

**PERCEPTIONS OF THE CONSERVANCY CONCEPT,  
COMMON POOL RESOURCES AND THE CHALLENGE OF  
COLLECTIVE ACTION ACROSS PRIVATE PROPERTY  
BOUNDARIES: A CASE STUDY OF THE DARGLE  
CONSERVANCY, SOUTH AFRICA**

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Pietermaritzburg

2013

## **ABSTRACT**

Conservancies are viewed as playing an important role in enabling the landscape-scale management of biodiversity and ecosystem services by extending conservation areas beyond the boundaries of formally protected areas (PAs). In the South African context of the Biodiversity Stewardship Programme (BSP), conservancies are viewed as a viable landscape-scale approach to stewardship that can contribute to meeting government conservation mandates of conserving biodiversity and expanding its protected area network outside state PAs, through partnerships with private landowners. Using the landscape approach theory, I determined that the landscape-scale context of biodiversity and ecosystem services creates common pool resources (CPRs) that require collective action in the form of integrated management planning across private property boundaries. In this context, conservancies create multi-tenure conservation areas with landscape meanings and associated benefits that require landscape-scale collective action. However, using property and collective action theories, I deduced that when landowners in a conservancy seek to engage collective action for landscape-scale conservation objectives under the BSP, they are challenged by the tension between individual meanings defined at the scale of their own property and landscape-scale meanings that straddle property boundaries. This tension is reinforced by property rights in which each actor holds resources under a private property rights regime while the landscape-scale meanings of CPRs need to be addressed in a common property rights regime context. Based on this complexity, my research set out to determine peoples' meanings attached to the concept of conservancy and to illustrate how these meanings influence the ability to attain collective action necessitated by the CPR management regimes superimposed on private property rights regimes. This was with the view to refine the concept of conservancy to enable those who establish and engage with conservancies to better appreciate the implications and the nature of the governance regime that is required for success.

My results show that the success of a conservancy as a landscape approach is dependent on landowner commitment to collective action. Landowner commitment is also influenced by a shared understanding of the conservancy as a multi-tenure conservation area managed

collectively for the conservation of biodiversity and ecosystem services across private properties. Thus Conservancy members need to develop an understanding of the conservancy as an area of contiguous multiple private properties that require collective management through integrated management planning, guided by a Dargle Conservancy management plan. Conservancy members also need to develop an understanding of the contiguous properties as encompassing biodiversity and ecosystem services that require common property rights regimes for their sustainable use and management. This explicit landscape approach will encourage landowner commitment to the conservation objectives set out in the multi-tenure conservation areas.

I use my research findings to identify three issues for further research in community-based conservation areas as a landscape approach to conservation: firstly, research that focuses on developing integrated management plans for landscape-scale bio- and eco-regions by designating contiguous private properties into different categories of PAs according to collectively agreed conservation objectives; secondly, research that focuses on developing appropriate management regimes based on a model of multi-tenure conservation areas managed collectively for the conservation of biodiversity across private properties; and thirdly, research that focuses on establishing social structures for the development of adequate capacity and decision-making at the conservancy level to implement a landscape approach that supports ecological functions beyond individual boundaries. Building on this research will provide an important continuous learning process between conservancies and conservation agencies. Such learning is necessitated by the complexity of continually changing social and ecological systems that influence perceptions and behaviours.

## DECLARATION OF ORIGINALITY

I hereby declare that this thesis, except where indicated to the contrary in the text, is my own original work and has not been submitted for any degree at any other University.

Signed on this 27<sup>th</sup> day of November 2013



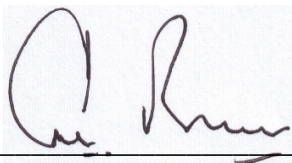
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## **DEDICATION**

To the memory of my late father.

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## LIST OF ACRONYMS

AFRA	:	Association for Rural Advancement
AGM	:	Annual General Meeting
BSP	:	Biodiversity Stewardship Programme
BSSA	:	Biodiversity Stewardship South Africa
CCAs	:	Community-Based Conservation Areas
CNWC	:	Cape Nature – Western Cape
DAEA	:	Department of Agriculture and Environmental Affairs
DEA	:	Department of Environmental Affairs
DCN	:	Dargle Conservancy Newsletter
DCOs	:	District Conservation Officers
DEAT	:	Department of Environmental Affairs and Tourism
EIAs	:	Environmental Impact Assessments
EKZNW	:	Ezemvelo KwaZulu-Natal Wildlife
EWT	:	Endangered Wildlife Trust
FVLT	:	Five Valleys Land Trust
IDPS	:	Integrated Development Plans
KZN	:	KwaZulu-Natal
KZN BSP	:	KwaZulu-Natal Biodiversity Stewardship Programme
KZNCA	:	KZN Conservancies Association
MCF	:	Midlands Conservancy Forum
NACSA	:	National Association of Conservancies in South Africa
NGOs	:	Non-Government Organisations
PAs	:	Protected Areas
PA Act	:	Protected Areas Act
SANBI	:	South African National Biodiversity Institute
SES	:	Social-Ecological System
UKZN	:	University of KwaZulu-Natal

## **CHAPTER 1: Introduction to the Study**

### **1.1 Introduction**

Conservation has evolved over the centuries influenced by the meanings people attach to the human-nature relationship (Jepson & Whittaker, 2002). The often disjointed protected areas (PAs) that are a result of the meanings attached to the early fortified formal conservation approach are increasingly viewed as failing to comprehensively achieve conservation at the landscape-scale and contribute to the expansion of areas under conservation management. Current views on the importance of biodiversity and ecosystems services in the conservation arena have raised the importance of understanding and managing nature at a landscape-scale (Smith & Maltby 2003). This has led to increased calls to involve communities through formal and informal conservation agreements. The purpose of this approach is to expand areas under conservation management and create corridors that can link islands of formal PAs, thereby enabling conservation of biodiversity and ecosystem services across landscapes (Brown *et al.* 2005).

In South Africa, achieving the new conservation objective of securing biodiversity and ecosystem services through private landowners and communities has led to the establishment of the Biodiversity Stewardship South African (BSSA) programme (here after referred to as the Biodiversity Stewardship Programme – BSP). The Programme is an initiative of the National Department of Environmental Affairs (DEA) and implemented through provincial conservation agencies, in partnership with key conservation non-government organisations (NGOs). It is in this context that conservancies are increasingly being recognised for their role under the BSP in promoting conservation among private landowners. This is based on the understanding that the application of the concept of conservancy as a landscape approach leads to the creation of conservation areas and corridors at the landscape-scale (KZN BSP 2010). Conservancies are also viewed as a viable landscape-scale approach to stewardship that can provide a cost-effective way for the government to meet its conservation mandates through partnerships with private

landowners (KZN BSP 2010, DCN 2008/09). At the conservancy level, the concept is expressed as a collective of like-minded landowners acting together to conserve the total environment of the Conservancy area. Based on the foregoing expressions, conservancies can be inferred as playing conservation roles at two levels: the conservancy level, comprising a collective of privately owned properties with defined individual boundaries; and the landscape-scale, comprising areas identified as providing strengthening linkages within the broader environmental landscape and connectivity among areas of ecological significance, including formal PAs.

Over the years, however, conservancies appear not to have lived up to expectations, as shown by contentious behaviour in relation to achieving collective action to secure biodiversity and ecosystem services across private property boundaries (Driver *et al.* 2005). A conservancy as a landscape approach raises the expectation that people will commit to the collective actions necessary to achieve outcomes that cannot be achieved individually. Where individual perceptions do not match this expectation, I posit that tensions arise in the form of behaviour that inhibits the attainment and sustenance of collective action needed to achieve the conservation objectives at the landscape-scale. I further contend that commitment to the collective is likely to become strained where these collective actions are required to straddle property boundaries, since they impinge on how individual landowners use and manage their own properties. This study therefore posits that varying meanings attributed to the concept of conservancy as a landscape approach, in relation to how property and property rights are understood, influence landowner commitment to collective action required to achieve the intent of a conservancy. This is the subject of the research presented in this thesis.

## **1.2 Research Issue**

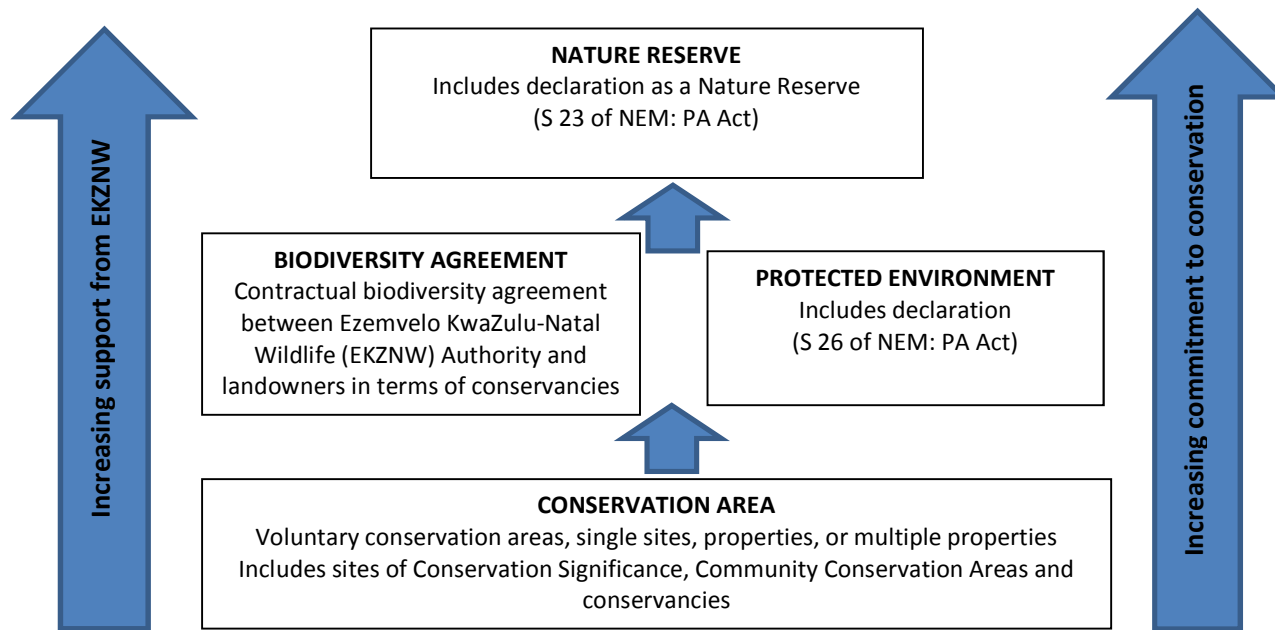
The general concept of conservancy is expressed as community-based conservation areas (CCAs) comprising common pool resources (CPRs). CPRs are defined as natural or man-made resources comprising a resource system that constitutes a flow of resource units or benefits (Ostrom 2000). Ecosystem services traversing multiple property boundaries create CPRs across landscapes. Ecosystem services as CPRs in conservancies are within the defined geographic area of private properties pooled together to attain the collective management of these resources

(Barrow & Pathak 2005). As CPRs traverse multiple property boundaries, spatially complex and dynamic interdependencies arise among landowners and other stakeholders within the landscape. These dynamic interdependencies create landscapes that have varying social, economic and environmental conditions. The conditions are reflected in different land uses, which show “a range of landowner [and other stakeholders] rights, values and beliefs” (Bergmann & Bliss 2004: *pages unnumbered*). The different land uses require collective action in the form of integrated management planning across the multiple properties pooled together. In this context, conservancies can be interpreted as conservation areas of contiguous multiple private properties, constituting CPRs.

In the South African context, the definition of a conservancy has evolved over time. A conservancy was originally defined as “an area where fauna and flora were conserved [...]” (Kotzé 1993: 26). This was in response to meanings attached to the threat of unauthorised hunting and gathering depleting natural resources. These perceptions compelled private landowners to organise patrols over their combined properties (Markham *undated*). This study adopts the more recent definition of a conservancy as a voluntary association of a collective of landowners and/or land users who cooperatively agree to manage their natural resources in an environmentally friendly manner, while contributing to the conservation of regional and national biodiversity objectives without necessarily changing land use of their properties, and in respect of which registration has been granted by the relevant provincial conservation authority (Downsborough *et al.* 2011, AFRA 2004).

The inclusion of the term ‘environmental management’ in this definition reflects the perception of the collective management of biodiversity according to ecological characteristics (e.g. watersheds), as opposed to administrative property boundaries (e.g. property ownership). The inclusion of registration with a provincial conservation authority suggests meanings reflecting the need for integrated management planning at the landscape-scale through formal and informal institutional structures and processes. This reflects meanings associated with the concept of conservancy as a systems level approach to protecting key ecological functions based on the landscape approach. However, this systems level approach overlooks the management of the

implied social subsystem of the conservancy as landscape approach, which is governed by private property rights regimes. I therefore argue that in the context of multiple private properties pooled together, this creates a complex social-ecological systems (SES), with dynamic social interdependencies that require balancing individual interests against those of the collective. Under the BSP, a conservancy is considered a landscape-scale approach to stewardship that can provide this balance by integrating the conservation of biodiversity and ecosystem services with sustainable development (KZN BSP 2010). In this context, the BSP programme is considered as enabling this integration through the creation of conservation areas under the following conservation stewardship agreement options (refer to figure 1.1 and table 1.1): level 1 – conservation area; level 2 – biodiversity agreement or protected environment; and level 3 – nature reserve.



**Figure 1.1:** Stewardship options under the KwaZulu-Natal BSP (after DCN 2008/9)



**Table 1.1:** Categories of conservation areas under the Biodiversity Stewardship Programme options (*after* DCN 2008/09)

OPTION	LEVEL 1 – CONSERVATION AREA	LEVEL 2 – BIODIVERSITY AGREEMENT	LEVEL 2 – PROTECTED ENVIRONMENT	LEVEL 3 – NATURE RESERVES
<b>Which option applies to your land?</b>	<ul style="list-style-type: none"> <li>• Any natural land is suitable</li> <li>• If rare or endangered habitats, rather progress to higher level of conservation security</li> <li>• Can use this as a stepping stone to more security later on in process</li> </ul>	<ul style="list-style-type: none"> <li>• Suitable for any conservation-worthy land</li> <li>• Focuses on improving the management of specific biodiversity features or elements</li> <li>• Not excluding small and isolated fragments</li> </ul>	<ul style="list-style-type: none"> <li>• Useful to pursue where large landscapes require some form of conservation management, but where it is unnecessary or unsuitable to restrict other forms of extractive land use</li> <li>• Multiple properties, buffers to statutory Protected Areas</li> </ul>	<ul style="list-style-type: none"> <li>• Priority areas adjacent to statutory reserves or sufficiently large to be self-contained ecosystems</li> <li>• Containing critically important species, habitats and self-contained sites</li> </ul>
<b>Legal status/duration</b>	<ul style="list-style-type: none"> <li>• Flexible option with no defined period of commitment</li> <li>• Registration document with the conservation agency</li> </ul>	<ul style="list-style-type: none"> <li>• Has legal status by virtue of a legal contract between the landowner and the agency</li> <li>• Minimum period of 5 – 10 years suggested (ideally 10 years or more), but may be in perpetuity if requested by the landowner</li> </ul>	<ul style="list-style-type: none"> <li>• Legal declaration under the Protected Areas act</li> <li>• The duration for Protected Environments declared for other purposes is not prescribed</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum of 30 years, but generally in perpetuity</li> </ul>
<b>Qualifying criteria</b>	<ul style="list-style-type: none"> <li>• Any landowner(s) willing to conserve the natural systems on their land</li> </ul>	<ul style="list-style-type: none"> <li>• Site must have been assessed to the standard of the provincial agency and found to contain biodiversity features identified as important or a priority for the province</li> </ul>	<ul style="list-style-type: none"> <li>• The landowner must be willing to submit to the declaration of the areas a Protected Environment, and to manage (or have managed) the site according to the norms and standards laid down for a Protected Area, but with fewer restrictions than a nature reserve</li> </ul>	<ul style="list-style-type: none"> <li>• The landowner must be willing to submit to the declaration of the area as a nature reserve, and to manage (or have managed) the site according to the norms and standards laid down for nature reserves</li> </ul>
<b>Possible land use limitations</b>	<ul style="list-style-type: none"> <li>• Very few, but the area needs to maintain its natural character</li> </ul>	<ul style="list-style-type: none"> <li>• Land must be managed in a way that will support natural processes</li> </ul>	<ul style="list-style-type: none"> <li>• There is no limitation on activities other than those specifically listed in the gazetting notice of the establishment of the Protected Environment</li> </ul>	<ul style="list-style-type: none"> <li>• No further development or land use rights will be allowed</li> <li>• Access and resident rights are unrestricted</li> <li>• Owners retain title</li> </ul>
<b>Benefits to the landowner</b>	<ul style="list-style-type: none"> <li>• Advice and support through basic extension services</li> <li>• Assistance with management plans and farm maps</li> </ul>	<ul style="list-style-type: none"> <li>• Specific agreements for fire, alien, plant and animal management</li> <li>• Advanced extension services (e.g. alien clearing planning)</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable assistance with habitat management</li> <li>• Advanced extension services (e.g. alien clearing planning)</li> <li>• Regulate the use of the landscape through a co-operation between various landowners</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable assistance with habitat management</li> <li>• Increased recognition and maintaining exposure</li> <li>• Conservation authorities will be able to lobby on your behalf for incentives e.g. rates exemptions.</li> </ul>

All the conservation options under the BSP are voluntary and can be tailored to the interests of an individual landowner. The higher categories offer landowners more benefits and support from the provincial conservation authority (in the case of the Dargle Conservancy – Ezemvelo KZN Wildlife Authority, EKZNW). However, these benefits come with more restrictions and require greater commitment from landowners (DCN 2008/09) to meet the collective interests of government’s conservation mandates. The need for landowner commitment to engage collective action through BSP stewardship agreements forms the basis of my first proposition: when a collective of landowners come together to engage stewardship agreements through a conservancy, they seek to engage collective action to meet conservation objectives under the agreements. I argue that to achieve collective action, the stewardship agreements require the imposition of a collective management regime across multiple private property boundaries. A collective management regime, in this context, is synonymous with a common property rights regime. A common property rights regime is recognised as a governance structure for the use and management of CPRs (Ostrom 2000, Bromley 1991). This raises a challenge in landowners’ willingness to commit to the concept of conservancy as a landscape approach aimed at achieving government conservation mandates. This challenge arises from the imposition of a common property rights regime on well-established private property rights regimes.

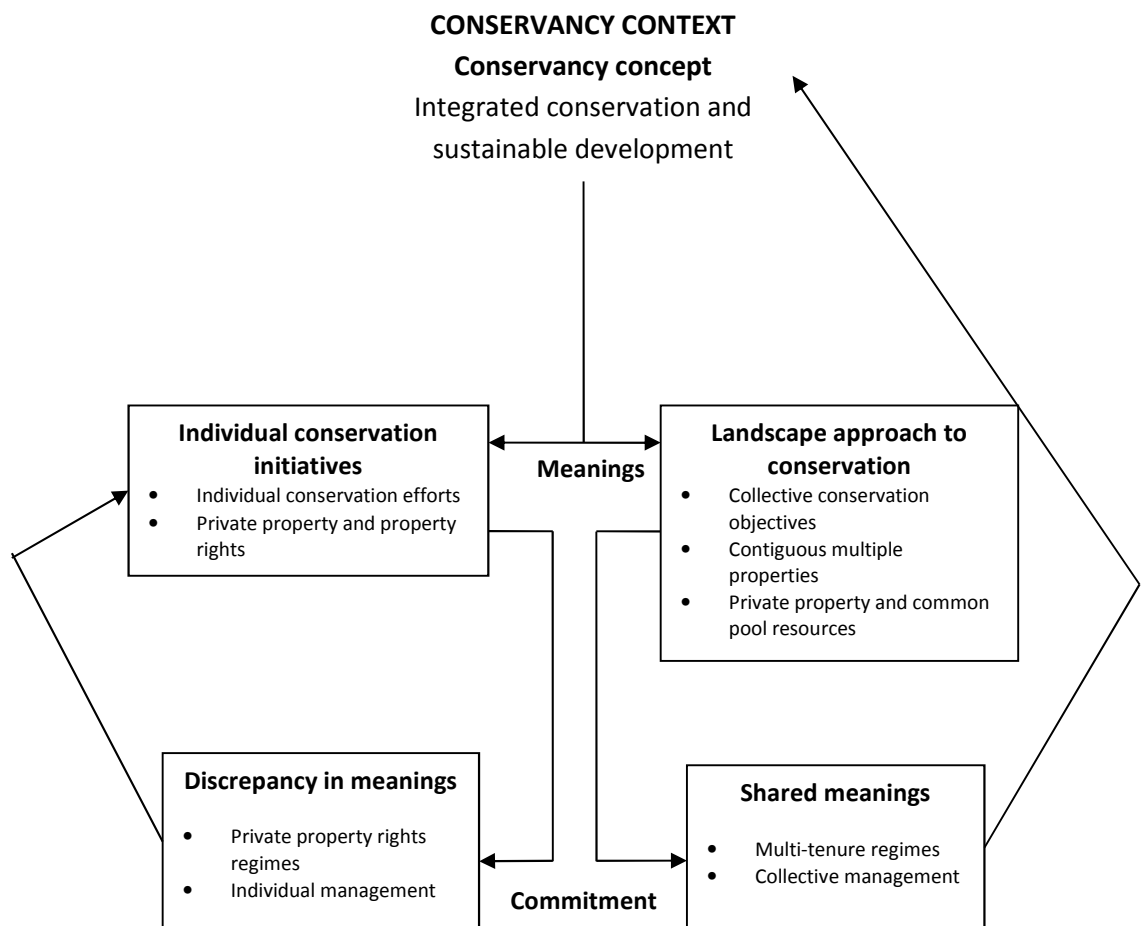
A conservancy as a landscape-scale stewardship approach can be viewed as constituting private and CPRs of ecosystem services. This view suggests that resource users require access to different parts of the same bundle of services (e.g. the flow of water) at different times (Agrawal 2002). Variance in accessing benefits, due to the spatial and temporal scales of ecosystems, creates tension between ecological and administrative property boundaries. This perception forms the basis of my second proposition: tensions between social and ecological interdependencies highlight the limited or lack of shared meanings regarding the nature of a conservancy as contiguous properties encompassing CPRs. My third proposition follows thereof that: this lack of shared meanings creates a situation where the need for the collective management of CPRs through common property rights regimes is not well understood. I therefore argue that the lack of a shared understanding of the concept of conservancy as a landscape approach constituting CPRs that require collective management, influences landowner commitment to collective action needed to achieve government’s conservation mandates.

While trying to collectively manage access to and use of ecosystem services to promote biodiversity conservation and ecological integrity, individual landowners are increasingly faced with market driven development pressures based on their diverse economic and social interests (Stokowski 2003, Cousins *et al.* 2010). Development pressures usually lead to selectively expressed interests for land-use conversions and land sub-divisions on individual properties. These interests may not be compatible with the collective interests at the landscape-scale expressed in the conservation objectives (Steele 1990, Bernardo & Palma 2005) of the BSP stewardship agreements. Since 2005, the Dargle Conservancy has experienced selectively expressed interests in the form of increased development applications for housing estates, eco-estates, commercial and industrial parks. These varying interests are considered as a threat to rural landscape and high biodiversity value in the KZN-midlands (DCN 2005, 2008/09).

Mathevet *et al.* (2011) propose that being able to improve the understanding of stakeholders' meanings, in terms of how they represent complex systems, can aid the development of mechanisms to improve the use and management of natural resources. In line with this proposition, I argue that the success of conservancies hinges on the willingness of stakeholders to develop appreciation of the social-ecological interdependencies and move toward a shared representation of the concept of conservancy (Etienne *et al.* 2011, Jones *et al.* 2011, Langan-Fox *et al.* 2001). Previous research shows that identifying and building social arrangements that are inclusive of the diversity of stakeholders' meanings, values and goals has been a key issue in natural resource management (Habermas 1979, Pretty 2003, Mathevet *et al.* 2011). Earlier research further shows that the way stakeholders frame issues can contribute to the attainment of collaborative success or to the failure of collaboration (Gray 2004, Pahl-Wostl 2006). Hence, a shared representation of a system or shared knowledge in a social organisation is believed to improve the collective organisation and performance (Mathieu *et al.* 2000, Mohammed *et al.* 2000, Webber *et al.* 2000).

To support this argument, I propose that in order to act collectively, landowners need to shift their meanings attached to the concept of conservancy as a landscape approach and link these to the social-ecological interdependencies across multiple property boundaries at the landscape-scale. This has the potential to promote the development of a shared representation

of the conservancy as a complex SES with CPRs that require collective management. Through this shared understanding, appropriate property rights regimes can be developed at the landscape-scale. This requires that their individual meanings need to overlap significantly for a shared understanding to emerge, as illustrated in the conceptual framework (refer to figure 1). Each member of the conservancy, therefore, must be willing to adapt their context and appreciate the need for and develop a larger systems view that caters for divergent views and values, and also recognise and acknowledge interdependence at both conservancy and landscape scales.



**Figure 1.2:** Conceptual Framework

### **1.3 What is Novel about this Study?**

Although challenges of implementing ecosystem management across landscapes have been acknowledged (Gripne & Thomas 2002, Hurley *et al.* 2002), little research has been done to evaluate the outcomes associated with initiatives implementing ecosystem management across multiple private properties (Jackson-Smith *et al.* 2005, Mackenzie 2003, Imperial 1999) such as conservancies. Earlier research shows that while the identification of natural systems and species that require conservation may be accomplished, setting out actual boundaries for PAs (informal and/or formal) requires further consideration including prevailing perceptions of how these systems function. In instances of collaborative initiatives across landscapes with private properties, studies show that in order to improve transboundary cooperation, there is a need to understand private landowners and their practices vis-à-vis each other (Hurley *et al.* 2002, Rickenbach & Reed 2002).

As collaborative initiatives, conservancies are gaining popularity as private land management mechanisms that can contribute to provincial and national conservation targets in South Africa, while enabling a balance between conservation and sustainable development on private properties (Downsborough *et al.* 2011). My study positions conservancies as complex, dynamic SESs that implicitly create common pool resources (CPRs) alongside well-established private property rights regimes. Based on this complexity, my study sets out to determine peoples' meanings attached to the concept of conservancy and to illustrate how these meanings influence the ability to attain collective action necessitated by the CPR management regimes superimposed on private property rights regimes. It draws on this understanding to refine the concept of conservancy to enable those who establish and engage with conservancies to better appreciate the implications and the nature of the governance regime that is required for success.

#### **1.4 Research Aim**

Jones *et al.* (2011: *pages unnumbered*) note that “to encourage people with contrasting views to work together, it is necessary to identify and support a shared understanding among relevant stakeholders and to enhance the collective decision-making process”. My study therefore aims to determine meanings people attach to the concept of conservancy, in relation to the nature of their property and property rights within the Dargle Conservancy, and illustrate how these meanings influence the attainment and sustenance of collective action in managing ecosystem services as CPRs systems beyond individual property boundaries. This is with the view to improving our understanding of the concept of conservancy and developing a better appreciation for the challenges related to the social-ecological conditions of the nature of property and property rights when applying the concept at the landscape-scale. This will highlight the importance of building a shared understanding in order to sustain and support collective action (Biggs *et al.* 2008).

#### **1.5 Research Questions and Objectives of the Study**

The aim of the study was informed by the following key question: ‘How do meanings people attach to the concept of conservancy as a landscape approach to conservation, in relation to the nature of their property and property rights, influence their ability to collectively manage ecosystem services as CPRs beyond individual property boundaries?’ This question was split into three sub-questions in order to reinforce the representation of their individual meanings:

1. How do people understand the concept of conservancy as a landscape approach to conservation?
2. How do people understand property and property rights in relation to the conservancy concept?
3. What are the implications of these meanings for achieving the intent of a conservancy through collective management at scales larger than individual property boundaries?

The main objective of the study was to determine how meanings people attach to the concept of conservancy as a landscape approach to conservation, in relation to the nature of their property and property rights, influence their ability to collectively manage ecosystem services

as CPRs beyond individual property boundaries. The specific objectives of the study were as follows:

1. To determine meanings people attach to the concept of conservancy as a landscape approach to conservation.
2. To determine meanings people attach to the nature of their property and property rights in relation to the concept of conservancy.
3. To identify overlaps between meanings and associated implications in order to determine landowner commitment to collective management of ecosystem services as CPRs at scales larger than individual property boundaries.

## **1.6 Study Overview**

Chapter 1 has provided an introduction to the study. Chapters 2 and 3 review literature about changing conservation ideologies, with particular reference to the emergence of the landscape approach to conservation in relation to the conservancy concept; and property theories in relation to ecosystem management, respectively. Chapter 4 provides the case study context and methodology. Results are presented in chapter 5. A discussion and review of the conceptual and theoretical frameworks in light of the research findings is made in Chapter 6. The study is concluded in Chapter 7 with a summary of findings, conclusions and research implications.

