



**Making a grand challenge:
The social-symbolic work of conserving nature.**

A thesis submitted to the University of Cape Town Graduate School of Business in fulfilment
of the degree of Doctor of Philosophy.

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ABSTRACT

Problems like social inequality and shrinking biodiversity seem ever more unwieldy. Scholars are called upon to study how grand challenges like these develop and how organisations respond to them. Scholars and practitioners alike tend to focus on the received and ostensibly objective facts of these challenges, obfuscating the role actors play in socially constructing the very problems they purport to solve. Inspired by calls to better understand the nature of grand challenges and a growing body of research on how actors employ social-symbolic work (SSW) to shape the meaning of complex, contestable phenomena, I ask, how do actors engage in SSW as they grapple with grand challenges, and in doing so, how does SSW shape the tractability of these challenges?

I conducted an in-depth, longitudinal ethnographic study of SSW in a state-run conservation agency as actors responded to two interlinked but separate challenges: an acute biodiversity crisis (rhino poaching) in its iconic Kruger National Park, and the slow-burning inequality problem affecting three million people near the park's boundary. Unlike existing studies of SSW that commonly focus on one form of work targeting one social-symbolic object, I find that bundles of SSW targeting imbricated social-symbolic objects - place, identity and temporality - gave challenges meaning. SSW also developed and maintained two distinct ontologies of nature that were compatible with problem framings and solutions, lending legitimacy to actors' novel practices.

SSW had a strategic, deliberate outcome, rendering grand challenges into actionable objects accompanied by prescribed sets of solutions that were soon taken for granted. SSW also had an unintended outcome. It reduced grand challenges' tractability. As SSW shaped ontological assumptions and affective repertoires, and suppressed the detection of paradox, actors were dissuaded from finding novel solutions to grand challenges, a critical feature of successful efforts to make them tractable.

I contribute to the grand challenges literature by explicating the role of SSW in the construction of not just the challenge itself, but also its tractability. I contribute to the SSW literature by providing an empirical case of actors aligning parallel bundles of work in a single organisation, and I show how this alignment undermines strategic coherence. Finally, whereas much extant work on SSW assumes its explicit, conscious, and purposive character, I point to the subtle, subliminal ways in which work shapes, and is shaped by, actors' moral and emotional dispositions.

DECLARATION

This thesis represents my own work, both in conceptualisation and execution, and I avoided engaging in any practice that constitutes plagiarism.

Signed by candidate

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DEDICATION

I dedicate my thesis, in gratitude and with love, to Werda (13/04/1933 – 01/11/2020) and Howard Botha (25/03/1926 – 22/12/1995).

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ABBREVIATIONS

GKSDP	Greater Kruger Strategic Development Programme
GLTFCA	Great Limpopo Tranfrontier Conservation Area
IPZ	Intensive Protection Zone
KNP	Kruger National Parks
RP	Research Participant
SANParks	South African National Parks
SET	Socio-Economic Transformation
SDG	Sustainable Development Goals
SSW	Social-Symbolic Work
SO	Social-Symbolic Object

CHAPTER 1

INTRODUCTION

This chapter provides an introduction to my research theme, question, setting and theoretical framing. After explaining my research approach, I briefly outline my contribution to the grand challenges and social-symbolic work (SSW) literatures. I finish this chapter by outlining the structure of my thesis.

1.1 Grand challenges

Grand challenges are unresolved, complex problems that confront actors with “formidable organizational challenges” (Ferraro, Etzion & Gehman, 2015: 364). Many contemporary grand challenges are interwoven with the state of the natural world and the interface between people and nature, society and environment. At least five out of the 17 Sustainable Development Goals (SDGs) speak directly to natural phenomena, such as climate change, clean water, life under water and life on land. These topics surface contentious questions about how nature should be conserved and for whose benefit.

When it comes to the practical nuts-and-bolts of protecting nature, conservation organisations recommend a wide-ranging suite of solutions. Nature, and its conservation, mean different things to different people, and even within organisations, actors conceptualise problems differently. Important examples of grand environmental challenges include the loss of biodiversity on our planet and attempts to manage natural resources more equitably. To state that the management of biodiversity and natural resources is a matter of global concern is unlikely to cause disagreement amongst scholars, scientists, government officials, business leaders and civil society actors. However, when it comes to making choices about how best to manage natural resources, actors disagree ardently and offer multiple, often contradictory, interpretations. For example, in Southern Africa, some see trophy hunting as an essential

aspect of biodiversity conservation (IUCN, 2019), whilst others disagree, calling for all hunting to be uniformly abolished (PETA, 2021).

These controversies come as no surprise. When engaging with grand challenges, actors “meld objective facts with subjective representations. In other words, grand challenges have variable ontologies (Callon, 1998); their definition, stakes, and consequences are caught up in processes of continual reconfiguration, depending on whom and what becomes associated with them” (Ferraro et al., 2015: 4-5). When it comes to matters of environmental governance, numerous, stakeholders have multiple values, interests and “fundamental philosophies” (Dietz, Ostrom, & Stern, 2003: 1909) about the nature of problems and what solutions should entail.

Even though grand challenges are commonly conceptualised as exceptional, objectively occurring events *out there*, as phenomena that happen *to* organisations, actors are active participants in *making* them happen. According to Ferraro et al. (2015), grand challenges are moulded by the subjective representations and constructions of attentive actors. How these representations and constructions are achieved deserve further investigation.

1.2 Situating my research question

I chose a SSW theoretical lens to guide an interpretative study of actors' work to create, uphold, change and disrupt meanings associated with two inter-related grand challenges. SSW is a perspective that foregrounds how actors purposefully shape reality. It describes actors' efforts to change and uphold the meaning of phenomena and it entails the making and remaking of social-symbolic contexts. SSW manipulates the meaning of institutions, ideas, norms, aesthetics, values, and emotions (Phillips & Lawrence, 2012), facets that define organisational contexts but are often taken for granted as having immutable meanings. SSW targets social symbolic objects (SSOs), denoting physical objects, concepts,

categories or practices - stable patterns of meanings that are nevertheless open to re-interpretation by actors (Lawrence & Phillips, 2019).

According to Howard-Grenville (2020), users of the “grand challenges” concept originally assumed that the phenomena it describes had discrete and fixed attributes. However, the author points out that scholars are increasingly questioning the term’s embedded assumptions. From a SSW perspective, grand challenges are imbued with subjective traits through the interpretations, interactions and practices of interested actors. Inspired by calls to better understand the nature of grand challenges and its tractability (Howard-Grenville, 2020) and a growing body of research on how actors harness SSW to shape the meaning of complex, contestable phenomena (Lawrence & Phillips, 2019), I ask, how do actors engage in SSW as they grapple with grand environmental challenges, and in doing so, how does SSW shape the tractability of these challenges?

1.3 Research approach

I conducted an in-depth, longitudinal study focussing on South African National Parks (SANParks), a prominent, state-run conservation agency that manages over twenty national parks in South Africa. I focused on actors' aspirations and struggles in the world-famous Kruger National Park (KNP) as they worked to mitigate two interlinked grand challenges that were salient in the organisational field between 2015 and 2020 (when I refer to “the organisation” or “organisational actors,” I’m generally refer to KNP and KNP employees stationed in the park, and not to SANParks as a whole).

KNP represented a unique opportunity to study two seemingly separate yet interlinked grand challenges that manifest locally (Berrone, Gelabert, Massa-Saluzzo & Rousseau, 2016) but are connected to global concerns about biodiversity and the equitable sharing of natural resources. At least six of the United Nations SDGs (SDGS, 2021) speak directly to protection of the natural environment and fostering equality.

I chose ethnography as an overarching research strategy for its ability to generate finely grained data that bring into focus actors' lived realities, including nuanced, unstated and unrecognised meanings (Bamkin, Maynard & Goulding 2016). Data collection and analysis were rooted in a grounded theory approach (Charmaz, 2008) and data were generated from interviews, participant observation, direct involvement in field-based activities and a review of secondary sources, such as organisational documents, media articles and videos. According to Charmaz and Mitchell (2001), combining ethnography and grounded theory offer a flexible strategy where ethnography generates rich data, and grounded theory gives structure to both the collection and analysis of qualitative data.

My data sources gave me access to what Ybema, Yanow, Wels and Kamsteeg (2009: 8) describe as “narratives, discourses, stories, metaphors, myths, slogans, jargon, jokes, gossip, rumours, and anecdotes found in everyday talk and text (symbolic language); rites and rituals, practices, customs, routines (symbolic acts); or built spaces, architectural design, clothing, and other physical artefacts (symbolic objects).” Lawrence and Phillips (2019) state that the study of SSW requires the close-up examination of the work of actors in specific contexts, including their interaction and intentions and the resources and skills they employ in the process.

1.4 Context

KNP had two grand challenges. Firstly, actors responded to a poignant biodiversity crisis (rhino poaching) in the world-famous national park. In the field of nature conservation in Southern Africa, rhino poaching is one of the most persistent, controversial and talked-about biodiversity challenges of the last decade, a period in which rhino numbers in KNP declined by 70%, with about 4200 rhinos left in the park (SANParks, 2021). Rhino horn is used as an ingredient in traditional Asian medicine and, by weight, is one of the most expensive commodities on earth (WWF, 2019). Most illegal rhino hunts in South Africa

occur in KNP. Dozens of “incursions” by armed poaching groups happen weekly, despite the risk of encountering dangerous animals (including lion, leopard, buffalo and elephant) or getting into a “contact” with paramilitary-trained field rangers. Counteracting poaching and dealing with its aftermath takes an enormous physical and emotional toll on park-based law enforcement officials who are confronted with bloody crime scenes and rhino carcasses daily. The organisational field as a whole has been jolted by uncertainty, shifting power relations and, often, deadly conflict. The early days of the poaching challenge (roughly starting in 2008) have triggered what Weick calls a cosmology episode, where people “deeply feel that the universe is no longer a rational, orderly system” (Weick, 1993: 633).

Secondly, even as KNP hurried to contain the daily poaching of rhinos, KNP was under growing pressure to transform its “island mentality” (Carruthers, 1995) to become more economically relevant to the three million (poor, mainly black) people living on its western boundary, and to address the severe social inequality bequeathed by Apartheid (in which conservation areas are implicated). KNP has a whole department dedicated to repairing relationships with neighbouring communities and to diffusing ongoing tensions (and violent protests) that occasionally erupt near the park’s boundary fence. At the same time, tourism specialists work hard to make the notion of a safari-style, game-viewing holiday appealing to more urban, black South Africans. Now, more than 25 years after the end of Apartheid, inequity, and the park’s historical complicity in it, remains a heavy burden for employees to carry and undo.

Both the poaching and inequity challenges implicate social-symbolic tensions with deep historical roots. The history of nature conservation is also the history of how actors worked to manipulate important SSOs to invent protected areas - natures - that we experience as objective, authentic and real. The manner in which they manipulated SSOs since the late 1800s had, in different epochs, legitimised conservation practices. Moral values, religious

ideas, emotional repertoires and political aspirations were all harnessed in service of social-symbolic pursuits to shape what conservation meant, and what nature was (Carruthers, 1995). The concept of a “conservation” is therefore necessarily composed of fluid, interlinked SSOs that give it meaning.

In the last ten years, actors in KNP have come to question the very purpose of conservation, what it means to be a “conservationist,” how far one must go to “protect” wildlife and how the relationship between humans and nature is best managed. The most poignant symbol of these tensions is the park's 1000 km fence-line. Erected to separate wildlife from livestock, the fence has come to represent South Africa's racial history of exclusion and the ideological chasm between those who believe that nature is a wilderness devoid of people and those who view nature and people as vitally intertwined.

There is an uneasy intersection between the park's efforts to protect biodiversity and to reduce inequity. Rhino poachers often come from black, impoverished communities bordering nature reserves around the park (Hübschle, 2016). These are the very same communities that the park works to enrol as “partners,” “beneficiaries” and “stakeholders” (SANParks, 2021). As armed groups of poachers and rangers encounter each other inside the park, violent skirmishes break out and life-and-death decisions are made in seconds. For those unaccustomed to the harsh contradictions that typify life in South Africa, moving between “this” and “that” side of the ubiquitous fence can be a somewhat surreal experience.

For ease of reference, I refer to these two challenges respectively as “poaching” and “inequity,” and to those working on the inequity challenge as “Inclusion Actors” and those working on biodiversity as “Security Actors.”

1.5 Findings and contributions

I find that separate, yet interlinked grand challenges inspire two sets of actors to respond to challenges with two discrete programmes of action. Each set of actors align

boundary, identity and temporal work to target the SSOs of place, selves and time. The manipulation of these SSOs turn ambiguous grand challenges into stable patterns of meaning and garners legitimacy for actors' proposed remedies. SSW also inspires worldmaking as actors invent and maintain two ontologies of nature that are compatible with their problem framings and solutions.

I find that SSW generates two important outcomes. It purposively transforms inexact problems into actionable objects with strategic, taken for granted meanings. SSW also has a remarkable unintended outcome, namely, the rendering of grand challenges as less tractable. As SSW shapes ontological assumptions and affective repertoires, and suppresses the detection of interdependencies and paradox, actors are dissuaded from finding imaginative and novel solutions, key features of successful campaigns to make grand challenges tractable.¹

Even though institutional and stakeholder theories shed light on the interactions and dynamics between grand challenges, logics, fields and organisations (Ferraro et al., 2015), and scholars acknowledge the pliable and dynamic character of grand challenges (Dietz, Ostrom, & Stern, 2003; Edwards, 2010; Ferraro et al., 2015; George, Howard-Grenville, Joshi & Tihanyi, 2016), studies do not pay sufficient attention to the granular, actor-centric experiences and practices that “make” grand challenges and the consequences thereof for implicated organisations.

I contribute to the grand challenge literature by offering a constructivist account of how SSW shapes grand challenges and, simultaneously, how SSW influences the

¹ Actors are advised by grand challenges scholars to implement particular strategies and practices that make challenges more manageable/tractable. I elaborate on what this entails in the literature review. Generally, my use of the term “tractability” refers to how grand challenges are rendered more practically solvable by actors' application of the strategies and practices that scholars call for. In other words, tractability results from prudent choices made by interested actors. I also refer to the “actionability” of grand challenges. Actionability means that actors have sufficiently grasped and constructed an issue to act on it (regardless of whether the consequences are deemed positive or negative). Actionability denotes *action* and tractability *effective action*.

effectiveness of organisational responses to them. I describe how grand challenges do not have intrinsic properties that pre-exist their engagement. I show that actors working “on” them have embodied experiences and affective dispositions that profoundly influence how challenges are tackled: the definition of problems, the conceptualisation of causes and culprits, how solutions are acted out and ultimately, how tractable challenges are.

As much as our understanding of grand challenge phenomena benefits from a constructivist lens, studies of SSW equally benefit from focussing on the empirical settings afforded by grand challenges. SSW is typically described as strategic, conscious and deliberate (Philips & Lawrence, 2012). However, I find that SSW has powerful subliminal dimensions as SSW shapes, and is shaped by, actors’ moral and emotional repertoires and implicit ontological beliefs.

Also, unlike extant SSW studies that tend to focus on a single form of SSW (Lawrence & Phillips, 2019), I explicate how actors do concurrent forms of SSW as they embark on ambitious meaning-making projects, targeting mutually reinforcing SSOs that render challenges meaningful. Actors who grapple with grand challenges necessarily embark on “grand” social-symbolic endeavours because grand challenge phenomena commonly implicate multiple ambiguous moving parts: nested sets of problems, multiple and diverse stakeholders, competing interests and contested prescriptions for solutions. In order to maintain coherence of meaning, actors have to target assemblages of imbricated SSOs. Scholars call for more research set in empirical settings where this alignment of SSW can be studied (Lawrence & Phillips, 2019).

Finally, Phillips and Lawrence (2012: 4) state that it is “impossible to argue for the naturalness of the social world,” given how ostensibly “natural” notions of gender and race are subject to organisational performances. Yet organisation scholars’ focus on the social world leaves unconsidered the apparent naturalness of the natural world. A SSW perspective

can help us to attend to how organisations create, maintain, or disrupt symbolic meanings as they interact with phenomena in the natural world.

1.6 Thesis structure

In chapter 2 (literature review) I introduce key literatures and concepts that guided my study, describing different conceptualisations of grand challenges and the factors that are said to influence their tractability. I explain why SSW is a theoretical lens that provides a novel perspective on what grand challenges are, how they are socially constructed and how their construction affects their tractability. In chapter 3 (methodology) I explain how I arrived at my research question and how I designed my inductive study. I describe my analytical process and the steps I took to improve my study's rigour. In chapter 4 (setting and programmes of action), I describe the setting, the local manifestation of the two grand challenges and actors' responses in the form of two separate programmes of action. Chapter 5 introduces my study's findings, using the SSOs of place, identity and temporality as lenses through which to interpret the history of KNP and nature conservation in South Africa. Here, I shed light on the historical origins of the SSOs that serve as targets of contemporary actors' SSW. Chapter 6 (SSW) is the core of my study's findings, describing how actors engaged in parallel forms of SSW, targeting similar assemblages of SSOs in both programmes of action. I examine the granular social-symbolic tactics actors engaged in and their effects, including SSWs' intended and unintended outcomes. In chapter 7 (discussion) I reflect on my findings in light of existing literature and describe the practical value of my research, its limitations and how it opens up future avenues of inquiry. I conclude my study with chapter 8 (conclusion) by briefly summarising the key results and implications of my study.

CHAPTER 2

LITERATURE REVIEW

This chapter starts with an overview of the grand challenges literature. I identify two gaps in the literature and explain how a SSW lens contributes to a novel, constructivist, actor-centric understanding of how grand challenges come into being and how actors influence their tractability. I include an overview of the SSW literature and identify how the empirical settings afforded by grand challenges expand current understandings of SSW and its consequences for organisations and the natural world.

2.1 Grand challenges

2.1.1 What are grand challenges?

According to George, Howard-Grenville, Joshi and Tihanyi (2016), grand challenges are problems of global concern, such as climate change, ageing societies, natural resource scarcity, societal resilience, workforce digitalisation and gender inequality. Other examples of these challenges include poverty, migration, terrorism, financial literacy, infectious diseases (Buckley, Doh & Benischke, 2017) and social inequality (George et al., 2016). Berrone, Gelabert, Massa-Saluzzo and Rousseau (2016) concisely define grand challenges as “large, complex, unresolved societal problems” (p.1941).

The emphasis on social problems shows how the term migrated from its application in 1900 when it denoted a set of mathematical problems (George et al., 2016). “Grand challenges” was subsequently taken up by scientists and engineers and is employed today by influential organisations such as the Bill & Melinda Gates Foundation, the World Economic Forum, the United States Agency for International Development and the World Climate Research Programme.

George et al. (2016) remark how the concept galvanises a wide range of actors - NGOs, governments, entrepreneurs, social scientists - to find shared solutions to persistent problems, with the United States government calling grand challenges the “north star” for collaboration between the public and private sectors (OSTP, 2014, first para. 3). Given the term’s uptake by social actors to frame and tackle complex problems, it comes as no surprise that management scholars are also called upon to understand these kinds of problems better and to contribute to their resolution (Buckley et al., 2017; Eisenhardt, Graebner & Sonenshein, 2016; George et al., 2016). A decade ago, Colquitt and George (2011: 432) focussed scholars’ attention on “the pursuit of bold ideas and the adoption of less conventional approaches to tackling large, unresolved problems.”

Brammer et al. (2019) note that there are multiple definitions for grand challenges (see Table 1 below for often-cited definitions that foreground different features of grand challenges). They state that the term’s imprecision confuses researchers, policymakers and practitioners because it conflates “qualitatively distinct types of phenomena, levels of analysis, and scales/scopes of issues; and confounds attempts [by scholars] to advance more impactful grand challenges research in management scholarship and beyond” (p. 517). To parse the somewhat nebulous concept, Brammer et al. (2019) develop a typology of grand challenges based on their geographical scope and the breadth of interested stakeholders, sectors and systems.

