology*, *23*(1): 87-93.

Valeix, M., Fritz, H., Sabatier, R., Murindagomo, F., Cumming, D. & Duncan, P. 2011. Elephant-induced structural changes in the vegetation and habitat selection by large herbivores in an African savanna. *Biological Conservation*, *144*(2): 902-912.

Van Amerom, M. & Büscher, B. 2005. Peace parks in Southern Africa: bringers of an African Renaissance?. *The Journal of Modern African Studies*, *43*(2): 159-182.

Van Aarde, R.J., Jackson, T.P. & Ferreira, S.M. 2006. Conservation science and elephant management in southern Africa: Elephant conservation. *South African Journal of Science*, *102*(9-10):385-388.

Van Aarde, R.J. & Jackson, T.P. 2007. Megaparks for metapopulations: addressing the causes of locally high elephant numbers in southern Africa. *Biological Conservation, 134(3)*: 289-297.

Van der Post, C.H.M. 2004. Human sprawl and the African widerness of the Okavango. *South African Geographical Journal*, *86*(2): 122-130.

Van Dyk, G. & Slotow, R. 2003. The effects of fences and lions on the ecology of African wild dogs reintroduced to Pilanesberg National Park, South Africa. *African Zoology*, *38*(1): 79-94.

Victoria Falls 24 Website. KAZA TFCA Map. Available: https://victoriafalls24.com/blog/2013/08/09/ministers-approve-financial-contribution-to-kaza-tfca-project/kaza-tfca-map/ [2019, January 25th]

Wells, M. & Brandon, K. 1992. *People and Parks: Linking Protected Areas with Local Communities.* Washington: World Bank.

Wells, M., Brandon, K. & Hannah, L. 1992. People and Parks: Linking Protected Areas with Local Communities. Washington: World Bank.

Western, D., Wright, R. M. & Strum, S. C. Eds.1994. Natural connections: perspectives in community-based conservation. Washington: Island Press.

Wheat, S. 1997. The tourism juggernaut. *People and the Planet*, *6*(4): 6-8.

White, B., Borras Jr., S.M., Hall, R., Scoones, I. & Wolford, W. 2012. The new enclosures: critical perspectives on corporate land deals. *Peasant Studies, 39*(3–4): 619–647.

White, G. & Robinson, M. 1998. Towards synergy in social provision: civic organisations and the state. In *Beyond the New Public Management*. M. Minogue, C., Polidano & D. Hulme, Eds. Cheltenham: Edward Elgar, 94 -116.

Whitehead, M., Jones, R. & Jones, M. 2007. *The Nature of the State: Excavating the Political Ecologies of the Modern State.* Oxford: Oxford University Press.

Williamson, D. & Williamson, J. 1984. Botswana's fences and the depletion of Kalahari wildlife. *Oryx, 18*(4): 218-22.

Wilshusen, P. 2010. The receiving end of reform: Everyday responses to neoliberalisation in southeastern Mexico. *Antipode, 42*(3): 767–799.

Windsor, R.S. & Wood, A. 1998. Contagious bovine pleuropneumonia: the costs of control in central/southern Africa. *Annals of the New York Academy of Sciences, 849*(1): 299-306.

Witter, R. 2013. Elephant-induced displacement and the power of choice: moral narratives about resettlement in Mozambique's Limpopo National Park. *Conservation and Society,* 11(4): 406-419.

Wolmer, W. 2003. Transboundary conservation: the politics of ecological integrity in the Great Limpopo Transfrontier Park. *Journal of Southern African Studies*, 29(1): 261-278.

Woodley, S., Bertzky, B., Crawhall, N., Dudley, N., Londoño, J.M., MacKinnon, K., Redford, K. & Sandwith, T. 2012. Meeting Aichi Target 11: what does success look like for protected area systems. *Parks, 18*(1): 23-36.

Worboys, G., Francis, W. & Lockwood, M. Eds. 2010. *Connectivity Conservation Management: A Global Guide.* London: Earthscan.

World Bank. 1996. *Transfrontier Conservation Areas Pilot and Institutional Strengthening Project.* Report No. 15534-MOZ. Mozambique: World Bank Agriculture and Environment Division, Southern Africa Department.

World Bank. 2008. *The World Bank Group: Botswana Data Profile*. Botswana Data Profile. Available: http://devdata.worldbank.org/external/CPProfile.asp?SelectedCount=BWA&CCODE-BWA&CNAME=Botswana&PTYPE= CP

Zimmerer, K.S. 2006. Cultural ecology: at the interface with political ecology-the new geographies of environmental conservation and globalization. *Progress in Human Geography, 30*(1): 63-78.