## **1.7 Definition of Terms**

**Collective action:** collective decision-making and management across various properties

**Common pool resources:** resources from which it is difficult to exclude potential users (excludability) and where use of the resources by a potential user reduces availability for other users (subtractability)

**Common pool resources systems:** ecosystem services deriving from the landscape

**Landscape approach:** a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way

**Conservancy:** a voluntary association of a collective of landowners and/or land users who cooperatively agree to manage their natural resources in an environmentally friendly manner

while contributing to the conservation of regional and national biodiversity without necessarily changing land use of their properties, and in respect of which registration has been granted by the relevant provincial conservation authority

**Property:** a benefit (or income) stream

**Property right:** a claim to a benefit stream and an enforceable authority to undertake particular actions in a specific domain

**Property institutions:** (formal and informal) confer rights of access and exclusion to resources or land

**Tenure regimes:** define particular exclusivity of ownership or use rights of resources to individuals or groups of individuals

**Private property:** natural resources generally divided into defined parcels, with assigned individual rights applicable within well-defined property boundaries (subject to relevant laws regulating land use and transfer)

**Private property rights:** well-defined, individualised and exclusive ownership rights over natural resources, include rights of access, withdrawal, management, exclusion and alienation

**Private property rights regimes:** individual owners make management decisions over natural resources and are legally and socially authorised the right to exclude other people from their property

**Common property:** represents private property for the group of co-owners (since all others are excluded from use and decision-making)

**Common property-rights regimes:** define limited-user access and control traits based on members' collective rights to the use and management of resources, subject to rules and restrictions agreed to collectively

**Stewardship:** the wise use, management and protection of natural resources found on privately owned land

**Biodiversity stewardship:** the practise of effectively managing land use outside formally PAs to ensure that natural systems, biodiversity and ecosystem services are maintained and enhanced for present and future generations



## **CHAPTER 2: The Concept of Conservancy as a Landscape Approach to Conservation**

### **2.1 Introduction**

The acknowledgement of the limitations of formally protected areas (PAs) alone in achieving conservation objectives has led to recognition that most high conservation value areas are found on privately owned properties outside these PAs (Ferrier *et al.* 2004). Conservation initiatives on private properties are growing in recognition as important mechanisms for meeting regional and national conservation mandates at the landscape-scale. Conservancies, in particular, are gaining popularity as private land management mechanisms in South Africa that can contribute to the government's regional and national conservation mandates, while integrating conservation and development on private properties (Downsbrough *et al.* 2011).

This study posits that achieving success with conservancies is considerably more challenging than generally appreciated. This is because landscape-scale conservation objectives challenge landowners' commitment to the collective. The challenge can be attributed to the simplified portrayal of the concept of conservancy as a landscape approach. This portrayal overlooks the complexity that arises from the dynamic social and ecological systems across the landscape, which hold different meanings and values for the different landowners. These differences are likely to be expressed through different expectations of the conservancy in protecting or enhancing these values. Furthermore, the dynamic nature of the social and ecological systems entails continually changing meanings and values associated with the landscape.

In order to address the complexity created and meet the landscape-scale conservation objectives, people need to develop a shared representation of the concept of conservancy as a landscape approach. Developing a shared representation creates a collective identity standard. Conservancy members are then able to match their individual meanings against the collective identity standard and this provides rationale for them to self-organise for the attainment and sustenance of collective action to meet the landscape-scale conservation objectives. I argue that challenges to landowner commitment to collective action can be attributed to the way the concept of conservancy is portrayed and understood: it inadequately embodies significant meanings and expectations of the concept as a landscape approach. This chapter uses the

landscape approach to identify attributes of the theoretical constructs of the concept of conservancy, which can create a collective identity standard.

## **2.2 The Origins of Conservation**

Protected areas (PAs) are viewed as “the cornerstone of conservation policy” and cover over 10% of the earth’s surface, comprising more than 100 000 formally PAs (Brown *et al.* 2005: 6). Conservation policy is influenced by conservation ideologies and protected area management conceptions, which have evolved over the centuries as perceptions of the human-nature relationship continually change (Jepson & Whittaker 2002). During the twentieth century, two traditions of conservation evolved: the pragmatic ‘utilitarian’ tradition and the idealistic ‘preservationist’ tradition. The utilitarian tradition promotes conservation for “the greatest good of the greatest number in the long run” (Walls *undated*). This utilitarian view had a significant influence on public conservation policy through the 1940s which saw major resources, including forest and mineral resources, brought under long term management for rational exploitation, overseen by government professionals.

On the other hand, the preservationist tradition promoted the natural world as something to be enjoyed and valued in its own right and not as a factor of production (Sheail 1995, Kotzé 1993). The preservationist tradition championed the “back to nature” spirit, promoting the idea of curbing rapid urbanisation and industrialisation with the creation of the National Parks System (which saw the establishment of the Yellowstone National Park in 1872), wildlife sanctuaries and the protection of threatened species (CBD 2003). By the 1960s, the preservationist tradition had displaced the utilitarian tradition to become the embodiment of the American conservation movement (Walls *undated*). Although both traditions expressed conservation as the need to protect nature from the negative impacts of human activities, there were differing views on how to protect nature.

Over the years formal PAs developed, generally founded on the preservationist ideals that saw the establishment of the Yellowstone National Park, based on the state ownership and management approach for the conservation of nationally important places (Mitchell *et al.* 2005). In Britain, the preservation of its precious and beautiful heritage followed the

preservationist tradition of setting aside areas considered significant based on their nature. This led to the establishment of national parks as sites perceived and managed as ‘wilderness areas’ with no significant human impact, and where human activities were restricted to that of visitors (BES 1944, CBD 2003). In Africa, the preservationist ideals led to the creation of national parks and game reserves covering tracts of land large enough to facilitate large-scale wildlife migrations, for the primary objective of achieving wildlife preservation (Jepson & Whittaker 2002). These founding conservation ideals have influenced “the perception of protected areas as uninhabited wilderness”, resulting in the creation of global networks of “national parks, nature reserves and other kinds of strictly protected areas” (Brown *et al.* 2005: 7). Thus early conservation of nature was generally understood as preservation, expressed through formal PAs set aside as wilderness areas with no human activities, except as visitors enjoying aesthetic values of nature.

### **2.3 The Landscape Approach to Conservation**

Overtime, formal protected areas (PAs) under the preservationist conservation tradition came to be recognised as not being “large enough to be viable [and lacking] the ecological connectivity to other parts of the ecosystem or landscape [...]” and were, therefore, viewed as islands of PAs (Jones *et al.* 2005: 118). Phillips (2005) suggests that as islands, these PAs are constantly under threat from ever-expanding human activities including industry, hydro-electric projects, agricultural expansion, growing urbanisation and consumerism, pollution, accelerating climate change and effects of globalisation. This has led to recognition for the need to “work on the scale of ecosystems and the wider landscape to conserve biological diversity” while integrating sustainable development into conservation (Brown *et al.* 2005: 8). Such calls embody the utilitarian tradition of conservation, which seeks to optimise the benefits, while minimising the costs to the environment of any actions taken by humans (Siegfried & Davies 1982).

Following utilitarian traditions, conservation initiatives have shifted from purely PAs, in which land uses other than wildlife conservation were not permitted, to collaborative initiatives promoting ecosystem management concepts involving mixed land uses between landowners and conservation agencies (Barnard 1999, de Klemm 1992). This has seen a shift in the conservation ideology to a landscape approach that includes an expanded

understanding of the multiple values of PAs to all key stakeholders, both tangible and intangible, including the cultural value of landscapes as well as the value of lived-in landscapes (Mitchell *et al.* 2005). Conservation objectives have also shifted to include: “[...] diversifying objectives and [...] using distinct management categories; and managing PAs for different values including biological diversity, natural reserves, environmental services, sustainable use and landscapes with some degree of human use” (Maretti *et al.* 2005: 49-50). The diversification of conservation objectives and management categories for different values creates complex social-ecological systems (SESs) under the landscape approach.

Complex SESs have led to the creation of more diverse PA systems, encompassing various management partnerships. Management is based on the designation of PAs into different categories according to conservation objectives. The protection of landscapes can occur through a variety of designations and tools, including informal processes that are not recognised within national or international PA systems (Brown *et al.* 2005, CBD 2003). The IUCN category system recognises a number of formal designations that can be used as a landscape approach to conservation. The first Category V, is designation as a Protected Landscape/Seascape that is defined as “an area of land, with coastal and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural values, and often with high biological diversity” (Brown *et al.* 2005: 8). In designating an area as a Protected Landscape/Seascape, emphasis is placed on the natural environment, biodiversity conservation and ecosystem integrity. Protected Landscape/Seascape designations also entail “landscapes that typically have been modified extensively by people over time” (Brown *et al.* 2005: 10). The second is Category VI, designation as Managed Resource Protected Areas that are defined as “areas containing predominantly unmodified natural systems, managed to ensure long term protection and maintenance of biological diversity, while providing at the same time sustainable flow of natural products and services to meet community needs” (Maretti *et al.* 2005: 51). In designating an area as a Managed Resource Protected Area, emphasis is placed on the sustainable use of natural resources in an area “with predominantly unmodified natural systems [that are] to be managed so that at least two-thirds remain that way” (Brown *et al.* 2005: 10). The diverse PA systems created under the landscape approach embody the complexity of integrating social and ecological values through the sustainable use and management of natural resources.

The sustainable management of SESs under the landscape approach incorporates social, economic and ecological aspects at broad spatial and temporal scales (Cortner *et al.* 1996) and is defined as “the regular upkeep of landscapes, so as to guide and harmonise changes which are brought about by social, economic and environmental processes” (Phillips 2005: 21). As such, the landscape approach encompasses nature conservation and sustainable development. The integration of conservation and development shows that the landscape approach is not put forward as an alternative to formal PAs or other conservation models but as a complementary model. It is considered an appropriate conservation approach in areas where biodiversity and cultural practises are linked, and where management regimes need to accommodate traditional uses, land ownership patterns and the need to sustain local livelihoods (Brown *et al.* 2005). This entails “a clear understanding of the social processes that influence nature conservation interests [taking into account those of a society and individual stakeholders], recognising rights [... and allowing] culturally diverse manifestations of interest in nature” (Maretti *et al.* 2005: 62). The landscape approach to conservation therefore aims to get people to realise that they are part of the ecosystem and not separate from it. It also aims to highlight the need to work across administrative property boundaries through initiatives such as community-based conservation, in order to maintain and enhance ecological integrity (Imperial 1999, Cortner *et al.* 1996). Community-based conservation is expressed as encompassing objectives that aim to integrate complex issues of conservation and sustainable development. This is in order to manage and maintain links between biodiversity and cultural values that inform stakeholder practises across landscapes.

### **2.3.1 Community-based conservation as a landscape approach**

Local to regional environmental resource stewardship by groups of local stakeholders across landscapes is considered possible (Ostrom *et al.* 2002; Armitage *et al.* 2008). This is evidenced by community-based conservation initiatives that have existed historically as areas of land and biodiversity that local communities conserved for their own needs, including utilitarian, cultural or spiritual needs. Although most areas under such initiatives are viewed as being small and unlikely to conserve important elements of biodiversity individually, they are nonetheless considered as creating significant links between people, their conserved and protected landscapes, and the wider ecosystem at the landscape level (Barrow & Pathak

2005). This perception reflects community-based conservation as a landscape approach that engages groups of stakeholders in collective action towards sustainable natural resource management within and across multi-tenure regimes, including private properties, communal resource tenure or public lands of shared interest. Community-based conservation initiatives are, therefore, defined as “modified and natural ecosystems, whether human-influenced or not, and which contain significant biodiversity values, ecological services and cultural values, that are voluntarily conserved by communities, through customary laws and institutions” (Barrow & Pathak 2005: 67).

Under community-based conservation, conservancies are growing in importance as private land management mechanisms. The intent of conservancies is commonly expressed as the need to achieve the conservation of biodiversity based on ecological principles, while allowing for a degree of human use, at the landscape-scale through collective action (Imperial 1999, Bennett 2004, Downsborough *et al.* 2011). Bennett (2004) reinforces this view by showing that under the landscape approach, ecological networks of ecosystem services beyond individual property boundaries require full engagement of stakeholders in its management through holistic decision-making and action. It is in this context that the concept of conservancy at the international level is generally conceptualised as encompassing the integrated management of ecologically significant areas with multiple land uses. This perception entails a model of multi-tenure conservation areas managed collectively for the conservation of biodiversity across private properties, common and public lands (Fitzsimons & Wescott 2007).

In the United States of America, Land Trusts have grown in importance as private land management mechanisms similar to South African conservancies. Land Trusts are expressed as non-profit organisations that adopt a model of multi-tenure conservation areas by working in partnership with private landowners to conserve the natural and traditional values on their properties (FVLT 2008). This is achieved through the collaborative maintenance and restoration of the ecological integrity of an identified eco-region and engaging directly in conservation activities in areas of high ecological importance. Successful collaboration at the

landscape-scale is achieved through negotiating conservation easements<sup>1</sup> with the private landowners of priority wildlife habitat and areas of high ecological value (Bennett 2004).

Conservation easements are understood as planning tools used by Land Trusts to engage landowners in integrated management planning for the conservation of natural and traditional values on their properties. As a planning tool and voluntary legal agreement, a conservation easement ensures that the land use remains in line with the agreed conservation objectives, even when ownership changes. The legality of the agreement makes the landowner accountable to the land trust in perpetuity (FVLT 2008). And although a conservation easement is shown to be between a Land Trust and a landowner, the planning and management of the property is based on careful analysis of the property relative to the surrounding conservation areas under the easement as a whole (FVLT 2008). Land Trusts therefore focus on an integrated management approach that is based on comprehensive and scientifically defensible wildlife and ecological networks. These ecologically significant areas with multiple land uses comprise: core biodiversity conservation areas; ecological or environmental corridors providing physical linkages between cores areas; and buffer zones that act as transitional areas with compatible land uses between cores areas and sustainable-use areas at the landscape-scale (Bennett 2004). Designating the conservation easement into different categories of PAs shows the Land Trust as a complex SES implementing a landscape approach, which integrates conservation and sustainable development.

### **2.3.2 Complexity of the ecological system in a conservancy as landscape approach to conservation**

According to Brunckhorst (2010), a conservancy as a landscape approach to conservation requires a clear understanding of the landscape context of interacting scales of social and ecological systems in order to develop appropriate management regimes. In terms of the ecological systems, a conservancy is defined at the landscape-scale in order to ensure ecological integrity and connectivity across landscapes, where biodiversity and ecosystem

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<sup>1</sup> A conservation easement is a voluntary legal agreement in that: a landowner voluntarily chooses to limit certain uses of their land to conserve natural and traditional values while he/she continues to own and manage the land, retains the right to sell or pass the land on to heirs; the Land Trust enters into and commits to a legal partnership in perpetuity with present and future landowners to ensure the conservation agreement is honoured (FVLT 2008)

services can be actively protected through ‘corridors’ that facilitate their dispersal and movement (Kotzé 1993). Conservancies can therefore be interpreted as creating conservation areas to secure benefits deriving from ecosystem services at the landscape-scale.

Ecosystem services are the benefits people get from ecosystems and can be classified into provisioning, cultural and regulating services (Driver *et al.* 2005) (table 2.1). Provisioning services include food, water and fuel wood. Some of these services may be used and managed on individual properties under private property rights regimes with minimal impact on other properties at the landscape-scale. Regulating services are benefits obtained from the regulation of ecosystem processes such as climate regulation, flood and disease control. And cultural services are non-material benefits obtained from ecosystems including spiritual, recreational and educational benefits. Both regulating and cultural services are transboundary in nature, with the use by one landowner impacting the use and benefits of other landowners and resource users with common entitlement at the landscape-scale. The nature of these ecosystem services traversing multiple property boundaries across a conservancy landscape implicitly creates CPRs through the ecological networks and conservation corridors at the landscape-scale (Gripne 2005, Alam *et al.* 2009).

**Table 2.1:** Ecosystem services classification (Driver *et al.* 2005)

Ecosystem services		
Provisioning	Regulating	Cultural
<ul style="list-style-type: none"> <li>• Water</li> <li>• Food (e.g. fish, crops)</li> <li>• Grazing</li> <li>• Wood and fibre for construction and weaving</li> </ul>	<ul style="list-style-type: none"> <li>• River flows</li> <li>• Sediment deposition</li> <li>• Water quality and purification</li> <li>• Hazard regulations (drought mitigation)</li> <li>• Disease regulation</li> </ul>	<ul style="list-style-type: none"> <li>• Sense of place</li> <li>• Knowledge and education</li> <li>• Spiritual</li> <li>• Cultural</li> </ul>

Common pool resources (CPRs) are defined as natural or man-made resources constituting a resource system that comprises a flow of resource units or benefits, which occur over varying tenure regimes. The resource system is identified as “what generates a flow of resource units or benefits over [a period of] time” and may include facilities constructed for collective use



(Ostrom 2000: 338). Examples of resource systems include grazing areas, rivers and dams. A flow of resource unit refers to the benefits individuals obtain from the resource system, such as fodder/grass consumed by animals in a grazing area or fish harvested from a river (Ostrom 1990). The resource units encompass ecosystem services and have attributes shared by all common pool resources, including: 1) high costs of excludability – CPRs are faced with the difficulty of having physical or institutional mechanisms that can exclude beneficiaries; and 2) subtractability – the consumption of resource units from CPR systems by an individual subtracts from the quantity available to others (Ostrom 2000, 1990; Cousins 2000; Dietz *et al* 2002). The excludability and subtractability of CPRs means that one person's use of resources may impact on other people and the attainment of conservation objectives at the landscape-scale (Downsborough *et al.* 2011, Ostrom *et al.* 2002). This perception highlights the interdependencies of ecosystem services across multiple property boundaries at the landscape-scale, reflecting the complexity of the ecological system.

### **2.3.3 Complexity of the social system in a conservancy as landscape approach to conservation**

In terms of the social systems, Brunckhorst (2010) shows that although SESs under the landscape approach synthesise human and ecological interactions by integrating natural and cultural values, they are generally referred to as a social construct. As a social construct, a conservancy is assumed to have the potential to meet conservation objectives at the landscape-scale by providing a balance between sustainable conservation and development. This requires stakeholders to engage in collective action towards the integrated management of natural and cultural resources at the landscape-scale. Thus, in order to ensure this balance, collective management agreements need to be set in the context of natural resource management and social factors (Abel *et al.* 2006, Janssen *et al.* 2006).

Social factors include the multiple-tenure regimes and associated property rights to access and use ecosystem services at the landscape-scale. Multi-tenure regimes govern ecosystem services as CPRs, which have different rights-holders at the landscape-scale with diverse claims to use and benefit from the resources (Bergmann & Bliss 2004). The diverse claims are expressed as property rights to access and use either private provisioning ecosystem services or common regulating and cultural ecosystem services. In order to achieve the

conservation objectives that promote the integrated management of CPRs, landowners need to work collectively beyond their individual property boundaries. This collective action creates relationships that reflect the different rights landowners and other resource users have to the CPRs at the landscape-scale. The multi-tenure regimes and associated diverse property rights mean that to attain collective action, landowners need to engage relationships that entail collective rights as authorised users, claimants or proprietors (Ostrom 2000) (refer to table 2.2). A clear understanding of these social factors provides compelling rationale for conservancy members to self-organise and act collectively at the landscape-scale. This perception illustrates the interdependencies of social factors beyond individual property boundaries, reflecting the complexity of the social system (Abel *et al.* 2006).

**Table 2.1:** Interdependencies of social factors beyond individual property boundaries  
(Source: Ostrom 2000:340)

Rights- holders Bundle of rights	Owner	Proprietor	Claimant	Authorised User	Authorised Entrant
Access	X	X	X	X	X
Withdrawal	X	X	X	X	
Management	X	X	X	X	
Exclusion	X	X			
Alienation	X				

### 2.3.4 Interdependent social and ecological systems as sources of complexity in conservancies

The landscape approach enables the designation of PAs into different categories, according to conservation objectives, including “bioregions, mosaics of protected areas, ecological networks and conservation corridors, and individual protected areas considered as part of protected area systems” (Maretti *et al.* 2005: 50). Maretti *et al.* (2005: 50) define these landscape conservation approaches as follows: a mosaic of protected areas (PAs) is “a set of

adjacent or close protected areas, potentially of different categories, and preferentially with common conservation goals or focus, whose management is integrated”; an ecological network is “a set of areas, not necessarily close to each other, but composing an ecologically important ensemble related to certain conservation goals”, such as nesting sites for particular species; while bioregions entail the regional management of biological elements while taking into account different factors such as natural, social and institutional factors; and a conservation corridor is viewed as representing a large area that constitutes PAs as its core zones, with other kinds of uses and areas, and with an overall nature conservation purpose preferably with integrated management.

Designating landscape conservation approaches in the foregoing categories shows an understanding of landscapes as being “located in the social consciousness – which observes, chooses, defines, delineates, builds [and therefore] belong to the domain of representations – where choices are made” (Maretti *et al.* 2005: 47). Thus the same landscape may be variously defined and put to different uses by different social groups to either build ecological networks, conservation corridors or a mosaic of PAs. As such, landscapes are considered as inspiring people, shaping and reinforcing their values, while reflecting and reinforcing their sense of identity (Phillips 2005). This understanding reflects that the concept of conservancy as a landscape approach can be regarded as going beyond simple interpretations of creating ecological networks and corridors across property boundaries to include meanings of a landscape to landowners. These meanings influence what they consider valuable to protect for individual and/or collective conservation objectives at the landscape-scale (CBD 2003).

Research suggests there are significant relationships between landowners’ environmental values and their land-use orientations in relation to conservation objectives at the landscape-scale (Manning 2006). For example, landowners who depend on their land as a productive resource for a stream of current income are likely to have a different view of how they exercise their property rights from landowners who own land mainly as a place to live or recreate (Inman & McLeod 2002). Research also shows that new owners to an agricultural area, non-resident landowners or people without a farming background may be less dependent on their land as a productive asset. Such landowners may pay more attention to the collective impacts of individual property owner decisions on the aesthetic and environmental

quality of their community (Jackson-Smith *et al.* 2005). There is also likely to be greater conflicts between non-agriculture and agriculture landowners with increased economic change and opportunities to get financial benefits from residential or recreational development (Smith & Krannick 2000). Such opportunities may lead landowners to abandon agriculture land uses, withdraw from their communities and seek opportunities to develop their properties (Zollinger & Krannich 2002). The foregoing expression of environmental values in relation to land use orientations shows that a sense of identity around these values influences perceptions of ecosystem services as CPRs. A sense of identity related to environmental values, therefore, has the potential to influence self-responsiveness to collective action that can enable and sustain integrated management at the landscape-scale.

Brown *et al.* (2005) describe landscapes as areas where nature and people have interacted to create a distinct *place*; areas that constitute past and present actions that provide a *record* of natural and cultural history; and areas that comprise tangible and intangible environmental values that give people a sense of *identity*. Under the identity control theory (ICT), identities are viewed as “sets of meanings people hold for themselves that define what it means to be who they are [...] as persons and as group members” (Burke 2005). As group members, meanings are assumed to be shared since they exist in a common culture (of the collective). These shared meanings create a collective identity standard that acts as a reference with which people compare their perceptions. People strive to match perceived meanings to the collective identity standard. In this context, “identities and behaviours are connected through common meanings, and disturbances to the perceived meanings of the behaviour are counteracted to maintain identity verification” (Burke 2005). Sharing a culture and its symbols in a collective suggests that people will respond (perceive) to stimuli (symbols) in similar ways. As such, the meanings held in the collective identity standards are viewed as defining the identities along shared dimensions and also constitute shared goals (held collectively by individuals) (Gupta *et al.* 1997). Nonetheless, the sharing is not assumed to be perfect but it is adequate for coordination and common objectives to be met (Burke 2005). In this context, a conservancy can be interpreted as a collective of individuals that hold shared meanings of its conservation objectives, which promote the integration of environmental values and land use orientations through the integrated management of natural resources at the landscape-scale.

Collective identity is viewed as the superstructure of different concepts of social categories, such as a rural social identity associated with conservancies. The different conceptions can be attributed to the special meanings local communities give to the natural and human shaped features of a landscape and its uses. This conceptualisation emphasises that the physical characteristics of the landscape together with the collective meaning of the landscape create a 'social category' (Bernardo & Palma 2005: 73). As such, people can define themselves or identify themselves as belonging to a particular social category, which creates a collective identity. Belonging to a particular social category with a collective identity is understood as influencing individual behaviours and actions in maintaining or enhancing the physical and social characteristics of the landscape.

As private land management mechanisms integrating conservation and development, conservancies enable multiple-use activities on individual properties. However, concerns have been raised that multiple-use activities may promote habitat transformation and fragmentation, and a decline of species, which can lead to an increase in heterogeneity and changes to the physical characteristics of the landscape. Multiple-use activities can lead to greater social, economic or cultural heterogeneity, which can also increase the difficulty in reaching collective management agreements on restrictions that are mutually beneficial. Heterogeneity therefore has the potential to have negative impacts on collective identity (Benin & Pender 2006). Changes in the physical characteristics of the landscape can further lead to the disruption of meaning and collective identity (Bernardo & Palma 2005). And where there is no collective identity, a shared representation of conservation objectives at the landscape-scale that promote the integration of conservation and development is unlikely to be developed. On this basis, changes to the landscape through increased heterogeneity can lead to the loss of a sense of belonging to the conservancy collective identity, which has the potential to negatively impact self-responsiveness to collective action.

In order to maintain a sense of belonging around a collective identity and develop self-responsiveness to the integration of environmental values and land use orientations at the landscape-scale, distinctiveness as an attribute of identity is essential. According to Twigger-Ross and Uzzell (1996: 207) "distinctiveness summarises a lifestyle and establishes that person as having a specific type of relationship with his/her environment, which is clearly distinct from any other type of relationship". In effect, distinctiveness creates a social

category that an individual can identify with in terms of their lifestyle and their use of the place as a living space. This builds a particular type of relationship with the place that differentiates them from people from other places. A person's identification with other people living in the same landscape under a social category creates a collective identity around a distinct landscape based on shared meanings of place (Bernardo & Palma 2005). A conservancy can, therefore, be considered as constituting a collective of individuals that identifies themselves under a social category that creates a collective identity around the conservancy landscape. This further promotes self-responsiveness to collective action for the maintenance or enhancement of the distinctiveness of the landscape as a conservation objective at the landscape-scale.

## **2.4 Summary**

The foregoing context of ecological and social systems highlights the practical difficulty of integrating conservation and development under private land management mechanisms. The voluntary and land tenure context of the private properties provide tenuous security that is dependent on the values of individual landowners. Thus ensuring ecological integrity in perpetuity at the landscape-scale requires a shared representation of the concept of conservancy as complex SESs. Conservancies also require the development of appropriate property rights management regimes that take into account multi-tenure regimes and diverse property rights associated with the complex ecological and social systems across landscapes. I contend that adopting conservancies as private land management mechanisms for the successful integration of conservation and sustainable development across landscapes is difficult in practise. This is due to the ecological and social complexity of defining ecosystem services as common pool resource property rights institutions within well-defined private property rights institutions. In addition, the voluntary nature of conservancy membership provide tenuous security for the potential to ensure long term ecological integrity at the landscape-scale since it is dependent on landowners' environmental values and land use orientations. In order to address this complexity and meet conservation objectives at the landscape-scale, landowners need to have a shared representation of the concept of conservancy as a landscape approach. A shared representation assures a collective identity, around which environmental values and land use orientations can be integrated through the collective management of natural resources at the landscape-scale.

## **CHAPTER 3: Conceptual Challenges to Attaining Landowner Commitment to Collective Action in Private Land Management Mechanisms under the Landscape Approach to Conservation**

### **3.1 Introduction**

Although private land management mechanisms have been shown to achieve landscape-scale conservation objectives, the effectiveness of the management regimes used under these initiatives in ensuring long term secure conservation status of biodiversity and ecosystem services has been questioned. Downsborough *et al.* (2011) argue that this assumption is made without determining landowners' commitment to implement collective management agreements through sustained collective action. My review of literature in chapter 2 highlights the complexity that conservancies as social-ecological systems (SESs) present to landowners' commitment to sustain collective action. The complexity can be attributed to the conservation objectives set out in implementing the concept of conservancy, which require landowners to embrace common-pool resources (CPRs) property philosophy. The CPRs philosophy implicitly challenges entrenched private property rights regimes operating individual property scales. Challenges to landowners' commitment to collective action can be attributed to the simplified portrayal of the concept as ensuring ecological integrity at the landscape-scale.

I contend that this understanding overlooks key social factors that influence landowner commitment to achieving collective conservation objectives. These factors are the different meanings attached to the nature of property and property rights that individual landowners hold with regard to their private properties. I therefore argue that opportunities for collective action in a conservancy as a landscape approach are potentially limited by the transboundary nature of biodiversity and ecosystem services as CPRs across multiple private properties. This is further compounded by differences in meanings attached to the CPRs and associated property rights, in terms of whose needs and interests are met, when, and by who. This chapter seeks to show that to overcome the foregoing challenges, conservancies need to establish appropriate property rights management regimes around shared meanings of the concept as a landscape approach and the nature of property (and associated property rights). The chapter uses property theory to highlight conceptual challenges to attaining landowner

commitment to collective action in private land management mechanisms under the landscape approach to conservation.

### **3.2 Nature of Property and Property Rights**

Challenges in managing complex SESs across landscapes characterised by multi-tenure regimes are widely acknowledged (Hurley *et al.* 2002, Jackson-Smith *et al.* 2005, Yung & Belsky 2007). Jackson-Smith *et al.* (2005) show that regardless of the formal property rights arrangements, good resource stewardship is dependent on the ability of social institutions to capitalise on beliefs and values that link individual actions to community-wide impacts (link self-meanings of landowners with collective conservation objectives). However, protected areas (PAs) are often established without taking into account how natural resources are used in general or changing people's perceptions regarding the use of natural resources in relation to the collective conservation objectives being espoused (Barrow & Pathak 2005).

