

**STRENGTHENING CONSERVATION THROUGH LOCALIZED DEFINITIONS OF
WELLBEING: UNDERSTANDING WHAT IS MEANT BY ‘A GOOD LIFE’ IN
NAMIBIA’S ZAMBEZI REGION**

by

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B.A. (Hons.), Dalhousie University, 2014

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES
(Resources, Environment, and Sustainability)

THE UNIVERSITY OF BRITISH COLUMBIA
(Vancouver)

April 2018

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Abstract

Effective conservation is more important now than ever before with biodiversity loss occurring at unprecedented rates. Conservation practices have evolved from ‘fence and fine’ strategies to participatory approaches. It is now widely accepted that conservation initiatives should deliver both socioeconomic benefits and biodiversity protection. One of the best known examples of achieving this is Namibia’s communal conservancy programme. This thesis sought to understand how communities in Namibia’s Zambezi Region define wellbeing in general and as a function of the conservancies. This work aimed to move beyond universal measures of socioeconomic wellbeing to a set that includes a broad suite of concerns that are economic *and* social, environmental, cultural and political. Findings are based on two months of fieldwork in Namibia where data was collected through interviews and focus groups across six conservancies in the Zambezi Region. Through interviews and focus groups ten wellbeing dimensions emerged. These ten dimensions shed light on two important findings: First, the dimensions are inclusive of many well-explored wellbeing components, which challenges the notion that global indices do not adequately capture the dimensions of wellbeing. However, and secondly, it is how these categories are elaborated that make them useful at the local scale. Therefore, it is not the way wellbeing is categorized that is most important, it is how these dimensions are interpreted and incorporated in the process of conservation planning. These insights are significant because conservation initiatives that are better tailored to local needs can foster more meaningful community involvement, which Namibia’s programme has proved to be integral to conservation success.

Lay Summary

Using Namibia's communal conservancy programme as a case study, this thesis explores the relationship between community wellbeing and conservation. Understanding how conservation can benefit the wellbeing of people is important for planning conservation initiatives that will maintain the support of local communities, who depend on the same land and resources as wildlife. Interviews and focus groups across six of Namibia's conservancies showed that there were ten main wellbeing dimensions that mattered to people, but the way people experienced these dimensions varied. I argue that it is not how wellbeing is categorized that matters, it is the way wellbeing is interpreted locally and included in conservation planning that is important.

Preface

This thesis is original, unpublished work of the author, Alida O'Connor. With continuous support and feedback from my supervisor Dr. Terre Satterfield, I designed the overall structure of this research and the research tools used during fieldwork. I collected the interview and focus group data with support from the World Wildlife Fund. In addition, IRDNC employees assisted with translation of the interview schedule when necessary. Data analysis and thesis writing was also done by me with direction and edits from Dr. Terre Satterfield. The fieldwork conducted for this thesis was approved by UBC's Behavioural Research Ethics Board with ethics certificate #H16-02163.

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List of Abbreviations and Acronyms

CBNRM	Community Based Natural Resource Management
GDP	Gross Domestic Product
HDI	Human Development Index
IRDNC	Integrated Rural Development and Nature Conservation
IUCN	International Union for the Conservation of Nature
KAZA TFCA	Kavango Zambezi Transfrontier Conservation Area
NACSO	Namibian Association of CBNRM Support Organizations
SCP	Sustainable Communities Partnership
UNDP	United Nations Development Programme
WWF	World Wildlife Fund

Acknowledgements

First and foremost, thank you to my supervisor Dr. Terre Satterfield. Your genuine curiosity and thoughtfulness made working with you an absolute pleasure. I have so appreciated your patience, kindness, and understanding throughout the twists and turns of this process. Much needed walks with Osa cannot go unmentioned.

I would like to acknowledge my committee members, Dr. Milind Kandlikar and Dr. Robin Naidoo for their support and input. Robin, working with the WWF has been my greatest learning experience to date and you were instrumental in making that happen.

A warm thank you to the IRES faculty, staff, students, and the Satterfield Lab (Slab) for making IRES such an enjoyable place to be. To my Badger group, Emma Luker and Adrian Semmelink, thank you for listening and questioning.

Chris Weaver, Danica Shaw, and Anna Davis, thank you for this opportunity and taking the time to meet and work with me. I hope this research contributes to the important work you are doing. To everyone at the WWF, NACSO, and IRDNC, your commitment to conservation is unwavering and inspiring.

Obicious Siyanga and Eben, thank you for your invaluable assistance in the field.

Dave Ward, thank you for showing me the ropes at Sijwa and the many campfire conversations.

My sincere thanks to everyone that participated in interviews and focus groups for their openness and teaching me so much about the Zambezi Region.

Jessica Stamm, I did not expect to meet, let alone live with another Masters student who was also navigating a new city and fieldwork. Thank you for your support and friendship in Windhoek, and the friend you continue to be today.

And of course, thank you to my friends and family whose encouragement is endless. Mom and Dad, thank you for supporting me in everything I do, no matter how far away it takes me.

A special thank you to my grandparents, Mat and Diana Ardron. For as long as I can remember your compassion for others and stories of travelling the world have sparked a love and curiosity of the world in me. Thank you for the opportunity to go to school and explore that curiosity. Thank you for our time together at Gull Lake, the place where one of my earliest and deepest connections to nature was formed.

For the communities that have chosen conservation

1. Introduction

As the human population (and especially consumption) continues to grow, our pressure on the world's ecosystems intensifies, causing unprecedented rates of biodiversity loss (Barnosky et al. 2011). Maintaining healthy ecosystems and biodiversity is vital for the survival of all species. Ecosystems deliver a variety of important services central to supporting life on earth. For example, ecosystems are responsible for regulating conditions like temperature and natural cycles such as carbon and water. Ecosystems are also central to other elements of human life like cultural heritage and spirituality (Russell et al. 2013).

Conservation is more important now than ever before if we are to sustain ecosystems for life today, and generations to come. The International Union for Conservation of Nature (IUCN) defines a protected area as "A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values" (2008). This can take many forms, such as national parks, communal conservancies, or marine protected areas, to name a few. According to the most recent Protected Planet Report, there are 202,467 protected areas today, covering 14.7% of the world's land, 10.2% of territorial waters (marine areas under national jurisdiction) and 4.12% of the global ocean (UNEP-WCMC & IUCN 2016). This falls just short of the 2020 target of 17% set by the Convention on Biological Diversity (UNEP-WCMC & IUCN 2016). However, protected area coverage is not indicative of overall conservation effectiveness. Conservation success is determined by a number of factors, like coverage of critical biodiversity hotspots and management of protected areas (UNEP-WCMC & IUCN 2016). Consequently, the overarching question driving this research is: What constitutes effective conservation?

This thesis seeks to address this question by exploring the relationship between biodiversity conservation and community wellbeing in the context of Namibia's communal conservancy programme. To begin, I provide background on the conservation literature and its call for community based conservation approaches that benefit both people and wildlife. I then explore how human wellbeing is understood in the literature and how it is being measured. This is used as a lens to understand the potential of community based conservation initiatives to benefit community wellbeing and in turn, encourage local participation and support. The focus of the thesis narrows to the case study of Namibia's communal conservancy programme.

Namibia's conservancy programme provides an ideal setting to ground truth claims of community based conservation and wellbeing identified in the literature. The insights offered from this thesis strive to enhance the capacity for community wellbeing not only in Namibia, but conservation broadly.

2. Context

I watch the sky turn pink, the reeds along the Kwando River becoming silhouettes. Birds dip and dive in front of me, getting their fill of insects. I listen to the unmistakable sound of hippos calling to one another. This moment is a stark contrast from my conversations earlier in the day. A woman explaining how she sits in her family's field overnight, banging a drum so the elephants leave their crops alone. However much conservation is a global concern and benefit, conservation is ultimately about the reality of land-dependent people living with wildlife, and not principally the experiences of those visiting. How then do we protect both wildlife and people?

This question is not new. Debates surrounding what constitutes effective conservation have been ongoing for decades. Much of that literature is critical of conservation's burden on local people (Levine 2007; Igoe & Brockington 2007; Dressler et al. 2010; Witter & Satterfield 2014). More recently, however, work inspired by both the social and natural sciences has emerged launching a new era of empirical work on when and where conservation can be said to enhance human wellbeing and why (Berkes 2004; Milner-Gulland et al. 2014; Breslow et al. 2016; Wali et al. 2017). This paper addresses this debate by exploring the intricate relationship between conservation and communities through the lens of wellbeing. The context is Namibia's Community Based Natural Resource Management (CBNRM) Programme, often said to be an ideal case of balanced consideration of the biological and social dimensions of conservation.

2.1 Conservation for Wildlife and People

The emergence of integrating socioeconomic interests with biodiversity goals can be traced back to the 1980s when dialogue about a shift in conservation practices began. The argument was that governance strategies needed to move from coercive "fortress conservation" to community based natural resource management (CBNRM). Fortress conservation is based on the belief that biodiversity protection is best achieved in isolation from people (Brockington 2002). This approach resulted in forced removals of local people, increased state control, and enforcement of reduced or no access to land and natural resources (West et al. 2006). Not only does this approach restrict people from the natural resources they depend on, it fails to consider the cultural importance of ancestral lineages and traditional practices tied to specific places

(Witter & Satterfield 2014). CBNRM emerged as an attempt to promote bottom-up, community governed conservation in place of ineffective and outdated top-down, state governed conservation practices. The CBNRM paradigm aims to engage local communities in conservation through benefit sharing and local participation. CBNRM is premised on the idea that local people are more familiar with their ecological surroundings and how it is experienced and depended upon than the state or corporate managers. Therefore, including local people in conservation planning and management is necessary for conservation initiatives that recognize the realities of life in that area. This is important for identifying ways in which conservation will challenge or enhance the lives of people in a specific area, and in turn, garner their support (Brosius et al. 2005; Dressler et al. 2010).

Considering the welfare of people in conservation planning has also gained significant attention internationally. In 1982, The World Parks Congress held in Bali stated that the needs of local people should be systematically integrated into protected-area planning (Adams et al. 2004). In 1992, the International Union for the Conservation of Nature (IUCN) expressed the need for support from local people in order for protected areas to succeed. In 2002 the United Nations Development Programme (UNDP) launched the Equator Initiative, which raised awareness about initiatives that had been successful in achieving the two goals of poverty reduction and biodiversity conservation (The Equator Initiative 2016). In 2004 the Conference of Parties to the Convention on Biological Diversity (COP CBD) called for an assessment of the economic and sociocultural costs of protected areas, making benefit sharing and pro-poor conservation¹ a major theme (Adams et al. 2004). Conservation that addresses both socioeconomic and environmental goals has thus become the current conservation norm. As Berkes (2004) explains, community based conservation is no fad, it is an approach that finally recognizes communities are not isolated agents, they are embedded in larger complex socio-ecological systems.

Still, there are critics of community based conservation and its ability to be mutually beneficial. Some suggest CBNRM initiatives have made assumptions about pre-existing livelihoods and the desire for certain changes, fostering tension between project goals and

¹ Pro-poor conservation, i.e., conservation that delivers both poverty reduction and biodiversity protection.

communities (Dressler et al. 2010). There are countless examples of conservation initiatives of this kind. For example, initiatives that have assumed access to markets, better infrastructure, and modernization from subsistence livelihoods are a benefit to communities (Dressler et al. 2010; Wali et al. 2017). Although this may be the case in some places, it is not true for all. In the same vein, many conservation initiatives are funded or managed externally, often by for-profit and not-for-profit entities with their own set of desired project outcomes. This risks the goals of donors overshadowing those of communities (Levine 2007; Igoe & Brockington 2007).

Others argue the impacts on communities are oversimplified because many socioeconomic variables are not easily quantified, making it difficult to understand the relative losses and gains of conservation actions and the tradeoffs involved (Hirsch et al. 2011; McShane et al. 2011; Phelps et al. 2012). Further oversimplifications of the term ‘community’ can hinder conservation success. Viewing communities as homogenous units fails to acknowledge the differences in variables like class, governance, and gender roles that vary across communities. As well, recognition of the differences between communities who are rights holders versus stakeholders can be overlooked (Alcorn & Royo 2007). These complexities impact the way people can be involved with conservation projects and how benefits are shared (Agrawal & Gibson 1999; West et al. 2006).