Brammer et al. (2019) also outline three broad threads of grand challenge scholarship in management research. The first thread raises awareness of the concept within the management research community, calling on scholars to increase conceptual and empirical research on grand challenges. The second thread examines the enabling conditions that foster greater attention to grand challenges in research and innovation sectors, such as the role of policy frameworks and financial resources to bolster collaborative research. The third thread

consists of empirical research that analyses the effects of grand challenges on organisations, such as Williams and Shepherd's (2016) study of how the Haiti earthquake challenged organisations to respond to natural disasters. The framework proposed by Brammer et al. (2019) fits well with another devised by George et al. (2016). The latter separates grand challenges research into two domains: studies examining how management theories can contribute to solving grand challenges, and studies highlighting the mechanisms and contexts through which grand challenges influence organisations and institutions.

Scholars' definitions of grand challenges reveal particular epistemological and ontological assumptions. According to Schlindwein and Ison (2004: 27), "in some explanations complexity has been understood as an intrinsic property of a certain kind of system, or as occurring in a certain kind of natural and social phenomena." This understanding is what the authors call "descriptive complexity," assuming that natural and social systems have objective qualities and that humans can observe and catalogue. Casti (1995), however, draws attention to the role of the observer in relation to complexity, or put differently, in relation to grand challenges that are typically described as "complex." When we label something as "complex," we are "making use of everyday language to express a feeling or impression that we dignify with the label complex." Schlindwein and Ison (2004) refer to the subjective experience and classification of complexity as "perceived complexity" (p.28), rooted in the assumption that reality is constructed through "the distinctions made by an observer" (such as in acts that label certain problems as "complex" or "grand challenges.")

Most definitions in Table 1 below embody a descriptive stance towards the professed complexity of grand challenges, neglecting how our experience of complexity is socially constructed through language and social interaction.

Table 1: Prominent definitions of grand challenges. I emphasise some words/phrases to draw attention to conceptualisations of grand challenges that foregrounds them as artefacts with objective qualities.

Definition: Grand challenges	Source
"...boundary spanning, address ' <i>wicked problems</i> ' and do not fit current institutional and governance structures."	Georghiou & Harper (2013: 469)
"...ambitious but <i>achievable goals</i> that harness science, technology, and innovation to solve important <i>national</i> or <i>global</i> problems and that have the potential to capture the public's imagination."	OSTP (2014, para. 1)
"... <i>are complex</i> , entailing many interactions and associations, emergent understandings, and nonlinear dynamics...[confronting] organisations with radical uncertainty, by which we mean that actors cannot define the possible future states of the world, and therefore cannot forecast the consequences of their present actions, or whether future others will appreciate them... <i>are evaluative, cutting across jurisdictional boundaries, implicating multiple criteria of worth</i> , and revealing new concerns even as they are being tackled."	Ferraro et al. (2015: 364)
"...societal challenges [that] <i>are by nature complex</i> , have a long time horizon, involve both current and future generations, <i>have a nature</i> that is often contested by the different actors affected by it, have issues that evolve over time, and are <i>wicked problems</i> (Cagnin et al., 2012)"	Kwakkel & Pruyt (2015: 526)
"...highly significant yet potentially solvable problems such as urban poverty, insect-borne disease, and global hunger [that] affect vast numbers of individuals in often profound ways [and] are typically complex with unknown solutions and intertwined technical and social elements."	Eisenhardt et al. (2016: 1113)
"...affect large populations, meaning their impacts extend beyond the boundaries of a single organisation or community. Moreover, they significantly and adversely affect human welfare and well-being."	Ferraro et al. (2015: 365)
"... <i>specific critical barrier(s)</i> that, if removed, would help solve an important societal problem with a high likelihood of global impact through widespread implementation."	George et al. (2016)
"...large-scale, complex, enduring problems that affect large populations, have a strong social component and appear <i>intractable</i> ."	Jarzabkowski, Bednarek, Chalkias & Cacciatori (2019: 121)

2.1.2 Objective or subjective?

George et al. (2016) emphasise that grand challenges can be readily articulated and defined by multiple stakeholders as a "problem" or "goal" (p.3) and therefore, grand challenges are essentially "managerial (organisational) and scientific problem(s)" (p.3). The

implication is that grand challenges generally have observable, objective attributes that can be accurately represented in problem definitions, solutions and goals - into “tractable managerial challenges” (p.14). For example, in their study of corporate sustainability, Whiteman, Walker and Perego (2013) import concepts such as “planetary boundaries” and “social-ecological systems,” treating them as ontological objects with intrinsic, independently existing qualities: planetary boundaries “govern all life,” are “unveiled” by scientists, and can be “crossed.” George et al. (2016) objectify grand challenges by referring to them as “specific barriers” that organisations can “overcome” (p.17) and that exist “around us and in our own communities” (p. 21). Other scholars propose that grand challenges have fixed qualities - “wicked” (Georghiou & Harper, 2013: 469), “super-wicked” (Lazarus, 2009: 1159) “stubborn” (George et al., 2016: 1) “contentious” (Ferraro, et al., 2015: 380), “messy” (Eisenhardt et al., 2016: 1116) and “multinational” (Brammer et al., 2019) - that make them inherently contentious and hard to solve. Efforts to categorise grand challenges (Brammer et al., 2019) also rely on the assumption that such challenges have fixed qualities that clearly distinguish them from one another.

However, even as Ferraro et al. (2015) define grand challenge in descriptive terms, they also emphasise the malleable, subjective and experiential facets of grand challenges, explaining how they invoke uncertainty, ambiguity and disagreement. Conflict arises because “different actors have different views about what the problem actually 'is' and therefore, what constitutes an acceptable solution (Lindblom, 1958)” (p. 366). Brammer et al. (2019) also note that grand challenges inspire contested meanings amongst stakeholders with different evaluations of “purpose, value, appropriateness and actionability” (p. 521). A good example of a study that emphasises the constructivist invention of a grand challenge is Verweij et al. (2006), showing how different versions of climate change are discursively brought to life by deploying three distinct narratives that frame causes, culprits and remedies in very dissimilar

ways. Another good example is the work of De Rond and Lok (2016), who elucidate the contextual and institutional dynamics that regulate how actors perceive the complexity of their situation, showing how grand challenges, and responses to them, are deeply shaped by actors' subjective emotional experiences and ethical dispositions.

Scholars' tendency to foreground the objective nature of grand challenges perhaps stems from the original use of the term, which described a set of unsolved mathematical problems, and its later uptake by engineers and natural scientists. Its genealogy can be traced back to the domain of science, and technologies and tools that were meant to solve difficult, but well-defined problems. Howard-Grenville (2020) remarks that the notion that grand challenges is fundamentally tractable can be traced back to the term's original use. It is only in the last decade that social scientists began exploring the term and its application (George et al. 2016).

Grand challenges are subjective human experiences. Nevertheless, management scholars often rely on descriptive accounts of the complexity of grand challenges. Despite scholars' understanding of the social processes that go into the making of reality (Berger & Luckman, 1966; Blumer, 1969; Goffman, 1958), typical responses to grand environmental challenges - surprisingly - still focus on the received, taken for granted and ostensibly objective facts and attributes of these problems. Even though "challenges are not simply sitting there, waiting to be discovered" (EGOS, 2020, para. 4), we know little about the granular practices that actors employ to socially construct such challenges. The objectification of grand challenges overlooks actors' subjective experiences and the social practices that usher and continually shape "complexity" into being, leading to scholars taking their very existence of grand challenges for granted. Objectifying grand challenges encourages scholars to focus on how the problems associated with challenges can be "addressed" (George et al., 2016). My study suggests that we must also pay close attention to

how actors working to “address” societal issues are actively constructing the very problems - including their “tractability” - they endeavour to solve.

2.1.3 How can grand challenges be addressed?

A common strand amongst empirical and conceptual studies of grand challenges is the notion that they are fundamentally actionable and, given the right set of conditions, tractable. In essence, fostering these conditions demand pro-active collaboration between diverse stakeholders so that multiple interpretations and interdependencies can surface, and subsequently, inspire the emergence of novel, imaginative solutions. Many studies examine the effectiveness of specific strategies, practices and partnership configurations in defining and tackling grand challenges. For example, Cobb, Wry and Zhao (2016) study the link between institutional logics and micro-finance funding to foster financial inclusion. Williams and Shepherd (2016) examine organisational responses to the Haiti earthquake disaster. Lawrence (2017) analyses the institutional dynamics that enabled the emergence of novel drug-rehabilitation practices in North America. Olsen, Sofka and Grimpe (2016) illuminate the complexity of coordination amongst multiple stakeholders with different levels of capacity and access to technological resources.

According to the literature, multi-actor deliberations, mutual understanding and coordination are necessary conditions for fostering novel solutions to grand challenges (Dentoni, Bitzer & Schouten, 2018; Eisenhardt, Graebner & Sonenshein, 2016; Ferraro et al., 2015; George et al., 2016; Schad & Smith, 2019). Brammer et al. (2016) note that solvability is dependent on diverse stakeholders cooperating in assembling a joint solution (Kuhlmann & Rip, 2018). According to Ferraro et al., (2015: 373) collaborative action requires sustaining “different interpretations among various audiences with different evaluative criteria.” George et al. (2016) echo this, calling for the integration of “alternative voices,” “multilateral dialogs” and “additional perspectives” amongst grand challenge stakeholders (p.29).

According to Ferraro et al. (2015), the tractability of grand challenges depends on applying robust strategies such as enabling widespread participation (“participatory architecture”) and allowing multiple interpretations (“multivocal inscription”) (p. 373) to surface during deliberations. The authors emphasise the importance of maintaining sustained, long-term commitment and engagement amongst focal actors. Berrone, Gelabert, Massa-Saluzzo and Rousseau (2016) emphasise the importance of cross-sectoral partnerships where each stakeholder has unique capacities that contributes to more enduring solutions to complex problems. George et al. (2016) refer to the importance of multi-stakeholder platforms where actors can coordinate action, enabled by “dialogue and mutual understanding” (p.19). The authors also emphasise the importance of shared goals and reinforcing behavioural norms and stakeholder compliance.

The generation of novel ideas is a decisive factor in rendering grand challenges tractable. Colquitt and George (2011: 432) highlight the need for “bold ideas,” whilst Eisenhardt et al. (2016: 1113) stress the importance of “unconventional approaches.” Ferraro et al. (2015) underscore the significance of distributed experimentation and co-learning that allows novelty to emerge during multi-stakeholder action. According to the authors, robust strategies are “purposive sets of action” (p. 372) that create the conditions where “novelty emerge even as action unfolds, interdependencies are discovered, and actors refine their understanding of the issues and their stakes” (p. 373).

The need for multi-actor deliberation, multiple viewpoints, collaboration, a paradox perspective and novel solutions is therefore ubiquitous in the grand challenge literature. Schad, Lewis, Raisch and Smith (2016) comment on how grand challenges surface paradoxical tensions between actors and propose that attending to these tensions foster novel perspectives and ideas. Jarzabkowski, Bednarek, Chalkias and Cacciatori (2019) state that a paradox lens can encourage actors to develop a more constructive relationship with the

contradictions and interdependencies that are “fundamental” (p. 129) to engaging with a grand challenge.

The persistence of so many local and global grand challenges suggest that actors’ potential to generate engaging, collaborative and novel solutions have not been fulfilled. Why? Scholars recognise that continual engagement and collaborative partnerships between multiple actors are not easily achieved (Brammer et al., 2019; Ferraro et al., 2015; George et al., 2016). George et al. (2016) note how organisational constraints (such as goal conflicts) and institutional contexts (such as restrictive professional norms) can hinder grand challenges’ resolution. Much of this literature has analysed grand challenges - and the attendant dynamics of conflict and collaboration - through an institutional theory lens, applying notions such as institutional logics, institutional entrepreneurship (Ferraro et al., 2015), network conditions and field-level change (Padgett & Powell, 2012) and the influence of regulatory systems and socio-political contexts (de Bakker, Rasche & Ponte, 2019).

According to Purтик and Arenas (2019: 963), responses to grand challenges may require “changes in societal norms, values, and expectations” and these elements often cause contestation amongst actors. Institutional contexts (societal norms, logics, regulatory environments) do influence how stakeholders engage with a grand challenge (George et al., 2016), but norms, values and expectations are also powerful contextual facets that motivate actors to interpret and respond to challenges in particular ways.

Norms, values and expectations are essential elements of an organisation’s social-symbolic context, and norms and values in particular shape actors’ affective dispositions. In examining how actors respond to grand challenges, organisational social-symbolic contexts shape how challenges are interpreted and acted upon, yet this is a neglected theme. Mischel (1968) refers to contexts as “situations” that can enable or constrain human agency. He also identified that norms and roles can become rigidly entrenched in strong situations and have a

deterministic impact on behaviour. In contrast, weaker situations are flexible and enable more independent thinking and action.

Grand challenges require making meaning of ambiguous phenomena (Brammer et al., 2016). Since contexts shape meanings (De Rond & Lok, 2016; Johns, 2006) and enable commitment and action (Christensen, Morsing & Thyssen, 2021; Ford & Ford, 1995), contexts dramatically influence how actors subjectively experience challenges and how responses are enacted. Yet, little attention is paid to how social-symbolic contexts shape the evolution of and actors' engagement with grand challenges. A notable exception is De Rond and Lok (2016) who explicate the role of professional, cultural and organisational contexts in shaping responses to grand challenge. Emphasising actors' affective experiences,² the authors show how organisational meaning structures and practices determine how actors think, feel and act towards the grand challenge of war. They find that contextual factors undermine actors' efforts to cope with grand challenges in contexts that are earmarked by intense emotions and ongoing stress.

Attending to socially constructed contexts can help us understand how and why actors perceive complexity in such distinct ways and consequently, why they respond as they do to the "complex" situations invoked by grand challenges. Interestingly, scholars of extreme contexts pay attention to both the perceived attributes of the context itself (e.g., the contextual dynamics of an unfolding emergency or disruptive event, such as a war or natural disaster), but also highlight the importance of organisational contexts where people think, feel and act from (Hällgren, Rouleau & De Rond, 2018). Here, scholars emphasise the role of affect, expressed emotions and negative emotional states that shape how actors make sense of and respond to complex scenarios. Even though the crisis and change literatures foreground

² Building on the definition offered by Barsade & Gibson (2007) my use of the term "affect" denotes actors' moods, feelings, emotions and moral-emotional dispositions that influence their ways of being, thinking and doing.

shared meanings and emotions (Maitlis & Sonenshein, 2010) to explain organisations' adaptive or dysfunctional responses to complex problems, a similar emphasis on affect and context is lacking in the grand challenge literature. This is surprising, since extreme contexts and grand challenges both imply high-stakes organisational action. Focussing on contextual factors that mediate actors' responsive capacity should be of equal interest to both sets of scholars (noting that these literatures sometimes overlap, as seen in the work of De Rond and Lock (2016)).

Ferraro et al. (2015) remind scholars that institutional theorists have long called for a better understanding of the connections and mechanisms between organisational action, field-level change and novel solutions to grand challenges. However, scholars neglect the contexts in which "organisational action" take place, with important consequences for actors' ability to respond constructively to grand challenges. George et al., (2016) agree that grand challenges cannot be solved outside their social, institutional and cultural context, but a more explicit actor-centric focus on organisational context is needed. For example, George et al. (2016) describe goal conflict between stakeholders of a grand challenge as an "organisational constraint" (p.17). The very existence of these constraints (such as divergent agendas and incentives) is taken for granted and is described as par for the course when organisations attempt to collaborate in pursuit of a grand challenge. Here, a focus on organisational contexts and affective positions can help surface the root causes of tensions between actors. Yet, we know little about how actors construct the very contextual elements that "constrain" effective action and collaboration for novel solutions.

2.2 A social-symbolic perspective on grand challenges

In the preceding sections, I highlighted how grand challenges became salient within the management literature, inspiring studies that examine the relationship between societal problems, organisations and institutions. I identified two gaps in the current grand challenge

literature. Firstly, we need an actor-centric, social constructivist understanding of what grand challenges are and how they evolve. Secondly, we need to better understand how organisational contexts impact the tractability of grand challenges. Addressing this gap requires a theoretical lens that illuminates how grand challenges are socially constructed and how actors' attendant organisational contexts (the theatre of actors' subjective experiences) shape responses to grand challenges. I therefore chose a SSW lens to describe the complex and unpredictable dynamics that construct societal problems and responses to them.

The term "social-symbolic work" was conceptualised by Phillips and Lawrence (2012) and denotes the actions of purposive, reflexive actors as they employ a range of practices to create and give meaning to their social-symbolic contexts. Scholars' interest in SSW is part of a larger turn in management studies towards examining real-time practices and the relation between socio-material activities and their effects on the organising process (Nicolini, 2009). Practices are fundamental to social life, "the unspoken and scarcely notable background of everyday life" (Nicolini, 2009:1392) and is easily be overlooked. A SSW lens brings them, and their effects, to the fore.

SSW explains how actors purposefully influence the often taken for granted facets of their organisational contexts, such as identities, emotions, institutions, ideas, aesthetics and values (Phillips & Lawrence, 2012), the very facets that give meaning to organisational life. These facets are social, since they exist in the social interactions amongst individuals and groups, and they are symbolic, since they are constructed and expressed through language and other symbols (Phillips & Lawrence, 2012).

Lawrence and Phillips (2019) use the example of the concept "endangered species" (very apt to my own study) to illustrate what SSW is. The concept and its effects illustrate the constructivist (Berger & Luckman, 1966) underpinnings of the SSW perspective and the centrality of language in creating reality (Austin, 1975). The authors explain how the

phenomena of biodiversity loss became a grand challenge during which the term “endangered species” was invented by a range of interested organisations. Even though the term describes dwindling animal populations, it invokes a moral order where practices to protect certain species are deemed legitimate. The term has ontological effects, since it implies a certain kind of natural environment in which actions to protect biodiversity makes sense (for example, practices to “protect” nature can only be good and necessary if “nature” is constructed as “threatened” and worthy of protection.) Organisations engage in various forms of SSW, deploying a range of narratives, images and artefacts to turn the phenomenon of biodiversity loss into a salient problem and the SSO of “endangered species” is central to this endeavour. A SSO is “a socially constructed, interpretable entity that describes some perceived consistency across space and/or time” (Phillips & Lawrence, 2019: 24).

Phillips and Lawrence (2012) highlight the proliferation of descriptions of multiple types of SSW in the management literature, including institutional work (Lawrence & Suddaby, 2006), boundary work (Lamont & Molnar, 2002), identity work (Svenningsson & Alvesson, 2003), emotion work (Hochschild, 1979: 560) and aesthetic work (Warhurst & Nickson, 2007). Although these forms of work focus on different settings and SSOs, they have in common the study of how individuals and organisations engage in “a conscious, intended try” (Hochschild, 1997, quoted in Phillips & Lawrence, 2012: 2) to influence social-symbolic objects (SSOs). SSOs are a central theme in the study of SSW and denote “combinations of discursive, relational and material elements that constitute meaningful patterns in social systems” (Lawrence & Phillips, 2019: 6). They include organisational boundaries, identities, emotions, careers, and the beliefs and assumptions that animate organisational and institutional contexts. SSOs have material dimensions, such as technologies and other artefacts that are imbued with stable meanings. SSW practices target malleable SSOs as actors compete and cooperate to influence what phenomena mean and

how organisations respond to them. SSW practices are always social, and it is through these practices that “morality, meaning and normativity” (Nicolini, 2009: 1405) are produced in shaping the meanings of SSOs.