Consequently, although private land management mechanisms under the landscape approach take into account dynamic ecological processes crossing property boundaries, they generally overlook social processes that are linked to administrative property boundaries and how these processes influence decision-making, management and planning on the different properties (Wondolleck & Yaffee 2000, Stokowski 2003). Furthermore, although multi-tenure regimes, types of property and resource rights are recognised as important factors in private land management mechanisms, there has been a continued emphasis and entrenchment of traditional individualistic views of property rights, and fragmented individual tenure of land and resources (Brunckhorst 2010).

Studies show that in countries where the tradition of common law underpins property law institutions, conservation actions and sustainable resource management policies are rarely integrated across private properties. This is attributed to the narrowing of property and ownership to an individual level, which leads to contextual differences across different spaces and places of ownership (Brunckhorst 2010). Property ownership as an institution entails socially constructed norms and rules, which are usually reinforced through legislation by formal government. Informal institutions, on the other hand, are generally upheld by cultural or behavioural norms reinforced through monitoring and sanctions (Brunckhorst 2010, Quinn *et al.* 2007, Yung & Belsky 2007, Kayambazinthu *et al.* 2003). Nonetheless, property



institutions (formal and informal) confer rights of access and exclusion to resources or land, while tenure regimes define particular exclusivity of ownership or use rights of resources to individuals or groups of individuals (Ostrom *et al.* 2002).

Private land tenure regimes define exclusivity of ownership over natural resources to individuals (Ostrom *et al.* 2002). Consequently, landowners in conservancies as private land management mechanisms are faced with the dilemma of exercising their individual exclusive rights and addressing their interests within the boundaries of their private properties, on the one hand, and having enough commitment to share some of these rights to achieve collective conservation objectives, on the other. In this context, property has been identified as an important institution that influences collective action under the landscape approach to conservation (Hurley *et al.* 2002). Historically, property definitions have continually changed to show the economic and social structures pertaining at the time. It is therefore considered important to measure and monitor societal values and related thinking (perceptions) regarding property in order to integrate these into the conservation concept (Manning 2006). While there are different world views of property and property rights, for purposes of this study, the traditional and social concepts are discussed below.

### **3.2.1 Traditional concept of property and property rights**

Traditionally, property is understood as a dichotomous division of common and private property. Common property rights regimes govern the use and management of common property resources. According to Bromley (1991: 25), ‘common property represents private property for the group of co-owners (since all others are excluded from use and decision-making)’. Accordingly, common property rights regimes define exclusivity of ownership or use-rights of common property resources to groups of individuals. Consequently, common property rights regimes have limited-user access and control traits based on members’ collective rights to the use and management of resources, subject to rules and restrictions agreed to collectively (Cullet 2001). Common property rights regimes therefore denote regimes where “members of a clearly demarked group have a legal right to exclude non-members of that group from using a resource” (Ostrom 2000: 335).

Group members share collective property rights in relation to a defined resource system and the resource units produced by that system (Anderson & McChesrey 2003). In addition, individual co-owners have usufruct rights and duties, which are non-alienable or transferable without consent from other group members. Usufruct rights are based on accepted norms and rules of the collective. These groups are considered to be collectives with definite membership and boundaries, common interests, common cultural norms and their own endogenous authority systems. Management of the resources vests in group leaders or authorities who allocate use rights to members while excluding non-members. The group of community leaders also oversee and monitor norms and rules developed collectively. Collective property rights are therefore governed by common property rights regimes. The social relationships under common property rights regimes entail members' collective rights to mutually benefit while showing collective responsibility and accountability in addressing costs (Ostrom 2000).

Developing private rights for land and associated natural resources generally entails dividing it into defined parcels, with assigned individual rights (subject to relevant laws regulating land use and transfer) (Ostrom 1990). Private property rights are viewed as being well-defined, individualised and exclusive. Rights-holders are considered to have full ownership rights over natural resources, which include rights of access, withdrawal, management, exclusion and alienation (Jackson-Smith *et al.* 2005). The rights-holder derives benefits, and associated costs, while others are expected to respect these rights (Bromley 1991). This definition emphasises individual liberty and the exclusivity of rights to benefit from owning property.

Private property rights are governed under private property rights regimes. Under these regimes, individual owners make management decisions over the use of natural resources within their defined property boundaries. Furthermore, private property owners are legally and socially authorised the right to exclude other people from their property (Bromley 1991). This view emanates from Locke's labour theory of property, which emphasised the strong individual rights of ownership and still influences the beliefs and behaviours of individual landowners as well as government property law institutions guided by common law (Sax

1993). Locke argued that individual use of resources does not necessitate prior consent from society or other people. The need for people to sustain themselves and their right to the fruits of their labour entitles them to the absolute right to appropriate resources. Based on this understanding, private property rights regimes emphasise strong individual rights of ownership, a view that has led to the implicit assumption that individuals are entitled to the absolute right to appropriate resources for their individual benefit (Sax 1993.). The social relationships under private property rights regimes are based on the individual owner's right to benefit while others have a duty to respect these rights. From the foregoing traditional concept, property is understood as relationships between individuals (under private property regimes) or groups of individuals (under common property regimes) and the property (in terms of its use and management).

### **3.2.2 Social concept of property and property rights**

Traditional conceptions of property have been shown to emphasise autonomy and defence of private property boundaries, which is viewed as inhibiting collective action across boundaries (Hurley *et al.* 2002; Jacobs 1998; Yandle 1995). More recently, there have been calls for a rethinking of property rights to be in line with current landscape approach principles in order to build shared perceptions and enable collective action (Yung & Belsky 2007, Hurley *et al.* 2002; Goldstein 1998; Duncan 1996). The social process view of property is understood as providing an ideal framework in which to better understand current thinking related to property rights, and how property rights regimes can be re-designed to meet increasing conservation challenges across multi-tenure regimes, varying property and resource rights (Yung & Belsky 2007). Du Plessis (2011) identifies this framework as the commons framework. The commons framework allows for multiple rights (use and control or decision-making rights) to be recognised and protected through self-organisation that is not dependent on the traditional conceptions of ownership.

Property under the social concept is viewed as a social process involving relationships between rights-holders and other people with respect to a property. In this context, property is understood as 'a social relation that defines the property holder with respect to something of value (the benefit stream) against other people' (Bromley 1991: 2). In this light, property is defined as 'a benefit (or income) stream' (Bromley 1991: 2). Similarly, property rights are

viewed in terms of relationships between individuals in relation to things owned (Devlin & Grafton 1998, Bromley 1989). A property right is therefore defined as a claim to a benefit stream and an enforceable authority to undertake particular actions in a specific domain (Ostrom 2000, Bromley 1991). Rights in any form (rights, privileges, powers and immunities) are therefore recognised when they impose limits on the freedom of others (duties, absence of rights, obligations and absence of power). This therefore places implied duty for other people interested in a particular claim to respect these rights (Ostrom 2000). In effect, a right cannot exist without recognition and acquiescence by others in the form of relationships with regard to the individual rights-holder. In this context, property rights are relationships between a rights-holder and other people (who have a duty to respect the rights) with respect to a benefit stream (resource). This is in contrast to the traditional concept of property as relationships between the rights-holder and a benefit stream (resource).

Property rights as relationships between a rights-holder and other people are recognised as being dynamic, changing with societal expectations and the context in which they are applied (Kabii & Pierre 2006). The dynamic nature of property rights is based on their characteristics, which entail a bundle of discrete divisible rights including the right to acquire, possess, use, manage, sell, lease, donate or subdivide what constitutes the property (Farrier 1995, Honoré 1961). These rights can be added or subtracted, shared or divided in different ways resulting in changes in the amount of benefits, and associated costs, flowing from the property (Yandle 2007, Kabii & Pierre 2006). This understanding is different from the traditional concept of private property. As shown in section 3.2.1, private property rights assign full ownership and sole authority for the use of resources and rights to claim the benefits that flow from the resources (Eggertsson 1990, Macpherson 1978). In contrast, property rights under the social concept do not automatically entail full ownership and sole authority to use and dispose of resources. This premise is based on the notion that various stakeholders hold overlapping use and decision-making rights to a resource through the social relationships established from the bundle of property rights held (Meinzen-Dick & di Gregorio 2004). These relationships entail everyday property uses that are reflected in the bundle of multiple rights and responsibilities (Vandergeest 1997).

Defining property rights in such a bundle allows for a better understanding of current thinking related to how different distributions of the property rights bundle, in terms of multi-tenure regimes, varying property and resource rights; influence self-responsiveness to collective action under a landscape approach to conservation. Vandergeest (1997: 4) proposes a list of characteristics of property that can be used to better understand the multiple rights to a resource held in the bundle and how they influence self-responsiveness to collective action:

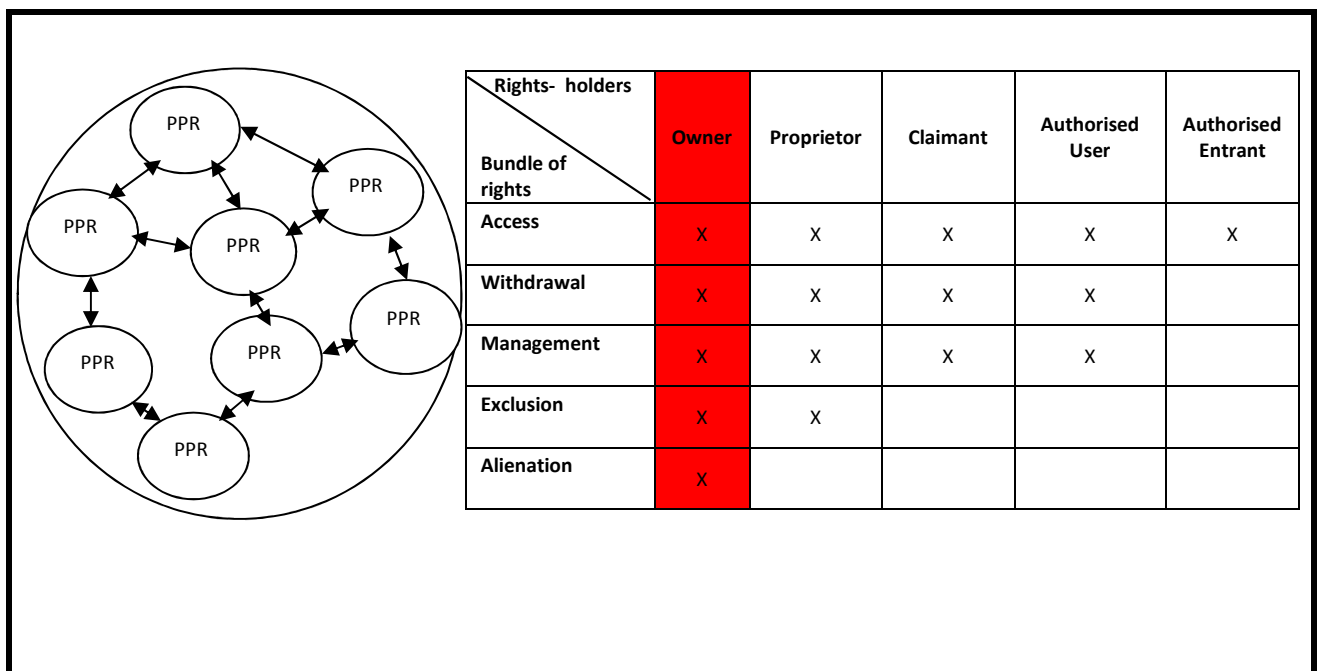
1. A given resource system may have different resource units (e.g. a tree as a resource system can provide fruit, timber, and firewood).
2. More than one person can claim rights to the different resource units.
3. Property rights to use a resource also generally entail associated responsibility (e.g. the right to harvest fruit may follow caring for a tree).
4. Rules or practices structuring priorities of different resources and who has access to them are often not clear-cut.
5. Rules or practices can and do change, as conditions change.
6. Different resource uses may lead to conflict.
7. An enforcement mechanism is necessary in order to ensure compliance with dispute resolution.

These characteristics have the potential to give rise to differing perceptions of property and property rights. In order to determine the link between perceptions of property and property rights, and how this influences self-responsiveness to collective action, I adopt Ostrom's (2000) approach of associating the operational-level rights with the type of property rights-holders (refer to table 2.2). The five classes of property-rights holders have been defined as follows (Ostrom 2000: 339 - 342):

- 1) Authorised entrants: have rights to access and enjoy non-consumptive/subtractive use of a resource system.
- 2) Authorised users: have both access and withdrawal use-rights, and may hold management rights.
- 3) Claimants: have access, withdrawal use-rights and management rights.
- 4) Proprietors: have rights to access, withdrawal use-rights, management and exclusion rights.

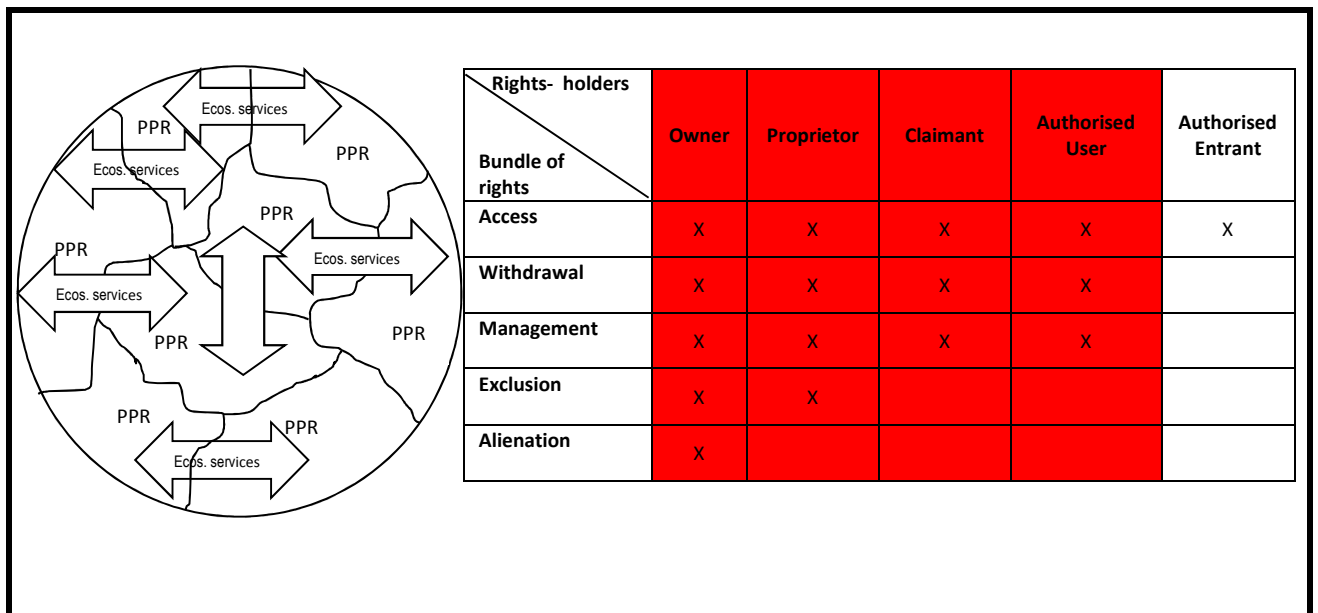
5) Owners: have access, withdrawal use-rights, management, exclusion and alienation rights.

Currently, the nature of property and property rights in conservancies is based on the view of disjointed individual properties under private property rights (PPR) regimes (refer to figure 3.1). This can be attributed to the relationships under private property rights regimes between the rights-holder and a resource. These relationships create the perception of full ownership rights, which does not provide a compelling rationale for members to self-organise and commit to sustaining collective action at the landscape-scale (refer to Figure 3.1).



**Figure 3.1:** Current view of the nature of property and property rights in conservancies (Source: after Ostrom 2000)

In contrast, the nature of property and property rights in conservancies as a landscape approach is based on the view of contiguous properties across the landscape with CPRs, which require collective management regimes (Ostrom *et al.* 2002, Bennet 2004, Fitzsimons & Wescott 2007) (refer to figure 3.2).



**Figure 3.2:** Proposed view of the nature of property and property rights in conservancies (Source: after Ostrom 2000)

Accordingly, property rights in conservancies as a landscape approach entail a divisible bundle of rights and can be categorised as operational level rights (Bess & Harte 2000, Ostrom & Schlager 1996): i) access – the right to enter a defined physical area and enjoy non-subtractive benefits (e.g. hike, canoe); ii) withdrawal – the right to extract a resource (e.g. catch fish, appropriate water); iii) management – the right to regulate use and transform the resource by making improvements; iv) exclusion – the right to determine who has access and how access rights are transferred; and v) alienation - the right to sell or lease management and exclusion rights. And following the commons framework, these rights can be categorised as use rights (access and withdrawal rights) and control or decision-making rights (management, exclusion and alienation) (du Plessis 2011). Thus, based on the concept of a bundle of rights and the nature of property as provisioning, regulating or cultural ecosystem services, property rights under a landscape approach can be held by a private individual or a collective of individuals within and across property boundaries in conservancies (Devlin & Grafton 1998).

The operational level rights create social relationships that enable landowners to gain influence over others who, through their individual actions, may adversely affect a CPR as a benefit stream to which they have common entitlement. This creates an implicit redefinition of what are traditionally perceived as privately owned resources within the well-defined

boundaries of individual properties into CPRs, also changing the property rights regime to include common property rights regimes (Ostrom 2000). Common property rights regimes entail limited-user access and control by other conservancy members through collective rights to the CPRs as authorised entrants, claimants and proprietors. This involves parts of the bundle of individual rights being shared and held collectively, leading to an inherent loss of control by the individual property owner over that part of the property or resource (Yung & Belsky 2007). Based on this redefinition, it can be premised that any activities within a private property that is part of a conservancy need to take into account CPRs that traverse multiple property boundaries, making these subject to collective approval (Kabii & Pierre 2006).

The collective management of CPRs through common property rights regimes entails collective decision-making regarding their use and management (Gustanski 2000b). Perceptions of ceding control through collective decision-making have the potential to raise ownership anxiety and fears of loss of control over natural resources among landowners. This is because the process goes beyond negotiations over environmental management practices to include issues of personal autonomy and entitlement (Bergmann & Bliss 2004). In effect, this premise challenges landowners' perceptions of autonomy associated with private property rights with regard to exclusive and absolute rights to their properties. This highlights potential discrepancies in landowners' self-meanings and collective-meanings of the concept of conservancy as a landscape approach that entails contiguous properties with CPRs at the landscape-scale (Yung & Belsky 2007).

### **3.3 Developing Appropriate Property Rights Regimes under the Landscape Approach to Conservation**

The nature of a resource unit as provisioning, regulating or cultural ecosystem services, determines the type of resource (private or common), the associated resource rights and the type of rights-holders. Thus, I contend that meanings attached to the nature of one's property, as constituting CPRs across contiguous multiple properties; and meanings attached to other resource users' rights to benefit from these resources influence landowner commitment to common property rights regimes. The structure of rights to natural resources and the rules governing how these rights are exercised constitute property rights regimes, which are mechanisms people use to control their use of resources and their behaviour towards each



other. According to Ostrom (2000: 338), “devising property regimes that effectively allow sustainable use of common pool resources (CPRs) requires rules that govern access to and the use of diverse resource units from the resource systems”. Consequently, a property rights regime is defined as ‘a structure of rights and duties characterising the relationship of individuals or groups of individuals to one another with respect to a particular natural resource’ (Bromley 1991: 22). Property rights regimes thus show different social relationships pertaining by specifying the different types of claims a property rights-holder has to a resource through an indication of one’s entitlements and what one can and cannot do.

In characterising relationships among users, property rights regimes show the structure of ownership, access and control over the resources, which has implications with regard to their management (Baskaran & Anderson 2005). Property rights regimes can therefore be said to be determined by meanings regarding what is scarce (thus making it potentially worth protecting with rights), and what is valuable (thus making it definitely worth protecting with rights). The structure of rights and duties in property rights regimes can therefore be viewed as determining the optimal distribution of the operational-level rights, which has implications on individual behaviour and self-responsiveness to collective action. Landowner actions need to be governed by norms, values and rules under a management regime that determines how actions are effected (rights are exercised) and non-conformity to the collective identity standard is addressed (Bromley 1991, Yung & Belsky 2007).

In order to determine how the confirmation or discrepancy in meaning influences members self-responsiveness to collective action, I use Ostrom’s approach of associating the operational- level rights with the type of property rights-holders and integrate it with the nature of property (resource connectedness) (refer to figure 1.1). I argue that confirmation or discrepancy in meanings can influence conservancy members’ ability to self-organise responsively for the attainment of collective action. This is indicated by the type of property rights regimes they are willing to commit to in order to achieve the collective conservation objectives. Based on the foregoing conceptual background, I make the following assumptions: 1) conservancies as private land management mechanisms implicitly create CPRs in the form of ecosystem services traversing multiple private property boundaries; 2) CPRs imply resource connectedness across contiguous properties brought into the collective, which in turn implies the need to share the bundle of rights among resource users through

collective management; and 3) collective management implicitly superimposes common property regimes on longstanding private property regimes. These assumptions highlight challenges arising from meanings individual landowners attach to the concept of conservancy, in relation to the nature of property and property rights, which also influence self-responsiveness to collective action across private property boundaries.

My study posits that the collective management of CPRs across multiple private property boundaries is highly unlikely where self-meanings do not align with shared meanings of what a conservancy means, in relation to the nature of property and property rights. In line with this proposition, I argue that the success of conservancies hinges on the willingness of stakeholders to develop shared meanings and move toward a shared representation of the concept of conservancy (Etienne *et al.* 2011, Jones *et al.* 2011, Langan-Fox *et al.* 2001). I therefore propose that to get landowner commitment to collective management, there needs to be a shift in meanings they attach to the concept of conservancy. There also needs to be a shift in meanings attached to the nature of property and property rights CPRs across contiguous multiple private properties. This will in turn lead to the development of a shared understanding for the need to share the bundle of property rights through the collective management of the CPRs.

### **3.4 Summary**

The chapter shows the importance of the social systems in a conservancy as a complex SES implementing a landscape approach to conservation. The key factors of property and property rights are highlighted as influencing landowner commitment to collective management. Accordingly, the concept of conservancy as a landscape approach requires a shared representation of the nature of property based on shared meanings of CPRs as provisioning, regulating and cultural services; while property rights should be in terms of a divisible bundle of rights. On the basis of this shared representation, common property rights regimes can be developed to guide rights-holders actions and behaviours. Developing such an appropriate management regime allows stakeholders to determine the optimal distribution of property rights, a process that potentially reduces ownership anxiety while increasing landowner commitment to collective management.

## **CHAPTER 4: Research Setting and Methodology**

### **4.1 Introduction**

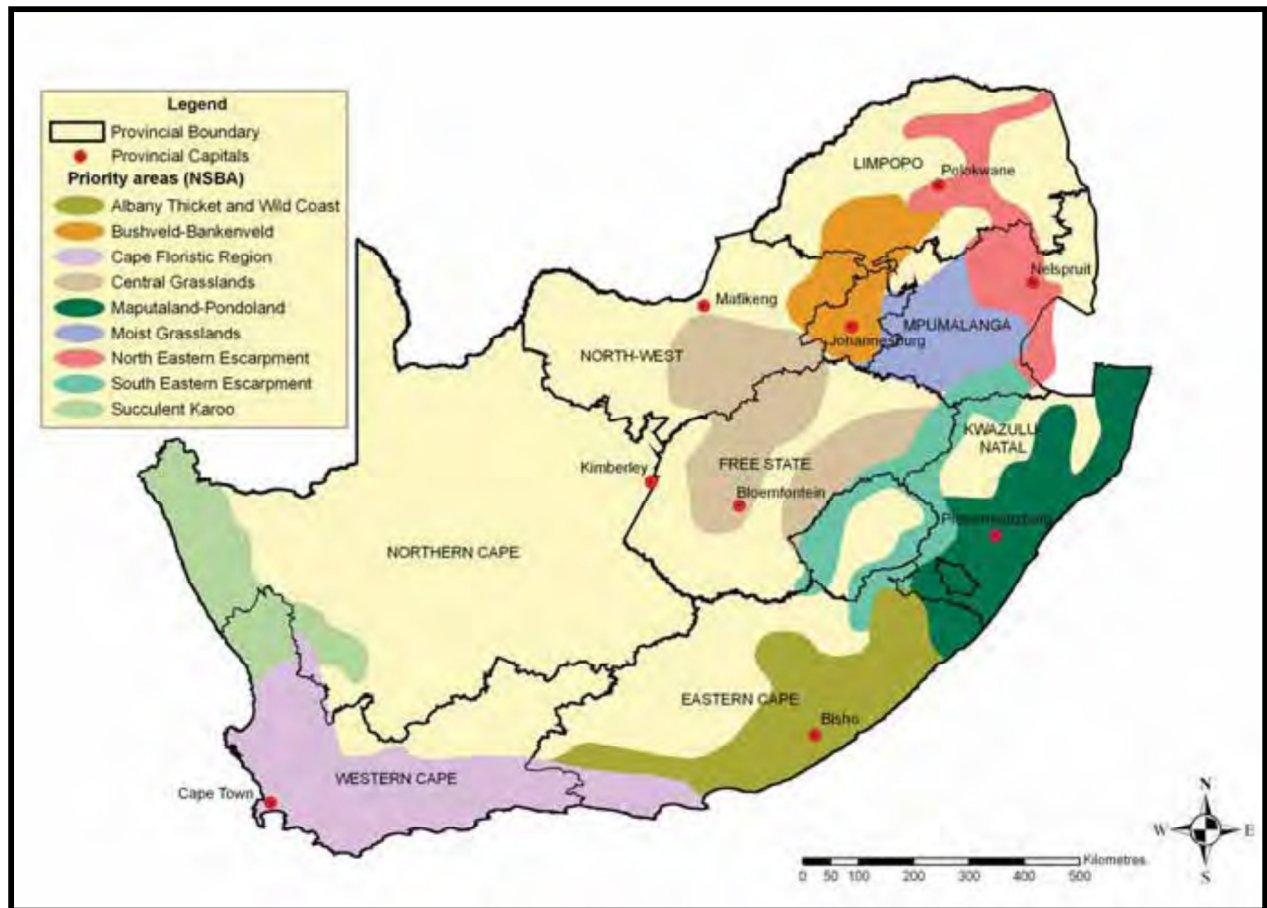
In chapters 2 and 3, I argue that the success of conservancies as a landscape approach to conservation is contingent upon a shared understanding of the concept. I argue that a conservancy should be understood as a landscape approach to conservation constituting biodiversity and ecosystem services as common pool resources (CPRs) across multiple private property boundaries. I further argue that the nature of the biodiversity and ecosystem services requires a shared understanding for the need to develop common property rights regimes for the collective management of the resources at the landscape-scale. The first section of the chapter conveys understandings of the concept of conservancy as a landscape approach from documentary review of secondary data, including documentation at the national and provincial policy level and from the Dargle Conservancy. In this section, I contend that there is need to adopt a landscape approach to conservation that can address increasing development pressures and encroachment on areas of high conservation value on privately owned land in the rural landscape. I further contend that there is need to adopt conservancies as landscape conservation strategies under the KZN Biodiversity Stewardship Programme (BSP), providing for the conservation of biodiversity and extension of areas under conservation management outside formal protected areas (PAs). The second section of the chapter outlines the research methodology of the study, from the design process to the analysis and interpretation.

### **4.2 Development and Conservation Challenges in South Africa**

South Africa is considered one of the most biologically diverse countries in the world, endowed with a rich diversity of plant and animal life (DEAT 2005). However, the country's rich natural resources are under increased pressure from the government's key priorities to grow the economy for the development and improvement of the quality of life of all South Africans. This growth is envisioned to address the historical challenges, brought on by the apartheid era, of continued social and economic exclusion of the vast majority of the country's population (NPC Diagnostic Report 2011). The exclusion is reflected in the high levels of poverty and inequality, which can be attributed to high unemployment rates. 31% of the country's 50 million people between the ages of 15 to 65 years are unemployed. Hence

the government has embarked on an economic drive to create more jobs and bring development that is people and community centred (KZN Provincial Planning Commission 2011, NPC Diagnostic Report 2011). However, the provision of services and infrastructure to meet government's development priorities has led to increased pressure on biodiversity and ecosystem services.

The loss of biodiversity and declining status of ecosystems has been recognised nationally as a source of concern since the resultant loss of ecosystem services impacts on biodiversity, development potential and human well-being (DEAT 2005, Driver *et al.* 2005, Symposium of Contemporary Conservation Practice 2012). The declining status has been attributed to the inability of state PAs to conserve a representative sample of South Africa's biodiversity (Driver *et al.* 2005) (map 4.1). Furthermore, the loss of biodiversity has largely been attributed to environmental degradation, and to which sound ecologically-based development planning and land-use management is required (KZN Provincial Planning Commission 2011, Symposium of Contemporary Conservation Practice 2012).