These critiques draw attention to the need for an improved understanding of community wellbeing. Wellbeing research suits this debate well as it can bridge the divide between assumed and actual community needs. Knowing what communities need to maintain or improve their livelihood is necessary for conservation initiatives striving to benefit both people and wildlife.

2.2 Measuring Wellbeing

There has been considerable debate about what wellbeing is and what it should be called (quality of life, happiness, wellbeing, success, etc.) (Dodge et al. 2012). Two philosophies have emerged: hedonism and eudaimonia (Ryan et al. 2001; Dodge et al. 2012). The hedonic approach views wellbeing as happiness as a result of maximizing pleasure and minimizing pain. Within this approach happiness is understood using subjective wellbeing measures, which consist of three self-reported components: life satisfaction, positive affect and negative affect (Ryan et al. 2001).

The eudaimonic perspective views wellbeing as more than happiness, it is the actualization of human potential and fulfilling one's true nature (Ryan et al. 2001). This differs from happiness or hedonism because it maintains that not all pursuits of pleasure would result in fulfilling human potential. Therefore, from the eudaimonic perspective, subjective or self-reported measurements are not representative of needs rooted in human growth. These two approaches are correlated, as they are both associated with fulfillment, however they are indicative of distinct types of experiences. Hedonism is about momentary pleasure, how someone feels their life satisfaction is at that moment, whereas eudaimonia is related to human growth and development (Ryan et al. 2001).

Ryan et al. explain how neither of these approaches are wrong, rather, wellbeing is multidimensional (2001). For example, they argue that a person with objectively poor health could have high self-reported wellbeing, whereas a person with low subjective wellbeing could have no objective hindrance, like illness (Ryan et al. 2001). Therefore, it is important to consider both eudaimonic and hedonic approaches to wellbeing. Combining both eudaimonic and hedonic philosophies allows for the complementary use of objective and subjective wellbeing measurements. This can provide insight into the various ways objectives, such as literacy rates, income, physical and mental health are being reached (i.e., less outcome focused than experience focused on things such as trust in decision making practices), and how these are linked to states of wellbeing.

Furthermore, a subjective lens reveals how social norms and perceptions of wellbeing differ by community, and so explain why some needs are given more weight than others, or why some cannot be met (Costanza et al. 2007). A subjective point of view not only complements objective indicators, but addresses the key fact that human behaviour is driven as much by perceived qualities as 'objective' ones. Approaching wellbeing objectively and subjectively thus provides a critical dimension to help understand overall wellbeing.

Traditionally, wellbeing measures have been dominated by objective social and economic indicators: indicators that are easily quantifiable such as literacy rates, life expectancy and Gross Domestic Product (GDP) (Costanza et al. 2007). These types of measurements are aligned with the eudaimonic approach to wellbeing. And yet, most new wellbeing scholarship recognizes that such approaches for understanding individual and community wellbeing are limited (McGregor

2004; Costanza et al. 2007; Wiseman & Brasher 2008; Armitage et al. 2012). This is due both to context specific conditions that help explain community differences and because a more robust suite of indicators are required to understand what makes a community 'well'. The need has thus emerged to move beyond universal measures of social and economic wellbeing to a set that includes economic *and* social, environmental, cultural and political concerns specific to local communities (Wiseman & Brasher 2008).

Amartya Sen's early and noteworthy efforts to move beyond GDP to the capability approach is the oldest and most significant school of thought in this domain. Developed in the 1980s, this approach viewed wellbeing as what people were capable of with the resources available to them. Building on Sen's work, Mahbub ul Haq created the human development approach which focuses on expanding the "range of human choices" (HDR UNDP 2018). Using this approach, the first Human Development Report was released in 1990, introducing the Human Development Index (HDI) as a tool to measure the basic dimensions of human development (education, standard of living, and a long and healthy life) (Sen 2005; HDR UNDP 2018). Future Human Development Reports went on to categorize other elements of human wellbeing and development, like the human security approach. The 1994 Human Development Report broke down human security into seven dimensions: Economic, food, health, environment, personal, community and political security (HDR UNDP 2018).

Since this initial push to understand wellbeing beyond economic growth, many other indexes and measures have been developed around the world. Another example being Bhutan's Gross National Happiness (GNH) philosophy based on four pillars: Sustainable and equitable socioeconomic development, environmental conservation, preservation and promotion of culture, and good governance. The GNH has since been used to produce the World Happiness Report (WHR 2018).

More current examples include: The Report of the Commission on the Measurement of Economic Performance and Social Progress, popularly known as the Stiglitz report (Stiglitz et al. 2010). The Commission was established by President Sarkozy of France in 2008, with the aim of reviewing national level statistical data about society and economy. Specifically, the report recommended how to go beyond GDP with a broader set of indicators and the forms of measurement on which these might be based (Stiglitz et al. 2010). This landmark publication

propelled wellbeing into the mainstream public policy debate (White 2010). Following the report came the Organization for Economic Cooperation and Development's (OECD) Better Life Index, the first attempt to bring together internationally comparable measures of wellbeing in line with the recommendations of the Stiglitz report. The Better Life Index expands on wellbeing dimensions incorporated in previous indices, like the HDI, to include elements like environment, community, and work-life balance (OECD 2011).

Ultimately, most attempts to measure wellbeing are typically conducted at either the international or national scale, using pre-determined and pre-weighted wellbeing indicators (as seen in several of the aforementioned examples). National and international indices play an important role identifying areas in need of global attention and informing policy decisions. Though these indices have evolved significantly from relying solely on GDP to track wellbeing, they have their limitations. Indicators must be comparable cross-country in order to analyze results at an international scale. This means aspects of wellbeing relevant to a country or region's specific context, like cultural values, are left out. Further, pre-weighted indicators assume all wellbeing categories are of equal importance. This is not well suited for local scale wellbeing assessments that seek to understand context specific conditions wherein concerns about education or human safety might supersede other categories addressed.

These limitations have not gone unnoticed. Scholarship critical of indices like the HDI and Human Security Approach believe the dimensions used are too all encompassing for practical purposes. Critics argue that generalizing global needs into broad categories is naïve and impractical, as these categories are bound to break down when looking at national, regional, and local groups (Gasper 2002; Alkire 2003). Further, the goals and recommendations from these global assessments have been described as idealistic. Critics suggest that goals must be narrower for a chance at real-world application (Alkire 2003).

Offering a different take, more recent work has attempted to better 'localize' or at least theorize wellbeing investigations for ecosystems, landscapes and even urban scales. The paper *Conceptualizing and operationalizing human wellbeing for ecosystem assessment and management* by Breslow et al (2016) provides, for example, one of very few conceptual frameworks for the selection and analysis of social indicators appropriate to regional or local scales. The framework was created to develop social indicators for an integrated ecosystem

assessment (IEA) of the California Current marine ecosystem (Breslow et al. 2016). IEAs are used to implement ecosystem-based management (EBM) in marine ecosystems. EBM takes a systems approach to management, rather than focusing on only individual components or single species in a system (Levin et al. 2009). Humans are recognized as integral to ecosystems and to conservation, making it necessary to account for their wellbeing in EIAs and linked practices.

To do this, the framework operationalizes human wellbeing by categorizing it into four main constituents, the “4Cs”: Conditions, Connections, Capabilities, and Cross-Cutting themes. Each of the 4Cs is then broken down further into four domains (see Figure 1). The paper goes on to provide attributes and possible indicators for each domain. For example, the domain “tangible connections to nature” might have the attribute “resource access and tenure”. A possible indicator would be percentage of residents satisfied with access to shorelines (Breslow et al. 2016). Some attributes overlap domains, while others remain unique to one domain, showing the interconnectedness and variability of wellbeing in ecosystem contexts.

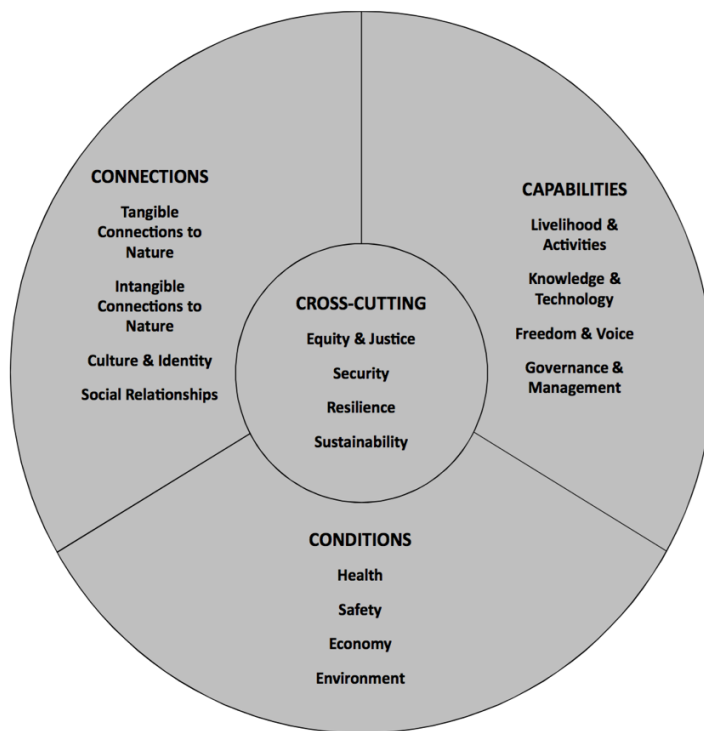


Figure 1: The 4 Cs Conceptual framework of human wellbeing (Breslow et al. 2016).

The domains, attributes, and indicators nested in the above framework are drawn from

diverse disciplines including anthropology, social forestry, health, and international development. As you can see, the framework incorporates common approaches to wellbeing, like health and economy, as well as underrepresented areas, like intangible connections to nature and culture and identity. These are the elements of wellbeing that are so often left out of assessments and decision making. Failing to account for these elements of wellbeing can result in what Turner et al (2008) call “invisible losses”. This includes, but is not limited to, loss of culture, identity, lifestyle, and knowledge. The comprehensive 4Cs framework was designed for indicators to be identified and adapted to local goals and values using participatory approaches.

Other notable examples of wellbeing that seek to move beyond objective and economic indicators include the Wellbeing in Developing Countries Research Group (WeD). The WeD approach combines subjective assessments with assessments of objective material and human conditions (White 2010; Milner-Gulland et al. 2014). In addition, the International Institute for Environment and Development (IIED) created a manual on methods for the Social Assessment of Protected Areas (SAPA). The methodology aims to assess the positive and negative impacts of protected areas (PA) on communities living within and around PAs using a multi-stakeholder, participatory approach (Franks & Small 2016).

To summarize, there are two key trajectories of research that are coming to characterize the conservation and wellbeing literature. First, most conservation organizations and practices now recognize the importance of including local communities in natural resource management. There are also many claims that CBNRM is mutually beneficial, but what constitutes a community benefit or contribution to wellbeing is still a work in progress. Secondly, to better understand this we must know more about what communities consider benefits or contributors to their wellbeing. Answering this question requires that any understanding of wellbeing must shift from solely objective indicators to include subjective elements of wellbeing, such as those outlined in the 4Cs framework. Further, it should be accepted that what is considered fundamental to *being well* in one community could very likely be different in another. As the 4Cs framework highlights, wellbeing can be characterized by many different combinations and degrees of dimensions that comprise wellbeing. Recognizing this allows for assessments to remain more open to local definitions of wellbeing.

2.3 Research Question and Objectives

Using Namibia's CBNRM programme as a case study, this paper seeks to address the following question: How is wellbeing defined by community members living within Namibia's conservancies?

In answering this question, I hope to provide insight to the following sub-questions:

- How are the conservancies impacting wellbeing?
- In the context of including wellbeing in conservation planning, what guidance might we offer methodologically?

The aim of this question is to improve conservation success by furthering the understanding of community wellbeing across Namibia's conservancies, which are described directly below. The hope is that insights drawn will enhance the capacity for community wellbeing not only in Namibia, but conservation broadly. As explained earlier, knowing what really matters to communities can foster more meaningful participation in conservation planning and maintain local support.