Zimmerer, K.S., Galt, R.E.& Buck, M.V. 2004. Globalization and multi-spatial trends in the coverage of protected-area conservation (1980– 2000). *Ambio: A Journal of the Human Environment, 33*(8): 520–29.

Zoomers, A. 2010. Globalisation and the foreignisation of space: seven processes driving the current global land grab. *The Journal of Peasant Studies, 37*(2): 429-447.

Appendix 1

Voluntary Consent Form

DEPARTMENT OF ENVIRONMENTAL & GEOGRAPHICAL SCIENCE

UNIVERSITY OF CAPE TOWN
PRIVATE BAG X3
RONDEBOSCH 7701
SOUTH AFRICA

RESEARCHER: KELLY WEBSTER
TELEPHONE: +27-21-650 2873/4
FACSIMILE: +27-21-650 2873
E-MAIL: kellwebster@hotmail.com
URL: http://www.egs.uct.ac.za/

Informed Voluntary Consent to Participate in Research Study

Project Title: Expanding the Kavango-Zambezi (KAZA) Transfrontier Conservation Area: Experiences in Botswana

Invitation to participate, and benefits: You are invited to participate in a research study conducted with government officials, NGO representatives and community leaders and local residents.

The study aim is to develop understandings of the growth and expansion, and management processes of the Kavango-Zambezi (KAZA) transfrontier-conservation area. I believe that your experience would be a valuable source of information, and hope that by participating you may gain useful knowledge.

Procedures: During this study, you will be asked to participate in an individual interview, where you will be asked several questions relating to your knowledge and opinion on the processes of the KAZA's planned expansion processes.

Risks: There are no potentially harmful risks related to your participation in this study.

Disclaimer/Withdrawal: Your participation is completely voluntary; you may refuse to participate, and you may withdraw at any time without having to state a reason and without any prejudice or penalty against you. Should you choose to withdraw, the researcher commits not to use any of the information you have provided without your signed consent. Note that the researcher may also withdraw you from the study at any time.

Confidentiality: All information collected in this study will be kept private in that you will not be identified by name or by affiliation to an institution. Confidentiality and anonymity will be maintained as pseudonyms will be used.

What signing this form means:

By signing this consent form, you agree to participate in this research study. The aim, procedures to be used, as well as the potential risks and benefits of your participation have been explained verbally to you in detail, using this form. Refusal to participate in or withdrawal from this study at any time will have no effect on you in any way. You are free to contact me, to ask questions or request further information, at any time during this research.

I agree to participate in this research (tick one box)

☐ Yes ☐ No _____ (Initials)

_____	_____	_____
Name of Participant	Signature of Participant	Date

Name of Researcher	Signature of Researcher	Date

Appendix 2

General Group Discussion Questions

KAZA: • Is anyone involved in any of the KAZA or conservation processes in the area? In what ways? • What do you think the main activities are of the KAZA?
Conservation & Tourism: • IS wildlife conservation important for this area? • What types of conservation strategies take place? • Is tourism an important industry here? • What are some of the tourist attractions and facilities in the area? • Are there challenges for people living in the area in terms of wildlife? • What types of HWC occur here?
Land-use • Who controls land use in the area? • What are the main land use activities? • What difficulties are there for managing and integrating different land uses in the area?

Appendix 3

Interview Questions

Interview Questions for KAZA & Government Officials

Governance:

- In the Botswana Integrated Development Plan (IDP) states that MEWT is the leading agent for decision making within the KAZA. What are the institutional arrangements between the KAZA Secretariat and MEWT?
- What role does the KAZA Secretariat play in land integration and management processes?
- What are the main constraints in terms of land governance in the TFCA?

Expansion Dynamics:

The Botswana IDP and the KAZA website identify that areas to the south and west of the KAZA have been integrated into the TFCA since 2010. This includes the area between the Botswana/Zimbabwe border and the south-eastern and southern portions of the Magkadgkadi Pans National Park.

- What kind of changes happen when an area becomes part of the TFCA?
- Why were these areas chosen to be integrated into the KAZA?
- How does integrating these areas align with the goals of the KAZA?

Land-use:

- There are a number of different land-uses in this area such as communal, agriculture, ranches, WMAs and urban areas. Are there challenges that arise across and between these different land-uses?
- The KAZA IDP identifies issues with regards to the conflicting pastoral land and wildlife areas, and the presence of veterinary fences. What are some of these issues?
- Veterinary cordonaire fences to separate livestock and conservation purposes have also been identified by the IDP as a major challenge. Are their plans to remove these fences?
- Why were these communal areas selected to be integrated, rather than integrating other PAs such as the Central Kalahari Game Reserve (CKGR)?