**Map 4.1:** Priority conservation areas in addition to state PAs (Source: DEAT 2005)

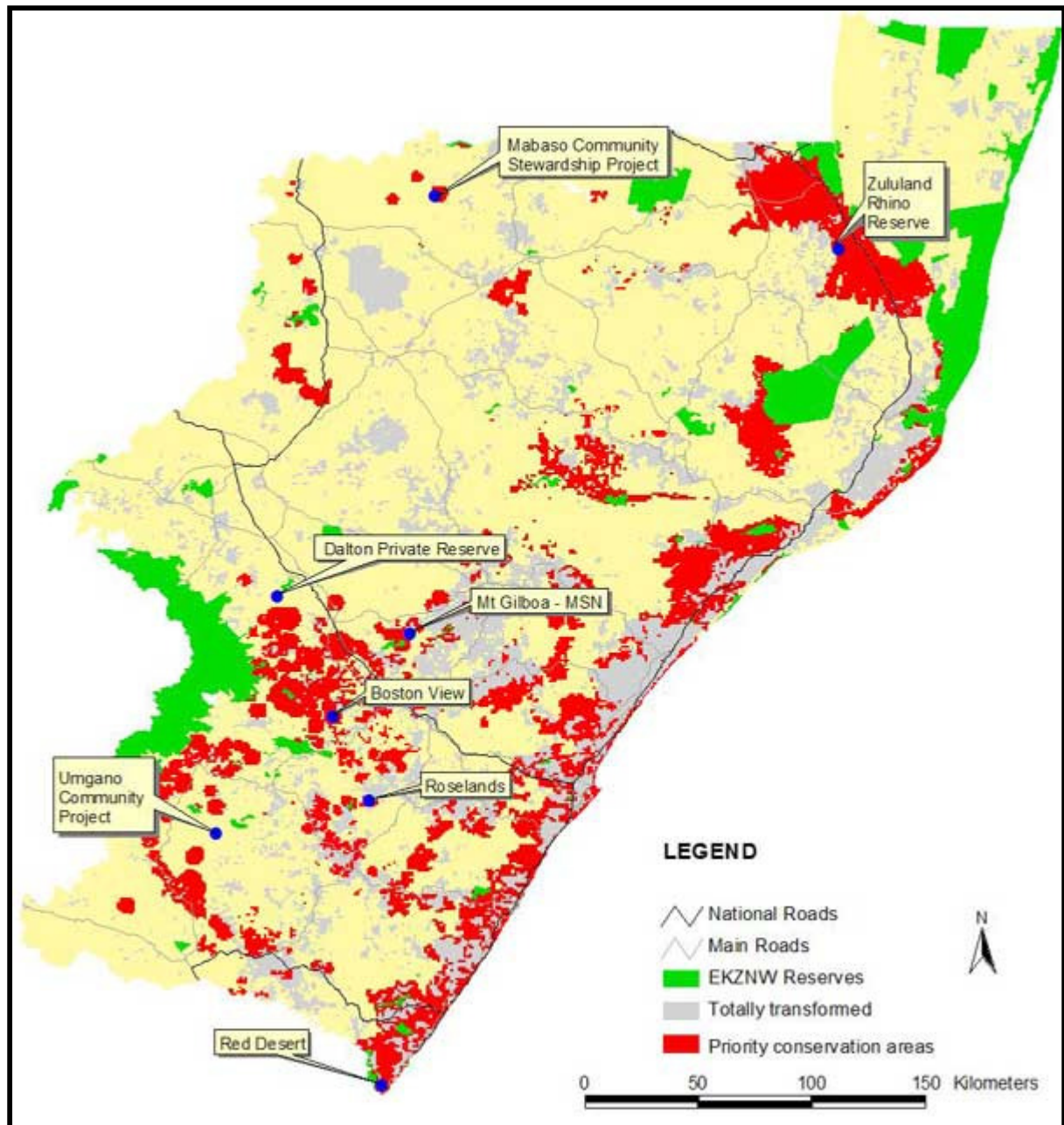
Ecologically-based development planning has the potential to integrate government's growth of the economy with the conservation of biodiversity. Consequently, through the National Protected Areas Expansion Strategy and the Biodiversity Stewardship Programme (BSP), the government identified the need for the expansion of the state PA network and the integration of sustainable use of biodiversity through formal resource management at the landscape-scale, to include private land (DEAT 2005, Driver *et al.* 2005). The government has therefore been seeking to meet its conservation mandates by creating links within the broader environmental landscape through the purchase of lands from private landowners. However, with increased economic pressure from political priorities and population growth, among other factors, the government is unable to purchase all land identified as high priority habitat or threatened ecosystems (KZN BSP 2010, KZN Provincial Planning Commission 2011, Symposium of Contemporary Conservation Practice 2012). Thus as budgets for state PA management diminish in most provinces, biodiversity conservation is considered expensive

and is faced with the challenge of securing long-term funding for conservation initiatives (Cousins *et al.* 2010).

The foregoing developmental and budgetary challenges have led to growing concerns regarding threats to the biodiversity found outside state PAs and the impacts on the provision of ecosystem services at the landscape-scale. Although concerns have been acknowledged, there has been little success in getting concerted action to address the challenges facing the conservation of biodiversity at the landscape-scale (Symposium of Contemporary Conservation Practice 2012). This has led to increasing recognition for a landscape approach that integrates the conservation of biodiversity and ecosystem services with sustainable development that supports ‘lived-in’ landscapes (KZN BSP 2010, Brown *et al.* 2005). Accordingly, the government regards the BSP as a “*programme [that] helps to implement provincial conservation plans through a national, landscape-scale approach to stewardship*” (KZN BSP 2010: *page unnumbered*).

### **4.3 Development and Conservation Challenges in the KwaZulu-Natal Province, South Africa**

Ezemvelo KwaZulu-Natal Wildlife Authority (EKZNW) is the provincial conservation agency tasked with implementing provincial conservation plans through the KwaZulu-Natal Biodiversity Stewardship Programme (KZN BSP). The province of KwaZulu-Natal (KZN) is located on the eastern seaboard of South Africa in an area recognised as an important biodiversity region by Conservation International and comprises a wide diversity of landscapes rich in plant and animal life (KZN Provincial Planning Commission 2011, EKZNWb *undated*). Similar to the national challenges (refer to section 4.1), rising demands from an increasing population and the need for economic growth is creating mounting pressure on natural resources in the province (map 4.2).



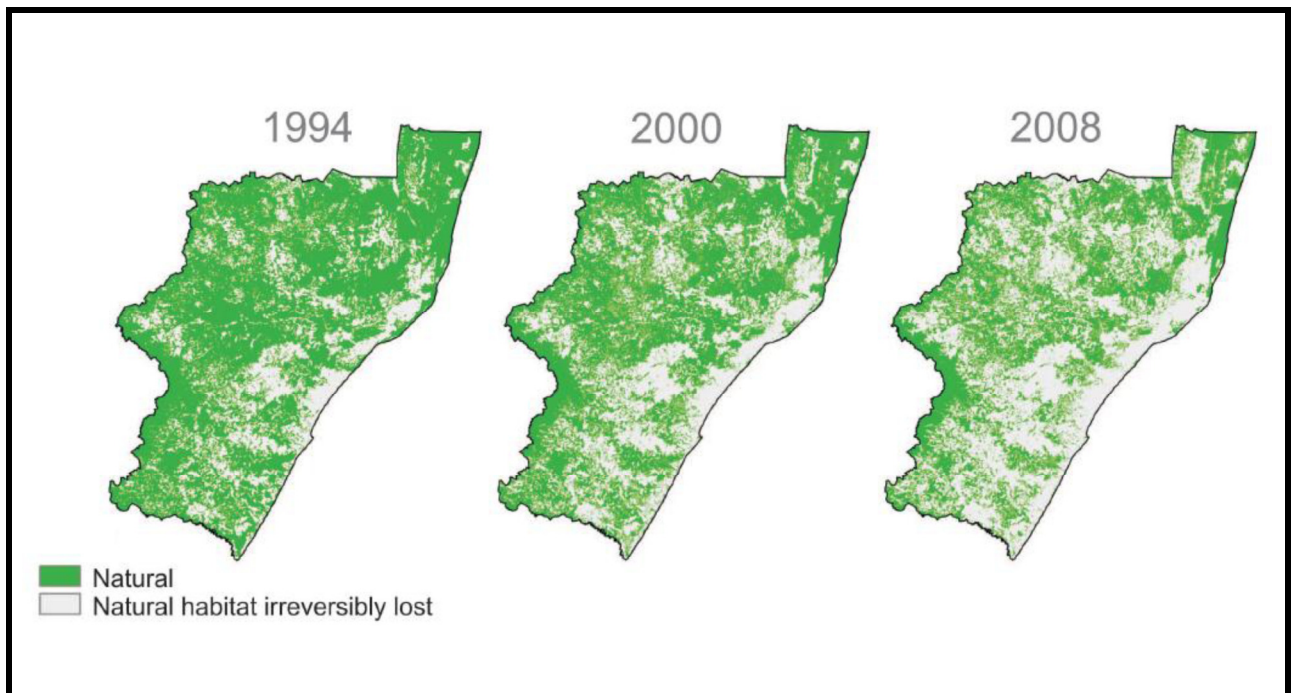
**Map 4.2:** EKZNW protected areas and priority conservation areas facing increasing developmental pressures (Source: [http://www.kznwildlife.com/site/conservation\\_planning/stewardship/stewardship\\_options.html](http://www.kznwildlife.com/site/conservation_planning/stewardship/stewardship_options.html))

The KZN province covers an area of 9, 485, 855ha and has the second largest population in the country of 10.6 million people. 85% of the population is African, the majority who are unemployed and living in rural areas. The provincial government acknowledges that this predominantly poor and rural population puts considerable pressure for the provision of social services and infrastructure to provide economic growth and development (KZN

Provincial Planning Commission 2011). Consequently, urban expansion, rural development, food security and land reform are among provincial priorities that are leading to the increasing number and extent of environmental impact assessments (EIAs). The escalating number of development applications show the alarming rate at which vast tracts of biodiversity rich land outside state PAs is being transformed or degraded (KZN Provincial Planning Commission 2011, EKZNWa *undated*). Examples in the Dargle Valley area include applications for housing developments - both low and high cost, and ESKOM power lines (DCN 2005, 2008/09; Dargle Conservancy Committee Meeting Minutes 2011).

Similar to the budgetary challenges at the national level, EKZNW lacks resources to purchase high biodiversity value lands from private landowners that require formal protection, with only 3.2% of the provincial government budget being allocated to Environmental Affairs (KZN Provincial Planning Commission 2011). Consequently, only 53% of priority species are conserved in the province's state PA network, owned and managed on behalf of the government by EKZNW. EKZNW requires a further 1.4million hectares or 14.5% of the total area of the province to achieve comprehensive protection of the province's biodiversity and meet the government's conservation mandates, across a landscape that is undergoing transformation at a fast rate (EKZNWa *undated*). Findings from the 2011 National Biodiversity Assessment indicate that this rate of transformation is at more than 1% of the surface area of the province per annum. This rate of transformation is expected to result in little natural vegetation outside state PAs by 2050 (Driver *et al.* 2012) (map 4.3).





**Maps 4.3:** Rate of land transformation in KZN (Source: after Driver *et al* 2012)

The provincial government recognises the importance of private role-players in protecting and managing the balance between biodiversity conservation and development within the province. However, it also acknowledges that these efforts are still widely uncoordinated and need to be addressed to achieve a singular effort towards integrated sustainable development. It would appear that it is in this context that the provincial government has one of its developmental principles as “*the shift from environmental management to sustainable development*” (KZN Provincial Planning Commission 2011: *page unnumbered*). The next section looks at one of the government’s responses aimed at addressing the foregoing challenges through integrated sustainable development while meeting government’s conservation mandates at the landscape-scale.

#### **4.3.1 The Biodiversity Stewardship Programme as a response to conservation challenges**

In response to increasing pressure for land from developmental needs and budgetary constraints for biodiversity conservation and the expansion of its PA network, the government (through the National Protected Areas Expansion Strategy) is engaging in conservation agreements with private landowners under the Biodiversity Stewardship Programme (BSP) (KZN BSP 2010, DCN 2008/09). Under the BSP, national and provincial conservation agencies play an important role in facilitating and supporting the establishment

of conservancies as a “*landscape-scale approach to stewardship*” (KZN BSP 2010: *page unnumbered*).

With the budgetary constraints highlighted in section 4.2 and less than 47% of the province’s 4 000 species conserved in state PAs, the KZN BSP is viewed as providing a cost-effective way for government to meet its conservation mandate through partnerships with private landowners that commit to conserving and managing biodiversity on their properties (EKZNB *undated*). Jardine (2002) shows an increase in the establishment of conservation areas outside state PAs, including conservancies. Furthermore, there is more recognition that state PAs are being supported by a broad network of private PAs that cover an area of over 8 million hectares (AFRA 2004). Similarly, conservancies are also recognised as having the potential to contribute to the conservation of biodiversity outside state PAs. Consequently, in order to expand government’s PA network and meet its conservation mandate to maintain a representative sample of the biodiversity, while sustaining ecosystem functioning that supplies critical ecosystem services to the people of KwaZulu-Natal, EKZNB (through the National Protected Areas Expansion Strategy) is engaging in conservation agreements with private landowners under the BSP (KZN BSP 2010).

As shown earlier, the BSP is regarded as a “*programme [that] helps to implement provincial conservation plans through a national, landscape-scale approach to stewardship*” (KZN BSP 2010: *page unnumbered*). Through the stewardship concept, the conservation objective of conserving biodiversity outside state PAs is considered more achievable with partnerships between government and private landowners. Stewardship, in this context, is defined as the wise use, management and protection of natural resources found on privately owned land (DCN 2008/09). Subsequently, biodiversity stewardship is regarded as the practise of effectively managing land use outside state PAs to ensure that “*natural systems, biodiversity and ecosystem services are maintained and enhanced for present and future generations*” (DCN 2008/09: *page unnumbered*). Based on the foregoing understanding, private landowners are growing in recognition as playing an important role in national conservation efforts in South Africa (Cousins *et al.* 2010) (refer to plate 4.1).



**Plate 4.1:** Private landowner conservation membership signs: increasing recognition of their role in conservation (*Source:* Researcher)

The BSP portrays biodiversity conservation as being attained through stewardship agreements between landowners and EKZNW as the implementing conservation agency (EKZNWb *undated*). Consequently, the BSP shows the achievement of government’s conservation objectives as being based on strong partnerships between conservation agencies and landowners as the main component of biodiversity management. The partnerships are recognised as enabling land with high biodiversity value on private properties to be “*linked to a network of other conservation areas in the landscape*”, including state PAs (KZN BSP 2010: *page unnumbered*). However, developing stewardship options that are “*each tailored to the needs of the landowner*” (KZN BSP 2010: *page unnumbered*) contradicts the intent of a landscape approach to link networks of significant conservation areas. In the context of conservancies with dominant private property rights regimes, conservation efforts at an individual property scale have the potential to perpetuate conservation challenges of conserving biodiversity and expanding conservation areas outside state PAs. I therefore argue

that to attain landowner commitment to biodiversity stewardship agreements as mechanisms for implementing a landscape approach, there is need for an understanding of landowner meanings attached to the concept, in relation to their individual benefits and property rights. In the next section, I look at the role of conservancies as a landscape approach that can address conservation challenges at the landscape-scale.

#### **4.4 Conservancies as a Landscape Approach in Response to Conservation Challenges: A Case of the Dargle Conservancy**

##### **4.4.1 Conservancies' role as landscape conservation strategies under EKZNW programmes**

Conservancies are progressively viewed as a private land management mechanism that can be used as a landscape approach under the BSP. This is in an effort to contribute to government conservation mandates of conserving biodiversity and expanding its PA network outside state PAs (KZN BSP 2010, DCN 2008/09). According to the findings in section 2.4, the concept of conservancy as a landscape approach to conservation requires landowner commitment to conserve and manage biodiversity on their individual properties under conditions of the KZN BSP. The importance of this commitment is reflected in the vision of the KZN BSP as follows (DCN 2008/09: *page unnumbered*):

- To ensure that '*private owned areas with high biodiversity value*' in the province receive *secure conservation status* and are '*linked to a network of other conservation areas in the landscape*';
- To ensure that landowners who commit their property to a stewardship option will enjoy tangible benefits for their conservation actions;
- To *expand biodiversity conservation outside of formally PAs* by encouraging commitment to, and implementation of, *good biodiversity management practice*, on private owned land.

The role of conservancies under the KZN BSP can be inferred as creating '*links between high biodiversity value private owned areas and networks of other conservation areas in the landscape*'. Consequently, the intent of a conservancy in this regard can be understood as establishing conservation corridors for the conservation of biodiversity and expansion of

conservation areas outside state PAs. In this regard, conservation agencies conceptualise a conservancy as a collective of landowners working together to “*manage their natural resources on their private lands in an environmentally friendly way and to contribute to the conservation of South Africa’s biodiversity*” (Recommended Norms and Standards for the Management of Conservancies: *page unnumbered*). In the KZN context, conservancies are further regarded as an appropriate mechanism for “...*generating interest and active participation by landowners and occupiers in the conservation of the total environment*” in the midlands area (KZN Conservancies Association constitution: *page unnumbered*). ‘*Active participation by landowners in conservation*’ can be interpreted as the strong partnerships advocated for under the BSP between landowners and EKZNW. The ‘*conservation of the total environment*’ can also be interpreted as the integration of high biodiversity value areas on private land into formal conservation. Accordingly, the role of a conservancy as portrayed under the BSP requires integrated resource management at spatial scales that extend beyond the boundaries of private properties. In this context, the ‘*total environment*’ that landowners need to conserve beyond their individual property boundaries can be understood as property that is common to all across the conservancy landscape.

The foregoing understandings reflect the intent of a conservancy under the BSP as a landscape approach that implicitly superimposes a common property philosophy across properties governed by private property rights regimes. As shown in section 3.2, common property rights regimes under the landscape approach govern the collective use and management of defined CPRs according to ecological functioning and not administrative property boundaries (Bromley 1991, Ostrom 2000). However, what is evident from the stewardship options under the BSP are individual conservation efforts based on management plans between an individual landowner and the conservation agency (refer to table 1.1). To get a better understanding of how property and property rights meanings can potentially influence landowner commitment to the concept of conservancy as a landscape approach to conservation is the aim of this study. The following section therefore highlights property rights in the context of conservancies in South Africa.

#### 4.4.2 Property rights as a challenge to landowner commitment to conservancies as a landscape approach

Over the years, there has been increased recognition of the importance of biodiversity and ecosystem services across landscapes. As appreciation for the transboundary nature of ecosystem services and their role in sustaining biodiversity increases, the resultant effect is the implicit creation of CPRs at the landscape-scale. Ecosystem services include provisioning services, which may be used and managed on individual properties with minimal impact on the benefits delivered to other properties across landscapes. Ecosystem services also include regulating and cultural services that are transboundary in nature, whose use by one landowner can impact the use and benefits for other landowners with common entitlement at the landscape-scale (table 4.2). Common entitlement at the landscape-scale makes regulating and cultural services CPRs that require collective conservation management for the benefit of all resource users (refer to section 2.3.2).

**Table 4.2:** Ecosystem services classification (*Source: after Driver et al. 2012*)

<b>Ecosystem services</b>		
<b>Provisioning</b>	<b>Regulating</b>	<b>Cultural</b>
Material products from ecosystems	Benefits obtained from the regulation of ecosystem processes	Non-material benefits obtained from ecosystems
<ul style="list-style-type: none"> <li>• Water</li> <li>• Food (e.g. fish, crops)</li> <li>• Grazing</li> <li>• Wood and fibre for construction and weaving</li> </ul>	<ul style="list-style-type: none"> <li>• River flows</li> <li>• Sediment deposition</li> <li>• Water quality and purification</li> <li>• Hazard regulations (drought mitigation)</li> <li>• Disease regulation</li> </ul>	<ul style="list-style-type: none"> <li>• Sense of place</li> <li>• Recreation</li> <li>• Knowledge and education</li> <li>• Spiritual experience</li> <li>• Inspiration of culture, art and design</li> </ul>

With the foregoing implication, I argue that the intent of conservancies as a landscape approach under the BSP seek to superimpose a common property philosophy and regime over one defined by private property rights regimes governing the individual properties that constitute the conservancy area. I further argue that landowner commitment to the collective is challenged where the superimposed collective actions are required to straddle private property boundaries. This is because the actions impinge on how individual landowners use and manage their own properties. Principally, this can be attributed to the landscape-scale conservation objectives of the concept of conservancy. These objectives require landowners to embrace common property rights regimes at the landscape-scale that appear to challenge

entrenched private property regimes governing individual properties at smaller scales. This challenge can further be attributed to the simplified portrayal of the concept of conservancy as a landscape approach, through stewardship agreements between landowners and conservation agencies. I contend that this interpretation overlooks the meanings associated with the nature of property and property rights that individual landowners hold, which guide their actions and behaviours within the boundaries of their private properties.

In order to gain a better understanding of individual landowners' current actions and behaviours on their private properties, it is important to look at the historical context of property and property rights regimes in South Africa. During the pre-colonial era, indigenous South African communities had abundant natural resources around which they developed economic activities to sustain their livelihoods (du Plessis 2011, Fabricius 2004, Denoon 1973). A lack of sufficient documentation has over the years led to assumptions being made that resource management systems (RMSs) were non-existent in Africa prior to the arrival of European colonialists. However, there is some evidence that most indigenous African communities had elaborate RMSs overseeing the conservation of resources and ensuring their equitable distribution among people. Examples of traditional RMSs in KwaZulu-Natal included royal hunting preserves of the *amaZulu* (Fabricius 2004). Traditional institutions regulating and monitoring resource use included kings, chiefs, headmen and healers (Bernard & Kumalo 2004). Their governance systems included rules and procedures that regulated the use and management of natural resources for the protection and enhancement of ecosystem services through what Fabricius (2004) terms adaptive management or 'trial and error', which are now recognised as indigenous land tenure systems (du Plessis 2011).

The indigenous land tenure system was embedded in social relationships, highlighting people's obligations towards each other in respect of property as opposed to rights of individuals in property. In this context, the relationships between people were regarded to be of greater significance than an individual's ability to declare his/her interest in property against the community (du Plessis 2011). Subsequently, the indigenous land tenure system included both communal and individual property rights, creating "a system of complementary interests [in property] held simultaneously" through social relationships as opposed to an individual's exclusive claim over property and power to exclude others (du Plessis 2011: 49).

These social relations were dependent on an individual's place in the social order of the community and were expressed as rights to access and control property. These rights were regulated and monitored by the king, chief or headman to prevent selfish use of resources (Bernard & Kumalo 2004). Thus, under the indigenous land tenure system, property was regarded as a trans-generational asset that was used in function-specific ways and managed on different levels of the social organisational structure under the overall authority of the chief or king (du Plessis 2011).

The advent of colonial rule changed the indigenous land tenure system that governed the utilisation of natural resources and replaced it with Western institutions and practises, recognised as common law in South Africa (du Plessis 2011, Fabricius 2004, Klug 1995). Common law failed to recognise the indigenous land tenure system as social relationships between people that were governed by rules and procedures to regulate the use and management of natural resources (du Plessis 2011, Fabricius 2004). In contrast, land was declared *res nullius* and re-defined as not under ownership. Land that was not owned was then converted into individualised private property, generally managed by legislation or interpreted in the common law legal framework (du Plessis 2011, Klug 1995). Ownership under common law is defined as an absolute right, leading to the general assumption and understanding that the landowner is entitled to exclude others from access to and possession of his/her property (with the exception of permission from the owner him/herself or the democratic legislature) (van der Walt 2009). It is in this context that private property rights are viewed as being exclusive, conferring on an individual power over others. Based on this understanding, van der Walt (2009: 53) shows that it is in this regard that "ownership of land is generally protected strongly" due to the "owner's right to undisturbed and exclusive possession of his/her property." This understanding has led to the importance of exclusivity in private property rights being expressed in "the principle that the owner is entitled to exclusive possession and use of his/her property and that nobody else may interfere with his/her exercise of that entitlement" (van der Walt 2009: 188). This notion of ownership became widely accepted as romantic idealism in the KwaZulu-Natal midlands among settlers as shown in this quote (Bizley & McKenzie 2007:5):



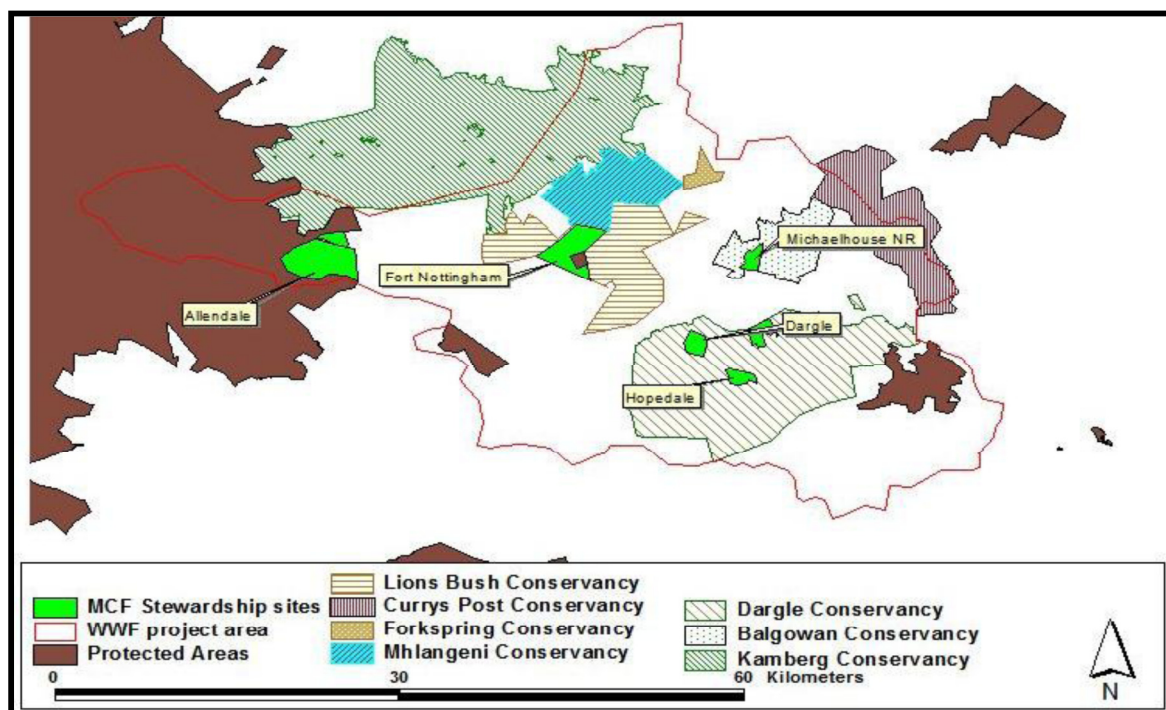
“There is a pleasant excitement in roving in the wilderness[...]You are under no restraint but are at perfect liberty **to do as you like and go where you like**[...]You look around over **your own broad acres**, and see **your corn** bending to the breeze and **your herds** grazing over what was a short time ago wilderness, and what has now become, **by your own exertions**, a smiling spot in the landscape...The sweat does not drop from your brow for the benefit of the tax-gatherer, you are not haunted by the fear of the returning rent-day...**you do as you like, go where you like and when you like**; you cannot trespass...” (James Methley, a settler in the Natal Midlands in the early 1840s)

Methley expresses an understanding that reflects Locke’s labour theory of property, which emphasises individual rights of ownership (Sax 1993). The domination of private property in common law has extended into the constitutional democracy era and has led to the current inclination towards the protection of the private ownership paradigm (du Plessis 2011).

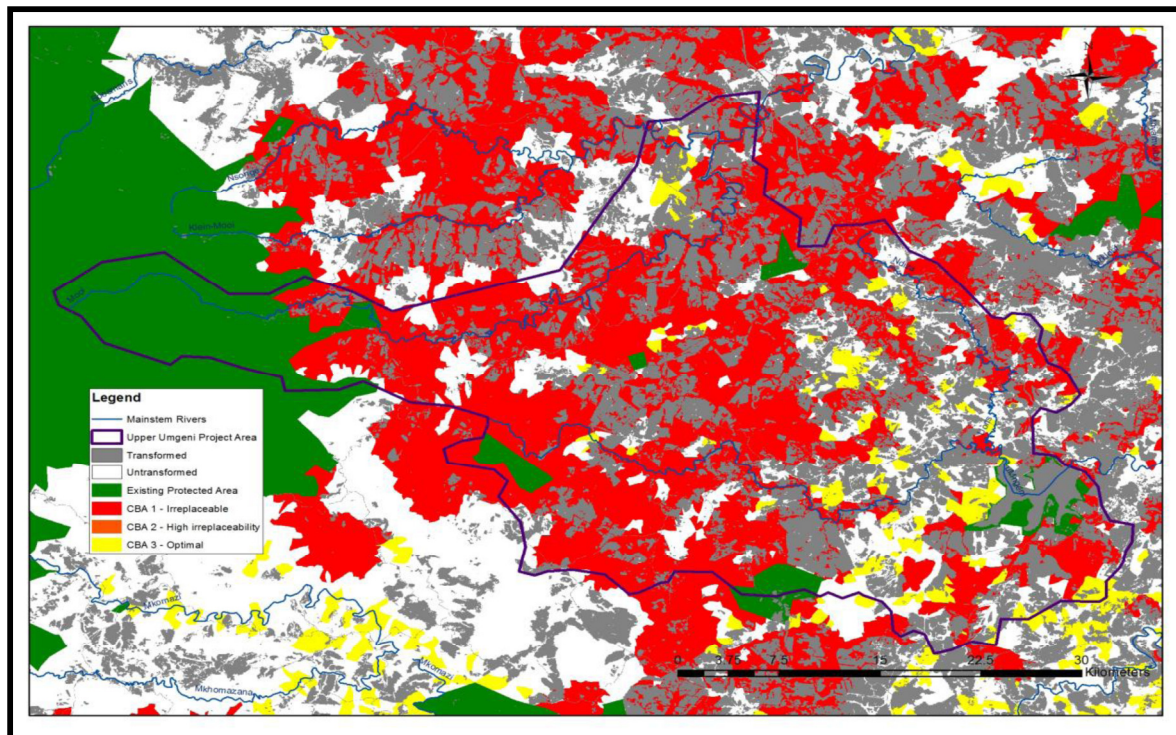
The Dargle Conservancy constitutes privately owned properties that have developed around the private ownership paradigm that was espoused by the early settlers in the Natal Midlands (farm properties such as *The Dargle* – named after the Dargle River at Powerscourt, County Wicklow; and *Kilgobbin* settled and owned in the early 1840s by Thomas Fannin and his family) (Bizley & McKenzie 2007). In bringing two or more properties under the Conservancy area, I contend that different landowners need to bring some or all of their private property rights (held in the individual properties) into a collective arrangement (the conservancy) of inclusive rights (Snaddon 1994). The inclusive rights can be attributed to the transboundary nature of CPRs (regulating and cultural ecosystem services) at the landscape-scale, to which various people can claim benefits from (Meinzen-Dick & di Gregorio 2004, Yandle 2007). In this context, I further argue that stewardship agreements in conservancies should be based on common property regimes for the governance of CPRs, while retaining private property rights regimes for the governance of provisioning services within individual property boundaries (Satria *et al.* 2005). I therefore assert that stewardship agreements created under the BSP require the development of common property rights regimes that take into account the complexity created by the meanings attached to the concept of conservancy, in relation to the nature of property and property rights at the landscape-scale. The implications of the varying meanings are highlighted in the next section.