2.4 Case Study: CBNRM in Namibia

The Community Based Natural Resource Management (CBNRM) programme in Namibia has been widely cited as the quintessential community based conservation success story (Styles 2011; Colby 2012; NACSO 2013; WWF 2018; NACSO 2018). The early beginnings of the programme can be traced back to the 1980s, when a small pilot project was initiated by a group of conservationists and community leaders to stop poaching in Namibia's Kunene Region (Jones & Weaver 2009). The 1980s were a time of mass poaching in Namibia, driven by a booming external market for ivory and rhino horn and a drought that devastated cattle herds. As a result, wildlife was rapidly disappearing from subsistence and commercial poaching (IRDNC 2018). Conservationists in Kunene helped communities establish teams of game guards who monitored wildlife and reported to community leaders. This created much needed job opportunities and a sense of responsibility over local wildlife. The idea was to combat poaching with opportunity rather than opposition. As a result, poaching decreased and wildlife populations

began to recover. The success of including rural communities in conservation was recognized by the newly independent (1990) Namibian government and Namibia became the first country to include conservation in its legislation (Jones & Weaver 2009; IRDNC 2018).

The 1990s is when the conservancy programme began to take the shape of the programme it is today. The 90s brought support from other organizations, like the World Wildlife Fund (WWF) and legislation legally recognizing local people as the rights holders to wildlife on communal land (conservancies) (IRDNC 2018). Today, the communal conservancy programme aims to alleviate poverty by integrating the interests of conservation with the community development goals of local populations. The programme is a collaborative effort between local people, the Ministry of Environment and Tourism (MET) and key support organizations, like the WWF, Integrated Rural Development and Nature Conservation (IRDNC), Namibia Nature Foundation (NNF), and the Namibian Association of CBNRM Support Organizations (NACSO).

To form a conservancy, a community (or several communities that have come together) needs majority support from the local population to move forward. The community must elect a representative conservancy committee and agree on a plan for the distribution of benefits. In addition, the community must define the physical boundary of the conservancy, which can take a long time to establish an agreed upon boundary with neighbouring communities, land owners, and conservancies. The registration of a conservancy gives communities legal rights to access, manage and benefit from wildlife on communal land, in return for commitment to sustainable management (Jones & Weaver 2009; NACSO 2018).

The programme's initial implementation of 4 conservancies in 1998 has since grown to 83 registered conservancies, shown in green in Figure 2. The communal conservancies consist of 189,230 members and cover 19.8% of Namibia's land area (NACSO 2018). Since the programme's implementation rhino and elephant populations have tripled and Namibia is the only country with an expanding lion population outside of national parks (IRDNC 2018). The programme's success has attracted international interest as a model for effective conservation worldwide.

Despite overall success on a national level, there is much variation in outcomes across Namibia's conservancies at the community and household scale (Riehl et al. 2015). There is

significant data available on the conservancies objective successes such as income generated from tourism and hunting, and studies on recovering wildlife populations (Naidoo et al. 2016). However, there is relatively less known about both subjective and social dimensions of wellbeing throughout the conservancies.

3. Research Methodology

This research was a collaborative effort with the World Wildlife Fund (WWF) Namibia and the Sustainable Communities Partnership (SCP). All data reported here was collected from June to August of 2017. Interviews and focus groups detailed below were enabled through contacts and support of the WWF office in Windhoek, and via assisted translation and IRDNC field support² while in the Zambezi region.

3.1 Study Site: The Zambezi Region

This area was selected for several reasons: the SCP has focused its efforts on the Zambezi Region, funding activities meant to diversify and improve livelihood strategies, reduce human-wildlife conflict and improve socioeconomic wellbeing within the conservancies. This makes the Zambezi Region an ideal place to understand wellbeing in a context where significant effort has been made to benefit local people.

Located in the northeast of Namibia (see area circled in red on Figure 2), the Zambezi region (known as Caprivi until 2013) is unique with average rainfall of 700mm per year, which is abundant compared to the rest of the country. Fifteen conservancies are located in Zambezi, with 31,908 members, most of whom rely on agriculture as their main source of livelihood. The agriculture sector is comprised of small-scale mixed-crop and livestock farming (Kamwi et al. 2015; NACSO 2018).

² The Zambezi Region is divided into areas (ex. Mudumu North and Mudumu South). The IRDNC has assigned a Cluster Coordinator to each area. The Cluster Coordinator provides support to the conservancies within that area.

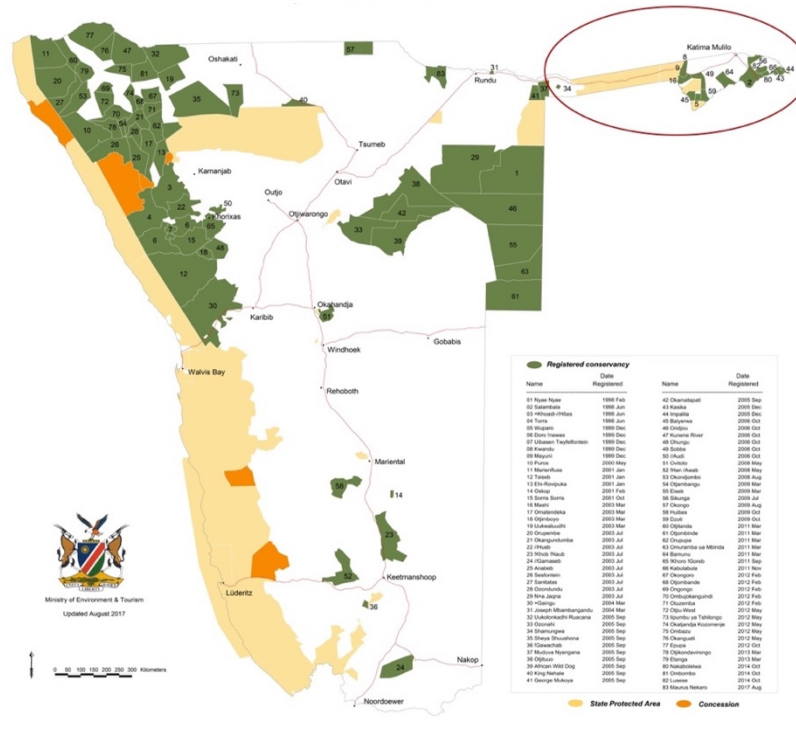


Figure 2: The Zambezi Region. The Zambezi Region is circled in red. Map from NACSO (2018).

Further, the Zambezi Region is rich with biodiversity, making it a high conservation priority. Zambezi has three national parks, Bwabwata, Mudumu, and Nkasa Rupara, as well as the Sobbe Wildlife Corridor. The Zambezi Region is also part of the Kavango Zambezi Transfrontier Conservation Area (KAZA TFCA), which lies in the Zambezi and Kavango river basins where Angola, Botswana, Namibia, Zambia and Zimbabwe meet (KAZA 2018). The KAZA allows the transboundary movement of species with the longest known migrations in Africa, like Burchell’s zebra covering a distance of 500km (Naidoo et al. 2016). It is also home to the largest contiguous African elephant population on the continent (IUCN SSC 2008) along with many other flora and fauna. As part of the KAZA TFCA, home to three national parks and important corridor nearby, human-wildlife interactions are high, accentuating the need for effective community based conservation strategies. Thus, making a study on wellbeing particularly relevant for the area.

3.2 Data Collection

This research relied on multiple qualitative methods and was supported by reviews of relevant academic and the above cited policy literatures. Primary methods included interviews and focus groups in the area of the Zambezi Region circled in red (see Figure 3). During this period, I lived at Sijwa, the IRDNC training base in Mayuni Conservancy. This allowed for flexible focus group scheduling and exposure to the conservancies and communities. Interviews were held with people closely affiliated with the conservancy, like game guards and members of the conservancy committee. Focus groups were used as a basis for reaching community members who were less directly involved with the conservancy, to ensure broader inclusion and discussion about the conservancy and wellbeing. Participation was voluntary, while ensuring the inclusion of both men and women. In addition to interviews, field notes were taken during participant observations at meetings (Bi-Annual Event Book Audits³) and when seeking to describe onsite details and activities for each conservancy and community visited.

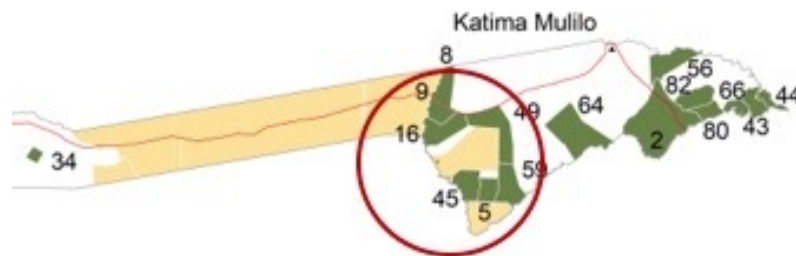


Figure 3: Interview Sites. The six conservancies where interviews took place are the green areas circled in red. Original map from NACSO (2018).

3.2.1 Interviews

Fifteen interviews took place across six conservancies, Sobbe, Kwandu, Wuparo, Balyerwa, Mashu and Mayuni (refer to Table 1), circled in red on Figure 3. These conservancies were chosen based on the presence of the SCP in these areas and the timing of the Bi-Annual

³ The Event Book Monitoring System is a tool developed by NACSO's Natural Resources Working Group. It enables game guards to monitor wildlife within communal conservancies. Through this tool events like poaching, 'problem animal' incidents with crops and livestock, and wildlife mortalities are monitored (Stuart-Hill et al. 2005).

Event Book Audit. Game guards and the conservancy committee gather for the Bi-Annual Audit, making it an opportune time to interview people closely affiliated with the conservancies. At each conservancy I was introduced by the IRDNC cluster coordinator and people were encouraged to participate in an interview if they wished. In addition to the open invitation for people to participate, the cluster coordinator suggested several people at each conservancy who would have the time to be interviewed while the Bi-Annual Audit was taking place. Participants ranged from game guards, field officers, committee members, chairperson, manager, treasurer, Mashi Crafts employee, and enterprise officer. The interviews were held outside of the conservancy office at each of the six conservancies and lasted anywhere between fifteen minutes to an hour and a half.

Table 1: Breakdown of Interview Participants

Conservancy	Number of people interviewed (N=16)
Sobbe	3
Kwandu	4
Balyerwa	1
Wuparo	2*
Mashi	3
Mayuni	3

*Joint interview. One interview held with two people.

Interviews were conducted by myself, with IRDNC cluster coordinator support nearby if assistance with translation was required. Interviews were conducted one-on-one, except at Wuparo, where there was a two-on-one interview with myself and two participants. I used an in-depth, semi-structured interview protocol (see Appendix A) designed to elicit detailed responses regarding perceptions of the conservancy, conservancy impacts on wellbeing, and wellbeing generally.

The protocol began by introducing myself and explaining my affiliation with the WWF and the purpose of the research. Once I received oral consent to conduct and audio record the interview, I proceeded with questions about the participant's role in the conservancy. These introductory questions were followed by more open-ended questions about the challenges and

benefits of the conservancy. Participants were then asked a set of questions that allowed them to describe any positive or negative impacts they thought the conservancy had on communities. Finally, participants were asked to describe life in Zambezi and the elements they considered to be most important to their wellbeing.

3.2.2 Focus Groups

Focus groups were confined to Mashi conservancy to minimize data collection costs and enable a deeper focus in an area where the SCP has focused its efforts. Mashi borders Mudumu National Park and has an important elephant corridor passing between the conservancy and state forest, making it a key conservation area and thus also a viable site for focus groups. In total, 5 groups were held at each of the five areas that make up Mashi: Ngonga, Namushasha, Lizauli, Sachona, and Lubuta (refer to Table 2). The cluster coordinator contacted the area representatives from each of the five areas in Mashi to arrange a time and place for the focus group. Area representatives were asked to let their communities know I would be coming and invite people to participate. Focus groups took place at each of the villages *Kutha* or meeting place. The *Kutha* is the traditional governing body in an area. There is a building in each area where the *Kutha* meets and community gatherings are held. The focus groups consisted of two to four people and were a mix of male, female, younger and older participants. The focus groups were made up of community members, area representatives, and in one instance, the *Induna* (the headman of the area) and other local authorities.

Table 2: Breakdown of Focus Group Participants

Area	Number of Participants (N=16)
Namushasha	4*
Sachona	3
Lizauli	3
Lubuta	2
Ngonga	4

*This focus group was held with members of the traditional authority.