Lawrence and Phillips (2019) developed a typology of SSW, based on the micro, meso and macro levels where SSW takes place, and the type of SSOs it targets. The authors describe three main forms of SSW: self work (micro), organisation work (meso) and institutional work (macro). Self work targets the SSOs of emotions, identity and careers. Organisation work targets SSOs of strategy, boundaries and technologies. Institutional work targets the SSOs of practices and categories. For example, in order to target the SSO of “practices,” actors engage in practice work to promote the adoption of novel practices in a particular field (Zietsma & Lawrence, 2010). Zietsma & Lawrence’s (2010) study described how actors engaged in forms of institutional work (boundary and practice work) to legitimise novel forestry practices in a field, fostering institutional change.

Although the concept of SSW is a fairly recent one, scholars have long studied actors’ practices as they transform the meanings of SSOs that may appear fixed. Lounsbury and Glynn (2001) explain how actors harness SSW to not just align themselves with prevailing societal norms and values, but to actively shape those norms and values. Lamont and Molnar (2002) attend to the symbolic nature of boundaries and boundary work, looking at how boundaries - distinctions and categories - assign meanings to people and objects, time and space, thereby promoting, upholding and contesting preferred versions of reality. Warhurst and Nickson (2007) show how aesthetic work transforms employees’ physical appearance to appeal to clients in a customer service environment. Flaherty (2019) examines individual or interpersonal efforts to create or suppress particular kinds of temporal experiences.

2.2.1 Zooming in on three forms of SSW

I discuss three forms of SSW - boundary work, identity work and temporal work - in more detail here as they are central to my study (I elaborate on this analytical choice in the methods chapter).

Boundary theory explains how people uphold, disrupt or invent social or conceptual boundaries to simplify and order the world around them (Ashforth, Kreiner, & Fugate, 2000). An example is how actors within particular professions do boundary work to defend or increase their influence within a field or area of jurisdiction (Allen, 2000). Boundaries have material dimensions and consequences. Burri (2008) shows how radiologists used physical space and artefacts to establish their authority over other technologies and to bolster particular meanings associated with the SSOs that were core to making their profession meaningful. My study highlights how actors work to transform boundaries that give physical spaces meaning, “conceptual distinctions made by social actors to categorise objects, people, practices, and even time and space” (Lamont & Molnár, 2002: 168). Lawrence and Phillips (2019) conceptualise boundary work as a form of organisation work, employed by actors as they shift social boundaries in and around organisations. Even though boundaries are at the core of human cognition and sensemaking, their role in structuring everyday reality is taken for granted, they frequently remain concealed and therefore unchallenged.

Identity work refers to “people being engaged in forming, repairing, maintaining, strengthening or revising the constructions that are productive of a sense of coherence and distinctiveness” (Svenningsson & Alvesson, 2003: 1165). Identities are socially constructed (Oyserman, Elmore & Smith, 2012) and therefore fluid, and are rooted in our relationships with others (Lawrence & Phillips, 2019), and the roles (e.g., entrepreneur, father, call centre agent, manager, soldier) that emerge as we interact with each other. Social identity theory (Ashforth & Mael, 1989) emphasises how identities are shaped by adhering to roles,

interacting with others, and from deriving a sense of belonging from available social categories.

Lawrence and Phillips (2019) identify identity work as embedded in broader forms of “self work,” performed by “ever-changing casts of individuals and collective actors” (p.101). Actors can, in some circumstances, strategically alter the identities of others to manage relations between groups, defend threatened identities and expand social control over others (Lawrence & Phillips, 2019). Actors therefore engage in SSW to shape their own selves, but also the selves of others. Lawrence and Phillips (2019) offer a potent example of how organisations construct the selves of others is how the Ford Motor Company established a Sociological Department in its early days to alter workers’ selves to be more diligent, industrious and moral (Meyer, 1981).

The final SSW construct I discuss here is temporal work. Human experiences of time are relative. Different cultures, organisations and groups relate to time in diverse ways, drawing on objective clock time or qualitative time, which is defined by subjective events, activities and experiences (McGivern et al., 2017). According to Kaplan and Orlikowski (2013: 991), temporal work occurs “by reinterpreting the past, responding differently to present concerns, and envisioning the future in innovative ways.” Temporality, or temporal experiences and orientations, is therefore SSOs since actors manipulate taken for granted experiences of time, not least through deploying the vocabularies of urgency - “deadlines,” “windows of opportunity” and time-bound “projects” (McGivern et al., 2017) - that are ubiquitous in contemporary organisational life and my research setting in particular. Temporal work has consequences for actors’ conceptions of “how much time they have, what is urgent, and whether the time is right” (Emirbayer & Mische, 1998: 1000). Salient to my focus on grand challenges, McGivern et al. (2017) find that actors working on a public health

project shape the social construction of a healthcare problem through manipulating temporal orientations, which in turn, legitimise particular activities and time frames.

Common amongst boundary, identity and temporal work is that the meanings they target are generally taken for granted. A SSW perspective shows how these SSOs are malleable, and how the acceptance of their ostensibly intrinsic meanings is a vital social-symbolic achievement.

2.2.2 Programmes of action, practices, and power

Although the SSW perspective recognises that actors are constrained by social structures like societal norms and moral categories, the emphasis is on agents' ability to engage those structures reflexively and to modify them through SSW. According to Lawrence & Phillips (2019: 30), “social-symbolic work involves heterogeneous forms of agency that are oriented toward the past, present, and future. It is bundled into programmes of action that, while not continuous, are coherent in their aims and the actors involved.” Like SSOs, the concepts of “programmes of action” and “practices” are important constructs that make SSW visible. SSW involves the deployment of practices, which are embodied, practical activities (Schatzki, 2001) that take place amongst people with a shared understanding of what a practice means, how it must be “done” and how it relates to other practices and social situations. Lawrence and Phillips (2019) refer to practices as “legitimate routines from which actors draw strategies for shaping and maintaining social-symbolic objects” (p. 252). Practices are purposive and patterned, and gain meaning through actors’ social interactions. They are essential building blocks of programmes of action and represent actors’ purposeful and coordinated efforts to craft a particular version of organisational reality.

SSW gets bundled into programmes of action that constitute SSW, “built up out of practices that actors learn, reproduce, and extend” (Lawrence & Phillips, 2019: 30). By analysing actors’ programmes of action, SSW is surfaced. Grand challenges, for example,

trigger a range of strategies, practices and routines, practical organisational programmes of action, to mitigate them. Within such programmes of action, the SSW work of actors is inspired and expressed. Programmes of action are, therefore, important analytical categories in my study that serve to highlight and make sense of actors' SSW.

Lawrence and Phillips (2019) recognise that the meaning attached to SSOs have a history which, in some cases, is fraught with asymmetrical power relations, heavily influenced by the interests of powerful actors. For example, actors' SSW led to the 1973 Endangered Species Act with far-reaching consequences for how living things and habitats are managed. The term “endangered species” originated in the Global North and is used by powerful international conservation organisations to dominate not just how “endangered species” is defined, but also how such species are managed. Lamont and Molnár (2002), in their study of boundary work, show how symbolic distinctions materially benefit members of in-groups and influence the distribution of resources. Institutional work (Lawrence & Suddaby, 2006) invents, upholds or disrupts institutions and different societal groups benefit or are marginalised when particular institutions (such as patriarchy) become dominant through actors' SSW. The same is true for identity work (Svenningsson & Alvesson, 2003) where the selves of others can be constructed and manipulated to mirror the strategic needs of powerful actors. Group membership also comes with particular affordances of power and privilege. Knights and Willmott (1989) stated that the exercise of power depends on amenable subjects whose identities reflect dominant power relations. Alvesson and Willmott (2002) points to the more subtle, political effects of identity work as a form of social control occurring inside organisations to shape employee behaviours, obviating the need for external forces of coercion. According to Lawrence and Phillips (2019), identities are inherently political, “as they are rooted in social categories and roles that carry with them different levels of legitimacy, status, and privilege” (p. 97).

2.2.3 Contributions of a social-symbolic work lens

A SSW perspective contributes to addressing the two gaps I have identified in the grand challenges literature. Firstly, SSW offers a lens that foregrounds the role of actors and practices that construct reality. Although some scholars recognise that grand challenges are socially constructed, we know very little about the social-symbolic practices that bring them to life. Secondly, organisational contexts are actors' springboards from which they interpret, experience and act on grand challenge phenomena. To mitigate grand challenges, the literature recommends that actors sustain long-term engagement, multiple interpretations, engage in paradoxical thinking and collaborate to devise novel strategies. However, the majority of extant literature ignores the role of affect that form part of organisational contexts, even though it influences actors' ability to do the things scholars call for (e.g., be engaged, creative, broadminded, adaptable, cooperative, and so forth). The SSW perspective lends itself to addressing this gap, since its very essence is to ask questions about how actors construct organisations and organisational contexts (Lawrence & Phillips, 2019).

I also aim to contribute to the SSW literature by explicating how actors align multiple forms of SSW, targeting multiple SSOs, and the consequences of multiple forms of SSW occurring within a single organisation. Most SSW studies focus on the efforts of actors as they target discrete social-symbolic objects with a particular form of SSW, such as identity work altering identities (Svenningsson & Alvesson, 2003), strategy work producing organisational strategies (Whittington, Molloy, Mayer & Smith, 2006) and emotion work modifying feelings (Watson, 2008). Lawrence and Phillips (2019) note that different forms of SSW tend to be treated as discrete and independent classes of phenomena, and they call for more studies that focus on the “reciprocal impacts” (p. 297) of different forms of SSW that target several SSOs simultaneously. According to Lawrence and Phillips (2019), this presents a new avenue for research – “how actors combine different forms of social-symbolic work,

and how the different strategies for combining affect the motivation, practices, and effects in play” (p. 252).

Grappling with grand challenges involve making meaning of many ambiguous moving parts. It typically leads to actors defining nested sets of problem causes and effects, the involvement of multiple stakeholders holding diverse views and a wide range of scientific and technical communities offering their expertise to the issue at hand. Actors working on grand challenges are therefore particularly likely to engage in various forms of SSW, simultaneously, to influence the meaning of multiple SSOs. Such parallel bundles of SSW in a single organisation create the risk of losing internal coherence and can foster competition between analogous sets of practices (Lawrence & Phillips, 2019). My research setting thus lends itself to the study of the features and consequences of concurrent, parallel forms of SSW.

2.3 Summary

In studying and acting on grand challenges, scholars and practitioners tend to focus on the assumed, descriptive facts of these challenges. Objectifying grand challenges overlook the subjective experiences of actors working “on” them and the organisational contexts that enfold actors’ affective dispositions towards complex phenomena. As a result, scholars’ and practitioners’ attention is diverted from the role actors play in creating the very problems they aim to address. We need a constructivist understanding of what grand challenges are and how organisational contexts influence actors’ ability to create the conditions for novel solutions to challenges to emerge. I therefore ask, how do actors engage in SSW as they grapple with grand challenges, and in doing so, how does SSW shape the tractability of these challenges? To answer this question, SSW offers an analytical lens that brings the focus back to actors, foregrounding their role in constructing grand challenges and organisational responses to them.

CHAPTER 3

METHODS: METHODOLOGY

This chapter explains how I gained entry into the research field, how I developed my research question and how I sampled participants for my study. I also describe why I made particular methodological choices and how I analysed data from multiple sources. Finally, I reflect on factors that influenced the quality of my findings, the management of ethical matters and the personal learnings afforded by my PhD journey.

3.1 Entry into the field

In 2015, I had a chance encounter with the issue field, which marked the beginning of my research project. Most of my career has been in the NGO sector, working on health, education, human rights and climate change projects. Between 2014-2015, I spent 3-5 days per month in the study area (roughly a 5-hour drive from Johannesburg to the provinces of Mpumalanga and Limpopo), working as an NGO consultant on a climate change project. Although my assignment focused on climate change adaptation, the work exposed me to actors and organisations in the conservation field. This experience helped me gain a tacit understanding of issues that shaped the field at the time. One day in 2015, my colleagues casually invited me to a networking workshop hosted by another NGO. This workshop's aim was to gather like-minded organisations to discuss conservation-related matters. I was curious and went along.

A range of public, private and civil society actors attended the workshop, and as it happened, rhino poaching was an agenda item. After a few presentations on issues such as the clearing of alien plants, land reform and river health, four organisations presented their views on the vexed problem of rhino poaching. A notable change in mood occurred as soon as the poaching topic was announced. Suddenly, a sense of gravity and expectation was palpable in the hot, stuffy conference room. Each presenter offered a unique interpretation of the

poaching problem. For some, the rapid rise of poaching incidents stemmed from a lack of robust security measures and technologies to ward off armed intruders. For others, the problem grew from restrictive rhino horn trade regimes and local people's apathy towards nature conservation.

As I sat there surrounded by conservationists and a few community development practitioners, I was struck by how a seemingly well-defined and tangible problem - the killing of wild animals to feed the demands of an illegal market - elicited such a wide range of interpretations and responses. Also, rhino poaching appeared to have caused an unexpected crisis, allowing a range of actors to promote ideas that went well beyond solving the immediate problem of poached rhinos. I noticed how actors utilised the poaching problem to challenge long-standing ideas about what "nature conservation" meant and who it was supposed to benefit. At least two out of the four presenting organisations framed rhino poaching as a symptom of a broader problem: that local communities were not reaping enough financial benefits from living close to the very areas where poaching took place. The remedies promoted by these two organisations did not directly focus on the protection of rhinos, but on ambitious endeavours to reorganise economic relations between different and unequal social groups.

Most remarkable was how conversations about rhinos differed from conversations about climate change. The poaching discussion dramatically affected the atmosphere in the room. It elicited actors' passions, and the problem seemed much more vivid and urgent than the ostensibly slow-burning effects of climate change or the degradation of freshwater sources. After the discussion, I noticed how some workshop participants stood around in small groups, talking to each other in soft, low voices, sharing stories about the latest spate of nocturnal poaching incidents. The mood was solemn, and I could sense an atmosphere of disbelief and exhaustion amongst the (mostly) khaki-clad men. I wanted to learn more about

why and how the grand challenge of poaching inspired so many diverse (even polarising) emotions, opinions and remedies.

During my consultancy assignment, I worked closely with an NGO employee who would later take up a senior management position in KNP. This contact greatly facilitated my research entry into KNP and helped to introduce me to a range of knowledgeable actors (inside and outside KNP) who were willing to talk to me about rhino poaching. At that time, there were several researchers (mostly from Europe and North America) doing work on rhino poaching, and many actors complained that they were “stalked” by researchers who seemed to “parachute” in and out of the landscape. Furthermore, security initiatives were surrounded by a degree of secrecy, making actors reluctant to talk with inquisitive outsiders,³ and rhino poaching had attracted a great deal of unwanted media attention. As one senior Security Actors explained, “last year I had to deal with eighty visitor groups, that's almost two per week. Media scrutiny is intense. And the guys said, 'wow, you are on TV!' Years ago, it would probably have been a big deal. I would have called my mom (laughs), but now...all it indicates to me is a risk” (RP7). However, thanks to the introductions made by my colleague, I was soon treated as a welcome, benign outsider, and I was able to overcome actors' initial resistance against talking about poaching.

Upon commencing my fieldwork in 2016, I was a non-participant observer, accompanying and shadowing research participants to meetings, workshops, training events and other field-based activities. I maintained my outsider status, although my presence in the field soon became unnoticed. Drawing on Van Maanen's (2011) typology of researchers' self-representation, I started my fieldwork as a “professional stranger” (Lofland, 1974) and “self-

³ Poaching-related information was sometimes closely guarded by Security Actors, such as statistics about the number of rhinos poached and the frequency of violent encounters between rangers and poachers. Actors worried about strategic information making its way to poachers due to internal corruption but were also concerned about bad publicity. Poaching solicited very strong emotions from social media interest groups (Büscher, 2016) and park officials were regularly castigated for their seeming inability to stop poaching.

reliant loner” (Agar, 1980). After about six months, as research participants became habituated to my presence and I established relationships with a wide network of actors, I graduated to the role of “marginal native” (Freilich, 1970).

In 2016, whilst still primarily focussing on the rhino poaching issue, I met a few strategic KNP leaders who enabled me to gain fast and relatively unrestrained access to research participants and organisational activities. During my first meeting with one of KNP's high-level security actors, he invited me to the annual assembly of GRAA (Game Rangers Association of Africa), which took place in KNP in mid-2016. I keenly accepted this invitation as an opportunity to meet more Security Actors,⁴ and in addition, rangers from other African countries. During this event, RP7 did a keynote presentation and ended his session with an invitation for questions from the floor. When attendees were slow off the mark, he saw me in the audience and said, "Lindie, I'm sure you have a good question to ask me?" He caught me slightly off guard, and I jokingly replied (calling him by his military title) that I've surely “grilled” him enough with my “difficult” questions. Attendees found this exchange rather humorous. During the tea break, I was casually chatting to two wardens (private reserve managers), when RP7 walked past and threw me the keys to his bungalow. He matter-of-factly said that I could sleep there if I wanted to. I caught the keys, and the wardens and me stood there looking sheepish. Did RP7 just ask me to *share* his bungalow? RP7, noting our awkwardness, laughed and clarified that he had to leave on urgent business and that the bungalow was vacant and that I could stay there if I wanted to.

Within the first few hours of the GRAA conference, I had obtained not only luxurious accommodation for the night (compared to my tent) but also gained instant legitimacy as a non-threatening outsider. This smooth entry was facilitated by my understanding of cultural

⁴ I use this label to describe actors who worked on KNP's paramilitary response to rhino poaching, and “Inclusion Actors” to denote those involved with the park's efforts to build relationships with neighbouring communities.

scripts. RP7 and I were white Afrikaans-speaking South Africans. I grew up during the Apartheid years and know how to behave around military men. I understand their dry sense of humour, which, for the most part, remain immune to the demands of political correctness. For the rest of the two days of the conference, nobody asked me why I was there or what I was doing.

I was free to take photographs, do interviews and participate in social activities. This included an insightful story-telling evening where legendary rangers regaled the audience with humorous and suspenseful tales about their long careers spent (barely) surviving perilous encounters with big game and poachers. That particular evening introduced me to a story-telling genre I would repeatedly encounter in the years to come. Protagonists in these stories were wild men encountering wild animals in the sensory vividness of the African bush, a place brimming with life, death, dust, blood and otherworldly spirits. That night, every story featured a supernatural force in some way or another. Elephants stopped mid-charge following a short negotiation between a ranger and God. A leopard turned and ran after locking eyes with an unarmed ranger who had felt the “gaze of something” on him for days. Later that night, as I was standing next to a fire talking to another researcher and his ranger friend, the ranger friend, after I enquired about a scar on his leg, matter-of-factly reported that he was attacked by a crocodile years ago (pulled from the animal's jaws by his pregnant wife), and a few months earlier, was gored by a rhino in Malawi. Such stories are multiple and ubiquitous in the research field. Later I came to learn that rangers' work also includes untold hours of tedium, but their self-narrations invoked the heroic and quixotic.

Their narratives were also meant to evangelise. Looking back, I must have spent at least the first year of my research suffering from an intellectual khaki fever,⁵ as I came to

⁵ “Khaki fever” is a colloquialism that refers to the romantic infatuation that “outsider” guest and visitors are said to display towards khaki-wearing “insiders,” typically male rangers or safari guides.

view field rangers as extraordinary (if not slightly eccentric) human beings with special powers, living in and with wild “nature.” As I encountered the SSW literature, I came to understand that my specific experience of khaki fever was indeed an evocative social-symbolic achievement afforded by the purposive identity work of Security Actors. The fetishization of rhinos and ranger work went hand-in-hand, and I had unwittingly experienced its social-symbolic machinations as I became absorbed into KNP's social-symbolic context. The SSW had *worked*.

I offer an additional anecdote to illustrate how I gained entry into the field. One of my first interviews in 2016 was with the then warden of a prominent private nature reserve adjacent to KNP, a reserve heavily affected by rhino poaching. After an initial interview and some additional introductions, the warden and his team invited me to stay over in the “student accommodation” inside the reserve. I subsequently spent several days there. I accompanied the warden to a quarterly high-level security meeting with KNP and other private reserves. The meeting chairman had rather forcefully turned down my request to attend (emailed a few weeks earlier), but when I showed up with the warden, the chairman asked no further questions and I freely attended the meetings for the next 12 months. Because KNP Security Actors saw me attend these meetings, they were generally comfortable to accept my invitations for one-on-one interviews.