#### 4.4.3 Implications of varying meanings of the concept of conservancy in relation to the nature of property and property rights - The Dargle Conservancy context

Having determined meanings at the provincial level under the BSP (refer to section 4.3.1), in this section, I reviewed documentation from the Dargle Conservancy to determine how the concept of conservancy is expressed at the Conservancy level. The Dargle Conservancy is located in the midlands of the KwaZulu-Natal (KZN) province, on the south-eastern seaboard of South Africa. The Conservancy was re-established in 2003 with the aim of improving awareness of the importance of protecting the rich biodiversity in the KwaZulu-Natal-midlands. The Dargle Conservancy is characterised by a diversity of landscapes consisting of wetlands, critically endangered Moist Mistbelt grasslands and indigenous forests; and many endangered species including the Cape Parrot, Oribi, Blue Swallow, Samango monkeys and all three crane species (KZN Conservancies Association 2009) (maps 4.4 and 4.5). The wide diversity of landscapes has varying meanings associated with the rich biodiversity and unique sense of place, reflected in the different livelihoods and lifestyles of landowners in the Dargle Valley. The Dargle Conservancy, therefore, views itself as a collective of landowners that has a duty of care to maintain and improve on these diverse landscapes (DCN 2011).



**Map 4.4:** Dargle Conservancy location in KZN-midlands (*Source:* WWF 2013)



**Map 4.5:** Level of biodiversity and ecosystem irreplaceability indicating presence of priority species and ecosystems under threat in the Dargle Conservancy and surrounding areas (Source: WWF 2013)

The Dargle Conservancy constitution further expresses a conservancy as an organisation of like-minded people working “to actively conserve the natural beauty and biodiversity of the Dargle area for the benefit of present and future generations, by stimulating interest and awareness of conservation issues within the community as a whole, through education and community involvement”. To achieve this objective, the Dargle Conservancy’s primary objective is “to promote, through sound environmental management principles, the conservation of the total environment<sup>2</sup> of the Conservancy area so as to maintain and promote its rural character, both intrinsically and visually, as well as maintaining maximum natural biodiversity”.

<sup>2</sup> Author’s emphasis



**Plate 4.2:** Dargle Conservancy landscape as an expression of the ‘total environment’ (Source: Dargle Conservancy Newsletter 2008/2009)

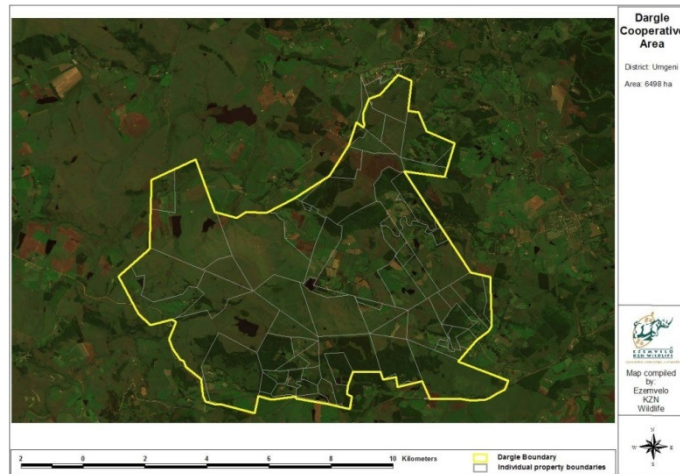
The above photograph showing part of the Dargle Conservancy landscape, used as a cover picture for one of the newsletters, portrays the ‘total environment’ that can be inferred as holding different meanings to different people. It can mean a rural agricultural landscape, forests, a sense of place, farming, peace and quiet, among other things. ‘*The conservation of the total environment*’ can thus be inferred as involving the conservation of a whole lot of meanings that are reflected as ancillary objectives under the Dargle Conservancy constitution. These objectives suggest the shared meanings of the concept of conservancy by the Dargle Conservancy as an organisation of like-minded people working as follows (Dargle Conservancy Constitution):

- To generate *interest and active participation* by landowners, residents and other interested parties in *sound environmental values*, sustainable lifestyles, the *conservation of indigenous fauna and flora* and the *protection of the environment in the area*;
- To monitor proposed physical development in the area, and if deemed necessary, to object and oppose any proposed development that would not be in keeping with the *primary Conservancy objective*;
- For the *protection, regulation and improvement of the environment*;
- To promote general improved security awareness within the Conservancy;
- To promote and encourage public awareness of the problems, concerns and achievements of the Conservancy;
- To promote interest and participation in environmental education; and
- To associate with, affiliate to, communicate with or exchange information with, any other organisation with similar objectives in order to achieve the above objectives.

The notion of ‘...*sound environmental values...*’ in the Dargle Conservancy constitution suggests shared meanings associated with the nature of property as the ‘*total environment*’ constituting resources that are linked across multiple property boundaries. This in turn suggests shared conceptions of CPRs comprising “... *indigenous fauna and flora, and the environment in the area*” across multiple property boundaries. This understanding is further suggested through “...*the conservation of the total environment [through the maintenance of] the rural character and natural biodiversity of the Dargle Valley.*” From the foregoing, the meanings that can be inferred suggest an understanding of the concept of conservancy as a collective of landowners working to conserve the total environment of the Conservancy area through sound environmental management principles. The notion of the ‘*total environment*’ suggests an understanding of CPRs across the Conservancy landscape.

The Dargle Conservancy constitution also extends the conservation intent to the landscape-scale by highlighting the need to work in partnership “*with other like-minded people and bodies in the KZN Midlands area*”. Further, the expressions ‘*working in partnership*’ and promoting ‘*management by all to achieve a greater Midlands area*’ suggest shared meanings that conservancies require the collective management of natural resources to conserve the ‘*total environment*’ of the Conservancy area and the regional landscape of the midlands area. The meanings that can be inferred from this suggest an understanding that conservancies require collective management through partnerships to achieve the conservation of the greater Midlands area.

In its efforts to maintain and improve the rural character while preserving biodiversity in the Dargle Valley, the Conservancy is seeking to enter into stewardship conservation agreements with Ezemvelo KZN Wildlife as part of the KZN BSP. However, most stewardship agreements have been slow to materialise as evidenced by the following example. In order to meet one of its conservation objectives and contribute to the province’s conservation mandate, the Dargle Conservancy embarked on having a large area of critically endangered Moist Mistbelt grasslands and indigenous forest officially proclaimed as a Nature Reserve under the BSP. As a landscape approach to conserving the endangered resources, the proposed Nature Reserve potentially creates CPRs of Moist Mistbelt grasslands and indigenous forest that traverse multiple private properties within the Conservancy (map 4.6).



**Maps 4.6:** The proposed Dargle Nature Reserve as a stewardship option under the BSP (*Source:* KZN Wildlife)

In order to attain the secure conservation status of a Nature Reserve under the BSP, landowner commitment is required through the signing of a stewardship management agreement. The management agreement entails having one management authority and plan for the Nature Reserve across the multiple properties. I therefore argue that collective management through the stewardship agreement implies that landowners bring in their private property rights and subject these to some form of limitations under the common property rights regime. The implied responsibility of committing to such an agreement creates a property rights challenge, given the number of landowners and diversity of issues involved regarding land use and livelihoods of present and future custodians of the affected properties (DCN 2008/09).

The challenge of landowner commitment to the collective management agreement for the CPR across multiple properties resulted in the lengthy negotiation process that took 18 months (from inception) to get over 20 different landowners, with over 30 title deeds, to sign a *declaration of intent*. At this point, landowners had *only shown intent and not fully committed* to making their individual properties part of the Nature Reserve. In May 2009, 3400ha of the 6500ha of the Dargle and Lidgetton Valleys had been identified and approved as suitable land for the Nature Reserve. During this stage, all affected landowners were engaged in a legal process that would eventually establish a collective management plan and

a legal contract that they would need to sign for the joint management of the Reserve in partnership with EKZNW and other relevant stakeholders. Although the Nature Reserve would be private, with landowners having control over public access, a joint management forum would have management authority and regulate all future developments according to the collective stewardship management agreement (DCN 2008/09).

The focus of my study stems from landowners' *declaration of intent without full commitment* to the conservancy purpose as a landscape approach in the establishment of the Nature Reserve under the BSP. It is important to recognise that in order to link people in a common vision, it is essential to have a common purpose. Jones *et al.* (2011: *page unnumbered*) note that "to encourage people with contrasting views to work together, it is necessary to identify and support a shared understanding among relevant stakeholders and to enhance the collective decision-making process". My study therefore set out to determine meanings landowners' attach to the concept of conservancy as a landscape approach, in relation to the nature of property and property rights. It further set out to illustrate how these meanings influence their commitment to common property regimes that enable the collective management of biodiversity and ecosystem services as CPRs. This is with the view of highlighting the importance of building a shared understanding in order to sustain and support collective action (Biggs *et al.* 2008). The study uses empirical findings collected through the research design outlined in the next section.

#### **4.5 Research Design**

In this part of the study, I present the research design, including data collection and analysis methods that underpin the research. The first section describes the research paradigm adopted and explains why it was appropriate for this study. The second section discusses the single case study approach adopted, and the use of in-depth interviews and documentary review as primary and secondary data collection methods, respectively. This section also highlights the sampling procedure adopted to select respondents for the study. The third section presents my analysis and interpretation of the data using Nvivo qualitative data analysis software.

##### **4.5.1 An overview of the research paradigm**

The study used a qualitative research approach and adopted the interpretive paradigm. The interpretive paradigm is based on the assumption that reality is essentially mental and

perceived, thus being socially constructed (Chitakunye 2009). Thus the interpretive paradigm as a qualitative research approach has generally been shown to focus on the meaning of real-life events, with the meanings held by participants in the events considered as most important (Yin 2011). Consequently, one strength of qualitative research is its ability to capture the meanings of participants as opposed to being restricted to meanings proposed by the researcher. According to Yin (2011), the search for meaning is a search for concepts, a collection of which can be assembled logically to represent a theory about the events that have been studied. Based on this philosophical assumption, I contend that determining meanings attributed to the concept of conservancy, in relation to the nature of property and property rights, reflect peoples' perceptions of the concept as a landscape approach to conservation. By gaining insights into peoples' perceptions, the study is able to show how these meanings influence their commitment to collective action required to achieve the intent of a conservancy.

#### **4.5.2 Case study approach**

In order to gain insights into peoples' perceptions of the concept of conservancy as a landscape approach, in relation to the nature of property and property rights, the study adopted a case study approach. This study defines the Dargle Conservancy as a case study. The case study approach is often viewed as being context specific, thus limiting generalisation to other cases. However, case studies are considered an appropriate approach when the study is looking at 'how' and 'why' questions, and when the subject of the study is a contemporary phenomenon within a real-life context (Yin 1984). Case study research is therefore defined as an in-depth empirical enquiry that investigates a contemporary phenomenon in a real-life context. And as conservancies are increasing in recognition as important private land management mechanisms that can contribute to government conservation mandates, the issue of landowner commitment to implementation of collective conservation efforts at the ecosystem level through the concept of conservancy as a landscape approach is relevant in all conservancies.

Yin (2011: 98) further puts forward the rationale for being able to generalise findings from a single study based on the view that "any given study (qualitative or not) can only collect a



limited amount of data, involving limited numbers of data collection units.” He goes on to elaborate how the major hindrance in thinking about generalisation in qualitative research can be attributed to the widely accepted statistical generalisation as the rule that a study’s findings represent a ‘sample’, which can then be generalised to the larger ‘population’ from which the sample was drawn. To overcome the limitations of statistical generalisation, Yin (2011) proposes adopting the alternative mode, whose objective for generalising is that the findings or results from a single study follow a process of analytic generalisation. He defines analytic generalisation as a two-step process (Yin 2011: 100):

- The first involves a conceptual claim whereby the researcher shows how his/her study’s findings are likely to inform a particular set of concepts, theoretical constructs or hypothesised sequence of events.
- The second involves applying the same theory to implicate other situations where similar concepts might be relevant.

Drawing on the literature review in chapters 2 and 3, I identified two theoretical constructs: the concept of conservancy as a landscape approach that emphasises the connectedness of biodiversity and ecosystem services across multiple property boundaries, creating CPR systems at the ecosystem level; and common property rights regimes as the appropriate management system for the collective management of CPR systems across multiple property boundaries; and theorised how these are socially constructed to influence landowner commitment to collective action. Accordingly, characteristics of a single case study shown through the results can inform and reform existing theories (Yin 1984). And as noted by Nyambe (2005: 84), “the value of a case study approach lies in its ability to retain context while informing broader theories and our understanding of a given phenomenon at different scales.” This approach was therefore considered appropriate since the study’s findings can inform the application of the concept of conservancy as a landscape approach that can contribute to government’s conservation mandates of protecting threatened biodiversity and ecosystem services at the ecosystem level and expanding its PA network through the BSP. These findings can further be applied to other conservancies facing similar problems in attaining collective action.

Adopting a case study approach also enables the researcher to investigate views on specific social and environmental processes in depth and detail, highlighting complexities, contradictions and nuances (Nyambe 2005). This approach of building analytic arguments based on existing research literature, while at the same time making insights into nuances and patterns of social behaviour from studying specific situations and people, make a case study approach both deductive and inductive, respectively. The case study approach further provides flexibility by allowing the researcher to use different data collection techniques including observations, in-depth interviews and review of documentation (Burton 2000). By using different data collection techniques together and applying the triangulation principle, the inherent weaknesses of each technique are minimised while at the same time the rigour and validity of the data is increased (Yin 2011, Nyambe 2005). Thus, in increasing rigour and validity in my findings, the study used observations, documentary review and semi-structured in-depth interviews. These qualitative methods are discussed in detail in the latter part of the chapter.

### **4.5.3 Sampling**

A unit of data collection, also referred to as a unit of analysis, is a key component of an empirical study. Most qualitative studies have more than one level of data collection units, with a single unit at the broader level (e.g. a single setting of a geographic, organisational or social entity) and a number of units at the narrower level (e.g. multiple participants in the same setting or policies, practices or actions) (Yin 2011: 83). Sampling generally endeavours to ensure representation of the population under study in terms of the data collection units selected (Nyambe 2005). A key challenge associated with sampling arises from determining which specific units to select, why and the number to be included in a study. According to Yin (2011: 89), “there is no formula for defining the desired number of instances for each broader or narrower unit of data collection in a qualitative study.” As highlighted earlier, most qualitative studies have a single data collection unit at the boarder level. However, at the narrower level, most studies will have more than one and in the case of interviews, can range between 25 and 50 units (i.e. interviewees). For this reason, it is important to select the most information-rich and appropriate units that are a suitable reflection of the main research topic. In identifying the correct data collection units, these need to be a suitable reflection of the main research topic. As such, since the main topic of the study was ‘meanings people

attach to the concept of conservancy as a landscape approach to conservation, in relation to the nature of property and property rights, and how this influences attainment of collective action', the single unit at the broader level was the Dargle Conservancy and the units at the narrower level were the individual conservancy members and representatives from conservation agencies working with the Conservancy.

Purposeful and snowball sampling were adopted in order to identify the most appropriate units of data collection for purposes of this study. Purposeful sampling involves the purposeful selection of a sample and is advantageous as it enables the researcher to choose information-rich units that provide a dearth of information regarding critical issues relevant to the research (Yin 2011, Nyambe 2005). Sample units or respondents enable the researcher to "obtain the broadest range of information and perspectives on the subject", including those that might offer contrary evidence or views (Yin 2011: 88). This is viewed as an essential component for testing rival explanations, which can assist in overcoming bias in a study that may confirm a researcher's preconceptions (Yin 2011). Thus, a list of registered members of the Conservancy and representatives from conservation agencies working with the Conservancy provided the sample units from which interviewees were purposefully selected. Snowball sampling is done to select new data collection units as an offshoot of existing ones (Yin 2011.). Consequently, snowball sampling was used to identify members that were initially omitted from the list but are still registered and viewed as being active in the Conservancy, as well as other conservancy agencies contributing to conservation initiatives in the Conservancy.

Although the findings from the foregoing sample units cannot be generalised according to widely accepted statistical generalisation, the richness of information from the detailed and in-depth understanding of the concept of conservancy as a landscape approach to conservation, in relation to the nature of property and property rights, and how this influences landowner commitment to collective action can be generalised in terms of its potential importance to other conservancies.

## **4.6 Research Methods**

Data collection methods are defined as specific research techniques or tools used to gather data (Bailey 1982). The study's research questions and theoretical issues encapsulated in the literature reviewed guided the selection of methods. Given the nature of my research questions (see section 1.4), the study adopted a multi-method approach. The goal of the study was to determine peoples' meanings, not predict them. As such, I combined multiple qualitative data sources that included documentary review; semi-structured in-depth personal and telephone interviews; participant observations during an AGM and Conservancy social events. The use of the multiple data collection methods helped to reduce the impact of under-reporting in one data set. Additionally, as noted in section 4.4.2, although each method has its own strengths and weaknesses, the weaknesses of one method are overcome by the strengths of the other through triangulation (Chitakunye 2009). The multi-method approach further enabled me to corroborate or question the meanings expressed and reflected on how these influence collective action by comparing the data from the different methods. This approach also enhanced the reliability, validity and accuracy of the findings (Chitakunye 2009).

### **4.6.1 Observations**

My investigation began in May 2004. At this time, I began informal observation through attendance of the Dargle Conservancy's annual general meeting (AGM). It was at this forum that I was able to identify varying views on the role of the Conservancy among landowners, particularly those with developmental interests. Additionally, presentations on developments in the Dargle Valley by developers, Conservancy committee members and municipality officials, as part of the Centre for Environment, Agriculture and Development Master's programme examinations at the University of KwaZulu-Natal in 2005 further highlighted varying views on the concept of conservancy. Through these fora, I was able to hold informal discussions with Conservancy members and representatives from conservation agencies that led to the identification of the research problem and key issues of interest for further study through the literature review. Given this background, I was able to establish relationships with the Conservancy committee members that facilitated informant access and informed consent during the data collection process. Further observations were conducted during the period of conducting personal interviews in the Dargle Conservancy by attending the Conservancy social events including a movie night, a forest walk and the Dargle Local

Living market, to gain more insight regarding varying views of the concept of conservancy among members.

#### **4.6.2 Documentary review**

Documentary review was adopted as another research method to improve the accuracy of the study because it enables the researcher probe into the ‘how’ and ‘why’ questions generally associated with case studies (Mosimane 2013). Documentary review is different from ordinary literature review as it focuses on data and information specific to the organisation or social entity under study (Nyambe 2005), in this case meanings attached to the concept of conservancy as a landscape approach to conservation, in relation to the nature of property and property rights, and how this influences landowner commitment to collective action in the Conservancy. As shown by Mosimane (2013: 39), “documents convey meanings, are formal communications that relate to other documents, reflect social and historical circumstances, show collective decisions by multiple people and reflect social arrangements [...]”. Given these characteristics, documents are regarded as an essential resource in the interpretation of the social reality indicated in the documents (Mosimane 2013). Accordingly, documentary review was based on national and provincial documentation related to the BSP as the programme guiding the implementation of the concept of conservancy as a response to conservation challenges at the ecosystem level. Documentary review was also based on the Dargle Conservancy documentation including the constitution, annual reports, minutes of meetings, newsletters, newspaper articles and other related materials. A review of these documents enabled me to gain more insight into the goal and values of the Dargle Conservancy; the types of collective initiatives carried out to reflect the concept of conservancy as a landscape approach and challenges faced in attaining these goals through collective action.

Documentary review started simultaneously with observations and continued concurrently with interviews conducted in the Dargle Conservancy. Documents with information regarding the Conservancy were accessed from the following sources: Dargle Conservancy committee members; EKZNW Head Office library – Queen Elizabeth Park; UKZN libraries; NACSA committee members; KZNCA committee members; KZN Department of

Agriculture and Environmental Affairs; South African National Biodiversity Institute – KZN province; EKZNW – Midmar Dam office; Dargle Conservancy website; NACSA website; KZNCA website; and EKZNW website. The documents were interpreted to supplement the data collected during in-depth interviews. As highlighted earlier, a multi-method approach with different sources creates an opportunity to compare the interpretation of data to improve reliability, validity and accuracy of the findings (Yin 2011, Chitakunye 2009).

The review of documents for evidence of meanings attached to the concept of conservancy as a landscape approach to conservation, in relation to the nature of property and property rights, and how this influences collective action, required interpretation through different stages. Stage 1 entailed data collection regarding general information about the Conservancy without limitation to the themes of the study. This process enabled me to gather the relevant data regarding past and present conditions of the Conservancy from different sources. Stage 2 involved sorting the data according to emerging themes and at the same time generating a list of respondents. Stage 3 was to organise the data into codes and themes to augment data collected through in-depth interviews. The coding process of data collected through documentary review and in-depth interviews was done concurrently through thematic analysis. The main purpose of the documentary review was to interpret the social reality as highlighted in the documents, identifying consistencies and meanings attached to the concept of conservancy as a landscape approach to conservation, in relation to the nature of property and property rights, and how this influences landowner commitment to collective action (Mosimane 2013).

Documentation on the current functioning of the Conservancy from 2003 to date was generally readily available in many forms. The main constraint was missing documents on the historical context of the Conservancy. Failure to transfer information from the original Conservancy committee to the revived Conservancy committee, as well as from changing EKZNW departments responsible for working with conservancies through restructuring of the organisation also contributed to the problem of missing information. Where documentation was available, information was mainly regarding the functioning of the management committee, individualised biodiversity conservation initiatives and development

activities as a threat to landowners' sense of place. Information regarding landowner perceptions of the concept of conservancy and their commitment to collective action was lacking. This highlighted the need for in-depth interviews as the most informative source for this type of data.

#### **4.6.3 In-depth interviews**

In-depth interviews are a primary source of information for case study research (Mosimane 2013). This approach provided me an opportunity to step into the minds of respondents, and see and experience the world of the Conservancy as they do themselves. This further enabled the respondents to reveal their thoughts and insights from their perspective (Chitakunye 2009). Additionally, in-depth interviews are beneficial for determining subjective multiple perspectives of the concept of conservancy as a landscape approach to conservation, in relation to the nature of property and property rights, and how this influences landowner commitment to collective action in achieving the intent of the Conservancy. As shown by Mosimane (2013: 38) "the dialogue that emerges from the application of the method allows the researcher to go beyond the views that are expressed and seek to understand the meanings that are attached to multiple perspectives." The meanings that emerge from the interviews as themes relevant to the research topic allow the words of the respondents to become the centre piece of the research findings.

In-depth semi-structured personal interviews were conducted with thirty-five (35) conservancy members of the Dargle Conservancy in their homes, out of 46 registered members. The personal interviews were aimed at eliciting meanings conservancy members attach to the concept of conservancy as a landscape approach to conservation, in relation to the nature of property and property rights, and how this influences landowner commitment to collective action as narrative data. Narrative data is viewed as discourse and meanings that emerge as themes relevant to the research topic provide the basis of interpretation (Chang & Horrocks 2008). The interview themes were identified through the review of literature in chapters 2 and 3. The interview themes were conservancy, landscape approach, common pool resource, collective management/action. Another set of personal interviews were conducted with ten (10) representatives from conservation agencies working with the Conservancy to

implement the BSP. This was with the view to determine shared meanings attached to the concept of conservancy as a landscape approach to conservation that requires collective action between landowners and conservation agencies implementing the BSP.

Each personal interview was conducted separately and ranged from 30 to 60 minutes duration. The personal interviews were semi-structured and interactive in nature, allowing the researcher to engage the interviewee in an open shared conversation around an interview guide with a list of pre-determined open-ended questions. The interview guide allowed the questions to be focused around/on the themes and to maintain consistency across interviews (Mosimane 2013). The open-ended questions enabled me to seek clarifications and also prompted interviewees to give detailed information in their own words. Each personal interview was recorded into audio files using a dictaphone with prior consent from the interviewees, with the exception of one interviewee. The latter interview was recorded in the form of field notes by the researcher. The use of a dictaphone enabled me to be fully attentive to the interviewee and for the interview to flow like a conversation without delays as a result of note taking. The audio files of the interviews were transcribed on completion of the field data collection period for data analysis purposes.

#### **4.7 Data Analysis and Interpretation**

Data analysis is defined as “the transformation of data into a more useful form by giving it some order or structure so as to decipher meaning and support decision” (Nyambe 2005: 95, Hutchinson & Sawyer 1994). Although qualitative data can be analysed using different methods, qualitative studies generally require the use of exploratory and interpretive methods. These methods enable the researcher to gain insights into the depth and complexity of people’s views of the subject of the study (Burton 2000). On this basis, this study adopted an interpretive approach in order to determine meanings attached to the concept of conservancy as a landscape approach to conservation, in relation to the nature of property and property rights, and how this influences landowner commitment to collective action.



In adopting an interpretive approach to determine peoples' meanings, the study employed the hermeneutic process of analysis used by Tan *et al.* (2009), Chang and Horrocks (2008), and Nyambe (2005). The term 'hermeneutics' has been used in various ways by philosophers and social scientists. For purposes of this study, the perspective of the hermeneutic concept as a "specific methodology for interpreting text" (Nyambe 2005: 39) was adopted. Hermeneutics is therefore viewed as "the art and science of interpretation, especially as it applies to text" (Tan *et al.* 2009: 2). I considered the metaphor of the hermeneutic circle as a helpful procedural framework for carrying out my research, which was divided into three stages of analysis, namely: explanation (recorded and transcribed interviews); naïve understanding (coding of text using NVivo); and in-depth understanding (in-depth interpretation of text). The hermeneutic circle, therefore, represents "the relationship between explanation and understanding, the unfolding of which involves the movement back and forth between the parts of the text and a view of the whole, during the process of interpretation" (Tan *et al.* 2009: 9). From this basis, I adopted the hermeneutic process of analysis for purposes of interpreting text from the semi-structured in-depth interviews to gain insights into meanings people attach to the concept of conservancy. The data analysis and interpretation process followed the three stages of analysis: stage 1 – explanation; stage 2 – naïve understanding; and stage 3 – in-depth understanding (Yin 2011, Tan *et al.* 2009, Chang & Horrocks 2008, Nyambe 2005).

#### **4.7.1 Level 1 analysis - explanation**

Transcribing is the process of transferring oral information to a written form as accurately as possible with no change to its original meaning (Mosimane 2013). Avoiding changes to the words of respondents when interviews are transcribed allows their voices to become part of the study (Mosimane 2013.). This process thus entailed transcribing and editing the 44 audio recorded interviews in order to get an accurate description of the meanings interviewees' attach to the concept of conservancy as a landscape approach to conservation, in relation to the nature of their property and property rights, and how this influences landowner commitment to collective action. I transcribed the interviews as data collection progressed.

The process of transcribing involved listening repeatedly to the interviews whilst typing, which enabled me to familiarise myself with the data (Mosimane 2013). Transcripts of each

interview produced 10 to 20 pages of narrative data. Due to the large size of data collected, a computer software known as QSR NVivo, version 9, was used to assist in coding each transcript into free nodes. This process, also referred to as open coding, involved coding any word, phrase, sentence or group of sentences and systematically creating a glossary in the form of a database, which was related to terminology found in the literature review. I considered the coded data in detail, developing initial theoretical categories by identifying the thoughts, ideas and meanings contained in the transcripts and relating these as closely to the research questions as possible. Coding data in this manner assisted me to move methodically to a slightly higher conceptual level by assigning words, phrases or sentences with similar meanings into similar free nodes (also referred to as Level 1 nodes), which retain the exact words in the original data. According to Chitakunye (2009: 113) “a node in NVivo is a way of bringing together ideas, thoughts and definitions about a set of data with selected passages of text.” This in turn assures consistent use of terminology. During this coding process, reading through the transcripts line by line allowed me to categorise chunks of data into nodes and code text into these nodes.