As with interviews, focus groups were conducted by myself, with IRDNC support nearby. Initial introductions were facilitated by the cluster coordinator, who would then step away to avoid influencing perspectives on the conservancy program. The introduction was similar to that used for interviews. Appropriate introductions were carried out in line with Lozi customs during the Namushasha focus group with the traditional authority. As these were group meetings, they began with individual introductions, how long participants had lived in the area, etc. The focus groups followed a more open structure, asking general questions about life in Zambezi such as: what is life like in the dry season and the rainy season, and asking about the challenges and benefits of each (See Appendix B for full schedule). This was followed by questions about the conservancy programme and its impact on wellbeing. This structure allowed participants to articulate what they considered important elements of wellbeing, and then consider the implications of the programme on these elements.

Throughout interviews and focus groups, wording was adjusted as necessary with the help of the cluster coordinators. For instance, the term “community wellbeing” was not well understood by participants, resulting in a change to “living a good life”.

3.3 Analysis

Analysis was done in two rounds. The first round took place upon return to the WWF office in Windhoek. Using the Audionote program I transcribed the audio from all five focus groups and several of the interviews. Not all of the interviews could be transcribed in the first round due to the quick turnaround time needed to return to the study site. Returning to the study site allowed me to validate my findings through member checking.

Once transcribed, the transcriptions were thematically coded. Coding was done in multiple rounds. In the preliminary round open-coding without pre-determined wellbeing dimensions was done based on my research question “What do you need to live a good life here?”. Outstanding dimensions related to this question were identified and used to structure the second round of coding. These initial themes or well being constructs included such things as education and employment. The second round was focused on sub-themes and narratives that characterized participants’ experiences of the broader wellbeing dimensions identified in the first round. Reoccurring wellbeing themes were tracked in an excel spreadsheet.

I returned to Mashi conservancy to validate my findings through member checking. I held a meeting at the Mashi conservancy office where the entire Mashi conservancy committee, game guards, area representatives and other conservancy employees were in attendance. I read through each of the wellbeing dimensions and sub themes identified in my analysis. Going through the list of wellbeing dimensions and my interpretations of each ensured the wording made sense to everyone and gave the attendees an opportunity to remove or add to the list. Only minor wording changes were made.

The second round of analysis took place upon return from the field; remaining interviews were transcribed and coded using the themes from the initial round of coding. All interviews and focus groups were thematically coded again. In addition, I counted the number of focus groups and interviews in which the identified wellbeing themes were discussed⁴.

⁴ A second purpose of this work not reported here was the development of a pilot instrument for the rapid collection of wellbeing data based on interview themes. Prototypes of this tool were piloted at Mashi conservancy during my return to the study site to validate my findings.

4. Results: Wellbeing Defined

Through focus groups and interviews a local scale characterization of wellbeing was established. Ten interrelated dimensions of wellbeing emerged: Health, water, information and news, education, natural resources, family, agriculture, employment, wildlife and community. The italics beside each of the main dimensions (see Table 3) represent the way in which study participants talked about that dimension. As shown in Table 3, all dimensions, except for two, health and news and information, were mentioned in all five focus groups. Three dimensions were discussed consistently across all fifteen interviews and five focus groups. These include community, agriculture, and employment; with agriculture, family, natural resources, and education as less frequently mentioned. Water, information and news, and health were mentioned least often. As with all qualitative work of this kind, however, I do not mean to attribute significance to these differences. These are meant to be instructive as main themes only due to the level of detail and duration in which participants spoke about them. For instance, health was referenced in three of the twenty interviews and focus groups, but participants emphasized the importance they felt it had in relation to their ability to ‘live a good life’.

In what follows, each of these dimensions are elaborated as together they comprise what people considered vital to wellbeing broadly (e.g., not as a function of the conservancy programme). The dimensions that participants clearly identified as being impacted by the programme will be discussed under the corresponding sections.

Table 3: Frequency of Wellbeing Dimensions

Dimension of Wellbeing	Interviews (N=15)	Focus Groups (N=5)	Total (N=20)
Health: <i>proximity to clinic</i>	2	1	3
Water: <i>near and safe water source</i>	7	5	12
Information and News: <i>staying connected</i>	10	2	12
Education: <i>possibility of new and different futures</i>	11	5	16
Natural Resources: <i>small scale security</i>	12	5	17
Family: <i>supporting kin</i>	12	5	17
Agriculture: <i>a way of life</i>	13	5	18
Employment: <i>alternate incomes</i>	15	5	20
Wildlife: <i>as wealth and wonder</i>	15	5	20
Community: <i>cohesion and cooperation</i>	15	5	20

Table 3: This table illustrates the number of focus groups and interviews in which each dimension was discussed.

Health: Proximity to clinic

Participants spoke of the importance of health, specifically access to healthcare. Health was talked about in the physical sense (opposed to mental, emotional, etc.). Physical health is primary to most development and wellbeing indices. It can be found in the HDI and is a key element of the Health Related Quality of Life (HRQOL) concept used for wellbeing work in the medical field (Costanza et al. 2007). Being physically healthy is important for participating in day to day activities like walking to fetch water, working, and supporting your family. If you or a family member is not well, it is important to have healthcare nearby:

“One of the most important things to me is we are having the clinics here, if my family gets sick, I can take him or her there to the clinic to get the medicine.” (Sachona Focus Group, Mashi Conservancy)

Living in close proximity to a clinic was noted as very important. With limited transportation available, the majority of people travel by foot. This is problematic if someone is in critical condition and does not live near a clinic. Namibia’s population is sparsely distributed across the country so many communities lack permanent health facilities. There are outreach services and mobile clinics that try to mitigate this problem (MoHSS 2014). Furthermore, the dimensions health, education, and water were frequently talked about together, specifically proximity to these resources. For example:

“Here, we stay nearby the clinic, that’s why we like to stay here. And to the school, our children are nearby the school. Water, water is valuable, so we cannot go far away from those things. We must live nearby water and the clinic, even the school. Our children will not walk the long distance.” (Wuparo Conservancy Interview)

The reason for this grouping may be because these are the three amenities people often had to walk far distances to reach. Whereas other dimensions, like family and community were centered around interactions and the overall state of people. These dimensions will be explained more fully in the following sections.

Water: Near and safe water source

In the Zambezi Region water is essential for daily activities such as: cooking, drinking, bathing, washing, and watering livestock. Unsurprisingly, proximity to water was described as very important to people and clearly enabled a better and largely easier life. Access to transportation is limited, thus a short walking distance to a water source was ideal. Safety of the water source was an additionally important factor. For this reason, participants preferred living nearer a borehole than river.

“It’s good to stay very far from the river because we get water from the borehole. If we swim, or wash in the river, or bathe in the river, it’s not safe. Because a lot of things come out from the river. The river water is not clean. So our kids they can get sick from dysentery and a lot of diseases. So we see that to stay here, it’s good. All you need to do is fetch at the borehole and then you bathe.” (Sachona Focus Group, Mashi Conservancy)

Access to water is a challenge for many Southern African countries which have areas of water scarcity and water abundance, rarely with equal dispersion (SADC 2005). This is very evident in Namibia, which is an extremely arid country with the exception of the Zambezi Region. The most recent data from Namibia’s Ministry of Health and Social Services shows only 34.9% of Namibia’s rural population have drinking water on the household premises. While 34.9% of the rural population travel under 30 minutes roundtrip, and 28.6% travel longer than 30 minutes for water (MoHSS 2014).

As the quote highlights, even participants that lived near the river still faced challenges with water. Poor sanitation, paired with floods from the heavy rainfall unique to the Zambezi Region, creates high risk for contracting waterborne diseases. Waterborne diseases like diarrhea are prevalent in Namibia. Following HIV/AIDS, diarrheal diseases are the second leading cause of death and disability of all ages in the country (IHME 2016). According to a demographic and health survey, only 7.3% of the rural population treats their drinking water in some way (i.e. boiling etc.) prior to drinking (MoHSS 2014).

Declining supplies of safe drinking water affects more than 40% of people around the world and is projected to increase with rising global temperatures. Access to safe drinking water is recognized as essential to human security and has been made a priority worldwide. Clean Water and Sanitation is the sixth of the UNDPs seventeen Sustainable Development Goals (UNDP 2018).

Not only was the river described as a risk to human health through disease, but a danger to people and livestock because of wildlife:

“We have a lot of elephants, hippos, and crocodiles here. We are not having a better life here through water [living by the river].”

(Mashi Conservancy Interview)

This quote from Mashi is reiterated in the findings of the Annual Conservancy Audit Report. According to the report, the most troublesome animals in Mashi conservancy were elephant and crocodile. The two most common types of damage caused by wildlife were livestock attacks and crop damage (Conservancy Audit Report 2016). Similar cases of human-wildlife conflict related to shared water resources have been reported all over the world. For example, a study on human-wildlife conflict in Mozambique showed that over 27 months 265 people were reported killed, and another 82 injured by wildlife. Crocodiles were responsible for 66% of the deaths, more than the other species combined. The attacks were concentrated along the Zambezi River and happened when people were collecting water or fishing (Dunham et al. 2010).

In sum, water is critical for daily life, and access to water safe from potential human-wildlife conflict and waterborne diseases was described as an important dimension of wellbeing.

Natural Resources: Small scale security

Access to natural resources, especially devil's claw (devil's claw is harvested on a larger scale for export to other countries as a treatment for arthritis pain), wood, fish, and reeds are important for building and maintaining homes, food, and income. Participants did not include wildlife when speaking about natural resources, rather, wildlife was talked about as a separate category which will be discussed later on.

The following quote highlights the different kinds of natural resources used, as well as the overarching importance of natural resources to other wellbeing themes like education and family. When asked about the benefits and challenges of living in Namushasha, the participant responded:

“Elephants and lions damage crops and threaten way of life and peoples lives. This is the disadvantage. But the advantages are things like devil's claw, which earns money, money is used to send kids to school. People use natural resources like grass and firewood to sell and make money to support family.”
(Namushasha Focus Group, Mashi Conservancy)

This quote emphasizes the importance of human-nature interactions that allow for the cultivation of other material goods, like income, housing, and food. Studies have shown that a large number of rural households are dependent on natural resources for a variety of basic living requirements. Shackleton et al (2001) found that across the majority of rural livelihood studies to date, the most commonly used natural resources are wood, wild fruits, herbs, medicinal plants, grazing for livestock, thatch, clay and sand. This remains true to my study, where half of the resources on this list were identified by interview and focus group participants.

Research in the region suggests that poorer households in rural areas use a greater diversity of natural resources than more ‘well off’ households. This can be attributed to a lack of rural livelihood alternatives apart from agriculture (Shackleton et al. 2001). This also came up in focus groups and interviews, when participants described the seasonal importance of natural resources. Once the season for ploughing and harvesting crops has ended, many people depend on natural resources as their source of income:

“[People] depend on fishing, cutting grass and reeds for themselves to sell to get their lives going until it’s another [ploughing] season again.”

(Kwandu Conservancy, Interview)

Natural resources and access to these are closely associated with the conservancy programme itself. Though different than the communal conservancies, community forests are part of the greater CBNRM programme. Like the communal conservancies as concerns wildlife, community forest management is guided by the principles of sustainable management and community benefit sharing (NACSO 2018). People thus spoke positively about the role community forests have played in protecting natural resources.

Agriculture: A way of life

The importance of agriculture was pervasively mentioned and acknowledged. As one interviewee clearly summarized: *“Agriculture is culture”* (Mashi Conservancy Interviewee). With 70% of Namibians depending on agriculture (MAWF 2015), subsistence and small scale

livestock (cattle) and mixed crop (maize, sorghum, and millet) farming shape everyday life in Zambezi. During the harvesting season, people move from their villages to be closer to their fields and men often travel with cattle herds.

For a sector that is so embedded in daily life and relied on as the primary source of livelihood, it is extremely vulnerable to shocks and stressors. The former include, in the social-ecological systems (SES) literature, drivers of rapid and unanticipated change, such as that caused by a natural disaster. The latter, are slower, ongoing trends, such as rising temperatures (Adger 2006). Shocks and stressors can have negative environmental impacts, as well as social ones (Kaplan-Hallam et al. 2017). Namibia is currently emerging from a four-year drought, thought to be the worst in decades. The drought greatly impacted food security, water scarcity, poor livestock conditions and crop failure (MAWF 2015). A poor harvest means limited income and food to carry a family through to the next season. These kinds of events are expected to escalate with climate change (WWF 2018).

Agriculture was also frequently referenced in relation to the conservancy programme. In addition to droughts and floods, wildlife constitutes the single largest shock to agriculture. Many participants told stories of their cattle being killed by lions and crocodiles, and fields destroyed by elephants. In the words of one focus group member:

“When it is time for cultivating, the wild animals disturb our fields. Unless, we go there, sleep there, stay there. It’s a challenge to us.”