Local communities:

There are a number of villages and local communities located in the new portions of the KAZA.

- How did the process of integration of these communities take place?
- Where their any challenges that arose during the consultative process?
- What was the 'feeling' of residents and local communities in these areas about being integrated into the TFCA?

Changing Resource Restrictions & Authority;

- Now that these communities are part of the KAZA, are there rules or restrictions they must abide by with regards to natural resource use and wildlife?
- The KAZA IDP states that the KAZA is trying to move people away from consumptive forms of natural resource use, to non-consumptive uses such as tourism. Is this being done here?

Mitigation and Management Strategies:

- Are there any projects planned or occurring in this area to cope with issues of land integration and human/wildlife conflict?
- The Botswana IDP identifies a number of projects for the area:
  - The Gwezotshaa Community Trust is proposing game farming in the (NG 51) area as well as trade in veldt products, including Morula (MEWT, 2013).
  - The establishment of buffer farms along the buffalo fences have been proposed by the KAZA in the Nata & Gweta areas.
  - The development of a comprehensive management plan for CT11 has been proposed.
  - The development of an agricultural strategy for CH5 (an agricultural area) has been proposed
  - The implementation of an approved management plan for the Southern Sua Flamingo Sanctuary.
  - The development of an 'Alternative Livelihoods Options Strategy' has been proposed.

What is the status of these projects and how effective have they been?

Future Expansions:

- Has further growth and expansion of the KAZA been planned for the future?

Interview Questions for NGO & NGO Affiliates

Involvement in the KAZA: • What does your NGO work primarily involve within the KAZA? • How involved are you with regards to the KAZA processes?
Expansion effects: • What is your knowledge of the efforts to expand the KAZA? • In your opinion what are the benefits for these areas to be integrated into the KAZA? • In what ways has being integrated into the KAZA possibly negatively affected these areas?
Issues of land integration and management: • What are some of the biggest issues faced by areas and people living within the KAZA? • Do you think these issues are being addressed at an institutional level? • Are you involved in any local community projects to address or mitigate these issues?

Questions for Tribal Authorities

About the KAZA: • What is your knowledge of the KAZA? • Were you consulted when your area was integrated into the KAZA in 2011? • What did the consultation process involve?
Management: • As your areas has been integrated into the KAZA, how is land and resources now managed in the area? • Does the KAZA secretariat and MEWT consult with you as the tribal authorities? • Are you involved in decision making processes for the KAZA?
Perceived Local Benefits: • What has changed for the local community in your village/area after being integrated into the KAZA?

- Has your area benefited from becoming part of the TFCA?
- Have you seen increases in tourism in your area now that it is part of the TFCA?

Issues:

- Are there problems that have arisen because of your area being integrated into the KAZA?
- Are there problems with conflicting land-use in your area; and issues with conservation land being alongside to tribal (communal), agricultural and urban land?
- Are there issues of human/wildlife conflict in your area?
- Has your community faced any issues due to restrictions on resource access such as wildlife, bush meat, firewood, veld products etc.

Interview Questions for Community Members

Livlihood information:

- What is your occupation?
- How long have you lived in this area?
- Does your family live here and what is their primary source of income?
- Do you or your family rely on accessing any of the following natural resources from your area;
  - firewood,
  - building materials (sand and clay, construction poles & thatching grass, reeds)
  - Food such as bush meat, fish, edible plants, birds, honey, insects, palm leaves etc/
  - cattle gazing
- Do you feel your access to these resources is being restricted now that your area is part of the KAZA?
- Has being part of the KAZA increased your livelihood in any way e.g. more job opportunitues etc.

About the KAZA:

- What is your knowledge of the KAZA?
- Were you aware that your area became part of the conservation area in 2010/2011?

Perceived Community Benefits:

- Has anything changed for the area after being integrated into the KAZA?
- In your opinion has conservation in the area improved in the last 5 years?
- Have you seen increases in tourism in the area in the last 5 years?

Conservation & Tourism:

- Do you think wildlife conservation is important in your area?
- Do you think there has been more tourism or business in your village/area since it was integrated into the KAZA in 2011?
- Do you think that agriculture/cattleposts or tourism/wildlife conservation supports more people in your area?

Human/wildlife conflict: • Have you seen more wildlife in your area in recent years? • What is your opinion on having more wildlife such as elephant in your area? • Do you experience any problems with the wildlife?