The NVivo software helped me to organise, manage and retrieve the most meaningful data from the identified nodes. This was achieved by moving backwards and forwards from the source documents (the individual interviews) coded at the same node, and looking at the context in which theoretical insights emerged. For example, all source documents coded at the free node ‘biodiversity conservation’ could easily be brought to the fore by just a click of a mouse button. Where further investigation of an individual contextual situation was required, the text before and after the coded text could easily be brought up. As I progressed in coding the data, I was able to make comments and notes about the data by generating memos as links to the source documents in NVivo. This helped me to think deeper about the data. At this point, I printed the list of free nodes in order to examine them in depth to identify any relationships that would help me group them further into themes and theoretical concepts relevant to the research topic. This process also enabled me to compare nodes. I was able to identify nodes with similar data chunks and as such, merged these together. Initially, I identified 38 free nodes from the data. I assigned names to the nodes according to my interpretation of what was being reflected in each category. After the open coding process, the analysis was taken to a slightly higher conceptual level of developing main categories and

sub-categories, also referred to as axial coding of data, closely related to the research questions.

#### **4.7.2 Level 2 analysis - naïve understanding**

According to Chitakunye (2009: 123), “axial coding is the process of developing main categories and sub-categories from the data.” During this process, free nodes coded in level 1 analysis were re-examined to identify how the nodes relate to each other. This led to the development of the next conceptual level of nodes with those that had similar meanings or closely connected ideas being grouped into category nodes (also referred to as Level 2 nodes) (Tan *et al.* 2009). This process helped me to bring free and category nodes into a higher conceptual level that assigned data into broader patterns that were grouped into themes and theoretical concepts related to the research topic, namely: the concept of conservancy as a landscape approach to conservation, the nature of property and property rights, and collective action theories. The 38 free nodes with similar meanings were grouped into seven (7) main themes, with the view that this data would inform the original research questions or reveal new insights into the original research topic. During this process, I constantly queried the data, a process that helped me to sift and sort ideas while searching for patterns. The emerging patterns of main themes and theoretical concepts were further grouped into sub-categories, which focused on the collection of ideas within each theme, creating sub-themes (Tan *et al.* 2009).

As shown by Mosimane (2013: 43) “coding is a formal system of organising the experiences of respondents as described during interviews.” As such, this process led to the development of an organising system, which was used to guide the interpretation and composition of the narrative for the discussion of the study. The purpose of the organising system is to identify predominant themes in the content from interview responses. The organising system is considered to make the analysis process more holistic, as opposed to reductionist, by showing the inter-relationships among the identified themes and retaining the rich characterisation of the individual themes (Yin 2011). The organising system helped me to appreciate the concepts in terms of their dynamic inter-relationships, and these formed the basis of theory construction in the discussion of the study (Chitakunye 2009).

### **4.7.3 Level 3 analysis – in-depth understanding**

Level 3 entailed analysis to refine the sub-themes identified that were common across interviews and relevant to the main themes, namely: the concept of conservancy as a landscape approach to conservation; the nature of property and property rights; and collective action theories. Using Nvivo, the organising system assisted me to group the thematic labels based on my interpretive analysis of the meaning units and their inter-relationships. The meaning units, which are actual statements or excerpts from an interview representing hard data, were used to substantiate discussions of interpretations. The key part of the hermeneutic analysis process is explaining the interrelationships among the identified themes and excerpt that support the themes of the research, which provides a holistic and insightful interpretation. In arriving at an in-depth understanding, the process entailed moving back and forth between explanation and understanding. By going back and forth, constantly reading and interpreting the excerpts in relation to the main themes of the research, I was able to meaningfully present excerpts so as to inform the themes. I identified the excerpts that were commonly used across the interviews and that also provided inter-relationships between meanings attached to the concept of conservancy as a landscape approach to conservation and implications of these on the attainment of collective action across multiple private property boundaries (Mosimane 2013).

The foregoing process of analysis, beginning at the idiographic to the nomothetic level, provided a more holistic and insightful understanding of the concept of conservancy as a landscape approach to conservation from an individual perspective and an understanding of the implications of stakeholders' perceptions of the concept on the attainment of collective action across multiple private property boundaries. For in-depth understanding in the analysis, the queries function of Nvivo was useful for interrogating the data, searching for words and phrases that best describe the concept of conservancy as a landscape approach to conservation, the nature of property and property rights, and collective action as the main themes of the research (Mosimane 2013). This process of analysis also involved a lot of writing and rewriting and thinking, which enabled the meaning of interviewees' views to be fully illustrated.

### **4.8 Summary**

In determining meanings attached to the concept of conservancy as a landscape approach to conservation constituting CPRs systems that require the collective management of resources

at the ecosystem level, this chapter set out to highlight meanings expressed in documentation to show shared perceptions at the Conservancy and provincial levels. Documentary review at the provincial level shows meanings that express the concept of conservancy as a landscape approach that ensures links between high biodiversity value private owned areas and networks of other conservation areas in the landscape. The concept of conservancy is further viewed as the formal management of biodiversity and ecosystem services by securing the conservation status of the CPRs at the ecosystem level for the benefit of all South Africans. Formal management is shown as necessitating appropriate common property rights regimes under the BSP that place conditions and restrictions on land use practises in areas designated as Pas in order to secure their conservation status. Documentary review at the Conservancy level shows meanings that reflect the concept of conservancy as a landscape approach that embodies the connectedness of resources as CPRs systems across multiple property boundaries. The Conservancy constitution further shows meanings that reflect the concept of conservancy as necessitating collective management of the CPRs systems through partnerships. However, the lengthy negotiating process to obtain landowner commitment to the Conservancy purpose under the BSP shows that holding the foregoing shared meanings has the potential to challenge landowner commitment to collective action. The challenge can be related to the common property philosophy that is required to achieve collective action. The challenge can further be attributed to the super-imposition of the common property philosophy on the private property rights regimes governing individual land use and management. Consequently, this highlighted the need for empirical findings to determine individual landowner meanings attached to the concept of conservancy as a landscape approach to conservation, in relation to the nature of property and property rights, and show how this influences their commitment to collective action.

## **CHAPTER 5: Results**

### **5.1 Introduction**

In chapter 4, I show that the government legislative framework under the National Protected Areas Expansion Strategy and the Biodiversity Stewardship Programme portrays the concept of conservancy as linking properties and creating networks of conservation areas outside state protected areas (PAs). This suggests an understanding of a conservancy as a landscape approach that implicitly creates common pool resources (CPRs), which require collective management through stewardship agreements. Similarly, Dargle Conservancy documentation suggests an understanding of a conservancy as constituting CPRs in the Dargle and KwaZulu-Natal (KZN) midlands area, which require management by all through partnerships. Despite the apparent shared understanding of the concept of conservancy as a landscape approach, I highlight that there is an apparent disjuncture on how to practically implement the approach through landowner commitment to collective.

Working on the assumption that the adoption of a landscape approach will be evidenced in the meanings that landowners attach to the concept and the need for collective management, I used in-depth interviews to determine whether they share the understanding of a landscape approach portrayed in chapter 4 and the implications of such perceptions for attaining collective management. This chapter explores the understanding of a conservancy as encompassing CPRs that require collective management from empirical data. The data was gathered from semi-structured in-depth personal and telephone interviews conducted with two groups of interviewees: 10 representatives from government conservation agencies and non-governmental conservation organisations (NGOs) working with conservancies; and 33 Dargle Conservancy members.

The chapter is divided into two sections following the study's objectives (refer to section 1.4). The first section highlights meanings attached to the concept of conservancy as a landscape approach to conservation while the second illustrates meanings attached to a conservancy as encompassing ecosystem services as CPRs that require collective management beyond individual property boundaries.

## **5.2 Meanings Attached to the Concept of Conservancy as a Landscape Approach to Conservation**

In this section, I illustrate meanings respondents attach to the concept of conservancy as a landscape approach. This with the view to determine shared understandings of the concept as portrayed under the Biodiversity Stewardship Programme (BSP) between Ezemvelo KZN Wildlife (EKZNW) and Dargle Conservancy members.

### **5.2.1 The concept of conservancy as a landscape approach creating contiguous conservation areas**

Documentary review shows that conservancies are regarded as a mechanism that can be used as a landscape approach linking properties and creating networks of conservation areas in the broader environmental landscape. This is to meet government's conservation mandates to conserve biodiversity and expand areas under conservation management outside state protected areas (PAs) (KZN BSN 2010). Responses from representatives from conservation organisations show various meanings attached to a conservancy (table 5.1). Of particular interest are meanings ascribed to conservancies as bringing private properties together for the conservation of biodiversity. A conservancy, in this regard is recognised as *“a collective of like-minded landowners bringing their properties together for the conservation of biodiversity assets on their properties”* (I3, EWT). The term *‘a collective of landowners bringing their properties together’* suggests an understanding of a conservancy as a landscape approach through the creation of a conservation area of contiguous multiple properties (refer to map 4.6).

In addition to creating an area of contiguous multiple properties, a conservancy is also recognised as *“...going beyond [conserving] biodiversity [to include] life-support systems like fresh water”* (I5, WESSA). And by *“...protecting the integrity of life-support systems, conservancies [were regarded as being able to] strengthen ecological infrastructure”* (I5, WESSA). This understanding implies recognition of a conservancy as conserving biodiversity and ecosystem services that are transboundary, such as water. I8 (CNWC) further illustrates this understanding by highlighting the need to get conservancies *“planning better and looking strategically at their whole conservancy [...because] there has been no land use planning within conservancies.”* The foregoing meanings suggest an understanding of the

Conservancy as a landscape approach enabling the conservation of biodiversity and ecosystem services across the broader environmental landscape.

Strategic planning for the whole Conservancy suggests an understanding for the need for a landscape approach beyond individual property boundaries. I7 (EKZWN) reflects this understanding of a conservancy as “...*working with landowners as very important partners in developing biodiversity conservation strategies outside of the state protected areas*”. This perception indicates an understanding of the Conservancy as contributing to meeting government’s conservation mandate of conserving biodiversity outside state PAs. I4 (MCF) further illustrates this understanding as “*working with [private land] owners [who represent] 80% [of the landholding in KZN and] hopefully getting a percentage of that 80% set aside [for conservation]*”. This perception expresses the concept of a conservancy as the expansion of areas under conservation management through partnerships between EKZWN and private landowners.

A conservancy is also identified as a collective of landowners that act as a watchdog, providing information on what are viewed as inappropriate developments across the Dargle Conservancy landscape. A conservancy as a watchdog is recognised as identifying and preventing development considered to be in conflict with the intent of conserving biodiversity and a threat to the natural heritage that gives the Dargle area its sense of place. I3 (EWT) reflects this understanding by stating that “*we get information on illegal activities from members of the Conservancy, so they assist as watchdogs within the community, and that’s hugely valuable.*”

As a watchdog, a conservancy is also recognised as enabling the development of partnerships between landowners and EKZWN. These partnerships are recognised as fostering good social relations that allow for the establishment of support structures. Support structures are considered necessary to enable landowners commit their properties with high biodiversity value to long term, secure conservation through stewardship agreements. Stewardship agreements under the BSP “*[are regarded as] a support structure [through] a contract that has two sides to it: on the one hand, the owner is responsible for implementing a management plan; but on the other hand the [conservation agency] is being contractually obligated to support that owner and to give the owner whatever advice and support and*



*information that they can, and [the conservation agency is] also obligated to do monitoring”* (I9, DEA). The foregoing meanings suggest an understanding of the Conservancy as an area of contiguous properties that enable a landscape approach through the conservation of biodiversity and expansion of areas under conservation management outside state PAs. Furthermore, the Conservancy is understood as a collective of landowners engaging into partnerships with EKZNW through the BSP as the necessary support structure.

**Table 5.1:** Meanings attached to the concept of conservancy as a landscape approach as articulated by representatives from conservation organisations

Concept of Conservancy	Conservation agency's role	Conservation objective and Context
A collective of like-minded landowners contributing to conservation of biodiversity	<ul style="list-style-type: none"> <li>• Get landowners to engage and not be passive and understand the value of the biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>• Privately owned land and private landowners contribute to conservation of biodiversity</li> <li>• Landscape scale</li> </ul>
A watchdog	<ul style="list-style-type: none"> <li>• Engage with conservancies through planning processes – EIAs, spatial development frameworks, IDPs, LUMS</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and object against developments that might affect biodiversity and conservation objectives</li> <li>• Landscape scale</li> </ul>
Partnerships for conservation	<ul style="list-style-type: none"> <li>• Provide support, advice and information to landowners on implementation of management plans under stewardship programme</li> </ul>	<ul style="list-style-type: none"> <li>• Identify landowners committed to conservation and higher levels of stewardship</li> <li>• Landscape scale</li> </ul>
Providing support structures through stewardship management agreements	<ul style="list-style-type: none"> <li>• Do careful, binding agreements with landowners by registering conservancies through Biodiversity Agreements, Protected Environment or Nature Reserve status</li> </ul>	<ul style="list-style-type: none"> <li>• Protect biodiversity assets through holistic management plans under the Biodiversity Stewardship Programme</li> <li>• Landscape scale</li> </ul>
Expanding areas under conservation management	<ul style="list-style-type: none"> <li>• Registering conservancies through Biodiversity Stewardship Programme and providing support, advice and information to landowners on implementation of management plans</li> </ul>	<ul style="list-style-type: none"> <li>• Protected area expansion through partnerships with private landowners in developing biodiversity conservation strategies outside state protected areas</li> <li>• Landscape scale</li> </ul>

Documentary review at the Conservancy level shows that the Dargle Conservancy is understood as a collective of landowners working to promote the conservation of biodiversity and maintaining the natural heritage of the Dargle Valley, which gives the landscape a distinct sense of place. Responses from members reflect this understanding of the Conservancy as a collective of landowners “... [trying to] protect local species that [are] unique to the area, [looking] after the habitat, [trying] to improve and not destroy [it] in order to maintain our heritage of the valley” (I10, Conservancy member). The protection of local species includes initiatives to enhance the habitat for Cape Parrots and raising general awareness about the parrots through activities such as the Cape Parrot counts (plate 5.2). It also includes initiatives promoting the maintenance of the natural heritage of the Dargle Valley through the preservation of the natural bush and grasslands. It is further associated with the clearing of alien vegetation and the re-introduction of indigenous forest and vegetation (plate 5.1). The foregoing meanings suggest an understanding of the Conservancy as a collective of landowners contributing to the conservation of biodiversity and the natural heritage of the Dargle Valley (refer to figures 5.1 and 5.2).



**Plate 5.1:** Natural heritage – rural landscape of natural forests and grasslands, exotic forests, cultivated lands and pastures (*Source:* Dargle Conservancy photo gallery)



**Plate 5.2:** Local species – Endangered Cape Parrot (*Source:* Dargle Conservancy photo gallery)

The Conservancy is also understood as a collective of landowners working as a watchdog to prevent inappropriate development for the protection of the unique Dargle landscape. The importance of the natural heritage is greatly emphasised and I7 (Conservancy member) states that as a Conservancy, “we attach a lot of importance to preserving [the] natural bush and grasslands [in the] area”. The Conservancy is therefore recognised as playing an important

role of protecting and maintaining this natural heritage. I1 (Conservancy member) illustrates this understanding by highlighting that *“the Dargle Conservancy has a very good reputation for watching out for development proposals, looking at EIAs, commenting [on] inappropriate development”*. I4 (Conservancy member) further expresses this perception by stating that *“the most important thing to me [is that the conservancy] is a pressure group, that is where I see its importance.”* The foregoing meanings suggest an understanding of the Conservancy as a collective of landowners recognised as watchdog, protecting and maintaining the biodiversity and natural heritage in the Dargle Valley (refer to figures 5.1 and 5.2).

As a watchdog, members also regard the Dargle Conservancy as a vehicle for learning, providing the necessary support by offering knowledge and education services for good environmental management practises on their properties. I4 (conservancy member) illustrates this understanding by stating that *“[the conservancy is] a vehicle for learning and understanding what you’ve got within your community.”* By providing a support structure, the Conservancy is further viewed as a vehicle through which Conservancy members learn to manage their land use practises in a way that retains the environmental character of the Dargle Valley. I9 (conservancy member) illustrates this understanding by stating that *“I have got a lovely piece of grassland here but it is getting degraded because there are aliens coming in so [the conservancy helps me] to learn about how I can conserve this place”*. The foregoing meanings suggest an understanding of the Conservancy as a vehicle for learning good environmental management practices for the conservation of biodiversity and the natural heritage of the Dargle Valley (refer to figures 5.1 and 5.2). However, this understanding also shows a perception of the Conservancy as being important in helping landowners better manage some parts of their properties individually.

Furthermore, by providing a support structure the Dargle Conservancy is also viewed as building a sense of community amongst landowners through social gatherings. Consequently, the Conservancy was identified as *“a community that’s interested in promoting enjoyment of [the area through] forest walks; and [the Dargle Local Living] market that’s building a social community”* (I25, Conservancy member) (plates 5.3 and 5.4). Social gatherings, including forest walks, the Dargle Local Living market and movie nights indicate social

relations that reflect some shared beliefs and values among Conservancy members. The foregoing meanings suggest an understanding of the Conservancy as a social community building a sense of community around some shared values (refer to figures 5.1 and 5.2).



**Plate 5.3:** Kilgobbin forest walk – a community with some shared beliefs and values (*Source:* Dargle Conservancy photo gallery)



**Plate 5.4:** Dargle Local Living Sunday market – a community with some shared beliefs and values (*Source:* Dargle Conservancy photo gallery)

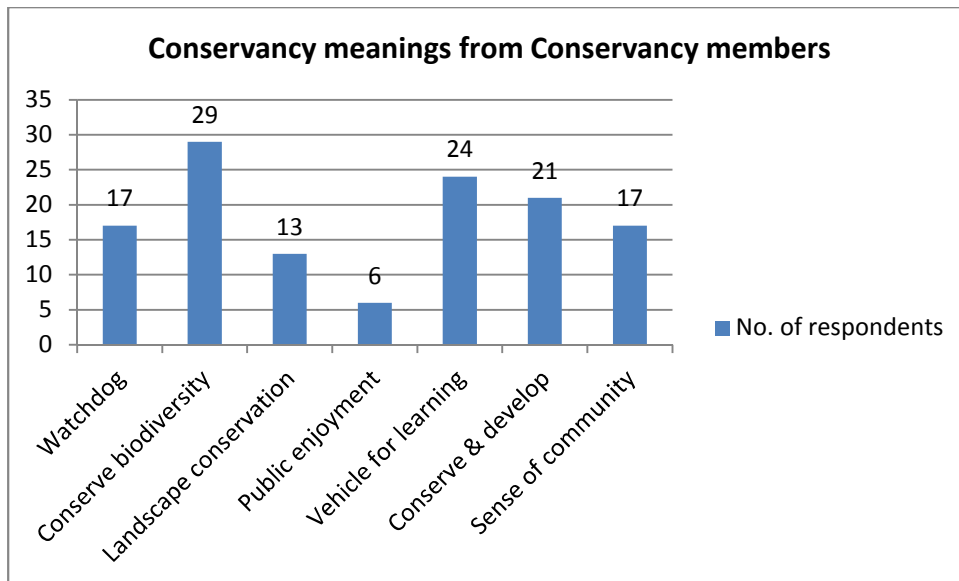
In addition to conserving biodiversity in the Dargle Valley, the Conservancy is also viewed as contributing to raising awareness regarding the conservation needs beyond the Conservancy area. This is reflected by perceptions “... *that most of [the] wilderness in South Africa that is not [game] reserves is on privately owned land [and] the conservancy movement [tries to] make the people who own highly conservable land aware of what they’re actually sitting on and take measures to protect that [and] set aside areas*” (I14, Conservancy member). Recognition of the loss of biodiversity across the country and the importance of protecting high biodiversity value areas on their properties suggests Conservancy members’ understanding of the link between the conservation areas on their

properties and the wider environmental landscape. I8 (Conservancy member) also reflects this understanding by highlighting that *“this whole [Dargle] area has the highest degree of irreplaceability in terms of biodiversity - whether we like it or not, it makes us responsible to look after that and at least try and maintain that if not even improve it.”* Meanings ascribed to the need to be responsible for high conservation value areas on properties in the Dargle Valley that are linked to other areas of conservation significance at the broader landscape, indicate an implicit understanding for the need for management by all (refer to figures 5.1 and 5.2). However, this understanding does not give an explicit indication of how management by all can be achieved. What is apparent is the notion that ‘setting aside’ areas of high conservation value on individual properties can contribute to conservation at the landscape-scale.

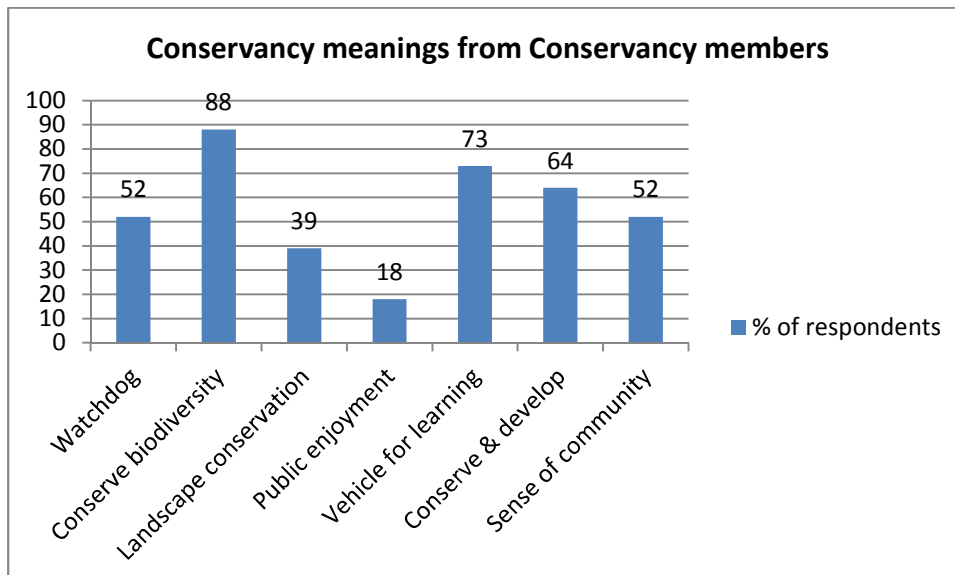
The foregoing meanings are among several identified by Conservancy members (table 5.2, figures 5.1 and 5.2). These suggest an understanding of the Dargle Conservancy as a collective of landowners working to protect and maintain the biodiversity and natural heritage of the Dargle Valley, while building a sense of community in the area. However, the meanings ascribed to the concept as a collective of landowners do not explicitly indicate an understanding of the Dargle Valley as contiguous properties comprising biodiversity and the natural heritage across the Conservancy landscape. In contrast, Conservancy members express the view that *“it’s not really as if the land is in the Conservancy because the properties aren’t brought together, [people] don’t feel that they are bringing their properties [together]...it’s just that people become members like joining the golf club”* (I1, Conservancy member). This perception suggests an understanding that emphasises the Conservancy as a social community, promoting conservation of biodiversity at the individual property scale. I postulate that emphasis on promoting conservation at the individual property scale reflects landowner perceptions of the nature of their property and property rights in relation to the concept of conservancy. I test this proposition in the next section.

**Table 5.2:** Meanings attached to the concept of conservancy as a landscape approach as articulated by Conservancy members

Conservancy Concept/Activity	Conservancy's role	Conservation objective and Context
Watchdog	<ul style="list-style-type: none"> <li>Participating in EIA processes as an interested and affected party; and lobbying collective action against inappropriate developments</li> </ul>	<ul style="list-style-type: none"> <li>Watching out for inappropriate development proposals; looking at EIAs</li> <li>Conservancy scale</li> </ul>
Conservation of biodiversity and natural heritage	<ul style="list-style-type: none"> <li>Participating in initiatives enhancing natural habitat and raising awareness about local species</li> </ul>	<ul style="list-style-type: none"> <li>Protect local species unique to the area and conserve heritage of the valley</li> <li>Conservancy scale</li> </ul>
Landscape conservation	<ul style="list-style-type: none"> <li>Setting aside highly conservable land</li> </ul>	<ul style="list-style-type: none"> <li>Raise awareness among landowners with highly conservable land and take measures to protect and set aside areas</li> <li>Conservancy and landscape scales</li> </ul>
Provide public enjoyment of natural heritage	<ul style="list-style-type: none"> <li>Setting up initiatives providing for public access to biodiversity – forest walks</li> </ul>	<ul style="list-style-type: none"> <li>Provide public access to natural heritage</li> <li>Conservancy and landscape scales</li> </ul>
Vehicle for learning	<ul style="list-style-type: none"> <li>Participating and/or engaging in initiatives that protect and enhance biodiversity and natural heritage</li> </ul>	<ul style="list-style-type: none"> <li>Educate people on sound environmental management principles/practises</li> <li>Conservancy scale</li> </ul>
Conservation and development	<ul style="list-style-type: none"> <li>Guiding land use practises supporting conservation, sustainable lifestyles and economic activities</li> </ul>	<ul style="list-style-type: none"> <li>Guide land use practises to balance conservation and development</li> <li>Conservancy scale</li> </ul>
Sense of community	Participating and/or engaging in initiatives that build a sense of community	<ul style="list-style-type: none"> <li>Build a sense of community</li> <li>Conservancy scale</li> </ul>



**Figure 5.1:** Conservancy meanings from Conservancy members (no. of respondents)



**Figure 5.2:** Conservancy meanings from Conservancy members (% of respondents)

### 5.3 Meanings Attached to the Conservancy as Encompassing Common Pool Resources that Require Collective Management

In this section I highlight meanings respondents attach to the Conservancy as encompassing biodiversity and ecosystem services as CPRs that require collective management beyond individual property boundaries. This is with a view to determine shared understandings between EKZNW and Conservancy members of the concept as portrayed under the BSP.



### **5.3.1 Meanings attached to the nature of property as biodiversity and ecosystem services creating common pool resources across the landscape**

Documentary review at the government level showed that the BSP highlights the status of biodiversity in South Africa as ecosystem services that provide benefits to all people. The recognition of biodiversity as ecosystem services that benefit all South Africans suggests an understanding of ecosystem services as CPRs enjoyed by all people. Responses from representatives from conservation organisations generally express this understanding. I7 (EKZNW) aptly reflects this understanding by noting that *“ecosystem goods and services is a good way of trying to explain to people that water resources are incredibly important for the livelihood of people, and if people understand that then you can extrapolate that out to the importance of conserving biodiversity to ensure that we’re providing those ecosystem goods and services.”* This understanding is also highlighted by I5 (WESSA) who views *“conservancies as a wonderful way of engaging landowners and conserving life-support systems like fresh water [so that] people have water to drink and use for the future”* (plate 5.5). From the perspective of EKZNW, the foregoing meanings indicate an understanding of the Conservancy as encompassing biodiversity and ecosystem services as CPRs that are transboundary, and which benefit all people across the landscape.



**Plate 5.5:** The uMgeni river – an important life-support system providing ecosystem services for the benefit of all people across the Dargle Conservancy landscape (*Source:* Dargle Conservancy )

At the Conservancy level, the conservation of the *‘total environment’* with a view of *“maintaining and promoting its rural character and natural biodiversity”* highlighted in the

Dargle Conservancy constitution suggests an understanding of the landscape as comprising biodiversity and ecosystem services as CPRs. To determine whether members express similar meanings, they were asked the implications of their property being part of the Conservancy and how this influences the use and management of their land.