(Lizauli Focus Group, Mashi Conservancy).

The cost of conserving wildlife is borne disproportionately to farmers and local people living closest to wildlife (Woodroffe et al. 2005). The risk of wildlife damage to crops and livestock provides incentives for rural residents to kill wildlife in defense of their livelihood. A popular response to reduce the burden and consequences of living with wildlife is financial compensation for damage caused by wildlife. Compensation can range from a fraction of the value of lost crops and livestock, to full market value. Compensation has been used by conservation initiatives worldwide, like the Defenders of Wildlife compensation fund for damages caused by wolves near Yellowstone National Park (Woodroffe et al. 2005). However,

compensation should not be relied on as the sole mitigation measure, as it does not actually prevent damage caused by wildlife. Proactive approaches are also necessary.

The conservancy programme has taken many proactive measures to mitigate human wildlife conflict including chili bombs, tin cans on fences, lion-proof fences, identifying wildlife corridors, and implementing game guards. Compensation is also available for lost crops and livestock, though often described as insufficient by conservancy employees:

Interviewee: [If] the elephants go into the field... big field, where they grow the maize meal, we only compensate it with 800 [Namibian dollars (NAD)] only.

Interviewer: That's not enough compensation?

Interviewee: Yes, it is a challenge. They [farmers] get angry because they have big farms, but they only get little. And if a cow got caught by crocodiles, we give only 1.5 [1,500 NAD]. So people complain that cow is very expensive, they are earning about 5,000 [NAD] but we are only giving 1.5. (Mayuni Conservancy, Interview)

The participants that expressed the least satisfaction with compensation were the conservancy employees, not the community members (though some did share their frustrations). This may be because the conservancy employees are the people dealing on a regular basis with human-wildlife conflict and the grievances these generate. However, this sentiment was not shared by all. In some cases, people also recognized that wildlife damage is not the responsibility of the conservancy, but is a long-standing problem.

"I think the conservancy has made life easier for the people because long ago, when the elephants came into their fields, they were not paid. But now it is a little bit better because they are given compensation."

(Mayuni Conservancy, Interview)

As described above, compensation must be paired with proactive measures. Overall, the overriding incentive behind the design of Namibia's communal conservancy programme is the desire to have communities coexist with wildlife. Local people are given agency over wildlife and the benefits derived from their management. However, the success of the programme on

wildlife recovery means people are living with more wildlife than ever, so proactive human-wildlife conflict approaches are important. One example that has been particularly effective in the Zambezi Region is lion proof fences. In the East of the Zambezi Region predation on cattle by lions increased significantly in 2012/2013. A total of 135 cattle were killed by lions, and in response, 17 lions were killed by people (Hanssen et al. 2017). This left one pride of lions culled, which is devastating for both wildlife and tourism. This spearheaded the Lion-Farmer Conflict Mitigation Project led by the Kwando Carnivore Project. Lion-proof kraals (fenced in areas), were designed and tested at two areas, with a further 27 built shortly after. There was an immediate reduction in the number of cattle killed from 135 in 2012/2013, down to 61 in 2014 and three lions killed by people. The project has spread to other areas in the region and continues to reduce the number of lions and cattle lost to human-wildlife conflict (Hanssen et al. 2017).

From this section it is clear that agriculture impacts wellbeing in a number of ways. Agriculture can produce tangible material benefits important to wellbeing, like food and income. As well as intangible contributions to wellbeing, like shaping daily life. It also has the potential to be very positive for wellbeing in the case of a good harvest, or detrimental from shocks such as drought and wildlife.

Employment: Alternate incomes

“Employment raises the standard of living community-wide.”

(Namushasha Focus Group, Mashi Conservancy)

The Zambezi region faces an unemployment rate of 48% (Namibia Statistics Agency 2016). This proportion was echoed across all twenty interviews and focus groups. Having a reliable source of income was described as integral to wellbeing. As this quote shows, employment is necessary for other wellbeing dimensions, in this example, family and education:

“I think the things people are happy to live with is employment. If they are employed they feel that they are much, much better. Because they get

something at the end of the month where they can buy food and pay for school fees for their children.”

(Mashi Conservancy, Interview)

Explained earlier under the dimensions agriculture and natural resources, employment in the Zambezi Region varies seasonally. Agriculture is the primary livelihood source, with harvesting and ploughing taking place during the rainy season. During the dry season people rely on selling natural resources, like wood and reeds. This quote stresses the seasonality of work in Zambezi:

“When the rainy season is starting we cut some poles, build some huts [near the fields to harvest], small huts like that one. For the dry season, we go to the river again, we start catching fish. Right now [dry season] we are not working, we’re just at home. We’re helping ourselves by cutting poles [reeds] and putting them on the road, maybe some people come that can buy our things.”

(Ngonga Focus Group, Mashi Conservancy)

Some small businesses operate year round, these include (but are not limited to) brick making, small gardens, and shops selling school supplies, non-perishable food items and alcohol. Participants expressed the need to diversify livelihood sources for more work opportunities, as well as lessening the shock of a bad harvest. Participants shared their ideas of possible training and skills development opportunities for things like gardening, sewing, bread making, crafts (weaving and carving) and carpentry:

“I think what people should do is make projects where they can earn something. Like gardening, where they can grow vegetables. And even carving, basket weaving. If they are not employed it will help them get something.”

(Mashi Conservancy, Interview)

“Workshops and training would be a big help. I think the other projects that we did not mention is carpentry. Because we can see most of the lodges, when they need tables...furniture, they go to Katima, transport cost is high. So if we could make our own, that would be easier for them to get those things here.”

(Mashi Conservancy, Interview)

This desire for income diversification supports claims made by the livelihoods literature, which suggest rural households in sub-Saharan Africa typically adopt income diversification as a survival strategy (Neudert et al. 2015). As the quotes in this section and others (see natural resources and agriculture) bring to light, work is very seasonal in the Zambezi Region. Seasonality of work means continuous household needs are mismatched with uneven income flows throughout the year (Ellis 1998).

A study done in the Mahafaly region of Madagascar showed that self-reported wellbeing of local residents was positively associated with income diversification. Households that listed three or four income sources reported being better than those who had only one or two sources (Neudart et al. 2015). This is likely because more income sources resulted in greater human security. Furthermore, diversified income opportunities are a means of survival, but they can also offer diversification of choice and opportunity (Ellis 1998).

When asked about the conservancy's impact on the community, every person talked about employment as a positive outcome of the programme. Many interview participants who were employed by the conservancy talked about the influence the position had on their overall wellbeing. For example:

"It's better. Because I can have my own budget and everything for my family. In the previous days, ahh, I couldn't make it because I could not get any income. Now I'm depending on the conservancy. Without it, I'm nothing."

(Kwandu Conservancy, Interview)

Whether employed directly by the conservancy or a joint venture operation (a lodge or campsite), conservancies were associated with employment opportunities. Even if a person did not have a position with the conservancy themselves, they still recognized the indirect benefits they were receiving from members of their support system who were conservancy employed. This is illustrated in the following quotes:

"The changes are much better since we got the conservancy. Because a lot of our families, our brothers, sisters, they work in the conservancy. And then we are getting benefits. We get financial benefit."

(Mashi Conservancy, Interview)

“If one person is employed by the lodge, there are people at the village that are attached to that person. So the support starts linking the lodge to the employee, to the family of that person.”

(Mayuni Conservancy, Interview)

Overall, the conservancy was positively associated with economic livelihood and the provisioning of additional economic security was readily acknowledged.

Education: Possibility of new and different futures

Participants equated education with improved employment opportunities and living a better life in the future. This view is held globally, with education being one of the three core dimensions of the HDI and the fourth of the UNDP’s Sustainable Development Goals (UNDP 2018). Participants voiced the importance of children attending school from primary through to tertiary education. Living near a school so children do not have to walk far distances was also important:

“I think the other thing is education. The kids, they are taken to schools, they feel that they will be having a good future because they will know how to read and write and do other things for their own...not just depending on their parents. I think education is very, very important in the community.”

(Mashi Conservancy, Interview)

Like many countries that have a colonial history, Namibia was confronted with much inequality upon independence in 1990. This included unequal and limited access to quality education (Biraimah 2016). Since then, education has become a national priority. In 2015, Namibia’s President stated “Education remains the greatest equalizer in Namibia” at the State of the Nation Address (April 2015). In 2013 school fees were removed for primary education in the country. In 2016, the same was applied to secondary education (UNICEF 2018). However, families are still responsible for the cost of uniforms, books, school supplies, hostels (in rural

areas), and school improvements. Quality of education still varies regionally and rural students may have to travel far distances to attend school (Biraimah 2016).

Education was, however, viewed as having a clear connection to the conservancy programme. Both focus group and interview participants described how the income generated by the conservancy was used to help pay for school fees not covered by the government, classroom supplies, and scholarships for university students.

“We give to our two schools. We have a scholarship, when the child is passing with high marks, we support them. When the parents are giving money to them for university, we support them halfway.”

(Mayuni Conservancy, Interview)

To summarize, the value placed on education by the Namibian government and other international groups was reflected in my conversations with study participants.

Information and News: Staying connected

Participants, particularly the younger focus group members, expressed a desire to have access to news and information, which was seen as an important means to other ends. For example, frustration concerning missed job opportunities because of inaccessible news and information, was invoked in focus groups.

“We only get information through the radio. Or if you go to Katima [about an hour and a half by car] and buy a newspaper. We get the information that is already finished.”

(Sachona Focus Group, Mashi Conservancy)

Living near government buildings was considered an advantage. For instance, living near the Ministry of Agriculture office meant hearing about training opportunities and having information more readily available. When asked about the benefits of living in Sachona, a focus group member responded: *“We have the agriculture station here where they can give us advice for farming.”* (Sachona Focus Group). Whereas a community member from within the same

conservancy but living further away from the Ministry of Agriculture office stated: *“Yeah, they get quick information [referring to another area within the conservancy]. We want the office for agriculture here.” (Ngonga Focus Group).*

Similarly, ease of communication between conservancy employees and conservancy members was discussed, especially during interviews with conservancy employees. Quick and reliable information was viewed as an integral part of conservancy operations and maintaining a positive relationship with conservancy members. For example, each community within a conservancy has an Area Representative who acts as the intermediary between the community and conservancy. Community members may reach out to the Area Representative if they have a problem with wildlife disturbing their fields or a question about the conservancy, but barriers to that access persist. In the following quote, an Area Representative indicates that something as simple as reliable phone networks can be key:

“Sometimes he or she is trying to contact my phone. Now that person will think “This Area Rep, he doesn’t want to take my call, or doesn’t want to reply.” It’s only the network and the power which is the problem. And it’s what is cutting the communication. Also, I can quickly receive information from a member [within Area Representative’s community], but to communicate it with the office on that side (motioning far away from community), it’s the same story.”

(Ngonga Focus Group, Mashi Conservancy)

These quotes show us that ease of communication and access to information are important because of their connection to other dimensions of wellbeing. In the first quote, we see that access to information is a gateway to new employment opportunities, the importance of which was analyzed in the preceding section. With regards to the conservancy programme, communication is essential for people like the area representatives to do their job. It is also important for maintaining community cohesion and trust (details below) in those who are primarily responsible for representing their interests to the conservancy.

Family: Supporting kin

Family was mentioned across seventeen of the twenty focus groups and interviews, and is arguably one of the most important dimensions of wellbeing in this case study. It is also deeply

interconnected to the other dimensions and often shapes their relative importance. Supporting your family and having a family that supports you in return is vital to life in Zambezi. Within familial and social networks, reciprocity and security are key:

“A good thing is having children. Even though my parents passed away, I’m living with my sisters, my younger sisters. And having six children is good to me because they will help me in the future.”

(Mayuni Conservancy, Interview)

“It’s good to live with friends and family, because sometimes if you don’t have anything, they can assist you with what you don’t have.”

(Kwandu Conservancy, Interview)

Supporting each other as a family unit can take many forms. For example, working as a family enables diverse income options. The type of work men and women have access to varies, and having family members in different labour markets helps support family through the seasonal fluxes of work opportunities (Ellis 1998; Greiner 2011).