From mid-2017, I started spending more time with Inclusion Actors. By that time, many Inclusion Actors had come to associate me with the work of Security Actors since I so often attended their meetings. The top management tier of the paramilitarisation programme of action was mostly white, and the inclusion programme of action mainly black. My own whiteness (and Afrikaans mother tongue) afforded me a relatively easy entrance into the world of Security Actors. My whiteness was a potential barrier with Inclusion Actors. However, my access into the world of the Inclusion Actors was greatly facilitated by a senior

KNP research participant who already straddled both these domains. Nonetheless, it was a case of me, a “white lady” being introduced by another “white lady.” I had to find my own way in.

As I visited RP9,⁶ a prominent Inclusion Actor for the first time, I noticed a toy car model on his desk. As it turned out, we were both fans of vintage cars, and we spent most of this first interview sharing photographs of our cars and lamenting the rising costs of vehicle maintenance. This interview was short, but during a subsequent discussion over a cup of coffee during a break at a workshop, RP9 told me that his forebearers lived inside the park but were forcefully removed in the early 1900s. In a subsequent interview, he also said to me that his job was to make sure that people on the “outside” - local communities - had a more positive view towards KNP since KNP was their only source of employment and business opportunities. By this time, I had become familiar with the SSW literature. I understood his apolitical allegiance towards KNP, despite his families' tumultuous history, was not as a function of his accommodating personality but was a social-symbolic accomplishment, a function of how Inclusion Actors turned the park into everyone's “heritage” and shared “asset.” I felt sure that he must have harboured some ill feelings towards the park, but I also understood that he would not articulate them. Again, the SSW had *worked*.

My outsider status here helped me gain access to the “party line” as much of the work of Inclusion Actors was about proselytising “outsiders,” about “making” communities see the value of KNP (RP 9) and “making” them care about the values associated with biodiversity (RP10). Throughout my fieldwork, I felt that I was enough of an insider to gain access to key informants and secondary data sources, but also enough of an outsider so that both Inclusion

⁶ When I had my first interview with this research participant, he took a phone call shortly before we began, and I could hear him say in Shangaan (a local language) to the caller that he was busy with a “Mlungu” - “white person” and that he would phone back later.

and Security Actors were motivated to win me over to their cause, exposing me to the full might of their social-symbolic efforts to give grand challenges meaning.

According to Van Maanen (2011: 2), “accident and happen-stance shapes fieldworkers' studies as much as planning and foresight; numbing routine as much as living theatre, impulse as much as rational choice, mistaken judgements as much as accurate ones. This may not be the way fieldwork is reported, but it is the way it is done.” I corroborate this claim. As much as I started with a plan that sported an interview schedule and a neat list of interview questions, I found very quickly that opportunities for data collection depended much on being in the right place, at the right time, with the right person. This required time and flexibility. The more time I spent in the field, the more I was exposed to unexpected opportunities to engage with knowledgeable actors and to partake in ad-hoc meetings and events.

After my first year or so of fieldwork, I decided that I wanted to move to the study area, primarily to escape the proverbial concrete jungle of Johannesburg, but also because I realised that my interest in conservation issues extended beyond my research project. In early 2018, I received a job offer from a conservation NGO (Worldwide Fund for Nature, South Africa), and I started working closely with KNP and other actors to curb poaching and improve the relationship between local communities and protected areas. The job offered me the chance to move to the study area and work with actors I had met during my research. In this sense, in late 2018, I became a native myself and actively participated in field-level events, with both Security and Inclusion Actors. Later in this chapter, I reflect on the impact of this move, from outsider to outsider-insider to insider, on my research process.

For the first two years of dedicated fieldwork (2016-2017), I primarily focussed on the poaching issue and interviewed a wide range of actors working on the conservation field in the Greater Kruger area. However, it became apparent that actors seldom broached the

topic of poaching without references to “local communities,” poverty, “beneficiation” and socio-economic development. Also, as I started to read more of KNP/SANParks' organisational documents, such as annual reports and strategic plans, I noticed that the park was not dealing with one discrete "problem" in the form of poaching. Rather, it dealt with two simultaneous challenges that were interlinked, although they were generally treated as separate phenomena. In 2018, I included the inequity problem as part of my analysis.

3.2 Evolution of the research question

My first foray into management theory led me to sensemaking (Weick, 1988) and, later, the grand challenges literature. Sensemaking provided useful concepts for understanding the social processes that unfold as people make sense of confusing and ambiguous events (Maitlis & Christianson, 2014) and this was particularly pertinent to the poaching drama. I developed my research proposal and identified the research question as "how do organisations make sense of complex environmental problems?" The theme of contentious and global environmental problems (with various organisational actors responding to them) further led me to the grand challenges literature.⁷ I learned more about the social dimensions of problems that are typically defined as grand challenges and came to think of the two “problems” in my empirical field in more abstract, theoretical terms. As much as poaching and inequity were local, idiosyncratic issues, framing them as grand challenges opened them up to new analytical opportunities and potentially helped make my research relevant to a larger audience.

⁷ I spent a significant time during the first year of fieldwork reading about complexity theory (Cilliers, 1998) and Complex Adaptive Systems (Gundersson & Holling, 2002) since the notion of "complex problems" originated from this multidisciplinary field. Over time, I came to see the grand challenge literature as having a more social-science compatible framing that could be applied to the problems I studied in my research project. Much of the complexity theory literature assumes that complex problems have intrinsic qualities that exists independently from the perceptions of the observer (Schlindwein & Ison, 2004) and as a result, this literature did not provide me with concepts to describe how actors invented subjective definitions as they assembled a problem as "complex."

After three years in the field interacting with multiple actors and organisations, I was struck not just by the "complexity" of the grand challenges themselves but also by how each challenge was surrounded by particular organisational/departmental atmospheres (animated by emotions such as resentment, urgency, cynicism, optimism, indifference) and the salience of artefacts and aesthetics (uniforms, artworks, weapons, maps, infographics). I was also increasingly aware of actors' moral dispositions towards each grand challenge, ranging from righteous anger to a sense of higher calling to "fix" these problems. Amongst Security Actors, in particular, I noticed how some on the front line of anti-poaching became increasingly fanatical about their work, whilst in others, I noticed the mental and physical signs of burn-out. I wondered how such an intense (but variable) emotional climate influenced actors' ability to not just cope with the demands of their day-to-day jobs, but also, to be creative and adaptive in the face of fluid, ever-growing problems.

During the 2018 EGOS conference in Copenhagen, I encountered the social-symbolic work literature. Through the concepts of SSW and SSOs, I was able to think about how actors gave grand challenges subjective meanings that were soon treated as objectively real by their peers in the field. Furthermore, I understood that the ideas, emotions, values and aesthetics surrounding grand challenges were not to be taken for granted as mere background or artefacts of the "setting," but that their very existence, their textures and meanings, were accomplishments in their own right. As much as I had noticed the powerful presence of such contextual elements, I had not yet come to see these as the products of the (mostly) purposively actions - the sayings and doings - of actors. SSW helped to explain how actors interpreted grand challenges and how they socially constructed the challenges and the organisational contexts from which challenges were tackled. Moreover, a review of the SSW literature raised my awareness of the role of history in how SSOs attained meaning. This

encouraged me to pay attention to the here-and-now of actors' lives and to also attend to historical events that shaped their lifeworlds.

Finally, I realised that a SSW lens presented a novel opportunity to study grand challenges, offering a constructivist perspective to phenomena that are often taken for granted. These insights led to my final research question: how do actors engage in SSW as they grapple with grand environmental challenges, and in doing so, how does SSW shape the tractability of these challenges?

3.3 Research approach and method

Even though my theoretical framing and research question shifted over the years, my ontological, epistemological and methodological assumptions stayed the same. My study is grounded in the perspective that what we perceive as reality is socially constructed through interactions afforded by language and symbols, and consequently, that our knowledge of such realities is also socially constructed (Berger & Luckman, 1966). Crotty (2005) draws attention to how knowledge and our experience of reality are made through practices, “being constructed in and out of interactions between human beings and their world and developed and transmitted within an essentially social context” (p.42). Correspondingly, I chose an interpretative, qualitative research design to illuminate how actors construct social reality, to shed light on how and why events and interactions unfold and to vividly describe actors’ experiences and contexts (Corbin & Strauss, 2014; Miles, Huberman & Saldaña, 2018).

A constructivist ontological and interpretative epistemological position treats organisations and organisational contexts as socially constructed and fluid. The creation of meaning in organisations is an ongoing interpretative process that emerges as people interact and communicate (Blumer, 1969). Over time, some meanings become widely accepted. However, these meanings are always open to re-interpretations as people improvise and expand upon existing scripts (Goffman, 1958) and as they encounter unfamiliar situations

which demand the creation of new meanings. Lawrence and Phillips (2019) explain that organisations are malleable SSOs, the target of actors' SSW to modify the strategies, boundaries and technologies that “make” an organisation. Organisations emerge from, on the one hand, the ongoing interactions between actors with choices and agency, and, on the other, the social structures that simultaneously constrain and enable them (Berger & Luckmann, 1966; Giddens, 1984). A social-symbolic perspective is congruent with this view, emphasising how actors purposively shape reality while being embedded in a reality that constrains their motivations and actions (Lawrence & Phillips, 2019).

From the onset of my study, I wanted to understand why actors thought, felt and behaved in peculiar but diverse ways in response to grand challenges. I wanted to gain insight into the “minutiae of actors' lifeworlds as well as the wider social and historical contexts in which these lifeworlds unfold” (Ybema et al., 2009: 6). I wanted to generate data through interpreting the intentions, interactions, actions and artefacts of the meaning-makers (actors) in my study, foregrounding the “meaning-making of people and/or the in situ organising processes and commonplace practices within a particular organisation” (Cunliffe, 2010: 228).

I chose ethnography as my primary methodology, that is, as my preferred “style of thinking and doing” (Gobo, 2008, para. 1). Zilber (2020) calls ethnography a method suitable to gather data in natural settings and to gain access to the “situated details” (Van Mananen, 2006: 18) of actors' organisational lifeworlds. Ethnography analyses the “events, language, rituals, institutions, behaviors, artifacts, and interactions” (Cunliffe, 2010: 227) that occur and evolve as organisational members go about their ordinary (and occasionally, extraordinary) business in everyday settings. Ethnography also lends itself to study the evolution of organisational meanings (Cunliffe, 2010). In short, ethnography allowed me to learn about the meaning-making and reality-construction practices of others, “through the latter's own

language and concepts...scripts and schemas, values, feelings, and beliefs, interpretive models of and prescriptive models for reality” (Ybema et al., 2009: 8).

According to Zilber (2020), ethnography enables researchers to attend to the “here and now” (p.1) as well as the broader social and historical context. Given my interest in the everyday doings and sayings of actors and their embeddedness in historical contexts, organisational ethnography provided a fitting methodological stance. It made a contextual analysis possible without losing sight of actors and their intentions, activities and practices (Ybema et al., 2009).

3.4 Sampling

At the onset of my study, rhino poaching was the only grand challenge I focussed on, and I identified six case study organisations, including KNP. I was going to compare the sensemaking processes between these six organisations. The other organisations were a local NGO, an international NGO, a private nature reserve, a rhino owners association and a conservation training institution. Five out of these six organisations operated in the Greater Kruger⁸ area and implemented a variety of interventions to prevent or react to rhino poaching. Although these organisations differed in how they responded the poaching problem, central to their activities was KNP. Organisations were either participating in KNP's efforts to coordinate a regional response to poaching, or they were working with local communities to engender a more pro-conservation and pro-KNP attitude.

In the first two years of my fieldwork, I interviewed actors from all six organisations. Towards the end of 2017, having been embedded in the field for two years and having finished the transcriptions for all interviews done to date, it became clear that the “poaching” problem was perhaps a symptom of another grand challenge. This “other” challenge was the

⁸ “Greater Kruger” is a term now commonly used by actors in the research area to loosely refer to the geography of KNP and the towns and villages adjacent to it.

economic and political tensions in the Greater Kruger between the “haves” and “have nots” (to employ a phrase often used by my research participants).

The inequity-as-a-grand-challenge theme emerged, and nowhere did the interlinked challenges of poaching and inequity receive more organisational attention and cause more disruption and purposive action than in KNP, the epicentre of rhino poaching in South Africa, and the focal point of the South African government's effort to transform the conservation sector into an inclusive, democratic and economically relevant endeavour. KNP's one-hundred-year history also provided a rich contextual layer within which to understand the origins and evolution of key SSOs that came to define much of my analysis. KNP's history provided insight into the history of the conservation sector as a whole and KNP has always reflected and inspired a range of evolving conservation management paradigms (Carruthers, 1995). I thus decided to focus on KNP in my study, based on the insights generated in my initial data collection and analysis (Strauss & Corbin, 1990).

KNP offered a unique opportunity to study how two linked, but seemingly paradoxical grand challenges were purposively tackled by a range of actors with different mandates and motivations. KNP's engagement with poaching and inequity was and still is a story of simultaneous efforts to both fortify and loosen physical and symbolic boundaries; to conserve pristine nature and yet commodify it; and to foster antiquated preservationist sentimentalities whilst embracing modern ideas of social progress and state-led economic development. This within an organisation intensely scrutinised by the media and a site of much political tension and pressure from a wide variety of South African stakeholder groups, including a range of South African government departments. I therefore treated KNP as an instance (Gobo, 2011) of how organisations employed SSW as they responded to interlinked grand challenges, and it provided what Patton (2002: 230) calls an “information-rich case.”

KNP proved to be a case where SSW was highly “observable” (Lawrence & Phillips, 2019: 270). Actors were actively (and sometimes frantically) turning grand challenges into programmes of action, inventing and transforming practices and producing discourses through documents, films, artefacts and everyday conversations. These purposive activities had multiple discursive, relational and material social-symbolic dimensions that lent themselves to study.

The sampling of research participants was purposive but also drew heavily on snowballing techniques. From a purposive perspective, my main aim was to interview two types of actors (since the roles of these two types of actors did not tend to overlap). Firstly, I was interested in talking with actors that were senior managers - influential sensemakers and sensegivers (Gioia & Chittipeddi, 1991) - who framed grand challenges and were instrumental in generating formal organisational discourses concerning them. I wanted insight into the frontstage (Goffman, 1959), “public life” of each grand challenge and how the organisation explained causes, effects and remedies to their members, to other field-level actors and public audiences.

Secondly, I was interested in the lived experiences of actors who worked daily “on” grand challenges. These were the Security Actors that did day-to-day law enforcement work and Inclusion Actors who interacted directly with stakeholder groups on the “other side” of the fence. This second group in particular gave me insight into the backstage (Goffman, 1959) articulations and enactments of grand challenge causes, effects and remedies. Research participants therefore represented both the strategic and operational levels of KNP, allowing for multiple interpretations and experiences, which in turn allowed certain organisational tensions and paradoxes to become visible.

I purposively sought out these two groups of actors for interviews. However, while I was interviewing someone on my list, it often happened that a random person walked in the

door, and the research participant would refer me to that person for another interview. These face-to-face referrals endorsed my presence in the research field and were instrumental in my gaining fast access to key informants. Referrals also helped me expand my list of interviewees who I could follow-up with at a later state. As mentioned before, “research fatigue” (RP8) and a reluctance to do interviews with outsiders are common amongst KNP employees. I had the experience with both Inclusion and Security Actors that my introductory emails went unanswered and that potential research participants only engaged me after an in-person or emailed referral from another known actor.

Apart from one-on-one interviews, I attended several meetings and workshops where my research respondents presented their work to their peers. I spent 50 hours observing more than half of my interviewees in this manner, and this greatly enhanced my appreciation of how they conceptualised grand challenges and engaged in SSW to be sensegivers to other organisational members and field-level actors. The experience of interacting with research participants one-on-one and in group contexts gave me access to the organisation’s “routinised and comfortable ways of perceiving issues” (Heracleous, 2006: 35) and the “symbolic, ideational, sub-conscious, unmanaged, fantasy-oriented organisational domains” (Gabriel, 1995, quoted in Heracleous, 2006: 46) of actors' lifeworlds.

3.5 Data generation

Upon choosing KNP as my sole case, I expanded my existing KNP dataset to include the inequity theme. I conducted a new round of interviews with Inclusion Actors and collected more data, including a wealth of organisational documents which I added to my dataset. During this time (2018 onwards), there was an upsurge in activities focused on inclusion work in SANParks, and KNP produced many documents and media products to describe and guide these activities. However, the strategy meetings and multi-stakeholder workshops I attended earlier, between 2016 and 2017 focussed on a variety of topics and

challenges, and the data sets (and interviewees) cannot be neatly delineated into the categories of “inequity” and “poaching.” For example, during 2017 and 2018, I attended multiple day-long workshops as KNP went on a roadshow to obtain inputs into and build support for its ten-yearly park management plan and the development of a cooperative agreement with neighbouring conservation entities. These workshops covered a range of topics, including security, socio-economic benefit-sharing with local communities, tourism, and ecological management issues such as water, fire and invasive plants. Actors were constantly talking about security matters, natural resource use and management, relations with neighbouring communities, socio-economic development projects and tourism. I made detailed descriptive notes (and transcribed particularly relevant sessions) during these workshops. When analysed, these notes yielded rich data on the sayings and doings of both Security and Inclusion actors. The bullet points below summarise my key data generation methods:

- Participant observation: this is a research practice where the researcher joins actors and groups that are being studied, accompanying and observing their formal and informal activities and probing and asking questions, participating in conversations and reading relevant documents (Jorgensen, 2015). I spent the majority of my time in the field doing participant observation and paying close attention to artefacts, atmosphere and sense of place. From my encounters with people and artefacts I generated notes and “thick descriptions” (Geertz, 1973) of actors' practices and interactions, including notes on my own feelings and perceptions as I moved through the phases of my research. For example, I spent 4 days with trainee rangers as they were taught how to do law enforcement patrols and interpret the behaviour of dangerous animals encountered on foot. I noticed how seasoned trainers introduced young trainees into a life of working and surviving in the wilderness, which helped to shape how I conceptualised the organisation's role in

defining the experiences of “nature” for myself and the park’s future employees. Field notes were captured in writing, using two A5 96 page double-sided and three A4 100-page double-sided notebooks, as well as typed memos (60 single-spaced pages.) I spent 46 days doing participant observation in the form of attending events, meetings and workshops. Please see Appendix 1, Table 1, for details on the events and themes on which my fieldwork focussed.

- Interviews: in the first two years of my research, I conducted 42 interviews, amounting to 60 hours, with actors working for organisations other than KNP (please see Appendix 1, Table 2, for information on these organisations and actors interviewed). During this initial phase of my research, I learned about the setting and built relationships, including relationships with actors who enabled me to also interact with KNP employees during workshops, meetings and field visits. From 2018 onwards my interviews focussed on KNP actors and I personally transcribed 53 hours of interviews, verbatim (200 single-spaced typed pages). Please see Appendix 1, Table 3, for a description of my interviewees.
- Artefacts: according to Gagliardi (1996), artefacts and materiality communicate uncensored tacit knowledge that people in organisations don't always want to or can express. More scholars are drawing attention to the importance of the visual and material dimensions involved in how organisations and institutions construct their realities (Meyer, Höllerer, Jancsary & Van Leeuwen, 2013). According to Gagliardi (1996), the physical setting is not just a neutral stage for organisational action. It actively nurtures the senses that “refines some of our perceptive capacities (perhaps at the expense of others)” (Gagliardi, 1996: 702). I took over 500 photographs during my fieldwork and included many of these in my final dataset. My visual data sources also include the photographs

and graphics used by organisational members in documents such as presentations, reports and strategic plans.