Conservancy members generally show an understanding of the transboundary nature of resources across the landscape through recognition of the potentially negative impacts the use and management of natural resources by one landowner can have on the benefits derived by neighbouring landowners. I10 (Conservancy member) expresses this understanding by stating that *“we’ve been here over 23 years and have noticed that the over taxing of the water supplies by some of the big farmers pumping huge amounts of water out of the Umgeni river has led to the river not flowing as well as it used to when we first moved here...”* This shows an understanding of the river as a CPR providing ecosystem services that are transboundary and which benefit people across the landscape (refer to plate 5.5)

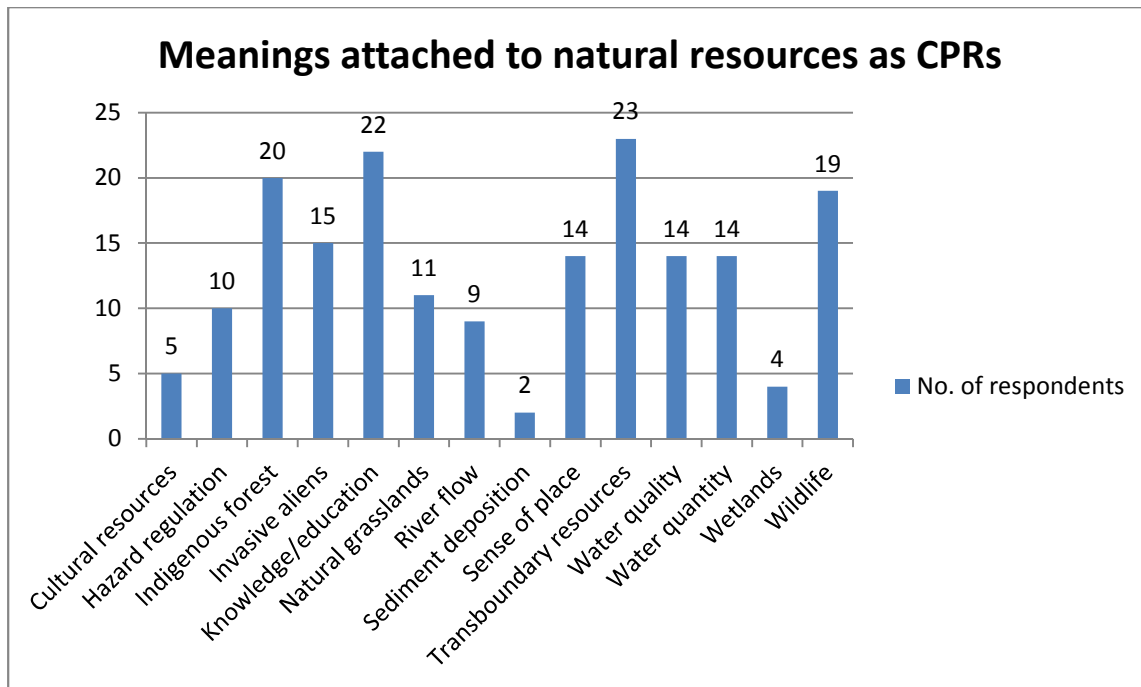
Conservancy members also recognise burning as a management practise that tends to negatively impact the indigenous forests, which they view as *“[the Conservancy’s] biggest asset in the area”* (I10, Conservancy member) and *“which we’re very privileged of having in this area”* (I2, Conservancy member). However, Conservancy members generally highlight that *“there are several farmers who will use the forest as a fire stop so they’ll just let the burn rip up into the forest margin and destroy it”* (I9, Conservancy member). Meanings of *“the indigenous forests as everybody’s”* (I29, Conservancy member) indicate an understanding of the forest resources as CPRs that provide aesthetic and cultural ecosystem services. However, inappropriate management by one landowner can negatively impact other peoples’ enjoyment across the Conservancy landscape (refer to plate 5.3).

Furthermore, Conservancy members’ recognition for the need of collective efforts with neighbouring landowners to manage the state of some resources suggests their understanding of the nature of these resources as transboundary. I23 (Conservancy member) illustrates how he has *“spent huge amounts of money over the years getting rid of all the wattle along the*

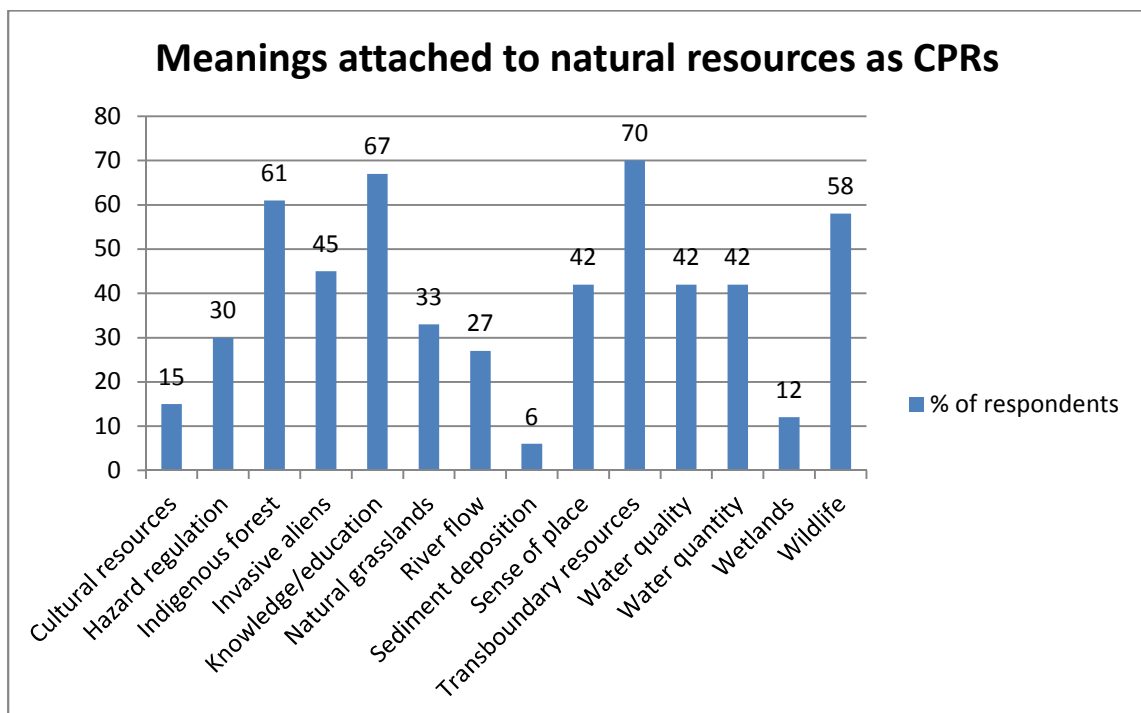
*river and the water courses and after doing all that, if the people above me aren't doing it, it's just going to come down the river and carry on spreading. And trying to eradicate [wattle] in a water course without starting at the top of the water course doesn't really help because you've got the effects of the other people above you."* The foregoing meanings suggest an understanding of the river as a CPR that is transboundary and which carries the impacts of activities across the landscape (refer to plate 5.5).

In addition, some Conservancy members raise "*concerns that virgin grasslands are not destroyed because that's when all [the] buck disappear, [which calls for a shared] understanding with all our neighbours because all [the properties are] linked - the buck are not static, they will not only stay on [one] property, they will be migrating and moving around [so people need to understand that] it's a much bigger thing than just your little oasis"* (I2, Conservancy member). The foregoing meanings imply an understanding of wildlife resources as CPRs that are transboundary and "*enjoyed by all landowners as [they] traverse individual property boundaries across the Dargle valley landscape"* (Interviewee x, Conservancy member). By recognising the transboundary nature of wildlife resources, Conservancy members also acknowledge the nature of these resources as common property that can be enjoyed by all people. This understanding is illustrated by I18 (Conservancy member) who states that "*we certainly have the attitude that whatever game is passing through is not ours, it belongs to the Conservancy"*.

The foregoing results show that Conservancy members generally recognise natural resources as transboundary CPRs across the Conservancy landscape through ecological functions (figures 5.3 and 5.4). They also acknowledge the resources as common property that is enjoyed by all people. Hence, the foregoing findings show that both EKZNW and Conservancy members share an understanding of the Conservancy as encompassing biodiversity and ecosystem services as CPRs, which creates common property enjoyed by all people across the landscape.



**Figure 5.3:** Meanings Conservancy members attach to natural resources as common pool resources (no. of respondents)



**Figure 5.4:** Meanings Conservancy members attach to natural resources as common pool resources (% of respondents)

### **5.3.2 Meanings attached to common pool resources and the need for collective management across the landscape**

Under the legislative framework, recognition of the importance of conserving life-support systems as CPRs and the need to sustain the provision of ecosystem services suggests an understanding for the need for collective management. I3 (EWT) reflects this understanding and acknowledges the *“need to strategically look at agricultural development or any sort of economic development within regions in the form of bio-regional plans where you identify from the start a region, strategically look at where there’s viable agricultural opportunities that won’t be in conflict of biodiversity [conservation] - so whether that’s building of dams, irrigation, new cultivated lands - and start trying [to look at areas] as collectives instead of individual landowners.”* This response further implies an understanding for the need for collective management at the landscape-scale of the Conservancy to enable the integration of biodiversity conservation and sustainable development. Collective management, in this context, is understood as integrated management planning through the development of bio-regional plans for land use activities across the Conservancy landscape, which are not in conflict with biodiversity conservation.

In order to determine the feasibility of integrated management planning through the stewardship agreements under the BSP, representatives from conservation organisations were asked whether Conservancy members shared the same meanings of the Conservancy as comprising CPRs that require collective management across the Conservancy landscape. Respondents generally reflect Conservancy members’ understanding as limited, with more emphasis on the social side. I4 (MCF) illustrates this understanding by stating that *“...for many people, the main underlying reason of a conservancy is [their] lifestyles, [their] sense of place, it does not go further than the superficial social side of things like the Dargle Local Living and the movies.”*

I3 (EWT) also expresses this limited understanding by Conservancy members by showing that when she *“...sits with a landowner [applying to break virgin land] and shows him a map starting from his property and goes wider [across the landscape], then he sees that his 200ha is the last 200ha of Mooi River highland grassland in thousands of hectares in that area. But he [will still say his application to break virgin land] is just 100ha”*. The view that the development of an area considered of high conservation value would have minimal impact on

resources across the broader landscape indicates the limited appreciation of the interconnectedness of the ecological attributes of CPRs across the Conservancy landscape. I3 (EWT) further reiterates that this also shows that Conservancy members do not fully understand that the impacts of their land use actions are *“much bigger than their boundaries and the thousands of applications [to break virgin land] with every landowner saying it’s just 100ha [has led to] a situation where [as KZN province], we are at a threshold in terms of ecosystem connectivity in the landscape.”* According to I7 (EKZNW), this can be attributed to the fact that *“landowners understand a species-world, they think about nature conservation as wildlife conservation - that is things like protecting your game such as where a landowner has a wattled crane on their property. But they do not understand broad landscape ecosystem functions like habitat conservation, ecological processes like nutrient and carbon cycling.”* And although EKZNW is supposed to assist the Conservancy in developing a management plan and provide support on its implementation under the BSP, *“there is no particular formal mechanism [to achieve this] other than trying to work together and [district conservation officers - DCOs] attending the meetings of the conservancies”* (I7, EKZNW). Furthermore, EKZNW does not have sufficient capacity to implement the BSP as *“DCOs are spread very thinly on the ground and are more focused on permitting for the game farming, hunting threatened and protected species [giving them] less time to be able to deal with the more proactive aspects of conservation”* (I7, EKZNW).

This has led to EKZNW working with private landowners to protect particular species or pieces of habitat, identified through the BSP as priority areas for conservation management, within individual property boundaries. However, this contradicts the landscape approach principle of collective management of CPRs at the landscape-scale. Accordingly, conservation agencies are encouraging *“[conservancies] to plan better and look strategically at their whole conservancy as collectives instead of individual landowners because [currently,] the actions on one property - such as an application to break virgin grassland and put in a dam, are not recorded at the conservancy scale as a whole”* (I3, EWT).

The lack of integrated management planning at the Conservancy scale is attributed to the absence of *“land use planning within the Conservancy - they don’t keep track of*

*[development] applications and what happens [in the area] – [for example] on [one particular] property was an application to break virgin grassland and put in a dam, but the Conservancy as a whole has no record of that” (I3, EWT).* The absence of integrated management planning in addressing development applications such as erection of dams is recognised as negatively impacting the provision of ecosystem services by the *uMgeni* river across the Conservancy landscape (refer to plate 5.5). The foregoing disjuncture in meanings ascribed to the concept of conservancy as necessitating collective management has led to EKZNW engaging in partnerships with landowners for the implementation of individual management plans under the different management categories of the BSP. Partnerships between EKZNW and the landowner are interpreted as collective management of high conservation value areas on the individual property (table 5.3).

**Table 5.3:** Interpretation of property rights and collective management under the BSP (*after* DCN 2008/09)

<b>BSP resource management categories</b>	<b>CONSERVATION AREAS</b>	<b>BIODIVERSITY AGREEMENT AREAS</b>	<b>PROTECTED ENVIRONMENTS</b>	<b>NATURE RESERVES</b>
<b>CPRs</b>	<ul style="list-style-type: none"> <li>Any natural land considered suitable for conservation</li> <li>Rare or endangered habitats</li> </ul>	<ul style="list-style-type: none"> <li>Any conservation-worthy land</li> <li>Specific biodiversity features or elements</li> </ul>	<ul style="list-style-type: none"> <li>Large landscapes of high biodiversity value</li> </ul>	<ul style="list-style-type: none"> <li>Priority areas adjacent to statutory reserves; sufficiently large ecosystems containing critically important species and habitats; and self-contained sites</li> </ul>
<b>Property rights</b>	<ul style="list-style-type: none"> <li>Private property rights maintained by landowner – access, withdrawal, management, exclusion and alienation</li> </ul>	<ul style="list-style-type: none"> <li>Private property rights maintained by landowner – access, withdrawal, management, exclusion and alienation</li> <li>Common property rights shared with Conservation agency - claimant and authorised user rights: access, withdrawal and management rights</li> </ul>	<ul style="list-style-type: none"> <li>Private property rights maintained by landowner – access, withdrawal, management, exclusion and alienation</li> <li>Common property rights shared with Conservation agency - proprietor rights: access, withdrawal, management and exclusion rights</li> </ul>	<ul style="list-style-type: none"> <li>Private property rights maintained by landowner – access, withdrawal, management, exclusion and alienation</li> <li>Common property rights shared with Conservation agency - proprietor rights: access, withdrawal, management and exclusion rights</li> </ul>
<b>Bundle of property rights shared under stewardship agreement</b>	<ul style="list-style-type: none"> <li>Landowner maintains full ownership rights determining level of external support and type of rights to share</li> </ul>	<ul style="list-style-type: none"> <li>The landowner and conservation agency share management rights over an agreed period of time (minimum 5 – 10 years)</li> <li>Limited consumptive use rights where necessary.</li> </ul>	<ul style="list-style-type: none"> <li>The landowner and conservation agency share management rights over an agreed period of time</li> <li>Limited consumptive use rights as specified in the gazette notice.</li> </ul>	<ul style="list-style-type: none"> <li>Landowner development rights taken away</li> <li>The landowner and conservation agency share management rights over an agreed period of time (minimum 30 years to perpetuity)</li> </ul>



Despite Conservancy members' appreciation of biodiversity and ecosystem services as transboundary CPRs, they showed strong traditional views of their private property rights to individually determine and manage access to and use of resources within their boundaries. Statements such as "*we don't own [the indigenous forests] at all, they belong to God, so we take it upon ourselves to give as many people as possible access to the natural heritage here*" (I17, Conservancy member) (refer to plate 5.3) suggest that although members generally conceive of the Conservancy as comprising CPRs, they also express limited appreciation for the associated social relations created between landowners and other stakeholders.

The social relations imply sharing a bundle of rights to the CPRs as common property. Failure to recognise common property rights to the CPRs was conveyed through Conservancy members' strong views against external interference in relation to land use and management within their individual boundaries. I28 (Conservancy member) expresses this strongly by stating that "*there are still things as private properties and we're very happy to share that with permission.*" I3 (Conservancy member) echoes these sentiments by stating that "*I do still feel this is my piece of forest [but] I'm very happy for people to walk in it - I do want people to walk in it, and I do want people to come and enjoy it and share it*" (refer to plate 5.3).

This traditional perception of private property rights is understood as holding absolute private ownership rights over resource units defined as private resources within their individual property boundaries. Absolute private ownership rights are further regarded as rights that give landowners total control over their individual properties, with freedom to use and manage private resources for their exclusive benefit without external interference. I17 (Conservancy member) illustrates this understanding by stating that since "*[landowners had] paid a fortune for a little piece of paradise, it's theirs so they take genuine ownership [and] want their seclusion, they don't want any interference*".

#### **5.4 Summary**

Respondents from conservation organisations present an understanding of the Conservancy as a collective of like-minded landowners that create an area of contiguous multiple properties that are brought together. The contiguous properties further reflect an understanding of the Conservancy as comprising biodiversity and ecosystem services as transboundary CPRs. Respondents further show that CPRs across the Conservancy landscape require collective management through integrated management planning. To achieve this, the legislative framework provides the technical processes through the BSP as the ideal landscape-scale approach to stewardship. However, this approach does not appear to appreciate the social process that underpins landowner commitment to collective management. Consequently, in contrast, Conservancy members present an understanding of the Dargle Conservancy as a watchdog raising environmental awareness among landowners on good environmental practises on their properties for the conservation of biodiversity and the natural heritage of the Dargle Valley. The Conservancy is further regarded as a social community building a sense of community around some shared values. However, there is no support structure for building the social capital and collective identity necessary to guide members' actions to be in line with the shared beliefs and values of the Conservancy as a collective. The necessary support structure is the development of a conservancy management plan, through which integrated management planning for the contiguous properties can be undertaken. Failure to recognise the social process and social capital through relations between stakeholders, and how these underpin landowner commitment to collective management has led to the EKZ~~NW~~ engaging partnerships with individual landowners. This is further advancing stewardship agreements that are guided by the dominant private property rights regimes related to individual management plans developed for each landowner's property. This highlights that the current implementation of the management approach under the BSP reinforces private property rights regimes that undermine a landscape approach through integrated management planning. The absence of a shared understanding of the concept of conservancy as a landscape approach between EKZ~~NW~~ and Dargle Conservancy members does not foster landowner commitment to collective management through common property rights regimes. This further reflects the absence of a shared understanding of a conservancy as comprising ecosystem services as transboundary CPRs that require collective management across the Conservancy landscape.

## **CHAPTER 6: Meanings Attached to Common Pool Resources and Collective Management as Attributes Influencing Success of Conservancies as Landscape Approach to Conservation**

### **6.1 Introduction**

In Chapters 2 and 3, I argue that the success of a conservancy as a landscape approach to conservation is dependent on a shared representation of the concept as a complex ecological and social system (SES) at the landscape-scale. I also argue that a shared representation of the concept as a SES can lead to a shared understanding of a conservancy as encompassing common pool resources (CPRs) that necessitates collective management through common property rights regimes. In Chapters 4 and 5, I present the results of a case study to show sharedness of understandings of the concept of conservancy as a landscape approach and how these meanings influence the successful implementation of the approach. In this chapter, I consider two key issues that have emerged from the study: understanding meanings attributed to a conservancy as encompassing CPRs that require collective management; and detecting how these meanings influence landowner commitment to collective management necessary for the successful implementation of a conservancy as a landscape approach.

### **6.2 Understanding Meanings Attributed to a Conservancy as Encompassing Common Pool Resources that Require Collective Management**

Increasing pressure on land for development to meet social and economic needs is a growing source of concern for the conservation of natural resources. The declining status of biodiversity nationally has elevated this concern in South Africa, with recent studies showing that the current system of state protected areas (PAs) is not representative of all ecosystems (DEAT 2005, Driver *et al.* 2005). This confirms other research findings that acknowledge the limitations of state PAs alone in achieving conservation objectives (AFRA 2004). My findings show that in the South African context, this pressure is of greater concern as government is recognised as being unable to secure conservation worthy land through purchases from private landowners due to budgetary constraints from varying political priorities and increasing social and economic demands for urban and rural expansion (DEAT 2005, Driver *et al.* 2005, Symposium of Contemporary Conservation Practice 2012). It is in this context that conservancies are gaining popularity as private land management mechanisms in South Africa that can potentially contribute to meeting government

conservation mandates while integrating conservation and development on private properties (Downsborough *et al.* 2011).

In the South African context, conservancies generally fall under category V of the IUCN guidelines adopted as Protected Land and Seascapes. The conservation objectives of conservancies as a landscape approach under this category include protecting the wider scope of natural, cultural and scenic areas, focusing on the harmonious interaction of people and nature (Brown *et al.* 2005). Accordingly, the intent of a conservancy under this category is to achieve the conservation of biodiversity and ecosystem services based on ecological principles, while allowing for some human use, at the landscape-scale through collective action (Imperial 1999, Bennett 2004, Downsborough *et al.* 2011). Consequently, a conservancy as a private land management mechanism is recognised as providing a landscape approach that integrates conservation and sustainable development (Phillips *et al.* 2005), thus addressing the concerns of developmental pressures on the environment.

The conservation objective of integrating private land in conservancies into formal conservation through the KwaZulu-Natal Biodiversity Stewardship Programme (KZN BSP) can be interpreted as “*expanding [government’s] PA network and meeting its conservation mandate to maintain a representative sample of the country’s biodiversity, while sustaining ecosystem functioning that supplies critical ecosystem services to the people of KZN.*” This is considered achievable by engaging in stewardship agreements with private landowners (KZN BSP 2010). The conservation objective can be interpreted as reflecting various meanings regarding how a conservancy is understood under the government legislative framework. One meaning can be inferred as to expand its PA network, the government expects that “*private owned areas with high biodiversity value*” are “*linked to a network of other conservation areas in the landscape*” (KZN BSP 2010: *page unnumbered*). This supports earlier research findings that show state PAs essentially being supported by a broad network of private PAs (AFRA 2004).

By creating linked networks of conservation areas across the landscape, a conservancy should be viewed as ‘*greater than the sum of the parts*’. This understanding entails that conceptions of a conservancy should largely be understood in the context of biodiversity and ecosystem services as CPRs occurring across administrative private property boundaries (refer to plate

5.5). Thus under the landscape approach, property is understood as biodiversity and ecosystem services that implicitly create CPRs at the landscape-scale (Meinzen-Dick & di Gregorio 2004, Yandle 2007). The implications of this understanding are that the ecological systems of a conservancy need to be defined at the landscape-scale. This is to ensure ecological integrity, and connectivity of biodiversity and ecosystem services through environmental corridors across landscapes (Kotzé 1993). Thus, the nature of ecosystem services traversing multiple property boundaries through corridors across landscapes implicitly creates CPRs.

My results show that under the legislative framework of the BSP, biodiversity is recognised as ecosystem services that provide benefits to all South Africans. This suggests an understanding of ecosystem services as CPRs enjoyed by all people across landscapes. In this regard, conservancies are viewed “*as a wonderful way of engaging landowners and conserving biodiversity and ecosystem services as life-support systems*” (15, WESSA). Consequently, from the government perspective, the conservation objective of adopting a landscape approach can be inferred as securing biodiversity and ecosystem services through private landowners at the landscape-scale. This understanding suggests an appreciation for the ecological systems of a conservancy that implicitly create CPRs across landscapes.

At the Conservancy level, the natural biodiversity in the area is identified as natural resources providing benefits enjoyed by all people, including water and wildlife resources traversing individual property boundaries. The Conservancy’s rural character, constituting indigenous forests and natural grasslands, is also recognised as natural resources providing cultural and scenic benefits unique to the Dargle valley landscape and enjoyed by all people. Thus, the Conservancy was recognised as a collective of landowners “*responsible for maintaining the highest degree of irreplaceability in terms of biodiversity of the whole Dargle area*” (18, Conservancy member). The foregoing meanings reflect members’ understanding of the Conservancy as an area of distinct character with ecological values (Brown *et al.* 2005). The foregoing understanding also suggests an appreciation for the ecological systems of a conservancy that implicitly create CPRs across the landscape.

Recognition of a conservancy as encompassing ecological systems as CPRs also implies recognition of the social systems of multi-tenure regimes and associated property rights to

access and use ecosystem services at the landscape-scale. The social systems of a conservancy can be interpreted as providing a balance between conservation and sustainable development through the governance of access to and use of resources. This balance is necessary because as shown in section 3.2, CPRs are defined as those resources from which it is difficult to exclude potential users (excludability) and where use of the resources by a potential user reduces availability for other users (subtractability) (Burger *et al.* 2001, Ostrom 1999, Berkes 1989). This understanding was further reflected by both government conservation agencies and conservancy members through the recognition that the use of CPRs by one person may impact the benefits obtained by other people, and ultimately the attainment of conservation objectives at the landscape-scale (Downsbrough *et al.* 2011, Ostrom *et al.* 2002).

The importance of the balance provided by the social systems cannot be overemphasised since they comprise different rights-holders with diverse claims to ecosystem services. These claims are property rights to access and use private provisioning ecosystem services, or common regulating and cultural ecosystem services at the landscape-scale. Recognition of ecosystem services as private and common property consequently necessitates recognition of associated private and collective property rights (Bennett 2004). The social systems can therefore be understood as promoting the integrated management of CPRs by engaging landowners as rights-holders, based on the expectation that they will engage in collective action beyond their individual property boundaries. When conceptualised as encompassing CPRs, a conservancy is considered to synthesise human and ecosystem interactions by integrating ecological and social processes, making it a complex SES (Brunckhorst 2010). In this context, conservancies are therefore regarded as complex SESs incorporating interdependent social and ecological systems across landscapes (Maretti *et al.* 2005).

### **6.2.1 The expectation of landowner commitment to collective action for the management of common pool resources**

Under the landscape approach, a conservancy as a complex SES encompassing CPRs is understood as necessitating collective management. This requires a shift to a social process view of property and property rights to be in line with landscape approach principles that build shared perceptions and enable collective action (Yung & Belsky 2007, Hurley *et al.* 2002; Goldstein 1998; Duncan 1996). Property under the social concept is regarded as a

social process involving relationships between rights-holders and other people, with respect to a property (Bromley 1991, Ostrom 2000, Kabii & Pierre 2006). Under the landscape approach, property in a conservancy can be understood as the relationships between landowners and other people, with respect to CPRs.

My results show that at the government level, the expectation of adopting a conservancy as a landscape approach is the development of partnerships with the landowners to achieve its objectives of conserving biodiversity and the expansion of areas under conservation management outside state PAs. These partnerships can be interpreted as relationships between landowners and EKZNW, with respect to CPRs. The partnerships give EKZNW public rights to CPRs through the different management categories under the BSP (refer to table 5.3). Public rights, under the social process view of property, are recognised as a bundle of rights that the conservation agency (and other stakeholders) can share with private landowners.

Dargle Conservancy members, on the other hand, reflected meanings that inferred the Conservancy as promoting individual conservation actions on private properties, which are regarded as contributing to government conservation mandates. This understanding is reflected by conservancy members' recognition of the limitations of state PAs in protecting *"highly conservable land"* since *"most of the wilderness in South Africa that isn't game reserves is on privately owned land"* (I14, conservancy members). On this basis, the Conservancy was regarded as a collective of landowners with a responsibility to set aside and protect conservation worthy areas on their properties. Furthermore, the Conservancy was viewed as a partnership for conservation through the *'identification of conservation areas considered to be worth conserving'* and the *'identification of landowners committed to the conservation of these areas on their own land'*. These meanings emphasise individual conservation actions that are restricted to the individual property scale. This can be attributed to the historical perspective of private property ownership, which emphasised exclusivity and is now regarded as the traditional understanding of private property under common law (refer to section 4.4.2). This understanding contradicts the notion of a conservancy as a landscape approach that fosters the expansion of conservation areas through creation of corridors that can link areas of conservation significance on individual properties and the wider landscape (Brown *et al.* 2005).

Conservancy members' understanding of exclusivity with regard to the ownership and management of their property in contributing to conservation efforts, reflects a limited understanding of the Conservancy as encompassing CPRs that require collective management. In addition, it reflects a limited understanding of CPRs as property that entails a divisible bundle of property rights, which can be shared as public rights through the stewardship agreements. Sharing of the bundle of rights as public rights has implications for private property rights regimes governing individual properties in the Conservancy. The implications are related to limitations of private property rights through the recognition of a common property rights regime. Under the social process view of property, a common property rights regime entails split ownership over CPRs, with the landowner and conservation agency holding different claims to the divisible bundle of rights.

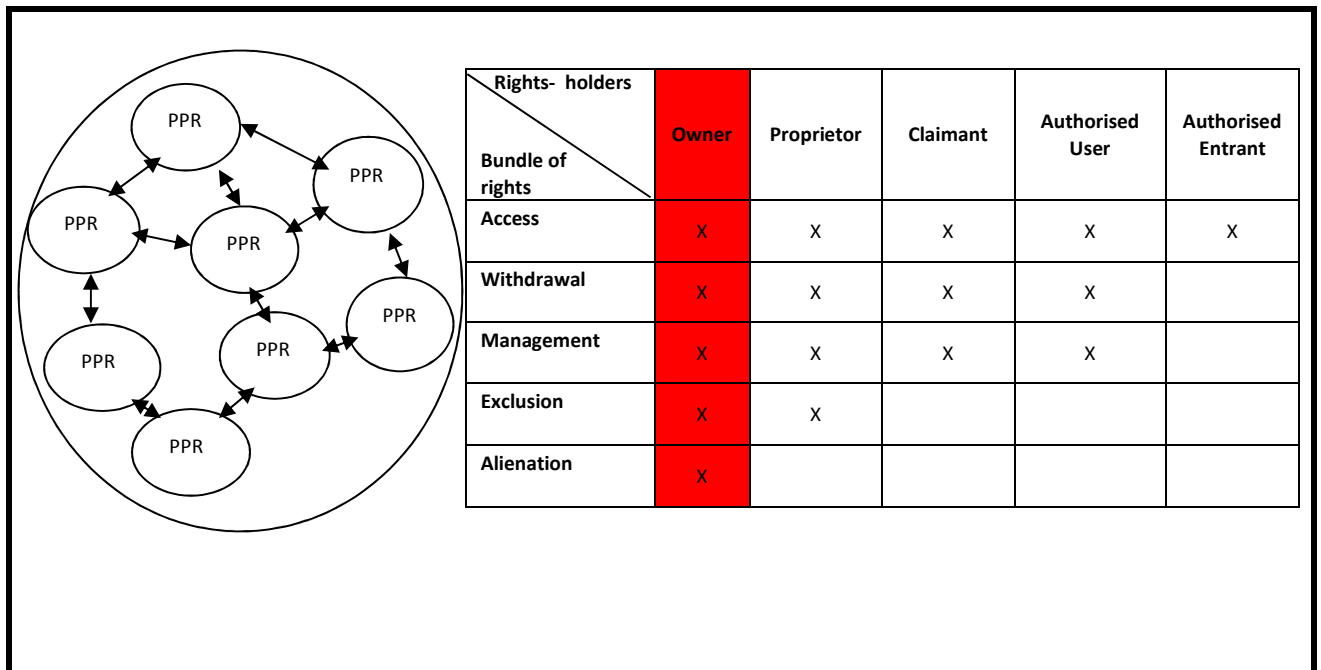
Although my findings show recognition of the ecological systems, there is no explicit indication of the recognition of the social systems of multi-tenure regimes and associated diverse property rights that entail collective action beyond individual property boundaries. This highlights a key shortcoming by both government conservation agencies and conservancy members. This also shows that the absence of a shared understanding of a conservancy as a complex SES encompassing interdependent social and ecological systems. Failure to recognise a conservancy as a complex SES of interdependent social and ecological systems has implications on the expectations of applying the concept as a landscape approach.