Another key aspect of family support is child fostering. About one quarter (25.8%) of children in Namibia live with both parents (Ruiz-Casares 2010), making childcare the responsibility of extended kin networks. This happens for several reasons, one being a parent may have multiple partners and children in different villages. Another reason is children can lose parents to illness, like HIV/AIDS. In other instances, children have parents who have moved to the city for work opportunities and are left in the care of rural family members. In addition, children can be moved to stay with family in another community located closer to a school (Ruiz-Casares 2010; Greiner 2011).

A study done in Namibia’s capital city, Windhoek, showed that urban-rural family support was not only a movement of people and income, but a transfer of goods (Frayne 2004). Urban dwelling family members bring back goods from the city that can not be purchased in rural areas. In return, the rural family members give the urban family member meat to take with them to the city, where meat is expensive and inaccessible for many (Frayne 2004).

Studies from Namibia and elsewhere have shown that family members who have migrated to urban centres for opportunities related to employment or education usually maintain

a strong rural family connection. This is not restricted to rural out-migrants, families who have lived in urban centres for generations have been observed maintaining their rural connections (Ellis 1998; Greiner 2011). This sense of responsibility and desire to remain connected to family was evident in interview and focus groups conversations:

“I don’t feel good or comfortable when I am very far from my family. Because if my sibling or someone gets sick, I have to attend. And it’s challenging if I am away, but I don’t need to be told if I am here.”

(Sachona Focus Group, Mashi Conservancy)

In addition to feeling responsible for family and supporting each other financially, participants valued time spent with family. Ethnographic works have shown that Asian, Latin American, and African cultures place greater value on collectivism and the welfare of their family or group (Myers 2003). Many daily activities pertinent to life in Zambezi are carried out with family members and that is something participants attributed to living a good life:

“I want to stay in Lizauli because I live with my family. We make some fields, we plough, we share the food, we go to church together. Everything that we do, we have to discuss it and do it as a family.”

(Lizauli Focus Group, Mashi Conservancy)

This sense of responsibility to family drives the other wellbeing themes. For example, agriculture, employment, and natural resources are all means of generating income used to support family. Other themes, like access to clean water and clinics ensure family members have the basic services they need.

The conservancy programme was positively associated with helping individuals support their family. The benefits from the conservancy, like direct cash payments, meat from trophy hunting, employment, and assistance with school fees were all referenced across interviews and focus groups.

“The conservancy is good to us. Because many people they are getting jobs here at the conservancy. And at the end of the month they get money. They buy whatever they want for their families.”

(Lizauli Focus Group, Mashi Conservancy)

Community: Cohesion and cooperation

From the interviews and focus groups it was evident that working together and resolving conflict as a community is an important aspect of life in Zambezi. Decisions impacting the community are determined by the ‘headman’ or traditional authority. Each of the main ethnic groups in Namibia is overseen by a hereditary chief. The villages within that ethnic group are under the authority of headmen, who are elected by the people (Tvedten 2002). A few participants expressed frustration with needing approval from the traditional authority before undertaking any type of business venture or project, while others credited this structure with community cohesiveness and keeping the best interests of the community at the forefront.

“We have a Headman that takes care of us. If we want to ask for something, we have to go through the Headman for everything. [...] If something is wrong in the community the Headman will call the people all together to come and share about that and talk about it. Everyone has to talk about how they feel.”

(Kwandu Conservancy, Interview)

This sense of community goes beyond decision making and extends to sharing land, water and other natural resources.

“What’s important for a good community is to share resources. You know, our community shares the same grazing area. You can’t say “This one belongs to that person, your cattle cannot go there.” They share the same grazing area and they share the same water points for their animals. They share resources. In Zambezi...Caprivi, we share.”

(Mayuni Conservancy, Interview)

Conservancies being managed by the community, for the community, align with this theme and interviews with conservancy employees also reflected the desire to honour community:

“The more you do tangible things that people see, the longer you stay [in your conservancy position]. But when you do things that the people don’t want...you’ll be there for a minute. [...] The most important person is not me; the most important people are the people that put me in this position.”

(Kwandu Conservancy, Interview)

“Even the bank statement, we make some copies. And each area rep will make some meetings [with the community they represent] and say “Now in our account there is this and this”. Because it is not our office money, it is their money.”

(Mayuni Conservancy, Interview)

Conservancies require community cooperation in order for community members to benefit from the programme. These benefits, like community-wide projects, meat, and direct cash payments, have been mentioned under other themes. Acting in ways that only benefit the individual rather than the community was talked about negatively. For example, when people spoke about poaching they stressed community-wide impacts.

“Once you kill an elephant, that elephant is one which is bringing money into the conservancy, the elephant won’t pull in money again because of that. Also, the MET [Ministry of Environment and Tourism] will reduce our quotas [professional hunting], because the poaching is more and more. So everyone will lose.”

(Ngonga Focus Group, Mashi Conservancy)

On another occasion, a focus group participant conveyed his frustration with knowing which lion was taking his cattle, but not being able to shoot it because of the conservancy agreement. Yet, when asked if this made him less supportive of the conservancy he refused to answer because answering as an individual would seem to deny what matters most is the community perspective.

“We have agreed with others that we must form a conservancy. The answer that I can give you is that I can’t say I don’t want it [the conservancy], even if I don’t want it. Because it is not mine alone. It is for everyone.”

(Lubuta Focus Group, Mashi Conservancy)

These quotes relate to the point made under Family: Supporting kin is about the value placed on the collective welfare of the group. When a conservancy is able to deliver community benefits like electricity or support to churches and schools, acting against the conservancy would be acting against the community. As the quotes above show, poaching was viewed as selfish and taking away from the welfare of others.

Wildlife: As wealth and wonder...*It's only those elephants*

Explained earlier in the methods section (see page 15), the Zambezi region is home to three national parks, important wildlife corridors, and part of the KAZA TFCA, making it a popular region for wildlife. Living with wildlife undoubtedly comes with its challenges, which were touched on under the themes water (see page 23) and agriculture (see page 26). Wildlife can destroy crops and kill livestock, threatening people and their livelihood. Many participants shared their experiences with human-wildlife conflict, represented in the quotes in these findings. The following quote highlights the tenuous relationship between people and wildlife.

Focus group participant: [N]ow the conservancy has created employment. Like now there are more people working in the conservancy in our area. So, it's really good. It's only those elephants. Apart from elephant, then we are sorted. [...] It's seasonal, about the elephants. When people are growing their crops, it's when the elephants come.

Interviewer: Would you say most people here think conservation is a good thing or a bad thing?

Focus group participant: Two ways: some people, the moment that they harvest a little, they say conservancy is bad. The moment they receive meat, conservancy is good.

(Sachona Focus Group, Mashi Conservancy)

This pithy quote presents a double-edged sword that is most conversations about wildlife. It highlights the fragility of coexisting with wildlife and just how important the benefits generated from the conservancy programme are. In this quote the specific benefit the participant is referring to is meat from trophy hunting. A recent study of 160 rural residents from 32 of

Namibia's communal conservancies showed that 91% of participants were not in favour of a trophy hunting ban, and only 11% of respondents would support wildlife on communal lands if a ban was enacted (Angula et al. 2018). The heart of the matter are the very tangible and important benefits that community members receive in exchange for commitment to sustainable wildlife management.

The benefits that focus group and interview participants discussed most often included meat from trophy hunting, employment opportunities, and community projects like bringing electricity to a village or investing in local schools.

“Our family, they got employment with the conservancy, so we are happy about that. And also we get the benefits, like money they give us at the end of the year. And also the meat. All those things. Also they give money to our schools and our churches. So we rely on the conservancy.”

(Sachona Focus Group, Mashi Conservancy)

Interviewee: We want the elephants to come, so that we get their benefits. One elephant is one hundred and fifty thousand [Namibian dollars].

Interviewer: So people in Choi and Kapako all want elephants to come?

Interviewee: Yes, yes, everyone wants elephants to come because big money. They know that when the elephants are arriving, they are going to find more money. They are benefits now. We like our conservancy.

(Mayuni Conservancy, Interview)

Big money from elephants is generated through trophy hunting and tourism. This income helps pay for conservancy operation costs and the remainder is distributed as a benefit. Each conservancy can take its own approach to benefit distribution. One conservancy may opt to divide the money equally and give each conservancy member cash, while another will use the money for a community project. Similarly, the distribution of meat from trophy hunting varies depending on the conservancy and the size of the animal. Conservancies comprise several communities, so one approach is to rotate which community receives meat. Material benefits are undeniably important, but participants also frequently spoke about the existence value of wildlife, especially with regards to future generations and the anticipation that they too would

experience wildlife. They wanted their children to learn about wild animals by seeing them “with their own eyes”.

“But life, it’s good to live with animals...predators and everything. If my young daughter or son doesn’t know what a lion is, during the day you can see the lion cross the road and you can say “This is a lion.” And that’s good.”

(Kwandu Conservancy, Interview)

Participants spoke about wanting future generations to continue benefitting from wildlife:

“We are taking care of the wild animals for the future generations. For them to know them, to know this is a zebra. I don’t want to have to travel other places to see the Zebra. Wildlife is for the future generation also, to use as a resource.”

(Lubuta Focus Group, Mashi Conservancy)

These quotes may be surprising to some, as study participants have clearly articulated the challenges of living with wildlife time and time again. However, most of the participants that expressed these frustrations also valued the existence of these species. Similar findings resulted from a study in Botswana on perceptions of elephants. Participants were asked if they believed elephants caused damage and 83% responded yes. When asked if they liked seeing elephants in their natural habitat, a total of 90% of respondents indicated that they do like seeing elephants. Respondents cited reasons like ecosystem importance, the species being a part of Botswana’s natural heritage, and even a love for elephants (Adams et al. 2017). This underscores the complexity of human-wildlife relationships.

To summarize, wildlife is critical to wellbeing. Wildlife can be detrimental to wellbeing through human-wildlife conflict, but it also has the potential to deliver many tangible (meat, income, job creation through tourism, etc.) and intangible (existence value, a wild future for their children) benefits that greatly enhance living well.

5. Discussion

Wellbeing is seemingly a difficult and multi-dimensional construct. But in the eyes of those living in the Zambezi Region, it is also remarkably prosaic and is comprised of that which most of us can understand and endorse. Further, the results shed light on two important claims in studies of wellbeing: that wellbeing might be poorly represented by global indices, and that wellbeing indices do not address local realities.

First, if we consider the ten dimensions of wellbeing that emerged from the focus groups and interviews, it is apparent they are inclusive of many well-explored wellbeing components. For example, access to education and information are important for increasing opportunities available to people, which is core to Sen's capability approach and the HDI (Sen 2005; HDR UNDP 2018). Employment, agriculture, natural resources, water, and health are all key components of human security as defined by the HDRs Human Security Approach (HDR UNDP 2018). And finally, community, family, and wildlife are the dimensions underrepresented in well-known indices, but can still be found in some. For example, wildlife can be associated with the GNH index's pillar "environmental conservation" and community with the pillars "preservation and promotion of culture" and "good governance" (WHR 2018).

These three dimensions are likely underrepresented because they are more intangible in nature compared to the others, with less data readily available. For example, accessing data regarding the number of people attending primary school is easier than evaluating a person's relationship with their family. This is reminiscent of the wellbeing literature that recognizes easily quantifiable objective social and economic indicators are limited and a broader suite are needed (McGregor 2004; Costanza et al. 2007; Wiseman & Brasher 2008; Armitage et al. 2012). Measuring how people perceive their community, social networks, and connections to nature are only recently beginning to emerge in wellbeing tools. For example, the OECDs Better Life Index includes dimensions like community, life satisfaction, and environment (OECD 2011). Overall, the categories of wellbeing suggested by international scale indices (i.e. GDP, HDI, the Human Security Index etc.) do mirror the overarching wellbeing concerns voiced by the participants in this study.

Second, although the wellbeing dimensions identified by the study participants are reflected in international indices, larger components of wellbeing only have meaning when

described in local vernacular. Also, local interpretation of what meeting such definitions or objectives might look like is critical. It is the way these categories are elaborated that make them useful at the local scale. This reflects the concerns voiced by scholars that global indices are too broad and not specific enough to render them useful (Gasper 2002; Alkire 2003). Take, for example, water as fundamental to wellbeing. The indicator or relevance is not, for instance, quantity of flow. Instead, and locally, water is about wildlife, accessibility, and sanitation. People who lived near the river faced challenges with wildlife and health concerns. Whereas participants living near a borehole did not face these challenges, rather they spoke about being grateful for having accessible clean and safe water in their village. Although these two experiences are very different, they can be aggregated or 'scaled up' to a common dimension, water.