- Secondary sources: I included a wide range of documents and communication artefacts in my dataset, most produced by SANParks and/or KNP. I analysed over 2000 pages of such documents, including annual reports, strategy documents, management plans, tender documents, press releases, academic papers written by research participants, media pieces, website pages, and so forth. Please see Appendix 1, Table 4, for a description of secondary sources. Whereas interviews and participant observation gave me direct access to actors' SSW, their motivations, resources and contexts, secondary sources were accounts of actors' SSW (Lawrence & Phillips, 2019), told from a variety of perspectives (e.g., media, scholarly research, stylised organisational narratives). Amongst these secondary sources, I highlight the following three:
 - Media: I drew from a rich array of news and current affairs media coverage that involved my research participants and study themes. According to Gurevitch and Levy (1985:19), media is "a site on which various social groups, institutions, and ideologies struggle over the definition and construction of social reality."
 - Videos: videos are instances of "story performances" (Boje, 1991) that emerge as organisations make sense of the world and seek to communicate and promote their understanding to others. All organisations in my study employed scripted and stylised internet-based videos to "give sense" (Gioia & Chittipeddi, 1991) to external audiences using powerful visual means to promote a particular definition of reality.
 - Historical sources: I studied the history of KNP, following the advice of Lawrence and Phillips (2019) to examine the history of how SSOs become salient and how macro-level political and other discourses influenced their evolution.

These combined data sources gave me access to the language, acts and objects that permeate meaning-making in organisations and are fundamental to the creation of SSOs and contexts. Ybema et al., (2009: 8) describe how ethnography gives researchers access to “narratives, discourses, stories, metaphors, myths, slogans, jargon, jokes, gossip, rumours, and anecdotes found in everyday talk and text (symbolic language); rites and rituals, practices, customs, routines (symbolic acts); or built spaces, architectural design, clothing, and other physical artefacts (symbolic objects).” These were the very dimensions of organisational life I gained exposure to by employing participant observation methods, interviews and analysis of secondary data.

In terms of my interview strategy, I started with an over-ambitious list of around twenty questions to ask participants. I quickly learned that research participants could sometimes spend the entire interview only talking about one question, or they would steer the conversation in an unexpected direction, disinterested in the questions I was asking. I adapted my interview approach so that participants had the opportunity to talk about the things that mattered to them. More often than not, the conversation circled back to issues related to poaching and/or inequity, since these matters took up so much of actors' time and energy.

I learned over time how to make research participants feel comfortable during interviews. I sensed that actors (especially senior managers) thought of interviews as a form of interrogation, involving a barrage of hostile questions and criticisms. To counter-act defensive attitudes, I initiated conversations during interviews in a very informal manner. Instead of immediately explaining the purpose of my research and launching into questions, I would start off by casually asking participants to explain why they chose certain artworks, brochures, maps or other schemata to display on their offices' walls. According to Nicolini (2009), tools and artefacts “carry the script their designers embed in them, and for this reason they convey a particular culture of action” (p. 1406). Artefacts not only told their own

stories, they also helped actors to articulate theirs. Crawford, Chiles and Elias (2020: 1) refer to “show and tell” inquiries, where artefacts are used to solicit ideas and stories from research participants.

I closely observed and photographed landscapes, built spaces (including making notes about affect and atmosphere), clothing and other artefacts. In some instances, law enforcement artefacts, such as firearms, ammunition, “ambush lights” and K9 harnesses filled actors' officers. I found the line of questioning – “What is this?” / “Where did you get this sculpture?” / “Why did you choose this painting?” / “Is that you in the picture?” - very useful. It was a good icebreaker since interviewees could immediately talk with confidence about something they knew well and cared about. It solicited stories that gave me insight into participants' day-to-day and subconscious life worlds and how they were sometimes in paradoxical tension with formal, public-facing narratives produced by the organisation. I found interviews (especially those lasting longer than an hour) to be an essential bridge for crossing between actors' frontstage rehearsed "scripts" and their private backstage ponderings and anecdotes.

3.6 Data analysis

Data analysis was guided by grounded theory (Charmaz, 2008; Corbin & Strauss, 1990) to “seek data, describe observed events, answer fundamental questions about what is happening, then develop theoretical categories to understand it” (Charmaz, 2006: 25). Grounded theory also allowed for multiple interactions between emerging data and existing theory, with existing literature offering useful constructs that advanced my analysis (Suddaby, 2006).

Coding was my analytical strategy for generating theoretical categories. According to Saldaña (2009: 3), a code is a “short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data.” I

followed Saldaña's advice to approach coding through two analytical cycles. The first cycle organises and reduces large amounts of data by capturing the essence of various segments, and the second cycle moves to an abstract level by organising codes into aggregated conceptual or theoretical categories (Saldaña, 2009).

3.6.1 First cycle coding

My first task was to gather and organise data that described actors' programmes of action. I treated programmes of action as observable containers within which SSW took place. SSW occurred through explicit programmes of action (Lawrence & Phillips, 2019: 30) and was thus visible for analysis. Programmes were articulated in strategy documents, project plans, infographics, slideshows, diagrams, maps, media stories, short promotional videos, and conversations during meetings, workshops and informal gatherings. I called the work of Security Actors the "paramilitarisation" and the work of Inclusion Actors the "inclusion" programmes of action (please see chapter four for a detailed description of these programmes). My final dataset was stored, analysed and coded using *ATLAS.ti*. My dataset contained primary and secondary data that illuminated different dimensions of programmes of action: the historical forces that brought them into being, their rationale and purpose, their organisation into discreet projects and departments, the artefacts implicated by them and the thoughts, feelings, motivations and actions of those tasked with implementing them.

First cycle coding was guided by what Charmaz (2006) and Strauss & Corbin (1998) call "initial" coding. This entailed an open-ended approach towards formulating codes, and I changed codes often as I analysed the data by constantly comparing codes for similarities and differences. My first-cycle codes were labels that described actors' actions (e.g., "creating a sense of crisis") but were also conceptual (e.g., "constructing a temporal orientation").

I created memos to capture broad themes that emerged as I coded my way through the data. According to Bryant and Charmaz (2007: 247) memos contain "the narrated records of

a theorist's analytical conversations with himself/herself about the research data." For example, some of my earlier memos (please see Box 1-3 in Appendix 1) concerned the different emotional textures that seemed to define the two grand challenges, how the park's history was made and remade by grand challenges and how collective sentimentalities, emotions and atmospheres seemed to "stick" to programmes of action in very different ways. Memos helped me to conceptualise the data and define and redefine codes.

As part of my initial coding strategy, I looked for action in the data and used gerunds for codes ("constructing," "justifying," "emotioning") to identify actors' activities and practices. Miles, Huberman and Saldaña (2018) note how gerunds support grounded theory studies to identify actors' actions, interactions and attendant outcomes. Codes that contain gerunds were especially helpful in identifying SSW tactics (subsets under specific forms of SSW) associated with SSOs.

Early on in my coding process, I came up with a range of labels for the SSW that actors engaged in (such as "cloning," "essentialising" and "othering" in relation to the SSO of identity). However, I felt myself getting entangled in an ever-growing list of granular "new" gerunds indexing forms of SSW. I realised that this was detracting from my research question. After all, my goal was never to identify new forms of work but rather, to understand how actors deployed SSW as they worked on grand challenges, and importantly, the consequences thereof. I decided to go back to the SSW literature, as well as research that described forms of work before being explicitly defined as "social-symbolic work." This review offered three existing forms of work that provided the conceptual tools for explaining how actors manipulated SSOs in my study. That is how I came to choose boundary work (in relation to manipulating the SSO of place/geography), identity work (in relation to manipulating the SSO of selves/identity) and temporal work (in relation to the SSO of time/temporality) to describe the key forms of SSW in my study. I provide more details on

how I arrived at these three constructs in the next subsection.

At the end of my first cycle coding, my *Atlas.ti* file contained 278 data items (consisting of transcribed interviews, photographs, media pieces, field notes, Powerpoint slides, etc.) with 593 quotations and 39 codes. The density of codes varied, and each code contained between 1 and 68 individual quotations that bracketed the raw data. Please see Appendix 1, Table 5, for an overview of the first cycle codes.

3.6.2 Second cycle coding

In the second cycle, I collapsed similar codes containing related quotations into categories (I also moved redundant ones into the background or discarded them altogether). I established relationships between categories and from this, distilled the key themes contained in my empirical model.

To start my second-cycle analysis, I printed⁹ an *ATLAS.ti* report for each code. Each report contained all the quotations associated with a particular code. In total, I printed 39 reports representing my 39 codes. I chose to review all the codes in hard copy for ease of reading and found it easy to scribble new insights in the margins, in addition to the electronic memos I already had on file. As I read through the quotations contained in each code report, I began to manually group together the individual reports that included codes and quotations with similar themes. For example, I created a binder for all reports that referenced physical landscapes and geographies, and wildlife, and grouped them under a new category: “constructing geography” which I defined as actors’ efforts to infuse a physical landscape with subjective spiritual, utilitarian or other values. Codes that were usurped into this category included “imbuing geographical space with meaning,” “expanding power and influence over a geographic area,” “zonation for rhino security,” etc. Please see Appendix 1,

⁹ Previously, I had a rather negative experience with losing my entire *NVivo* project when the file became irreparably corrupt. I decided to proceed with second-cycle coding manually. I still had the luxury of doing electronic searches and toggling between codes, since my dataset was stored in *Atlas.ti*.

Table 6, for an example of quotations assigned to the second-cycle category, “constructing geography.”

How actors manipulated experiences of time and temporality was another data-dense variety of codes. Code reports with related labels were “constructing a common heritage,” “creating a sense of urgency and importance,” “creating a temporal orientation,” etc. All codes were then subsumed under the category, “constructing a temporal orientation,” which I defined as actors’ efforts to shape or reshape subjective experiences of the past, present or future. Please see Appendix 1, Table 7, for an example of quotations assigned to the category “constructing a temporal orientation.”

Another very data-dense collection of codes referred to individual, organisational and stakeholder identities and themes related to the invention and maintenance of group membership. Code labels included “differentiating between stakeholder and group identities,” “sentimentalising/valorising an individual or group,” “constructing communities as stakeholders,” etc. I collapsed these codes under the category “constructing stakeholder identities” and defined it as actors’ efforts to construct the traits and behaviours of the selves of influential stakeholder groups implicated by a grand challenge. Please see Appendix 1, Table 8, for an example of quotations assigned to the category “constructing stakeholder identities.”

Lawrence and Philips (2019) explain that SSW always targets SSOs. SSW and SSOs are two sides of the same meaning-making coin. The density of particular codes reflected how actors expended resources and energy on redefining the park’s landscape, on crafting roles and attributes for different stakeholders, on remaking sentiments towards the past, present and future. Coding of multiple data sources bounded within the two programmes of action highlighted parallel, imbricated forms of SSW, which I categorised as “constructing geography,” “constructing a temporal orientation” and “constructing stakeholder identities.”

Distinct forms of SSW necessarily brought particular SSOs into sharp relief: geography, temporality, identity. As actors engaged grand challenges, they manipulated the meanings associated with place (geography), time (temporality) and self/selves (identity at the individual, group, organisational and national levels). The SSW literature afforded succinct labels for the work that was involved in constructing geographies (boundary work), identities (identity work) and temporalities (temporal work).

The identification of SSOs and concurrent sets of simultaneously occurring SSW explained how actors made meaning out of ambiguous grand challenges. However, it did not fully account for other themes, notably, the salience of how emotions and moral values motivated actors and the prominence of various atmospheres and moods I had observed (and felt) that seemed to “cling” to the challenges in different ways. These mattered, since I noticed how collective moods and moral commitments affected how actors thought about grand challenges’ causes and solutions. I could not help but wonder what consequences the organisation's affective climate had on actors’ ability to engage grand challenges effectively.

Many of my yet uncategorised codes (not yet linked to a second cycle category) pointed to what Phillips & Lawrence (2012) refer to as “facets” (p. 2) that constitute actors’ social-symbolic contexts (e.g., ideas, values, emotions, aesthetics).¹⁰ I had codes that ringfenced actors’ emotions and how they were deployed (e.g., “emotioning: disappointment,” “emotioning: sense of a higher calling”), their moral expressions and spiritual proclivities (e.g., “invoking morals and ethics,” “moralising,” “love or reverence for nature”) and also codes that summarised patterns of meaning associated with artefacts and aesthetics (“artefacts of poaching,” “artefacts of socio-economic development,” “fetishizing technology,” “paramilitary process and practices.”) I had extensive memos that described the

¹⁰ Noting that these contextual facets are also SSOs that actors work to manipulate (Phillips & Lawrence, 2012). For example, institutions shape an actors’ context, but at the same time, can become an object of actors’ institutional work if they choose to modify or defend a particular institution.

importance of affect, the subtle and powerful moods and atmospheres I experienced during fieldwork (I attempt to portray these experiences in my fieldwork vignettes). I reviewed some literature pertaining to affect in organisations (Fotaki, 2014; Voronov, Maxim & Russ Vince, 2012) and noted how emotions, moods and associated dispositions influence a range of critical organisational outcomes, such as “performance, decision making, turn-over, prosocial behavior, negotiation and conflict resolution behaviour, group dynamics, and leadership” (Barsade & Gibson, 2007: 51). Importantly, the authors note the impact of affect on creativity. Circling back to the SSW literature, the notion of “social-symbolic contexts” included key elements interwoven with affect (such as emotions, aesthetics and values). I then collapsed all codes that referred to emotions, atmosphere, aesthetics and moral commitments under a new second-cycle category, “altering social-symbolic context.”

By going back between my codes that highlighted how actors expressed and deployed emotions and moral values, and consulting literature on the power of affect in organisations, I was able to conceptualise the notion of a “hot” and “cool” affective repertoires that constituted actors’ organisational and social-symbolic contexts (in addition to the more cognitive elements, such as ideas and institutions). The literature sensitised me to the performative influence of affect, and I stopped taking moods, atmospheres, moral dispositions and emotions for granted as simply earmarks of the “setting” and reinterpreted them as consequential social-symbolic accomplishments. I thought about what affective elements were *doing*, the consequences they had for actors’ engagement with grand challenges.

At this point, I had four main categories that captured the “doing” of SSW and its effects on SSOs (“constructing geography”, “constructing temporal orientations”, “constructing stakeholder identities”) and the organisation’s context (“altering social-symbolic context”). A few important codes were still uncategorised. I reviewed these codes

and noticed that a cluster of them shared a common overarching feature. They all described changes and tensions that were (in some cases) linked to actors' work of altered the meanings of SSOs. For example, some quotations alluded to shifts in specific SSOs, such as how the park's "sense of place" had been negatively impacted as a result of paramilitarisation. Other quotations showed how actors justified the organisational changes brought about by programmes of action, such as rationalising the park's paramilitary response to poaching and bolstering organisational commitment to a particular novel course of action. I recognised that "change" and "organisational change" in particular was an overarching theme that permeated my entire dataset.

I created a new second-cycle category, "organisational change." The codes that were absorbed into this category were "organisational change," "organisational contradiction or tension," "paradox," "justifying the use of violence" and "narrowing options to a grand challenge." These codes described far-reaching organisational changes, contradictions and tensions. As a consequence of the concurrent programmes of action, KNP had transformed itself into a novel "hybrid" organisation that focussed not just on biodiversity (as was the case in the past), but also security and inclusion imperatives. This transition, however, was not easily achieved. Quotations strongly overlapped with those describing the affective experiences, since actors' narratives about change often had strong moral and emotional tones. These codes gave me insight into the effects of SSW on individual actors and their collective ability to engage constructively with grand challenges.

In table 2 below, I summarise my second-cycle categories (and associated codes).

Table 2: Categories and codes

Category	Code
Constructing geography	Imbuing geographical space with meaning, expanding power and influence over a geographic area, embedding KNP in a larger landscape, zonation for rhino security, constructing nature as an asset, fetishizing technology, artefacts of anti-poaching, artefacts of socio-economic development.

Constructing temporal orientations	Constructing temporal orientations, constructing a common heritage, creating a sense of urgency and importance, fetishizing the market, fetishizing technology.
Constructing stakeholder identities	Differentiating between stakeholder and group identities, constructing conservation/anti-poaching as stakeholders, constructing communities as stakeholders, whole-of-society approaches, constructing poachers as stakeholders, sentimentalising group identities, artefacts of anti-poaching.
Altering social-symbolic context ¹¹	Emotioning (disgust, nostalgia, embarrassment, disappointment, fatigue, burn-out, cynicism, anger, disgust, love and a sense of higher calling), invoking moral and ethics, artefacts of anti-poaching, artefacts of socio-economic development, narrowing options to a grand challenge.
Organisational change	Organisational change, organisational tension or contradiction, paradox, justifying the use of violence, narrowing options to a grand challenge.
Description of programmes of action ¹²	Radical socio-economic transformation, paramilitarisation practices and process, artefacts of anti-poaching, artefacts of socio-economic benefit, framing the poaching challenge, framing the inequity challenge.

3.6.3 Distilling themes

Once I had reached a point of saturation, when no further codes or second-cycle categories were apparent, I was ready to make explicit connections between categories by distilling key themes. According to Auerbach and Silverstein (2003, p. 38) a theme is “an implicit topic that organizes a group of repeating ideas.” I engaged in focused coding to group together themes based on their conceptual similarity (Saldaña, 2009). I clustered all second-cycle categories into two groups: I called group A, “The Work” (“constructing geography,” “constructing temporal orientations,” “constructing stakeholder identities” and “altering social-symbolic context”), and group B “The Results” (“organisational change”). This grouping exercise was an attempt to identify key themes and relationships between them, and to single out forms of SSW and its effects. I re-examined these two overarching data groupings in light of my research question. Clear patterns had emerged to answer the

¹¹ When I got to the stage where I developed my empirical model, I used the label “affective repertoire” to refer more specifically to the emotional and moral dimensions of contexts.

¹² These were some of my earliest codes that contained description and explanations of what the programmes of action were (their explicit aims and practices) and is described in chapter four.

first part of my research question - how do actors engage in SSW as they grapple with grand environmental challenges? I identified bundles of SSW, targeting particular, imbricated SSOs salient to the social construction of the grand challenge. However, the second part of my question (how does SSW shape the tractability of these challenges?), required further iterations between analysis and literature.

I went back to the grand challenge literature, specifically looking at studies that explained the tractability/intractability of grand challenges. I also read articles that foregrounded the role of organisational context and its impact on organisational performance. Based on this review, I reconsidered my “altering social-symbolic context” category and the codes subsumed under it. Although many codes were gerunds, implicating actor’s practices, I paid specific attention to what the practices achieved (that is, what the SSW accomplished) and as a result, I came to see the altering of the organisation’s social-symbolic context as an outcome of actors’ work, as organisational change, but also as an “organisational outcome.” I further noticed that codes with strong affective (emotional and moral) themes exerted a more subliminal and unintended influence on actors. For example, as much as Security Actors purposively and successfully instilled a sense of urgency in the organisation which contributed to creating a hot affective repertoire for their programme of action. However, over time, this led to intense fatigue and burn-out amongst rangers, triggering defence mechanisms that undermined their ability to make challenges more tractable (an outcome of SSW). I therefore began to distinguish between the intended and unintended outcomes of SSW as this had a significant bearing on the effectiveness of responses to the grand challenge.

Attending to the unintended outcome of SSW helped me to notice the disjuncts between what grand challenge scholars suggested was necessary to effectively engage challenges and what actors in my study expressed and experienced (most evident from codes

such as those focussed on “emotioning,” “organisational tension or contradiction,” “paradox” and “narrowing options to a grand challenge”). This disjunct between scholars’ advice and what I observed in my data helped me identify my theoretical contribution.