### **6.2.2 Implications of the disjuncture in recognising the need for collective management as a factor in influencing the success of a conservancy as a landscape approach**

My findings show that limitations of private property rights create landowner anxiety over fears of loss of their traditionally perceived absolute private property rights. These fears express an understanding that is in contrast to the landscape approach principle of multi-tenure regimes and associated diverse property rights that require collective management across landscapes. This understanding can be viewed as contributing to the conservation agency implementing stewardship agreements that effect individual management plans for individual properties. Nonetheless, this approach does not support the ecological functions of

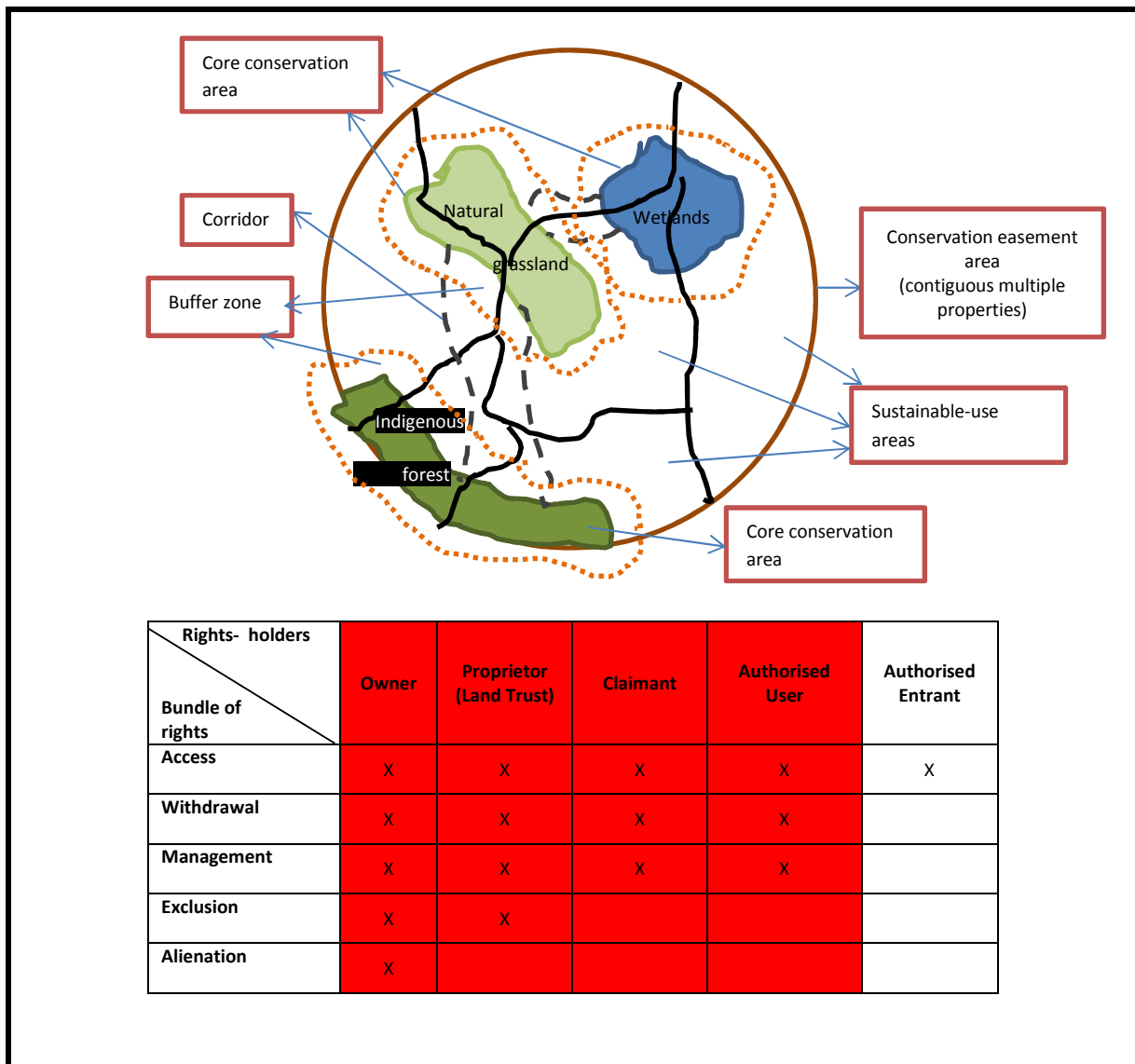


ecological systems in a conservancy as a landscape approach (Bennett 2004). The approach also illustrates a lack of shared understanding of a conservancy as constituting CPRs across multiple properties. In addition, the individual actions and management plans indicate the reinforcement of a traditional understanding of property as private resources with well-defined boundaries, which are governed by private property rights regimes (refer to figure 6.1).



**Figure 6.1:** Current view of the Dargle Conservancy encompassing individual properties governed by private property rights regimes

The foregoing understandings are in contrast to the landscape approach perspective of community-based conservation areas as encompassing CPRs that require collective management. Land Trusts in the United States of America are an example of CCAs regarded as landscape approach mechanisms. The Land Trust collectively identifies specific areas under the conservation easement as CPRs considered to be of conservation value to both the individual landowner and Land Trust as partners. The shared values allow specific conservation functions to be allocated to different parts of a property as core biodiversity conservation areas, ecological corridors, buffer zones or sustainable-use areas (refer to figure 6.2).



**Figure 6.2:** Landscape approach view of a conservation easement area encompassing contiguous properties of CPRs under split ownership according to different conservation functions

The allocation of conservation functions is in relation to the ecological integrity of surrounding properties under the conservation easement (Bennett 2004). The conservation functions identified indicate an understanding of the conservation easement as a multi-tenure regime with split ownership among stakeholders (refer to figure 6.2). The split ownership allows stakeholders to hold varying claims to the divisible bundle of property rights and limits uses of the property by the landowner (Hurley *et al.* 2002). By entering into a conservation easement, landowners voluntarily commit to a legal partnership in perpetuity with the Land Trust to limit certain uses of their land for the collective environmental

management of the easement area (FVLT 2008). The limitations reflect a shared understanding of the objectives and expectations of the conservation easement beyond individual property boundaries at the landscape-scale. Thus, while the whole property is integrated into the conservation easement area, specific conservation values the landowner and Land Trust want to protect are clearly set out, relative to the ecological integrity of surrounding properties and the easement area as a whole. This shows that both the landowner and Land Trust recognise the conservation easement as contiguous properties constituting CPRs, which require integrated management planning at the landscape-scale.

In the Dargle Conservancy context, responses from conservation agencies representatives show that the approach to engage individual management under the BSP can be attributed to the lack of '*land use planning within the conservancy*'. The absence of a collective management plan for the Dargle Conservancy has led to the absence of collectively defined ecologically significant areas. Collectively defined areas need to be of conservation value to the individual landowner, while at the same time contributing to ecological connectivity across surrounding properties in the Conservancy area. This would indicate a shared understanding of the Conservancy as a landscape approach going beyond individual property boundaries. The expectation of having a shared understanding of the Conservancy as encompassing CPRs that require integrated management planning is the allocation of specific conservation functions to different parts of the contiguous multiple properties across the landscape.

Furthermore, the identification of ecological networks as nature reserves (core biodiversity conservation areas), protected environments (ecological/environmental corridors), biodiversity agreement areas (buffer zones), and conservation areas (sustainable-use areas) under one management plan has the potential to enable the implementation of stewardship agreements as a landscape approach. The specific conservation functions would also enable the distribution of the divisible bundle of property rights, and associated duties and responsibilities. This grants the conservation agency rights ranging from authorised entrants to proprietors, placing limitations on landowners' use and management of CPRs and consequently influencing commitment to collective management (Ostrom 2000 – refer to figure 6.2). Based on this expectation, conservation agencies are in order to call for conservancies to develop bio-regional plans that integrate development activities with

biodiversity conservation interests, for the whole conservancy area as a collective and not individual landowners.

However, my findings show that at the Dargle Conservancy level, this understanding is not shared. In the context of prominent traditional view of private property rights, the landscape approach perspective of property as social relations that entail split ownership through a divisible bundle of rights challenges the expectation of landowner commitment to collective management. Statements such as “*there are still things as private properties and we’re very happy to share that with permission*” (I28, Conservancy member) indicate a lack of appreciation for the social relations created across the landscape and associated collective rights to CPRs across the contiguous properties. Furthermore, sentiments such as “*taking it upon ourselves to give as many people...access to...*” (I17, Conservancy member) show strong traditional views of private property rights to hold absolute ownership and determine who accesses resources within their individual boundaries. The traditional understanding of private property rights as being absolute reflects an absence or limited understanding of property rights in the landscape context of a conservancy as split ownership through a divisible bundle of rights (Ostrom 2000 – refer to table 2.2). According to Barrow and Pathak (2005), to achieve the conservation of biodiversity and ecological services as CPRs voluntarily conserved by communities in partnership with other stakeholders, these groups need to engage in collective action within and across multi-tenure regimes.

### **6.3 Achieving Landowner Commitment to Collective Management for Success of Conservancy as a Landscape Approach**

According to Phillips (2005) a landscape approach reflects peoples’ shared environmental values and land use orientations related to the landscape. These values and orientations are further reflected in shared expectations of stakeholders adopting a landscape approach to engage in collective action through integrated management of ecologically significant areas (Maretti *et al.* 2005). This understanding is reflected in the application of the conservation easement as a landscape approach.

The conservation easement is considered a collective management plan that is used to identify specific areas with varying conservation values and provide for the integrated

management of the easement area. The Land Trust as the management authority with proprietor rights, oversees the conservation easement as the umbrella management plan guiding the voluntary collective environmental management of the CPR systems. A common property rights regime implies landowner commitment to a social process view of property, which enables collective management of CPRs systems beyond individual boundaries. This is achieved by having all the property rights the landowner retains after integrating the property into a conservation easement clearly set out. In addition, all the property uses (rights) that are limited in order to protect the conservation values of the property also need to be clearly set out. This approach further illustrates the recognition of property rights held by a landowner as a bundle that can be added, subtracted and/or shared, making ownership not absolute (Ostrom 2000).

In the South African context, the absence of a collective Dargle Conservancy management plan has led to the conservation agency adopting an approach under the BSP that identifies pieces of land with high conservation value on individual properties. Individual management plans for fragmented conservation areas, biodiversity agreement areas, protected environments or nature reserves are then developed and implemented between EKZNW and the private landowner. This shows the absence of an integrated approach in the identification and management of these pieces of land across the Conservancy landscape, effectively indicating the absence of a landscape approach. The individual actions and management plans further indicate the reinforcement of a traditional understanding of property as private resources with well-defined boundaries, which are governed by private property rights regimes (refer to figure 6.1).

Individual actions, while necessary, can be interpreted as compromising the landscape approach to conservation by reinforcing the dominance of private property rights regimes through the management plans developed for individual properties. In the absence of an overarching management plan at conservancy or landscape scale, rather than creating contiguous conservation areas across multiple properties, this approach has the potential to sustain islands of PAs. This increases the susceptibility of individual properties to external

developmental pressures, which potentially compromise individual decisions made regarding the conservancy intent to maintain and promote its rural character and natural biodiversity.

To achieve landowner commitment, the Dargle Conservancy needs to develop a collective management plan to direct the actions of members to achieve the ecological intent at both the government and Conservancy level. The lack of a collective management plan can be attributed to the understanding of the Conservancy as a watchdog and social club that is there to merely build a sense of community around environmental awareness. This understanding does not reflect the social systems that create binding management relationships between landowners and the Conservancy as a collective to ensure sound environmental management practises. The absence of these binding agreements implies effecting limitations on private property rights to achieve landowner commitment to collective management through common property rights regimes is a challenge.

To overcome this challenge, the Dargle Conservancy needs to adopt a participatory management approach that can guide the development and implementation of a collective management plan for the Conservancy area (Sekher 2001). Further, the collective landscape management approach needs to adopt a social process view of property through a commons framework (du Plessis 2011). The commons framework allows for property rights across the multi-tenure landscape of the Conservancy to be defined as a bundle that can be categorised as use rights (access and withdrawal rights) and control or decision-making rights (management, exclusion and alienation rights) (Ostrom & Schlager 1996, Bess & Harte 2000) (also refer to section 3.2.2). Defining property rights in the foregoing categories can enable landowners to develop a shared understanding of conservancies as constituting a multi-tenure landscape with private (individual) properties and CPRs (across the contiguous Conservancy area). This understanding further enables the Conservancy, as the authority overseeing the collective landscape management plan, to highlight the incentives of the collective management of CPRs to the individual level (benefits to members through usufruct rights) and at the collective level (benefits to the whole community through better resource management – e.g. improved water quality and reduced soil erosion) (Sekher 2001).

To achieve the foregoing shared understanding, landowners need a shift in mind-set regarding the role of their individual properties in the context of a landscape approach. A shift toward the social process view of property can lead to landowner commitment to limitations on individual land use practises and collective management of CPRs. This approach can foster recognition and acknowledgement of a common property rights regime that entails split ownership through a divisible bundle of rights. Furthermore, this approach can still allow the landowner to retain full ownership of the property while integrating public rights of the conservation agency, effectively encouraging collective management. This can be achieved by the Conservancy developing participatory options that allow members to actively participate at different levels of decision-making as follows: policy-making; rule enforcement; conformance to rules and terms of access; and benefit distribution/resource maintenance (Sekher 2001). This social process view of property and collective landscape management approach allows for multiple rights to CPRs to be recognised and protected through resource management that builds social relations through representativeness; accountability; enabling member' participation; sustainability and benefit sharing (du Plessis 2011, Sekher 2001).

My results show that in the South African context of a conservancy, the notion of CPRs at the landscape-scale is conceptual and not based on binding rights. This highlights a key shortfall in understanding the social systems of a conservancy as the social relations between landowners and other stakeholders, which underpin landowner commitment to collective management. Based on this interpretation, I argue that there is a need for a change in the current property rights regime governing conservancies to reflect shared ownership of CPRs. This can be achieved through the adoption of common property rights regimes, parallel to private property rights regimes. This can enable landowners engage in collective action through integrated management planning of ecologically significant areas across the Conservancy landscape, while maintaining their lived-in spaces within their private properties.

#### **6.4 Summary**

This chapter argued that implementing the concept of conservancy as a landscape approach requires a shift from management structures that reinforce private property rights regimes to a process that supports common property rights regimes with split ownership, which fosters collective planning and management. To achieve the conservation of biodiversity and expansion of areas under conservation management outside state PAs through conservancies as a landscape approach, I suggest a need for collective action over spatial and time scales directed by common conservation objectives and expectations. I therefore contend that this will require establishing management structures that foster collective planning and management, which address common conservation objectives at the landscape-scale. The management structures need explicit property rights regimes with split ownership to achieve conservation objectives beyond individual property boundaries. Further, the management structures need to build and sustain social cohesion that maintains landowner commitment to attaining the intent of conservation over large spatial scales.



## **CHAPTER 7: Conclusion and Recommendations**

This chapter concludes the thesis and recommends areas for future research emanating from the study.

### **7.1 Conclusion**

Conservancies are increasingly gaining recognition as private land management mechanisms that can be implemented as a landscape approach. This is with the view that they can contribute to meeting the South African government's conservation mandates while enabling a balance between conservation and development outside state protected areas (PAs). Hence, my study set out to contribute to the understanding of the concept of conservancy as a landscape approach to conservation and illustrate how these meanings influence the attainment and sustenance of collective action in managing common pool resources (CPRs) beyond individual property boundaries. My study proposed that in the context of private property rights regimes, this understanding influences landowner commitment to the collective management of common pool resources beyond their individual property boundaries. Thus, my research findings are viewed as contributing to improving our understanding of the concept of conservancy and developing a better appreciation for the challenges related to the social-ecological conditions of the nature of property and property rights when applying the concept at the landscape-scale.

Previous research advances the landscape approach to conservation as an appropriate strategy for addressing the increasing concerns regarding the loss of biodiversity outside formal PAs, due to unprecedented pressures on land for development purposes. This is based on the understanding that the landscape approach, through community-based conservation areas (CCAs), enables integrated management planning across lived-in landscapes. Similarly, in view of growing concerns related to the loss of biodiversity in South Africa, conservancies are gaining popularity as a private land mechanism that can contribute to meeting government conservation mandates of conserving biodiversity and expanding its PA network outside state PAs. Conservancies are therefore recognised as a landscape-approach to stewardship that integrates the conservation of biodiversity with sustainable development.

As lived-in landscapes, CCAs are recognised as complex social-ecological systems (SESs) that integrate ecological and social values through sustainable use and management of natural resources. The ecological values are generally reflected in conservation objectives that build linkages between areas of conservation significance, for the protection and conservation of common pool resources (CPRs) providing ecological functions across lived-in landscapes of contiguous properties. The social values involve the recognition of social relations created among stakeholders and the social processes necessary to manage partnerships created through these relations. The social processes allow for the establishment of common property rights regimes that enable the collective management of CPRs across the landscape of contiguous properties. As a complex SES, the success of a conservancy as a landscape approach requires a clear understanding of the landscape context of interacting scales of social and ecological systems. This enables the development of appropriate management regimes.

My findings show that at the government level, the Conservancy is understood as contiguous properties that allow for conservation areas of significance outside state PAs to be linked across the landscape, including state PAs. At the Dargle Conservancy level, on the other hand, the constitution presents the conservancy as a collective of landowners providing environmental awareness and education to individual landowners. The information assists landowners to better manage their properties as a way of contributing to the conservation of biodiversity in the Dargle and KZN-midlands region. Conservancy members also view the Conservancy as a collective of landowners acting as a watchdog providing environmental awareness and education, which helps them better manage their properties as a way of preserving the natural heritage of the Dargle Valley. These findings show a clear disjuncture between government's perception of a conservancy as contiguous properties brought together by a collective of landowners and Conservancy members' perception of a collective of landowners building environmental awareness to conserve biodiversity individually on their properties. These findings present a lack of shared understanding of the landscape context of the conservancy as a contiguous area of multiple properties. The absence of a shared understanding presents challenges for recognising social relations and processes necessary to enable collective management across the landscape.

My findings show that the main challenge is landowner interpretations of their properties as private resources. This indicates the absence of a shared understanding of a conservancy as encompassing contiguous multiple private properties that need to be designated into different categories of PAs according to the landscape-scale conservation objectives, as opposed to administrative individual property boundaries. My findings further show that a traditional understanding of private property rights raises ownership anxiety among Conservancy members in relation to the loss of rights over control of their properties through management partnerships across the landscape. A clear understanding of a conservancy as a landscape approach that integrates multiple private properties and land ownership patterns enables landowners to develop a shared representation of the conservancy as a multi-tenure conservation area. Since members' do not view the conservancy as a multi-tenure conservation area of contiguous properties, ownership anxiety is increased. This presents a challenge in understanding the interacting scales of social and ecological systems that require collective management beyond individual property boundaries. Without an understanding of the social and ecological links, landowner commitment to collective management is constrained.

My study therefore concludes that inhibitions to landowner commitment to collective management are centred around ownership anxiety, in relation to the loss of private property rights over control of their properties. This highlights the importance of social factors, including property rights, land tenure and property rights regimes in the success of conservancies as a landscape approach. I therefore deduce that the success of a conservancy as a landscape approach should be based on a model of multi-tenure conservation areas, managed collectively for the conservation of biodiversity across contiguous multiple private properties. Based on this understanding, a shared representation of the conservancy as interacting social and ecological systems at the landscape-scale can be developed. With this shared understanding, common property rights regimes can be developed to address conservation challenges, including landowner commitment, across the multi-tenure regimes through the integration of social and ecological values.

## **7.2 Recommendations**

My research shows that implementing conservancies as landscape approach requires empirical data necessary to obtain a clear understanding of the landscape context of interacting scales of social and ecological systems. My experiences of visiting conservancies in Namibia and people working with Land Trusts in the United States of America show that on-the-ground information provides meanings ascribed to community-based conservation areas and how these can be adapted to implement a landscape approach. Although findings are generally context specific, the theoretical underpinnings that guide adoption of the concepts and their implementation can be informed by these findings. The theoretical contributions can then be generalised in the development of conceptual frameworks for community-based conservation initiatives. My experiences of presenting my findings at different seminars, symposiums and conferences further highlighted the significance of my work in providing nuance information on the gap between implementing agencies and landowners in community-based conservation areas. Of particular importance in my study is the gap in information regarding the important social factors of property rights, land tenure and property rights regimes; and how the understanding of these factors influence landowner commitment to conservation objectives at the landscape-scale.

Based on my findings, I put forward two recommendations for future research to enhance the successful implementation of the concept of conservancy as a landscape approach. Firstly, research that focuses on establishing or building on already existing social structures and processes for capacity building and skills development at both conservancy and conservation agency levels. With budgetary constraints that conservation agencies are facing, they need to strengthen collaborative initiatives with non-government conservation organisations working with conservancies. Such collaboration can be used to provide ongoing education services to landowners on the important role of conservancies as a landscape-scale approach to stewardship under the BSP. This process can also be used by the conservation agencies to gain insights into landowners' interests and perceptions of their role in contributing to the conservation of biodiversity. This process can assist in building a social identity and the much needed trust between landowners and conservation agencies. Furthermore, the process can foster the development of a shared understanding of the Conservancy as a landscape approach that is based on a model of multi-tenure conservation areas managed collectively

for the conservation of biodiversity across their private properties. Secondly, research that focuses on developing integrated management plans for conservancies at the landscape-scale of their bio- and eco-regions. This process requires a collective integrated planning approach that takes into account both landowners' and conservation agencies' interests, through the designation of the contiguous private properties across the landscapes of conservancies into different categories of PAs according to collectively agreed conservation objectives. Furthermore, the process can foster the development of appropriate management regimes guided by the management plans and conservation objectives.

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## **Annexure 1: Interview Guide – Conservancy Members**

### **Objective 1**

- 1.0 When did you join the conservancy?
  - 1.1 Why did you join the conservancy?
- 2.0 How would you explain the concept of a conservancy to a prospective member?
  - 2.1 What are the core values of the conservancy?

### **Objective 2**

- 3.0 By becoming a member of the Conservancy, do you feel that your property is linked to other properties in the area and is part of a larger landscape?
  - 3.1 What have been the implications for you of your property being part of the larger landscape of the Conservancy?
  - 3.2 Having made your property part of the larger landscape of the Conservancy, how does this influence your future options regarding the use and management of your land?
- 4.0 Reflecting on your experience, when private lands were brought together into the Dargle Conservancy did it affect how people understand and exercise property rights?

### **Objective 3**

- 5.0 What have been your personal experiences of property rights matters in the management of resources in the conservancy?
- 6.0 The conservancy aims to achieve collectively what cannot be achieved individually
  - 6.1 What is it that requires collective action across properties?
  - 6.2 Does this create some sort of perception of common property?



- 6.3 What are the linkages that help the Conservancy sustain this collective action?
- 7.0 Reflecting on your experience, has the establishment and operation of the Conservancy influenced how individual members relate to each other and to those who are not part of the Conservancy but live here, in this common property regime?
- 7.1 Doesn't this make the Conservancy set up more complex?
- 7.2 What are the most striking expressions of behaviour that come to your mind when reflecting on the Conservancy?
- 8.0 When you reflect on your involvement in the conservancy, what comes to mind?
- 9.0 How would you describe the achievements of the Conservancy?
- 10.0 Drawing on your experiences of being a member of the Conservancy, what advice would you give a prospective member?
- 11.0 Thank you for your time and assistance. I hope to contact you should I need further clarification or an additional interview if necessary.

## **Annexure 2: Interview Guide – Conservation Organisations**

- 1.0 What position do you hold in the organisation and what does it entail?
  - 1.1 What is your organisation's mandate?
  
- 2.0 Does your organisation have a mandate that relates in any way to conservancies?
  - 2.1 How would you explain that mandate?
  - 2.2 How do you effect your mandate?
  - 2.3 If your organisation does not have a mandate that relates to conservancies, are conservancies relevant to your organisation and if so, in what way?
  - 2.4 What do you do to keep conservancies relevant for your organisation?
  - 2.5 Has your organisation worked with conservancies?
  - 2.6 Why did your organisation take an interest in working with conservancies?
  
- 3.0 Why do you think people establish conservancies?
  - 3.1 What are your organisation's expectations of conservancies?
  - 3.2 What issues have arisen that have made it difficult to realise your expectations of conservancies?
  
- 4.0 Thank you for your time and assistance. I hope to contact you should I need further clarification or an additional interview if necessary.

### Annexure 3: Interview List

#### Conservancy members

Category of Person	Interview Label	Gender	Place of Interview	Date of Interview
Conservancy member	I1	F	Office, Centre for Environment, Agriculture and Development - University of KwaZulu-Natal	27.01.2012
Conservancy member	I2	F	Farmhouse, Dargle Conservancy	30.01.2012
Conservancy member	I3	F	Farmhouse, Dargle Conservancy	30.01.2012
Conservancy member	I4	M	Farmhouse, Dargle Conservancy	01.02.2012
Conservancy member	I5	M	Tanglewood Hotel, Dargle	01.02.2012
Conservancy member	I6	F	Farmhouse, Dargle Conservancy	02.02.2012
Conservancy member	I7	M	Farmhouse, Dargle Conservancy	03.02.2012
Conservancy member	I8	M	Farmhouse, Dargle Conservancy	03.02.2012
Conservancy member	I9	F	Farmhouse, Dargle Conservancy	04.02.2012
Conservancy member	I10	M	Farmhouse, Dargle Conservancy	04.02.2012
Conservancy member	I11	F	Farmhouse, Dargle Conservancy	06.02.2012
Conservancy member	I12	M	Farmhouse, Dargle Conservancy	06.02.2012
Conservancy member	I13	M	Farmhouse, Dargle Conservancy	07.02.2012
Conservancy member	I14, I15, I16	M, M, M	Farmhouse, Dargle Conservancy	07.02.2012
Conservancy member	I17	M	Farmhouse, Dargle Conservancy	07.02.2012

Conservancy member	I18	F	Farmhouse, Dargle Conservancy	08.02.2012
Conservancy member	I19	M	Farmhouse, Dargle Conservancy	08.02.2012
Conservancy member	I20, I20B	F, F	Farmhouse, Balgowan Conservancy	09.02.2012
Conservancy member	I21	M	WESSA offices - Umgeni Nature Reserve, Howick	10.02.2012
Conservancy member	I23	M	Farmhouse, Dargle Conservancy	13.02.2012
Conservancy member	I24	F	Farmhouse, Dargle Conservancy	13.02.2012
Conservancy member	I25	F	Piggly Wiggly, Dargle Conservancy	13.02.2012
Conservancy member	I26	M	Farmhouse, Dargle Conservancy	14.02.2012
Conservancy member	I27	F	Farmhouse, Dargle Conservancy	14.02.2012
Conservancy member	I28	F	Farmhouse, Dargle Conservancy	14.02.2012
Conservancy member	I29	F	Farmhouse, Dargle Conservancy	15.02.2012
Conservancy member	I30	F	Farmhouse, Dargle Conservancy	16.02.2012
Conservancy member	I31	F	Farmhouse, Dargle Conservancy	16.02.2012
Conservancy member	I32	F	Tanglewood Hotel, Dargle Conservancy	16.02.2012
Conservancy member	I33	F	Farmhouse, Dargle Conservancy	16.02.2012
Conservancy member	I34	F	Farmhouse, Dargle Conservancy	17.02.2012

### Conservation organisation representatives

Category of Person	Interview Label	Gender	Place of Interview	Date of Interview
Department of Agriculture and Environmental Affairs (DAEA)	I1	F	Department of Agriculture and Environmental Affairs, Umgungundlovu District offices	13.06.2012
South African National Biodiversity Institute (SANBI)	I2	M	SANBI KZN Botanical Gardens, Pietermaritzburg	13.06.2012
Endangered Wildlife Trust (EWT)	I3	F	Endangered Wildlife Trust offices, Midmar Dam	14.06.2012
Midlands Conservancy Forum (MCF)	I4	M	Falls Hotel, Howick	14.06.2012
WESSA	I5	M	WESSA offices - Umgeni Nature Reserve, Howick	15.06.2012
KZN Conservancies Association (KZNCA)/National Association of Conservancies in South Africa (NACSA)	I6	M	Durban Metropolitan Council, Planning Division	15.06.2012
Ezemvelo KZN Wildlife (EKZNW)	I7	M	Telephone interview	15.06.2012
Cape Nature – Western Cape (CNWC)	I8	F	Telephone interview	20.06.2012
Department of Environmental Affairs – Biodiversity Directorate (DEA)	I9	F	Telephone interview	21.06.2012
Midlands Conservancy Forum (MCF)	I10	M	Lemonwood Cottages, Dargle Conservancy	09.02.2012