Further, while the dimensions of wellbeing referenced here may be commensurate with global indices, the weight given can have very different meanings in relatively proximate communities. With the case of water, a community with a borehole would likely prioritize other wellbeing dimensions than a community without a borehole. As discussed earlier, many well-intentioned conservation initiatives have failed to deliver possible benefits to people because of assumed community needs (Dressler et al. 2010). A surface level understanding of commonly accepted wellbeing themes is not sufficient for effective community based conservation. Knowing what matters to communities and how those concerns shift and evolve over time is key to maintaining community support in conservation initiatives.

The main takeaway from this discussion, to put it colloquially, is that for wellbeing indices to be meaningfully included in conservation planning, local interpretations of these indices must not just measure but also guide decisions on the ground. In other words, it is not only the high level terms used to categorize wellbeing that are important, it is how they are incorporated in the process of planning and decision making. Applying this thinking to Namibia's CBNRM programme explains much of its success. For instance, because each conservancy determines how income generated from wildlife management (like hunting and tourism) will be distributed, the flow of benefits to the dimensions of wellbeing most important to the communities is enabled. In some cases that is direct cash payments to members, or it is the funding of a community-wide project. The conservancy programme allows communities to set

and achieve locally defined goals for improved wellbeing. In turn, this creates an incentive for local people to continue participating in the conservation of biodiversity.

6. Concluding Remarks

In answering the research question posed by this study, this research shows that localizing definitions of wellbeing can significantly contribute to conservation success. The research question *How is wellbeing defined by community members living within Namibia's conservancies?* revealed that the wellbeing dimensions identified at the local level were in line with those used at the international scale. However, the narrative behind each of the ten wellbeing dimensions emphasized that the way communities interpret and experience these wellbeing objectives varies. This underscores the importance of understanding the local interpretations of wellbeing to make these well known dimensions applicable locally.

This brings us to the sub-questions of the main research question. By characterizing what people consider important to living a good life, we can better understand *How are the conservancies impacting community wellbeing?* The structure of the conservancy programme is truly community based. With communities given legal rights over communal land in exchange for sustainable management, not only are they directly involved in conservation planning and management, they decide where community benefits are allocated. As a result, focus group and interview participants clearly linked the conservancy programme with positively impacting seven of the ten wellbeing dimensions. However, in some instances, the conservancy presented challenges to these dimensions alongside benefits. For example, recovering wildlife populations means people are living with more wildlife than in the past, which means increased threats to agriculture. At the same time, more wildlife was equated with added community benefits, like cash, meat, and community projects.

Finally, these findings lend as a guide to answering the sub-question *In the context of including wellbeing in conservation planning, what guidance might we offer methodologically?* Conservation planning is an ongoing process made up of many phases like initial planning, implementation, monitoring and evaluation, and setting new objectives as conservation needs evolve. As we learned from the main research question, wellbeing dimensions (whether identified at the local level or using well known indices) must be interpreted locally. This can be achieved in several ways, such as including community members in the conservation planning process. Consulting with community members in the early stages of conservation planning would provide an opportunity for local concerns, values, and relationships with the surrounding

environment to be realized. However, the way wellbeing is experienced and prioritized is likely to change and evolve, making ongoing communication and consultation with local communities as part of monitoring and evaluation important. Or, as insights on conservancies impacts on wellbeing highlight, a structure like Namibia's communal conservancy programme allows for communities to determine their involvement and flow of benefits. I am not suggesting the exact structure of this programme could be replicated worldwide, but different elements can be applied to different contexts. Whether that is recognizing local people as wildlife stewards, like the game guards, or simply asking people what they need to meet certain wellbeing dimensions.

6.1 Research Implications

As conservation scholars and practitioners have come to realize, the cooperation and support of local communities is integral to effective biodiversity conservation. The success of Namibia's communal conservancy programme is a testament to this. Applying the lessons learned from this research, being open to local interpretations of wellbeing is critical for conservation. Conservation initiatives that are better tailored to local needs can foster more meaningful community involvement. This is particularly important, considering over 60 percent of the world's absolute poor will live in rural areas by 2025, depending directly on the natural resources around them (CBD 2008). An improved understanding of community wellbeing can play a vital role strengthening the interdependent relationship between people and the environment.

6.2 Limitations and Future Research Directions

Careful consideration was taken when selecting the methods best suited for this study. However, there were several methodological limitations. The interviews and focus groups were semi-structured to allow for discussion about anything participants felt was important to wellbeing. A more open structure means I did not ask specific questions about elements of life, like religion, which may be embedded in everyday life and so people would not think to identify it. Similarly, there may be some things that are important to wellbeing, but difficult for people to

articulate. These limitations are a function of all interview designs, however much interviews are more effective than other tools for investigations of this kind.

Another limitation of the study is the ability to distinguish between responses about individual and community wellbeing. The questions were asked in a way to elicit responses about what people thought was important to the community, but it is likely participants found individual and community wellbeing interchangeable. In some instances, participants clearly referred to a positive or negative impact on community, like the conservancy creating jobs. However, in other cases participants spoke about wellbeing dimensions generally.

Time was a limiting factor in this study. With more time I would have visited a larger and more diverse sample of conservancies. The conservancies selected for this study were all relatively well established and located in an area where tourism and hunting are viable options for conservancy operations. A newly established conservancy, or a conservancy located in another area of the country likely would not be delivering the same kind of benefits that these established conservancies are capable of. Further, the timeframe of this study did not allow for travel to other regions in the country. This would have been optimal for comparing consistency of the identified dimensions of wellbeing and perceived conservancy impacts across different regions, or even other areas within the Zambezi Region. Furthermore, with limited time in the Zambezi region, my understanding of the context behind each wellbeing dimension is restricted to what people shared with me, supplementary readings, and my two months in country.

Additionally, the dimensions of wellbeing identified in this research were not analyzed by gender or other defining demographic factors. Further research and analysis could be done to understand how these dimensions are experienced differently because of variables like age, class, and gender. Building on this, future work could compare the wellbeing of communities within conservancies to non-conservancy communities.

It is interesting to note that study participants did not make explicit reference to material assets when talking about wellbeing. Rather, participants discussed the importance of dimensions like employment and agriculture that enable people to provide for their families. Presumably the income generated from these activities is used to purchase material assets, but they were not stated. This suggests people associated wellbeing with more fundamental concepts, like providing for family, than specific material assets that could benefit their wellbeing. This

finding can be related back to the different ways conservancies distribute benefits, that is, focus was more fully on collective rather than individual assets. Further research could explore whether conservancy members prefer direct cash payments, which can be spent on satisfying preferences, material assets included. Conversely, people may prefer community-wide investments, which they regard as fundamentally important to the community.

Finally, this research has shown that most wellbeing indices have been developed for international and national scale analysis. Though these dimensions proved to be similar to those identified at the local scale, there is need for research on self-assessment tools or frameworks like the 4Cs suited for local scale assessments. This would greatly benefit conservation planning and the monitoring and evaluation of conservation initiatives.

References

- Adams, T. S., Chase, M. J., Attard, A., & Leggett, K. E. (2017). A preliminary study of stakeholders' opinions and perceptions of elephants and elephant management in Botswana. *Pachyderm*, (58), 67-76.
- Adams, W. M., Aveling, R., Brockington, D., Dickson, B., Elliott, J., Hutton, J., & Wolmer, W. (2004). Biodiversity conservation and the eradication of poverty. *Science*, 306(5699), 1146-1149.
- Adger, W. N. (2006). Vulnerability. *Global environmental change*, 16(3), 268-281.
- Agrawal, A., & Gibson, C. C. (1999). Enchantment and disenchantment: the role of community in natural resource conservation. *World development*, 27(4), 629-649.
- Alcorn, J. B., & Royo, A. G. (2007). Conservation's Engagement with Human Rights: Traction, Slippage or Avoidance?. *Policy Matters*, 15.
- Alkire, S. (2003). A Conceptual Framework for Human Security. Retrieved from: Oxford's Centre for Research on Inequality, Human Security and Ethnicity.
- Angula, H. N., Stuart-Hill, G., Ward, D., Matongo, G., Diggle, R. W., & Naidoo, R. (2018). Local perceptions of trophy hunting on communal lands in Namibia. *Biological Conservation*, 21826-31.
- Armitage, D., Béné, C., Charles, A. T., Johnson, D., & Allison, E. H. (2012). The Interplay of Well-being and Resilience in Applying a Social-Ecological Perspective. *Ecology and Society*, 17(4), art15–17.
- Barnosky, A. D., Matzke, N., Tomiya, S., Wogan, G. O., Swartz, B., Quental, T. B., ... &

- Mersey, B. (2011). Has the Earth's sixth mass extinction already arrived?. *Nature*, 471(7336), 51.
- Berkes, F. (2004). Rethinking community-based conservation. *Conservation biology*, 18(3), 621-630.
- Biraimah, K. (2016). Moving beyond a destructive past to a decolonised and inclusive future: The role of ubuntu-style education in providing culturally relevant pedagogy for Namibia. *International Review of Education*. 62(1), 45-62.
- Breslow, S. J., Sojka, B., Barnea, R., Basurto, X., Carothers, C., Charnley, S., ... & Hicks, C. C. (2016). Conceptualizing and operationalizing human wellbeing for ecosystem assessment and management. *Environmental Science & Policy*, 66, 250-259.
- Brockington, D. (2002). *Fortress conservation: the preservation of the Mkomazi Game Reserve, Tanzania*. Indiana University Press.
- Brosius, P. J., Tsing, A. L., & Zerner, C. (Eds.). (2005). *Communities and conservation: histories and politics of community-based natural resource management*. Rowman Altamira.
- CBD. Secretariat of the Convention on Biological Diversity (2008). Protected Areas in Today's World: Their Values and Benefits for the Welfare of the Planet. Montreal, Technical Series no. 36, i-vii + 96 pages.
- Colby, S., (2012). World's Largest Transboundary Conservation Area Becomes Reality. *Ecology Today*.
- Conservancy Audit Report (2016). Mashi's Annual Conservancy Audit Report. Retrieved from: <http://www.nacso.org.na/sites/default/files/2016%20Mashi%20Audit%20Report.pdf>

- Costanza, R., B. Fischer, S. Ali, C. Beer, L. Bond, R. Boumansa, N. L. Danigelis, J. Dickinson, C. Elliott, J. Farley, D. E. Gayer, L. MacDonald Glenn, T. Hudspeth, D. Mahoney, L. McCahill, B. McIntosh, B. Reed, S. Abu Turab Rizvi, D. M. Rizzo, T. Simpatico, and R. Snapp. 2007. Quality of life: an approach integrating opportunities, human needs, and subjective well-being. *Ecological Economics* 61:267–276.
- Dodge, R., Daly, A. P., Huyton, J., & Sanders, L. D. (2012). The challenge of defining wellbeing. *International journal of wellbeing*, 2(3).
- Dressler, W., Büscher, B., Schoon, M., Brockington, D. A. N., Hayes, T., Kull, C. A., ... & Shrestha, K. (2010). From hope to crisis and back again? A critical history of the global CBNRM narrative. *Environmental conservation*, 37(1), 5-15.
- Dunham, K. M., Ghiurghi, A., Cumbi, R., & Urbano, F. (2010). Human–wildlife conflict in Mozambique: a national perspective, with emphasis on wildlife attacks on humans. *Oryx*, 44(2), 185-193.
- Ellis, F. (1998). Household strategies and rural livelihood diversification. *The journal of development studies*, 35(1), 1-38.
- Franks, P and Small, R (2016) Social Assessment for Protected Areas (SAPA).
- Frayne, B. (2004). Migration and urban survival strategies in Windhoek, Namibia. *Geoforum*, 35(4), 489-505.
- Gaspar, D. (2002). Is Sen's capability approach an adequate basis for considering human development?. *Review of political economy*, 14(4), 435-461.
- Greiner, C. (2011). Migration, translocal networks and socio-economic stratification in Namibia. *Africa*, 81(4), 606-627.