Another aspect of actors’ SSW and important theme amongst many of my codes and categories, was actors’ assignment of different, even contrasting, meanings to “nature,” “wilderness” and “wildlife.” The social construction of the park’s geography, in service of two distinct programmes of action, was already an important category and form of SSW, but I realised that in constructing a geography, and a sense of place and time, actors were also constructing versions of nature. For example, the code “imbuing a geographical space with meaning” contained several quotations that highlighted different aspects of “nature” and the organisation’s intensive normative positions about what the human-nature relationship should look like. Two programmes of action invoked two separate ontologies of nature which elicited strong emotions, values and moral beliefs amongst actors. I understood that actors’ construction of nature was not an end in itself, but rather, a social-symbolic steppingstone towards legitimising practices associated with programmes of action (which strongly implicated the management of nature). I therefore kept quotations related to the social construction of nature subsumed under existing categories, such as “constructing geography,” as well as categories linked to temporal orientations, identities, morals and emotions. In fieldwork vignette one and two I attempt to capture some of the tensions and dynamics that brought about by these two concurrent ontologies.

My theoretical model was developed by starting with the data and moving iteratively between the data and literature to illuminate the key emerging themes in my model: grand challenge phenomena (poaching and inequity); responses to them in the form of programmes of action; the deployment of SSW to address challenges, the purposive altering of SSOs, the creation of different ontologies of nature, and finally, the unintended outcome that actors

affective repertoires, ontological assumptions and suppression of paradox had on the tractability of grand challenges.

I was always aware that KNP and its grand challenges were connected to a long history and that the contemporary framings of grand challenges were intimately linked to societal level discourses. Upon identifying the SSOs of place, self and time, I revisited what I had previously written up about the history of KNP and conservation in South Africa. Following the advice of Lawrence & Phillips (2019), I conducted an historic review of the SSOs salient in my study to better understand how they evolved and why they became the targets of actors' SSW. I used SSOs as themes with which to parse the long and multifaceted history of the park. Secondary historical sources helped me discern the role of power and politics that had shaped, and continue to shape, the meanings of SSOs that both inspired and were the result of actors' SSW. This analysis is written up in chapter 4.

3.7 Strategies to enhance research quality

As Maxwell (1992) puts it, not all research is equally useful, credible or legitimate. Validity is an important standard that qualitative research must conform to, even though there are disagreements about the term's exact definition (Denzin & Lincoln, 2005; Lincoln & Guba, 1985). Validity is described in many ways, including “authenticity, goodness, verisimilitude, adequacy, trustworthiness, plausibility...and credibility” (Lewis, 2009: 2). Validity is also defined in terms of reliability, referring to “trustworthiness, accuracy, and dependability” of research findings (Lewis, 2009: 7).

Lincoln & Guba (1985) expands on the trustworthiness concept by highlighting the importance of credibility, transferability, dependability, and confirmability in addition to conventional criteria of validity and reliability (Nowell, Norris, White & Moules, 2017). In essence, trustworthy research is both useful and acceptable to research respondents and academic peers.

According to Maxwell (2008), there are several threats to the validity of qualitative research findings, including bias (how the research process is influenced by researchers' values, assumptions and theoretical leanings), and reactivity (how the researchers' presence affects the research setting). Scholars propose a series of strategies and “checks” to mitigate these threats (Creswell & Miller, 2000; Lincoln & Guba, 1985; Maxwell, 1996). The strategies listed below are primarily drawn from the work of Maxwell (1996).

Descriptive validity refers to collecting data accurately and completely. It pertains to capturing aspects like interview data and field notes accurately. I audio recorded all my interviews with research participants and personally transcribed them verbatim. Once completed, I re-listened to all interviews to make corrections where needed and to ensure transcript accuracy. When writing up field notes (such as descriptions of meetings and field visits), I tried to create value-neutral accounts of unfolding events and reserved my own interpretations for subsequent memo-writing and coding activities.

Interpretation validity refers to ensuring that the meanings articulated by research participants are preserved and not tainted by the researchers' own interpretative frameworks. My research questions were open-ended, giving participants the chance to interpret the question and to offer their own explanations. As time went by, I became more adept at allowing "silences" to linger during interviews. I was surprised to learn how generative these silences could be in eliciting rich information from respondents, without me “prodding” them in a particular direction. During interviews, I often allowed the conversation to flow in the direction chosen by the participant, and this required me to improvise questions based on emerging themes.

Theory validity refers to choosing a theoretical framework that “fits” the data, whilst ensuring data is not manipulated to “fit” the theory. My study started being loosely framed within the sensemaking literature, which is in itself very multifaceted and generally non-

prescriptive about how empirical research ought to be conducted. I read widely during the years of my study, including new encounters with research on complexity theory, social geography, institutional theory, grand challenges and later, SSW, emotions and affect in organisations, paradox theory, and so on. This allowed me to retain interpretative flexibility and I never felt overly committed to any one analytical framework or set of concepts.

No scholar can claim to be wholly neutral, impartial and all-seeing during the collection, interpretation and presentation of research data. Researcher bias refers to a wide range of factors, such as race, class, gender, and even strong affinities with particular theories, that can negatively impact the researcher's objectivity. Though I do not claim to have been solely objective, I was aware of the need to identify my biases and be transparent about them. I employed the practice of reflexivity (Johnson & Duberley, 2000) to explore and navigate my complex relationship with my research domain. I've had to come to terms with my own deep-seated assumptions about the natural world and humans' role in it.

Introspection and conversations with other social science researchers have helped identify the critical role that my own culture, race and class (in addition to my organisational affiliation) play in my research domain. Also, as my role shifted from outsider to insider, I became aware that my perceptions of certain actors and departments in KNP were influenced by my own work-related interaction with them and by the stories shared by colleagues around me. Once I identified these shifts in my perception, I used it as a new line of inquiry into the motivations and behaviours of actors. I paid renewed attention to the social-symbolic contexts in which these actors operated instead of taking the stereotypical traits assigned to certain actors and departments for granted. (For more detail on my approach to reflexivity, see section 3.9).

Finally, reactivity refers to how what the researcher observes might be caused by the presence of the researcher. The presence of a researcher can encourage actors to act in ways to impress and even mislead the researcher. On many occasions, I noticed how actors

discussed certain issues by drawing on well-rehearsed organisational scripts and that political correctness was a major concern, especially when discussing matters related to local communities. These discussions implicated sensitive topics, such as race and power. Instead of trying to dismantle actors' frontstage scripts and stylised narratives, I treated them as social-symbolic achievements and as important data points that explained how actors made sense of the world and how they constructed their contexts. On the other hand, the more invisible I became (as actors became habituated to my presence), the more I had access to unscripted narratives, which helped me detect some of the tensions and contradictions lurking underneath the organisation's tidy public-facing discourses.

I applied the principle of triangulation in my study, drawing on multiple data sources to avoid fixating on actors' idiosyncratic stories and experiences (Lawrence & Phillips, 2019). For example, when I discussed the notion of "nature" and "wilderness" with research participants, I also analysed photographs I took in their offices that portrayed nature - sometimes revealing contrasting conceptualisations of what "nature" was and how society should be organised in relation to it. Furthermore, a grounded theory approach enabled the movement between data and literature, allowing multiple sources to shed light on observations made and subsequent formulations of codes and categories.

Member checking is an important strategy to confirm the reliability of research. I've discussed my findings with a senior researcher employed by KNP and received encouraging feedback, and some critical questions which helped to better define the limitations of my study. I also regularly discussed my findings with colleagues who have interacted with KNP for long periods of time (in some cases, twenty years or more).

As I finished my thesis, I spent much time thinking about how to make the theoretical concepts in my study, which is, from a practitioners' perspective, articulated in rather abstract terms, accessible to a practitioner audience. I'm acutely aware that KNP is an organisation

heavily biased towards the modalities of natural science.¹³ Also, social-symbolic contexts affect how organisations respond to grand challenges, and it may also affect how actors respond to research feedback, especially if this feedback is construed as being “critical.” Of particular concern is Security Actors’ “hot” social-symbolic context, fanned by highly charged emotions and prolonged periods of stress. Carley and Harrauld (1997) analysed how organisations learn from feedback in high-stress situations and found that actors in these contexts are prone to defensiveness, and any feedback can be seen as negative criticism and a therefore a threat. However, despite these challenges integral to my research setting, I believe I can package my findings in such a manner as to make a positive contribution to the park's efforts to manage grand challenges more adaptively. I plan to leverage the multi-year relationships I have built up with a variety of actors to help me package and communicate my findings.¹⁴

Although I make no claims about the generalisability of my research account, I offer theoretical insights that may be applied, or rather, transferred (Guba & Lincoln, 1989) to other settings and cases. One of the main transferrable theoretical puzzles in my research is this: if the solving of environmental grand challenges requires organisations to be open-minded, collaborative and able to harness paradox, why do organisations struggle to do these very things scholars call for? KNP operates in a setting that many other similar organisations might relate to, such as dealing with multiple co-existing challenges, the presence of multiple "problem" stakeholders with conflicting needs and interests, a highly charged political context, intense scrutiny from interest groups and media and shrinking sources of funding. In other words, organisations in similar settings might construe grand challenges and social-

¹³ See, for example, Jooste and Ferreira's (2018) critique of social science methodologies written by two senior KNP/SANParks employees. In 2020, out of the 268 research projects registered with SANParks, only 16 focussed on the social dimensions of park management (societal engagement, organisational functioning and adaptive governance, cultural heritage) (SANParks, 2020i).

¹⁴ I was set to present my research at KNP's annual scientific conference scheduled for early March 2021, but the event was postponed to 2022 due to Covid-19.

symbolic contexts in similar fashions, leading to similar outcomes. The similarity amongst organisations (and organisational contexts) across grand challenge types and locations can therefore contribute to the transferability of my findings, and hopefully, to more reflexivity as actors respond to grand challenges.

3.8 Ethical considerations

Ethical standards were upheld as per the requirements of the University of Cape Town, and my study received its first ethical clearance in 2016. I also obtained formal approval (through the issuing of a research permit) from SANParks to conduct research between 2016-2020. Interpretive qualitative methods require that the researcher enter research participants' worlds. All efforts were made to respect the research participants and to appreciate their needs and perspectives. Dey (1999) recommends that rapport is one of the best ways to establish respect between researcher and participant. I built long-term relationships with participants and view them as the co-creators of knowledge, which is the opposite of a "smash and grab" (Dey, 1999: 119) approach to research. The identity of research participants is protected through anonymising all participants. I am the only person with access to the data and my *Atlas.ti* file is password protected. Strict standards are maintained in the collection, storage and retrieval of data.

3.9 Researcher reflexivity: from outsider to insider

As mentioned earlier in the chapter, in the first two years of my fieldwork, I lived and worked in Johannesburg and was, for all practical purposes, an outsider in my research setting. However, this changed early in 2018 when I came to live and work near the KNP, directly engaging with various KNP actors through my new job. Like many actors in KNP, my organisation focussed on reducing rhino poaching through supporting better law enforcement practices whilst simultaneously supporting efforts to build better relationships between the park and local communities.

Although Charmaz (2008: 160) states that interpretative researchers should be “embedded in the research process rather than [act as] distanced observers of empirical phenomena,” I realise that my close proximity to my study participants also presents challenges. Brannick and Coghlan (2007:69) highlight that the insider “manager-researcher” can be blindsided by being “too close to the data” and, as a result, might end up making insipid assumptions that restrict the emergence of new and interesting insights.

This warning proved to ring true. During the first two years of my research, I was struck by the paradoxical tensions at play between two approaches that many organisations employed to mitigate rhino poaching. I called these approaches men-with-guns (improving law enforcement responses) and hearts-and-minds (engaging local communities to include them in conservation decision-making and the sharing of benefits). It is common in the Greater Kruger for conservation organisations to simultaneously support both a men-with-guns and hearts-and-minds approach. Especially during the first year of my study, I routinely asked research participants about whether they perceived any contradictions between these two approaches. Respondents never seemed to “see” the contradictions I saw and therefore never seemed to offer any explicit insights concerning it. Over time, I paid less and less attention to my “paradox” code and asked fewer questions about it. Ironically, from 2018 onwards, I too was deeply involved in implementing a project that enacted both approaches and I’ve come to accept this programmatic duality as normal.

It was only late in 2020 that the topic resurfaced during several conversations with my supervisor, who had periodically referred back to this tension and my “paradox” code. During one of our discussions about actors’ SSW outcomes (following assiduous prompting by my supervisor), it dawned on me that my growing indifference to the men-with-guns-hearts-and-minds paradox was a sure sign that actors’ SSW, once again, had *worked*. Actors had

normalised and legitimised not just their two programmes of action but also the simultaneous implementation of these two approaches, which in many ways, were at odds with each other.

This was an important learning experience about the need for reflexivity and having a critical, external soundboard. I had experienced the gradual process of becoming habituated to how "things are done" in a particular context, cultivating a non-critical stance towards matters that the field took for granted. I wasn't pleased by discovering a major intellectual blind spot in my analysis, but the experience of having had the blind spot enhanced my understanding of how actors normalise and legitimise practices and discourses. As it turned out, the negation of paradox became a key theme in my research.

Despite some undeniable drawbacks, I believe my transition from participant-observer to observant-participant (Brannick & Coghlan, 2007) helped me become a better scholar. I was helped along by what Alvesson (2003: 174) calls self-ethnography, "a study in which the researcher-author describes a cultural setting to which s/he has a natural access, is an active participant, more or less on equal terms with other participants. The researcher then works and/or lives in the setting and then uses the experiences, knowledge and access to empirical material for research purposes." This natural access greatly enhanced the quantity and quality of the data I've included in my study. Furthermore, I also gained insight from my personal experience of working on the very same grand challenges as the people in my study. I shared in many of their emotions, moral dispositions, moods and frustrations. This helped me to notice the affective, experiential dimension of engaging grand challenges, which is generally overlooked by the literature. I was then able to investigate the disjunct between what scholars say practitioners must do to better solve challenges and what practitioners actually do as they go about imbuing challenges with meaning.

Given the history of South Africa and given that I'm a white woman from a middle-class background, it follows that dynamics around privilege, race and culture were present

during every interview I conducted, during every field visit and in every meeting I attended. In some instances, these dynamics worked in my favour and sometimes not. For example, the conservation establishment - especially those who deal directly with rhino poaching - is overwhelmingly male and white. Thanks to my cultural upbringing, I have felt, and continue to feel, comfortable amongst the emblematic presence of firearms, 4X4 vehicles, electrified fences and authoritative khaki-clad men. I've had exceptional access to rich data and field experiences that might otherwise have remained off-limits. I realise that this is not a function of my well-honed investigative skills but is instead a testament to the power of group membership.

I learned that whiteness - an irrefutable marker of privilege - can also be a multifaceted barrier when trying to establish authentic relationships with black research participants. More than once, whilst interviewing a black research participant, I heard myself being referred to as the "mlungu," which means "white person" in the local Tsonga language. A cell phone might ring, and the research participant would briefly pick it up, saying in Tsonga, "I can't talk now, I'm busy with the white lady." As much as I enjoyed and gained much value from many such an interview, it was sobering to leave those conversations knowing that my presence was primarily earmarked by my membership of a racial group. Kepe (2009) aptly points to these tensions in the title of his paper: "Shaped by race: Why race still matters in the challenges facing biodiversity conservation in Africa."

I end this chapter with a short anecdote that demonstrate the impact of race and privilege on the research process. In 2016, my stay at a private nature reserve gave me a chance to spend time with the chief ranger (a black, highly decorated individual working in the Greater Kruger). I accompanied the "chief" on a day-long inspection of the reserve's K9 anti-poaching infrastructure and took a long early-evening walk with him to admire a large baobab tree. Conversations with him helped me understand the challenges black rangers face,

not least from being labelled “informants” by members of their communities and “security guards” who look after “white people's rhinos.” A few months after my walk with the chief, one of KNP's most senior and admired black rangers was arrested for poaching, a pivotal event that sent shockwaves through the field. Later that year, I asked the chief about it. He started crying and told me that finding out the truth about his colleague was the worst experience of his life (he and many others had personally known and regularly worked with the corrupt KNP official). A few days later, the chief sent me an SMS, asking me not to tell anybody that he had talked to me about his disgraced colleague. I assured him again that his identity would always remain anonymous. I wondered about the cause of his anxiety. In his community, he was criticised for being a representative of the long unwanted arm of the law, and in his work environment, he was seen by some as just another (black) field ranger who could be corrupted at any time. Everywhere he went, be it home or at work, he was trailed by suspicion. Even our most benign chats about the drought, about K9's ability to work in the heat, about how to deal with grumpy hippos and his spiritual connection to trees and birds, could become a source of suspicion. An excuse that someone could potentially use to question his integrity. The white warden of the reserve never felt these tensions and never asked me to refrain from telling other people that I interviewed him at length. Through this and many other experiences, I glimpsed some of the racialised dimensions of grand challenges and of the research process.

These dimensions cannot be sidestepped. However, when it came to my presence in the research field, I realised that racially charged contexts (or any other context where identity-based stereotypes are rife) require much longer periods of fieldwork in order to first develop an understanding of dynamics and then to find ways to navigate them. My strategy was time. I realised that it would take me much longer to build rapport with research participants. My day job greatly facilitated my exposure, especially with Inclusion Actors. I

got to spend extended periods of time travelling with and talking to these actors and to some degree, they began to view me as part of their circle, facing many of the same conditions and operational challenges they encountered on a day-to-day basis.

CHAPTER 4

SETTING AND PROGRAMMES OF ACTION

This chapter starts with a description of the research setting as a prelude to my research findings. I pay attention to how and why two grand challenges became salient to KNP and the broader field. I then go on to describe the organisation's two programmes of action, emphasising their explicit aims and the motivations of key protagonists who were involved in their crafting and implementation. The content of this chapter is enriched by chapter five, where I illuminate how the values, norms and practices that characterise the park's contemporary setting have deep historical roots. Chapter five explains why and how specific SSOs shaped the history of KNP and the conservation field in South Africa. Chapter six then goes on to explain how SSW was employed within two distinct programmes of action, inspiring similar bundles of SSW amongst Inclusion and Security Actors with intended and unintended consequences.

4.1 Research setting: Kruger National Park

"Revolutionary changes similar to those that ushered in political changes from Julius Caesar's crossing of the Rubicon, the French Revolution and the Arab Spring Uprisings in the Middle East and North Africa, are sweeping across the conservation sector. As society changes, we too must change."

(SANParks CEO, Dr David Mabunda at the annual Kudu Awards Ceremony held in Skukuza, Kruger National Park on 28 November 2011)

"Dr Edna Molewa [previous SA Minister of Environment] highlighted the changing work environment of field rangers in South Africa since rhino poaching increased 10 years ago.

'The work of a field ranger became more diverse and complex as these men and women woke each day to continue to lead the way for all of us in conserving our country's natural wonder. The murder of one of our rangers is an act of aggression by unscrupulous individuals and gangs. His death at the hands of alleged rhino poachers is an indication of the severity of the threat our rangers are faced with on a daily basis.' Molewa appealed to community members to honour Mathebula [deceased ranger shot by poachers] by working with SANParks and the government to preserve South Africa's heritage".

(SANParks Media Release, 31 July 2018)

South African National Parks (SANParks) is a large government organisation managing protected state-owned land in South Africa. SANParks has a head office in Pretoria, the capital of SA, with multiple offices in different provinces and parks where appointed managers and staff take care of the day-to-day operations. Even though SANParks is a state bureaucracy with centralised management systems, individual parks have the autonomy to make operational decisions. Partly due to the often-remote location of these parks, each one develops its own character, management style and culture. KNP is regarded as southern Africa's flagship wildlife destination. This claim is affirmed by the SANParks website:

nearly 2 million hectares of unrivalled diversity of life forms fuses with historical and archaeological sites - this is real Africa. The world-renowned Kruger National Park offers a wildlife experience that ranks with the best in Africa. Established in 1898 to protect the wildlife of the South African Lowveld, this national park is unrivalled in the diversity of its life forms and a world leader in advanced environmental management techniques and policies. (SANParks, 2019a, para. 1).