Hanssen et al., 2017 Hanssen, L., Fwelimbi, M. H., Siyanga, O., Funston, P. (2017). Human-Lion Conflict mitigation in the Mudumu Complexes, Zambezi Region, Namibia Report March 2017. Kwando Carnivore Project. Retrieved from: http://www.nacso.org.na/sites/default/files/HumanLion%20Conflict%20in%20the%20Mudumu%20Complexes_Report%20March%202017.pdf

HDR UNDP. Human Development Report, United Nations Development Programme (2018). Human Development Report 2016. Human Development for Everyone. Retrieved from: http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf

Hirsch, P. D., Adams, W. M., Brosius, J. P., Zia, A., Bariola, N., & Dammert, J. L. (2011). Acknowledging conservation trade-offs and embracing complexity. *Conservation Biology*, 25(2), 259-264.

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

IHME. Institute for Health Metrics and Evaluation (2016). *Namibia*. Retrieved from: <http://www.healthdata.org/namibia>

IRDNC. Integrated Rural Development and Nature Conservation (2018). *IRDNC History*. Retrieved from: <http://www.irdnc.org.na/history.html>

IUCN Definition. The International Union for Conservation of Nature (2008). Retrieved from <https://www.iucn.org/theme/protected-areas/about>.

IUCN SSC. The International Union for Conservation of Nature Species Survival Commission.

- (2008). CITES working document. *Development*, 23, 25. Retrieved from:
https://www.cites.org/sites/default/files/eng/prog/mike/reg_meet/africa1/ENThe%20status%20of%20Africa's%20elephants.pdf
- Jones, B., & Weaver, C. (2009). CBNRM in Namibia: growth, trends, lessons and constraints. *Evolution and innovation in wildlife conservation: parks and game ranches to transfrontier conservation areas, UK: Earthscan* 223-242.
- Kamwi, J. M., Chirwa, P. W., Manda, S. O., Graz, P. F., & Kätsch, C. (2015). Livelihoods, land use and land cover change in the Zambezi Region, Namibia. *Population and Environment*, 37(2), 207-230.
- Kaplan-Hallam, M., Bennett, N. J., & Satterfield, T. (2017). Catching sea cucumber fever in coastal communities: Conceptualizing the impacts of shocks versus trends on social-ecological systems. *Global Environmental Change*, 45, 89-98.
- KAZA TFCA. Kavango-zambezi transfrontier conservation area. (2018). Retrieved from <http://www.kavangozambezi.org/>.
- Levine, A. (2007). Staying afloat: State agencies, local communities, and international involvement in marine protected area management in Zanzibar, Tanzania. *Conservation and Society*, 5(4), 562.
- Levin, P. S., Fogarty, M. J., Murawski, S. A., & Fluharty, D. (2009). Integrated ecosystem assessments: developing the scientific basis for ecosystem-based management of the ocean. *PLoS biology*, 7(1).
- MAWF. Ministry of Agriculture, Water, and Forestry (2015). Namibia Agriculture Policy. Retrieved from:<http://www.mawf.gov.na/documents/37726/48258/Namibia+Agriculture+Policy/80928f95-f345-4aaa-8cef-fb291a4755cf?version=1.0>

- McGregor, J. A. 2004. Researching well-being: communicating between the needs of policy makers and the needs of people. *Global Social Policy* 4(3):337–358.
- McShane, T. O., Hirsch, P. D., Trung, T. C., Songorwa, A. N., Kinzig, A., Monteferri, B., ... & Welch-Devine, M. (2011). Hard choices: making trade-offs between biodiversity conservation and human well-being. *Biological Conservation*, 144(3), 966-972.
- Milner-Gulland, E. J., McGregor, J. A., Agarwala, M., Atkinson, G., Bevan, P., Clements, T., ... & Mourato, S. (2014). Accounting for the impact of conservation on human well-being. *Conservation Biology*, 28(5), 1160-1166.
- MoHSS. Ministry of Health and Social Services (2014). Namibia Demographic and Health Survey 2013. Windhoek, Namibia: MoHSS/Namibia and ICF International. Available at <http://dhsprogram.com/pubs/pdf/FR298/FR298.pdf>.
- Myers, D. G. (2003). 19 Close Relationships and Quality of Life. *Well-being: Foundations of hedonic psychology*, 374.
- NACSO. Namibian Association of CBNRM Support Organizations (2013). *Namibia's communal conservancies: a review of progress and challenges in 2011*. NACSO, Windhoek.
- NACSO. Namibian Association of CBNRM Support Organizations (2018). Retrieved from: <http://www.nacso.org.na/about-nacso>
- Naidoo, R., Chase, M. J., Beytell, P., Du Preez, P., Landen, K., Stuart-Hill, G., & Taylor, R. (2016). A newly discovered wildlife migration in Namibia and Botswana is the longest in Africa. *Oryx*, 50(1), 138-146.
- Naidoo, R., Weaver, L. C., Diggle, R. W., Matongo, G., Stuart-Hill, G., & Thouless, C. (2016).

- Complementary benefits of tourism and hunting to communal conservancies in Namibia. *Conservation Biology*, 30(3), 628-638.
- Namibia Statistics Agency (2016). *The Namibia Labour Force Survey 2016 Report*. Retrieved from: https://cms.my.na/assets/documents/Labour_Force_Survey_-_20161.pdf.
- Neudert, R., Goetter, J. F., Andriamparany, J. N., & Rakotoarisoa, M. (2015). Income diversification, wealth, education and well-being in rural south-western Madagascar: Results from the Mahafaly region. *Development Southern Africa*, 32(6), 758-784.
- OECD. Organization for Economic Cooperation and Development (2011). Better Life Index. Retrieved from: <http://www.oecdbetterlifeindex.org/>.
- Phelps, J., Friess, D. A., & Webb, E. L. (2012). Win-win REDD+ approaches belie carbon-biodiversity trade-offs. *Biological Conservation*, 154, 53-60.
- Riehl, B., Zerriffi, H., & Naidoo, R. (2015). Effects of community-based natural resource management on household welfare in Namibia. *PloS one*, 10(5).
- Ruiz-Casares, M. (2010). Kin and Youths in the Social Networks of Youth-Headed Households in Namibia. *Journal of Marriage and Family*, 72(5), 1408-1425.
- Russell, R., Guerry, A. D., Balvanera, P., Gould, R. K., Basurto, X., Chan, K. M., ... & Tam, J. (2013). Humans and nature: how knowing and experiencing nature affect well-being. *Annual Review of Environment and Resources*, 38, 473-502.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual review of psychology*, 52(1), 141-166.
- SADC (2005). Southern African Development Community. Regional Water Policy. Retrieved

from: http://www.sadc.int/files/1913/5292/8376/Regional_Water_Policy.pdf

- Sen, A. (2005). Human rights and capabilities. *Journal of human development*, 6(2), 151-166.
- Shackleton, C. M., Shackleton, S. E., & Cousins, B. (2001). The role of land-based strategies in rural livelihoods: The contribution of arable production, animal husbandry and natural resource harvesting in communal areas in south africa. *Development Southern Africa*, 18(5), 581-604.
- Stiglitz, J. E., Sen, A., & Fitoussi, J. P. (2010). Report by the commission on the measurement of economic performance and social progress. *Paris: Commission on the Measurement of Economic Performance and Social Progress*.
- Stuart-Hill, G., Diggle, R., Munali, B., Tagg, J., & Ward, D. (2005). The event book system: a community-based natural resource monitoring system from Namibia. *Biodiversity & Conservation*, 14(11), 2611-2631.
- Styles, R. (2011). The Really Wild Show: Namibia's pioneering conservancies. *Ecologist*, 40(24), 20-23.
- The Equator Initiative, 2016. *Web*. Retrieved from: <http://equatorinitiative.org>
- Turner, N., Gregory, R., Brooks, C., Failing, L., & Satterfield, T. (2008). From invisibility to transparency: identifying the implications. *Ecology and society*, 13(2).
- Tvedten, I. (2002). 'If You Don't Fish, You Are Not a Caprivian': Freshwater Fisheries in Caprivi, Namibia. *Journal Of Southern African Studies*, 28(2), 421-439.
- UNDP. United Nations Development Programme (2018). *Sustainable Development Goals*. Retrieved from: <http://www.undp.org/content/undp/en/home/sustainable-development-goals>

- UNEP-WCMC, IUCN (2016). Protected planet report 2016. *UNEP-WCMC and IUCN: Cambridge UK and Gland, Switzerland.*
- UNICEF. The United Nations Children's Fund (2018). *Namibia*. Retrieved from: <https://www.unicef.org/namibia/education.html>
- Wali, A., Alvira, D., Tallman, P., Ravikumar, A., & Macedo, M. (2017). A new approach to conservation: using community empowerment for sustainable well-being. *Ecology and Society*, 22(4).
- West, P., Igoe, J., & Brockington, D. (2006). Parks and peoples: the social impact of protected areas. *Annu. Rev. Anthropol.*, 35, 251-277.
- White, S. C. (2010). Analysing wellbeing: a framework for development practice. *Development in Practice*, 20(2), 158-172.
- Wiseman, J., & Brasher, K. (2008). Community Wellbeing in an Unwell World: Trends, Challenges, and Possibilities. *Journal of Public Health Policy*, 29(3), 353-366.
- Witter, R., & Satterfield, T. (2014). Invisible losses and the logics of resettlement compensation. *Conservation biology*, 28(5), 1394-1402.
- Woodroffe, R., Thirgood, S., & Rabinowitz, A. (Eds.). (2005). *People and wildlife, conflict or co-existence?* (No. 9). Cambridge University Press.
- WHR. World Happiness Report (2018). Retrieved from: <http://worldhappiness.report/>.
- WWF. World Wildlife Fund (2018). *Namibia*. Retrieved from: <https://www.worldwildlife.org/places/namibia>

Appendices

Appendix A: Interview Schedule

Opening

My name is Alida O'Connor and I am a MA student at the University of British Columbia in Vancouver, BC. I am studying the relationship between conservation and community well-being.

With your consent, I hope to use the information from this interview in my research to better understand how conservation can contribute to community well-being.

Impact of the Conservancy on Community Well-being

The (name of conservancy) has been associated with this community for (number of years)...

1. What is your role in the conservancy?

a) Can you tell me about this position?

b) Have you held any other positions within the conservancy in the past?

2. Can you explain to me how the conservancy works?

3. What is your sense of the conservancy and its role in life here?

a) Has it had a small role or a big role?

b) Do you consider the role of the conservancy good or bad for life here, or both? Challenges and benefits.

c) Has the conservancy changed life here? In what ways?

d) Has the conservancy effected some people more than others. Has it been experienced differently by others? *Ask to explain and describe.*

Is there anything else you would like to discuss that we have not covered?

Conclusion

Thank you for your participation.

Appendix B: Focus Group Template

Opening

My name is Alida O'Connor and I am a MA student at the University of British Columbia in Vancouver, BC. I am studying the relationship between conservation and community wellbeing.

With your consent, I hope to use the information from this focus group in my research to better understand how conservation can contribute to community wellbeing.

Community Well-being

I'd first like to talk to about (name of community).

1. How long have you lived here?

2. Can you tell me a bit about what life here is like?

a) What kind of work or harvesting do people do to provide food, income, etc. for their families?

b) Does the type of work vary throughout the year and during different seasons? How so?

c) How do people make sure there is food year-round?

d) Is one season more challenging than another?

4. Can you describe what you need to live a good life?

a) What makes a community well? (*think education, food, health, environment, children, income, culture, etc.*)

5. Do you like living here? Why or why not?

a) If you could change things in your community, what would you change?

b) What do you think is the best part of this community?

Impact of the Conservancy on Community Wellbeing

The (name of conservancy) has been associated with this community for (number of years)...

1. Are you or have you been involved with the conservancy (if at all)?

a) In what ways?

b) More or less in the past?

2. Can you explain to me how the conservancy works?

a) Do you like how the conservancy operates? Why or why not?

3. What is your sense of the conservancy and its role in life here?

a) Has it had a small role or a big role?

b) Do you consider the role of the conservancy good or bad for life here, or both?

4. Let's talk about any changes you have noticed over the years, if any, that you see as linked to the conservancy?

Keep in mind changes can impact: food security, social roles, the environment

a) Can you explain how it has changed?

b) Do you consider this good or bad change?

c) What have the most obvious successes of the conservancy been?

d) If you had control over parts of the conservancy that could be improved, what would you focus on? Why?

e) Has the conservancy effected some people more than others. Has it been experienced differently by others? *Ask to explain and describe.*

5. Is there anything else you would like to talk about that we have not discussed?

Conclusion

Thank you for your participation.