The park is famous for being the home to Africa's iconic "big five" - of which the rhino is a member - and millions of tourists flock there for an encounter with these creatures. KNP has multiple divisions, overseeing different aspects of park management, such as tourism, science, conservation, law enforcement and community relations. Management decisions are informed by highly formalised norms, standards, protocols and practices, such as burning regimes, manipulating water sources, zoning the park for specific tourist activities and densities, allowing certain harvesting and resource-use activities for local communities, culling and/or safeguarding particular species and removing unwanted alien plants and "problem" animals. Park management decisions are made to carefully curate the social and ecological dynamics within the park.

Despite going through several management ideologies in its lifetime, the core focus of the park was historically on ecological management, on “proper conservation” (RP3) and the protection and enlargement of wilderness areas were the core priority (KNP, 2008). In an academic article published in 2007, the year before poaching started to escalate dramatically, a senior park manager expressed concern that an upsurge in tourism was threatening the park’s “truly pristine, unaffected wilderness where for a while people can consciously immerse themselves in a sense of remoteness and a return to basic essentials” (Venter, 1998: 110). For many KNP employees, working and living in the park is the fulfilment of a lifelong dream as “heart and soul conservationists” (RP13) and a response to a spiritual calling to do God’s work (RP8, RP22).

4.1.1 The grand challenge of preserving biodiversity

During the last decade, one of KNP’s most pressing and expensive challenges has been rhino poaching, an enduring threat to the park’s biodiversity. SANParks spends tens-of-millions of dollars per year on anti-poaching activities in and around its parks and anti-poaching operations have an enormous impact on organisational resources and morale. Since I entered the research setting in 2015, well over 1000 rhinos per year were illegally hunted. Current trends (2020) suggest a slight decline in poaching¹⁵ (which some attribute to the fact that there simply are fewer rhinos to poach as population numbers plunged). According to a veteran conservation manager, “anyone can shoot a rhino. It has terrible eye-sight. You can easily crawl through the bush and get real close, and... bang!” (RP2).

The movement of people in and around KNP is restricted and night-time curfews are enforced. Most poaching occurs after dark and the policing of public transport routes provide a major logistical challenge. KNP employees undergo “integrity testing” (lie detection tests)

¹⁵ Due to COVID-19, South Africa was subject to a national lockdown that restricted the flow of goods, services and people for five weeks between March and May 2020. Rhino poaching rapidly declined during this period (DEFF, 2020), but steadily increased again after lockdown restrictions were lifted.

in on-going efforts to reduce widespread internal corruption and collusion with international poaching syndicates. Dozens of “incursions” by armed poaching groups occur daily, despite the risk of encountering dangerous animals (including lion, leopard, buffalo and elephant) or getting into a “contact” with paramilitary-trained field rangers. Figure 1, 2 and 3 below shows rangers patrolling the park, radar systems tracking movement and rhinos orphaned by poaching under full-time CCTV surveillance inside the park. Poachers typically shoot rhino with high-calibre rifles and then remove the horn with an axe. In some cases, this is done while the rhino is still alive. It is not uncommon for rangers to find starving and bewildered rhino calves next to their lifeless, de-horned mothers.



Figure 1: Rangers on daily patrols to detect poachers.



Figure 2: Radar, cameras and information analysis software senses and tracks people entering protected areas.



Figure 3: Security cameras monitor rhinos kept in captivity for temporary safekeeping.

Source: CSIR (2020a; 2020b)

KNP is a paradoxical place where romantic notions of wilderness and luxury safari tourism coexist with the undertakings of international wildlife crime syndicates and an unseen, “small-scale bush war” (Aljazeera, 2015) between illegal hunters and park law enforcement officials. Electrified fences with seismic detection capabilities enclose sections of KNP and surrounding private nature reserves, sonar and radar pick up suspicious movements in the bush, and internet-based surveillance mechanisms keep an eye out for poachers every minute of the day. Helicopters, guns and “man-tracking” K9 hounds are mostly hidden from the public eye but are as omnipresent as khaki-clad tourists and souvenir

shops selling rhino trinkets and “save the rhino” T-shirts.

Trends suggest that scores of poachers are still willing to risk their lives - and threaten the lives of rangers - during illegal hunting expeditions. In 2018, a field ranger was shot multiple times and subsequently died as a result of being ambushed by a poaching party. It is not uncommon for poachers to carry AK-47s and other assault weapons. On occasion, hand grenades and even a pipe bomb have been recovered. During one of my field trips, I woke up one morning to a message from a manager I interviewed the previous day. It simply read, “last night they shot at our helicopter.” While I was admiring the full moon and listening to a lion roar, less than 30 kilometres away, a deadly shoot-out had occurred. This escalation in violence has become the new normal.

An increasingly unsympathetic (white) public routinely admonishes park officials for not doing enough to protect rhinos. Critical scholars (see for example, Büscher & Ramutsindela, 2016; Duffy, 2014; Lunstrum, 2014), on the other hand, accuse park officials of “green militarization”¹⁶ (Duffy, 2014). Law enforcement officials in KNP have been castigated for purported heavy-handed tactics and are blamed for reinstating a “fortress conservation” mentality and turning protected areas into exclusionary war zones (Humphreys & Smith, 2014). Commentators argue that social cohesion (implicating relations between local people and protected areas) is being eroded by so-called green militarisation in response to poaching (Bücher & Ramutsindela, 2015). Bücher (2016: 979) draws attention to how rhino poaching has been used to foster a “politics of hysteria” where white identities are directly threatened by the phenomenon of poaching (noting that the majority of poachers are black).

These tensions can be understood as part of a larger debate about how poaching and

¹⁶ Green militarization refers to the “use of military and paramilitary personnel, training, technologies, and partnerships in the pursuit of conservation efforts.” (Lunstrum, 2014: 816).

illegal wildlife trade should be tackled. Some advocate for stronger law enforcement and increased militarisation, while others argue that equitable partnerships between protected areas and local communities are crucial for finding lasting solutions (Cooney et al., 2016; Hübschle & Shearing, 2018). As I will explain in the next chapter, KNP pursues both strategies, simultaneously fortifying and loosening the material and symbolic borders around the park, despite the tensions between these approaches.

4.1.2 The grand challenge of undoing inequity

Poaching is not the park's only challenge. Today, amidst mounting political pressure, much of KNP's time and resources go into undoing the legacy of racial exclusion and resultant inequity. In 2019, as South Africans celebrated Heritage Day, the influential Economic Freedom Fighters (EFF) political party called for "apartheid and colonial public signs to fall. All statues of Apartheid and colonial murderers must be taken down, including street and public property names like Kruger National Park" (Zietsman, 2019). Voices calling for the racial transformation of the park have also originated from internal sources, as is evident in this speech made by the then CEO of SANParks:

through a well-crafted apartheid system, environmental policies, practices, repressive management approaches and models of service-delivery succeeded in alienating black people from enjoying access and benefits accruing from the country's natural capital, including wildlife viewing. This exclusion by design, of the majority of our population, has bred a deep-seated resentment and bitterness towards national parks and conservation in general and it will take another 'long walk to freedom'¹⁷ to normalize the situation in future. National Parks were and still are perceived as a playground for the elite and changing this negative public image is like climbing a greasy pole on a hot summer day. However difficult as it may seem, change is inevitable. (SANParks, 2011)

¹⁷ This is a reference to the title of Nelson Mandela's autobiography.

In the 2016/2017 SANParks Annual Report (p.12), the CEO affirmed that “radical socio-economic transformation” was one of the key pillars that guided the organisation’s work. As far back as 2011, CEO was optimistic that difficult change could be achieved:

we must begin mobilising support for national parks from the broad mainstream of society - from the squatter camps of our townships, deep rural villages from Venda to the Transkei, to the leafy suburbs of our towns and cities. People living in townships and rural areas are still excluded (by financial means and attitudes) and attempts to bring these folks on board continue to be opposed by the same anti-transformation lobby. If national parks are to become a mirror of our society’s environmental values and vigorous symbols along with the national flag, the national anthem, the coat of arms and the Union Buildings, then they ought to reflect the demographics of our new nation in all respects. (SANParks, 2011)

Despite his optimism, the practicalities of bringing "these folks on board," especially those living near the park, is no simple matter.

In stark contrast to the abundance of natural resources inside KNP, the areas around it are inhabited by some of the poorest rural and peri-urban communities in South Africa, many lacking even the most basic access to water and sanitation services. One of the densely-populated municipalities close to the southern part of KNP (and near other high-end game reserves) is a “presidential poverty node,” said to be a “spatial manifestation of the second economy, characterised by underdevelopment, contributing little to the GDP, absorbing the largest percentage of the country’s population, incorporating the poorest of the rural and urban poor, structurally disconnected from both the First World and the global economy, and incapable of self-generated growth” (Department of Provincial and Local Government 2005, quoted in DPLG, 2007: 5).

The lack of services and resources in areas adjacent to the park is a major source of frustration and violent protests to bring these matters to public attention are common. During the last five years or so, protests like the ones depicted in photographs below (Figures 4-6)

occur at such regular intervals that many local residents and park employees belong to social media groups that inform them where protests are taking place so that they can avoid traffic jams and find alternative routes to work (RP8). In 2019, the Numbi gate (a popular entrance gate into KNP) closed several times as communities complained that the park did not employ enough local residents (Pijoos, 2019).



*Figure 4: Cutting down trees is an effective way for local community dissidents to divert tourists away from entrance gates to KNP and other nature reserves.
Source: Own photo*



*Figure 5: Damage to public roads and infrastructure is a common consequence of protests and can take months, even years, to be repaired.
Source: Own photo*



Figure 6: Residents blockade roads to protest against the lack of running water outside a town near KNP.

Source: Own photo.

KNP employees live in proverbial interesting times, facing challenges far beyond supervising the ecological state of the park. The rapid localised escalation of poaching in South Africa, coupled with a changing institutional context, provides a fitting - if unsettling - case of how organisational actors engage in SSW as they grapple with grand environmental challenges.

Fieldwork vignette 1: A small, scaly interruption

“It’s my fault,” she cries. “I should have fetched it myself.” A few muted seconds pass by. “It can’t possibly be your fault,” I declare half-heartedly, knowing my words will have little impact.

In 2019, I accompanied Reinet, a senior KNP manager, to a remote area on the western boundary of the park. The park was involved in establishing an economic development project with a local rural community and Reinet was setting up agreements with traditional leaders and other project partners. During a meeting, Reinet received an urgent call from Innocent, one of the local traditional leaders from a nearby village. Innocent reported that someone in his village had found a live pangolin (a heavily trafficked endangered animal) and he requested her to come to his village to fetch it (assuming correctly that she would spring to action).

After some time on the phone, it became clear that Innocent wanted a financial reward from the park for “returning” the pangolin. Reinet begged him to release the pangolin back to the park’s care. It was, after all, illegal for him to even have it in his possession. “Please chief, they are going to arrest you, you will go to jail, I don’t want you to go to jail,” she pleaded. Her voice was desperate. She seemed equally worried about the fate of the pangolin and Innocent’s precarious legal situation. Finally, Reinet and Innocent agreed that she would send another official to fetch the pangolin. That was that, I thought. All would be well.

In the evening the episode crept back into my mind. I was struck by the cultural fluency of Reinet and Innocent’s exchange and its emotional intensity. Here were two very dissimilar people who clearly had an authentic interpersonal connection and an understanding of each other’s lifeworlds: an elderly cattle-farming, black traditional leader on “that” side of the fence, and a high-ranking, science-educated, khaki-wearing white female on “this” side of the fence. I wondered why the chief phoned her if he wanted to hustle money from the park to “buy back” the pangolin, even though the animals were clearly already “theirs?” Why did he even have Reinet’s cell phone number?

The following day I asked Reinet about it and she explained that Innocent often called her to complain about the lack of municipal services (running water, waste removal) in his village, even though that was not a problem the park was mandated to solve. It was not uncommon for KNP’s neighbouring villagers to expect the park to address infrastructure and service issues that were the dominion of other spheres of government. Perhaps, unlike their contemporaries in local municipalities, government employees in KNP tended to answer their phones.

A few days after the pangolin inspired the heated phone call, I got a woeful message from Reinet. It concerned the fate of the shy, scale-covered anteater. A park employee did indeed go to the village to fetch the pangolin, but on the way back, the creature vanished. It was reported that the pangolin had “jumped off” a pick-up truck.

Reinet was upset, blaming herself for the pangolin’s loss. It was presumably captured (ready to be trafficked) or already dead. “I should have gone myself, but I had so many meetings,” she sighed. Reinet’s days were full, back-to-back with meetings and workshops. And yet, she wholeheartedly blamed herself for the loss of one “poor little pangolin.”

The more I pondered the strange tale of the disappearing pangolin, I realised that it was ultimately a story about trust, identity and pragmatism. Even though Reinet played the role of park rule enforcer (seldom a popular one), the chief trusted her to act swiftly. The management of animals that stray outside the park is supposed to be handled by provincial conservation agencies, but they generally lack the capacity to respond quickly and decisively, especially in remote areas where the goings-on are shielded from the eyes of the media. In contrast to some of her more unhurried colleagues, Reinet did not manage problems by being indifferent to them. She was an unwavering custodian of nature. She would *do* something, and for the chief, this doing of something was better than nothing. She, for her part, knew the chief wasn't a kingpin wildlife trafficker and overlooked his transgression (asking for money in return for the animal). His treatment of the pangolin as an economic object went against the very core of her personal and professional values, but this chasm between his and her world simply had to be overcome. There were partnerships to broker, projects to implement, donor money to spend. A form of pragmatic trust remained between them even after the incident, sturdier but also more delicate. Like a new friendship that survives its first major disagreement. The two protagonists would move beyond the episode and continue working on matters that concerned the park-community interface.

It was also a story about broken trust. What about the park official who “lost” the pangolin? When I asked Reinet about this, she was evasive. Internal corruption was a touchy subject. Reinet had lost a bit of trust in herself. When did a packed diary become more important than safeguarding the park's inimitable biodiversity? “We don't spend enough time in the bush these days,” she often lamented. She had a managerial job that took her to offices and boardrooms. She managed relationships with powerful politicians and organisational power brokers. Yet, for her, being a “real” conservationist meant safeguarding individual animals and that she had failed at. The pangolin episode threatened her identity as a protector of nature. But it also affirmed identities. Hers, the “have,” a gatekeeper protecting the park against the community's requests, demands and grievances. His, a “have-not,” always demanding something from the park. And what about the official who had lost the pangolin? Perhaps his/her identity was also compromised. Many KNP staff came from communities outside the park, complicating social relations and disrupting loyalties and patronage systems. Law enforcers were celebrated heroes on the inside of the fence and spiteful collaborators on the outside. Throughout the long history of the park, rangers enforced the law, arresting or exchanging gun shots with people they knew, including family members.

The pangolin incident's historical roots went back more than a century and so did the roles it invoked. The protagonists were entangled in each other's incongruent worlds, having different symbolic understandings of the value of a wild endangered animal, rooted in long-standing social and cultural traditions, contemporary politics and economic dispensations. They were also actors with agency, motivated by individual passions, values and incentives, doing a skilful (remarkably unscripted) dance with each other. Despite the weight of history, the protagonists formed authentic relationships, finding ways to connect, embellish, circumvent and cooperate.

The pangolin was never seen or heard of again. Just a small, scaly *blib* on the radar of the park's grand challenges.

*All names are pseudonyms.

4.2 Programmes of action in response to grand challenges

“World-making involves expansive imaginings that inspire new horizons and programs of action” (Tsing, 2005: 76, quoted in Igoe, 2010).

Actors packed their SSW into explicit programmes of action (Lawrence & Phillips, 2019: 30) and thus made it visible for analysis. In response to poaching, newly appointed wildlife security experts embarked on a hasty programme of action to professionalise KNP’s anti-poaching campaign. At the same time, park managers dealing with inequity responded by increasing the reach and status of projects to transform the relationship between the park and neighbouring communities.

Although actors implementing the paramilitarisation and inclusion programmes were mostly distinct and wholly dedicated to either one of the two enterprises, there was role overlap for some, notably senior managers who gave their inputs and oversight to a range of park management initiatives that cut across departments. For example, actors that worked to create high-level park management plans had to incorporate both security and socio-economic initiatives into their planning processes and strategies. The labelling of certain actors as either Security or Inclusion Actors can therefore be somewhat of a simplification. The majority of actors were however assigned to particular departments with a specific focus and I therefore retain the two categories of actors. Below, I explain the explicit objectives of these programmes and give an overview of the organisational actors associated with them.

4.2.1 Responding to poaching with paramilitarisation

“When you are young, everybody wants to be the lion or the eagle or the buffalo, it is time to be intelligent, and be the fox. A fox always knows...”
(RP7)

Actors: Actors directly involved in managing and implementing the novel paramilitarisation programme had a conservation, military or law-enforcement background. Anti-poaching law enforcement was primarily the task of field rangers who patrolled the park

and its boundaries. The campaign also included experts and consultants from other sectors, such as technology specialists and active members of the South African Police Service (SAPS) and South African National Defence Force (SANDF). Other field-level interested parties included NGOs who supported KNP with funding and know-how, private nature reserves that formed “alliances” with the park, and specialist service providers.

Problems and solutions: For the most part, Security Actors blamed poaching on the combination of poverty and greed in local communities, since poachers were often abetted by local community members. A senior ranger said during a 2016 ranger conference,

they [the poachers] are good, because they are desperate. They are uneducated and have very few opportunities to get a job. They are young men, recruited from poverty, but who later become greedy. Poor people can get greedy so easily. And it [poaching] won't go away as long as the money is as good as it is. (RP7)

A colleague of RP7 put it more bluntly: “I don’t go for the poverty thing much. I go for greed. You don’t shoot a thing that is worth 2 million if you need a slice of bread” (RP18).

Poaching was also understood as a technical problem amenable to technical solutions, as was evident in enormous financial investments made in partnering with a technology service provider to improve “day and night surveillance, systems integration, communications and data collection and analysis, defence technology and tactics for specialised reaction force deployment and other systems that detect human movement, border crossing and the origin of gunshots” (CSIR, 2020a). Technology was described as a “force multiplier” (Jooste & Ferreira, 2018) and the acquisition and deployment of new technologies were widely reported on by the media and several promotional videos were made to showcase new innovations such as Wide Area Surveillance, GPS trackers and radar systems (see, for example, Peace Parks Foundation, 2017).

Security Actors did not see sharp-edged law enforcement as the panacea that would solve the poaching problem. In strategy documents, media engagements and during

interviews, Security Actors repeatedly stressed that law enforcement could only ever be a short-term, stop-gap measure, and that the long-term solution to poaching would require meaningful cooperation with and socio-economic development of neighbouring local communities. However, Security Actors appreciated how difficult it was to build these relationships. A senior ranger said, “this whole campaign is very complex, and we need to use different tools, like collaboration, cooperation and communication, things we are not always good at in conservation. We don't have a strategy about how we can formalise things with communities. We don't have those alliances. That is why I always say it is not sustainable” (RP4). This dilemma was widely acknowledged within SANParks: “a weak point is alliances and cooperation with neighbouring communities. The law enforcement grouping acknowledges this as the one strategic issue that is vital for ultimate victory and participates in all initiatives beyond enforcement, so that current successes can manifest in victory” (SANParks, 2017: 84). However, the mandate of Security Actors concerned rhino security, not community development, and for that reason, their efforts were concentrated on the physical fortification and policing of the park’s boundary fence to halt the high number of rhino fatalities. During a management meeting in 2016, a senior ranger sought to remind everyone in the room, “we are a biodiversity organisation, not a welfare organisation” (RP4).

What actors did: For the first time in the park’s history, anti-poaching work began to consume the majority of ranger time and the park’s entire approach to law enforcement received a major overhaul. Rangers were trained on a number of new topics to build their skills as paramilitary law enforcement officials, including improving their knowledge on the ethical treatment of poachers in case encounters with poachers turned violent (“rules of engagement”), the legal norms that governed the making of lawful arrests and preparing for court proceedings where poachers were charged for their crimes. Park boundaries were fortified and international crime syndicates were targeted outside the park.

4.2.2 Responding to inequity with inclusion

“I said to the guys, we as an organisation must start with sustainability language and we must start implementing sustainability principles. And we must actually put our green [conservationist] hats away. If you think about the Kruger, how many threats actually originate in here, for everything we have here? Nothing. Most threats for the values we associate with Kruger - whether ecological or tourism or whatever - originate from outside. I mean when I was there in Giyani [rural town near KNP boundary], people there are cattle farmers and they complain because their cattle are struggling. And our lions catch their cattle. And I said, but there is no grazing there? The whole place is overgrown! So why is the University doing 40 years of research about tree-grass interactions inside the park, but they have done fuck-all in Giyani? That is the problem. Your primary challenge in maintaining the values of the Kruger come from the outside. And that is why our philosophy must change.”
(RP6, 2017)

The actors: Actors involved in the inclusion programme represented a wide range of expertise and departments (referred to here as the “Inclusion Actors”) such as social ecologists, community liaison officers, conservation managers and tourism experts tasked with creating new constituencies and managing relationships with communities outside the park. As with the case with paramilitarisation, multiple external actors were also involved in the inclusion programme, such as NGOs who supported socio-economic initiatives through funding and expertise, other government departments, private nature reserves that cooperated with the park and specialist consultants and service providers (economists, business development specialist, legal counsellors, etc.).

Problems and solutions: Inclusion Actors understood inequity as the disparity that grew from the “relatively successful conservation of biodiversity” and the negative effects thereof on local people because of “restrictions on access to land and natural resources” (Swemmer, Grant, Annecke & Freitag-Ronaldson, 2015: 5). Inequity juxtaposes the (poor) “have not’s” on the outside of the fence, and the perceived (wealthy) “haves” on the inside of the fence. Inclusion Actors understood that the local manifestation of inequity was a function of how conservation was practiced but also a product of South Africa’s political past. According to a recently published plan for regional economic growth around the park,

South Africa is one of the most unequal countries in the world. Furthermore, income, wealth and land ownership inequality are strongly correlated with race. Limited progress has been made in reducing this inequality since the advent of democracy in 1994. The gap between rich and poor across the South African demographic, but also within racial groups, is increasing. Spatial inequality is starkly evident in the Greater Kruger landscape. (KNP, 2020a)

Critics of the park, who also came from within KNP's own ranks, advocated that the park was not doing enough to improve the lives of impoverished people that live near its western boundary fence (RP9; RP10; RP24; SANParks, 2019b). During an extensive 18-month KNP-led stakeholder consultation drive, communities outside the park complained about the park's poor communication with them and the slow speed of consultation processes, the lack of access to jobs and training opportunities inside the park, and the slow racial transformation of the conservation sector in general (SANParks, 2019). Inclusion Actors had a strong sense that local communities did not have enough of a vested interest in the park, and as a result, they could be easily enrolled in activities that were destructive to the park (RP10; RP25; RP26), such as rhino poaching, bush meat hunting, illegal plant harvesting or public unrest (the latter often resulting in blocking tourists from entering the park's entrance gates).

Inclusion Actors had the colossal task of "creating a legitimate economy for communities," because it was hoped that doing so would lead to "people [being] deterred from rhino poaching-related activities. Giving them a stake in natural resource management and ownership will enable poverty-stricken communities to access greater economic opportunities" (SANParks, 2018e). The "unlocking" and equitable sharing of benefits, or "beneficiation" for short, became a rallying call to reverse past political injustices and to garner widespread local support in the present so as to ensure the long-term sustainability of the park (SANParks, 2017 & 2018; KNP, 2018a; Swemmer & Mmethi, 2016). Various KNP-driven economic development initiatives were expected to contribute to South Africa's

“National Development Plan goal to create an environmentally sustainable, climate change-resilient, low-carbon economy and just society by 2030” (KNP, 2020).

Inclusion Actors understood that the inclusion challenge was also a public relations issue. They felt that communities suffered from a lack of awareness of the claimed positive role the park played in the socio-economic lives of its neighbours. According to SANParks, “explaining to neighbouring communities what the parks are doing and why is very important and has been neglected in the past” (SANParks, 2019b).

In terms of relating to the poaching grand challenge, Inclusion Actors attributed poaching to local people’s negativity or apathy towards the park and their belief that they derived little tangible benefit from the existence of the park (and rhinos, for that matter). If poaching was to be halted, local communities had to perceive the park as a shared “asset,” rather than simply a source of risks and costs to them. Rhino poaching was an important *leitmotif* in efforts to enrol communities in KNP’s inclusion mission. Inclusion Actors emphasised that rhinos’ security could not be separated from the wellbeing of communities near the park (RP8; SANParks, 2021).

What actors did: After the first democratic elections in 1994, park forums were established to improve communication and “co-management” with land-claimants¹⁸ and communities living in and around the park so as to involve them in decision-making processes. Various projects were set up to give local people access to the park, whether through environmental education outreach programmes that brought school children into the park for learning excursions, or through sustainable use projects that allowed people to harvest certain plants and insects inside the park for consumptive use (Swemmer & Mmethi,

¹⁸ Forums are established between the park and nearby communities to discuss issues of mutual concern and are made up of community and park representatives. As part of the post-Apartheid land restitution process, many private and state nature reserves were the subject of land-claims from local communities seeking redress after the “Natives Land Act” of 1913 denigrated their land ownership and tenure rights. Park forums are also meant to improve communication between the park and land-claimant groups. I elaborate more on land claims in chapter 5.

2016). According to SANParks (2019b), “by improving park access...parks are taking up a responsible role in society. People are starting to see their SANParks neighbour as a benefit - and not a burden.”

Apart from creating specific park-based projects that invited community members into the park’s boundaries, Inclusion Actors developed high-level socio-economic development programmes (see box 4) to align various public and private stakeholders in the broader landscape to work towards a common goal and to buy into Kruger’s vision for the “Greater Kruger” area.

Box 4: The Greater Kruger Strategic Development Programme (GKSDP)

A good example of a park-driven economic development programme is the GSKDP, initiated in 2018. According to SANParks, the programme’s aim is a “trans-boundary ecosystem-based approach with a key focus on improving the management effectiveness of the core Protected Area network and an inclusive, transformative social compact with all stakeholders in the Greater Kruger landscape” (SANParks 2020g: i).

The programme’s vision is to use conservation as a catalyst for inclusive rural economic development. The plan sets forth development priorities for a vast landscape, including various Protected Areas, adjacent traditional authority areas, commercial farmlands and urban areas, as well as the escarpment hinterland, which is said to “form one interconnected Greater Kruger landscape” (SANParks, 2020g: 1). The programme rests on the core belief that the state of natural capital (in terms of functionality of ecosystems and their ability to deliver services such as water) and socio-economic well-being (for marginalised communities) cannot and should not be separated. The programme is currently mobilising experts from the public, private and civil society sectors to design specific development initiatives following a long stakeholder consultation and situational analysis process.

On the cover of a 2020 publication explaining the purpose of the programme, a group of young black children can be seen enjoying a game drive as elephants cross the road right in front of them. The SANParks CEO, referring to the cover page, confirms the need for “more young people from our local communities to experience the wildlife and wild places they previously had little or no access to. This picture represents the vision of SANParks to inspire society at large, and young people, in particular, to reconnect with our National parks” (SANParks 2020g: i).

The programme therefore does not just envision to stimulate conservation-compatible rural development, but to improve relationships between people that have been alienated from parks like KNP due to South Africa’s history of racial segregation and exclusion.

Inclusion Actors worked hard to establish KNP as a site of collective South African cultural heritage. Attention was given to places that were important during the country's liberation struggle and "cultural heritage management" became one of the park's high-level management objectives (SANParks, 2018). In Table 2 below I summarise key dimensions of the two programmes of action in response to the park's grand challenges and Figure 7 shows how grand challenges triggered distinct programmes.

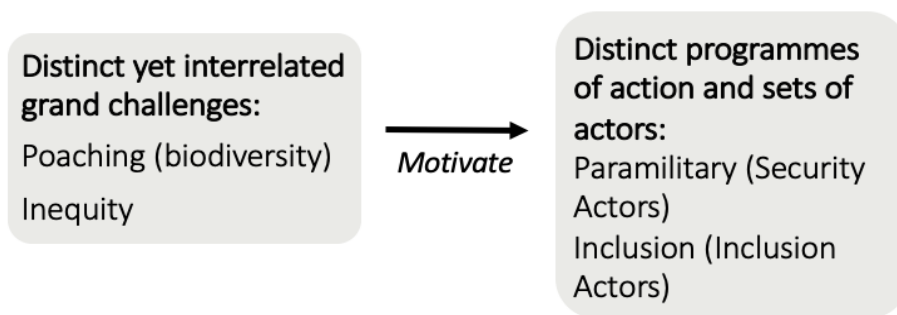
Table 2: Summary of key aspects of the programmes of action

Program of action	Paramilitarisation	Inclusion
Grand challenge that inspired program of action	<i>Biodiversity threat:</i> Rapid increase in poaching activity in KNP threatens rhino populations. Increased sophistication of illegal and what is perceived to be immoral poaching gangs.	<i>Inequality:</i> Pressure on KNP to demonstrate that it equitably shares natural resources and related socio-economic benefits with local communities, and that the park is culturally relevant to a wider constituency of black South Africans.
Purpose of program of action	Professionalisation and paramilitarisation of anti-poaching campaign to halt/reduce rhino poaching. Make law enforcement in the park more sophisticated, responsive, technology-savvy, intelligence-driven.	Addressing historical legacies of inequality and poverty within communities that live adjacent to KNP. Winning over the hearts-and-minds of communities in order to make them constructive stakeholders and shareholders of the park.
Key actors / protagonists	SANParks law enforcement managers and veteran field rangers, scientists and conservation managers.	Managers working across various departments in SANParks tasked with overseeing projects and relationships with "external" entities, such as neighbouring communities and NGOs.
Actors' motivations	Respond to the immediate crisis of poaching and the constant breaching of KNP's boundaries by criminal gangs.	Challenge the stereotype of the park as an insular "fortress" built to serve the interests of a small (white) minority.
Examples of novel organisational practices embedded in programmes of action	Intense training of field rangers on paramilitary law enforcement techniques and artefacts. Deployment of novel, high-tech anti-poaching equipment (e.g., night vision, helicopters, K9 units). Analysing complex datasets containing law enforcement metrics. Information and intelligence-sharing between neighbouring reserves and trusted insiders. Senior managers	Implementing ambitious multi-sectoral socio-economic development programmes for the region. Building partnerships with neighbouring reserves, neighbouring communities, government agencies, NGOs and international donors. Workshops and consultations with actors to develop outreach projects. Plans and projects to control land-use in surrounding areas so as to protect the ecological state of

	and rangers do media engagement work and attend numerous meetings to showcase the parks' efforts, to raise funds and to mobilise public support for the "war" against poaching.	the park.
Key artefacts / material dimensions of programmes of action	Fences, firearms, high-tech surveillance and shot-detection systems, helicopters, off-road vehicles, camouflage uniforms, maps, K9's/tracker dogs, internet-based communication and information-sharing systems. Donor funding for training and equipment.	Natural resources that can be harvested for consumptive use and/or commercialisation. Strategic plans and documents, maps, partnership agreements. Donor funding for development projects.

Figure 7 serves as the starting point of my empirical model which I expand as my analysis unfolds. It shows how distinct yet interrelated grand challenges inspired actors' two sets of programmes of action.

Figure 7: Empirical model - Triggers for programmes of action.



4.3 Conclusion: programmes of action

Each grand challenge inspired an intentional and practical response by organisational actors. Programmes of action consisted of novel practices, routines and artefacts that shaped the conceptualisation of and responses to grand challenges. Security and Inclusion Actors changed how the organisation "did" conservation, albeit in two seemingly paradoxical directions: transforming KNP simultaneously into a sophisticated paramilitary entity and a catalyst for local socio-economic development. Chapter 6 examines the SSW that made these achievements possible, describing the interplay between bundles of SSW, imbricated SSOs and far-reaching outcomes.

CHAPTER 5

FINDINGS: ARCHAEOLOGY OF THE SOCIAL-SYMBOLIC CONSTRUCTION OF CONSERVATION

“Whoever can define nature for a nation defines that nation’s polity on a fundamental level.”
(Thomas: 2002: 2)

In this chapter I draw on secondary data to explain why and how specific SSOs inspired and shaped the history of KNP and the conservation field in South Africa. I follow the advice of Lawrence and Phillips (2019) and make use of Foucault’s notion of “archaeology” (Foucault, 1969) to understand when, how and why particular SSOs became salient as targets for actors’ SSW. I describe place, identity and temporality¹⁹ as interdependent SSOs that inspired actors to invent, alter and uphold the very meaning of conservation and its *raison d’être*. I present this chapter as part of my findings, since examining the history of the park through a social-symbolic lens creates a novel perspective on what the park is and how it was made.

5.1 Birth of a vigorous symbol

“Wildlife is just awakening from its afternoon siesta. Francolins are calling all round, and from a nearby donga comes a sudden clatter of guineafowl. Bush babblers are chattering among the trees, their cheerful din serving to render yet less definable the vague sounds which here and there are beginning to rise from the distant forest. It is the voice of Africa, and with it comes to me a sense of boundless peace and contentment”

(Colonel James Stevenson-Hamilton, the first warden of KNP, quoted in Stevenson-Hamilton, 2012: 81)

“It will be an unforgivable mistake if we were to accept the sickening tendency by a handful of ‘old-school’ conservationists appointing themselves as agents of positive societal change. They continue to campaign for the retention of past policies and privileges as they were over the last 100 years. That campaign will not succeed in a democratic society. National parks in particular are becoming irrelevant to a society whose majority is disconnected from nature and history. It can only be the entire nation, not just those who understand biodiversity, which can make our parks come alive in our national psyche. It has been said by those resisting change in form or thinking that products like hotels have no place in a national park environment. This is a point that fails to recognise that the tastes and profiles of our visitors are changing. A new society is being born.”

¹⁹ I interchangeably refer to these concepts also as places, selves and time.

(SANParks CEO, Dr David Mabunda at the annual Kudu Awards Ceremony held in Skukuza, Kruger National Park on 28 November 2011)

A national park like KNP is not just an empirical research setting but is itself a potent social construction. KNP's emblematic dimensions are succinctly described by Carruthers (1995: 1): "national parks fulfil an important cultural function in that they are the tangible embodiment of those elements of the natural environment which citizens consider worthy of state protection. Thus, a national park is not merely a physical entity, a geographical area, or a suite of ecosystem services or species, but a mirror of society and a vigorous symbol." Carruthers finds that captivating myths, sentimental yearnings, political enthusiasms and moralistic dispositions are interwoven with early historical accounts of the park, which are "proselytizing - even emotional - in nature" (Carruthers, 1995: 3). Dlamini (2020) points out that since the early days of KNP (also referred to here as "the park"), the state invested a lot of energy into teaching people what the preferred meaning of the park was, "because there was nothing obvious or natural about the park's political meaning and what it represented" (p.26). Meaning had to be made by a diversity of interested organisational actors, and history mattered a great deal in how they constructed, and continue to construct, the significance and purpose of a "national park."

By the late 1800s, most wildlife populations in southern Africa were depleted as a result of diseases, such as the 1896 Rinderpest epidemic, and over-exploitation by foreign and later local hunters (Mabunda, Pienaar & Verhoef, 2003). Following the second South African war, in 1902, the British government appointed a Scottish professional soldier (Colonel Stevenson-Hamilton) to enforce wildlife protection in an area then called the Sabi Game Reserve (established in 1898 by the colonial administration). This area would later be expanded to become what we know today as the KNP.

Colonial governments centralised control of wildlife and banned all consumptive utilisation for both commercial and subsistence purposes (Taylor, Lindsey & Davis-Mostert, 2016). When Stevenson-Hamilton was appointed to manage the new wildlife sanctuary, his orders were rather vague apart from an instruction to stop hunting (Mabunda et al., 2003). Black South Africans were banned from owning firearms and from hunting, which had a devastating impact on the ability of local rural dwellers to find sustenance and to trade in wildlife products. Carruthers (1995) and Dlamini (2020) point out how this policy forced local Africans into the migrant labour system as the country entered an era of rapid industrialisation, turning subsistence farmers, hunters and traders into a manageable workforce for the nascent mining sector.

South Africa's first state-owned national park, KNP, was established in 1926 after the promulgation of the National Parks Act, in step with a range of other initiatives to bolster Afrikaner nationalism²⁰. Skukuza, the main camp established by Stevenson-Hamilton, got its name from locals who referred to Stevenson-Hamilton as "Skukuza," meaning "he who sweeps clean" (Mabunda et al., 2003). Another source (Dlamini, 2020) reports that "Skukuza" meant "destroyer." This nickname originated when Stevenson-Hamilton embarked on a campaign to evict around 2 000 resident locals from the park. What is clear from Stevenson-Hamilton's moniker is that the park's creation had an irrevocable effect on those that lived in or near the park's geographical boundaries.

By the early-to-mid 1900s, the "preservation" era of wildlife management was in full swing, mimicking developments in Northern America where a strong preservationist ideology promoted a romanticised, transcendental Nature (Macnaghten & Urry 1997), preserved in places like the Yosemite and later Yellowstone National Park. As was the case

²⁰ In 1925 Afrikaans was granted the status of being an official language together with English and between 1926-1927 two more important national-building policies were adopted, the National Flag Act and the National Monuments Act (Dlamini, 2020)

with many other African countries, conservation and the expansion of protected areas in South Africa followed the value-systems and political objectives espoused by colonial governments (Carruthers, 1995). The park served as a refuge for animals “deemed worthy of conservation, protecting them from those who were not responsible for their near extinction” (Gewald, Spierenburg & Wels, 2019: 5). The non-utilitarian, preservationist ideology decreed that wildlife and natural habitats had to be divorced from human presence. Colonial-era conservationists, like Stevenson-Hamilton, believed that both local Africans (considered primitive) and Afrikaners (considered lacking in the sporting hunting codes championed by their colonial British counterparts) were an inherent threat to the protection of wildlife (Dlamini, 2020). The perception that black South Africans were “bad for wildlife” (Dlamini, 2020: 78) survived the demise of colonialism, and such race-based attitudes and stereotypes persist to this day (Kepe, 2009).

5.2 Making parks and personhoods

KNP was named after Paul Kruger, an Afrikaner nationalist who was president of South Africa from 1883 to 1900. Kruger occupies a vibrant place in Afrikaner folklore as a patriotic statesman who fought for independence against British rule during the second South African war. In 1926, as the incumbent government worked to forge a white national identity, Kruger made a fitting candidate for naming the park after. The creation of national parks were instances of state-making and citizen-creation. The development of KNP as a reserve took place during a time when the South African government was particularly absorbed in activities to expand its administrative power and to define what it meant to be a citizen (Carruthers, 1995). KNP became a place where white English and Afrikaans-speaking people could get together to become (white) “South Africans,” and to enact a new, and somewhat detached and voyeuristic, relationship with nature and wildlife (Bunn, 2003). According to Bunn (2008: 358), “game reserves are themselves exteriorized forms of the

museum, with their logic of preservation, display, and audience instruction. Taken together, therefore, national parks, museums, and cultural villages form part of the wider exhibitionary process in which kinds of citizenship impossible to imagine elsewhere become fantastically naturalized.” Nature and place thus became a tool for crafting national identities, for defining what (and whom) could lay claim to the benefits of nature in the here-and-now, but also who could claim particular places as an inalienable part of their “heritage.”

White people were encouraged to enjoy nature for cultural, spiritual, educational and aesthetic purposes. Carruthers (1995) and Dlamini (2020) recount how the “natives” still resident in the park became popular tourist attractions. The park’s “unspoilt” natural geography and the highly curated placement and organisation of local people in it, embodied colonial and white nationalist fantasies that cast Africans as part of nature, ostensibly living their lives in peaceful obedience and lacking interiority, aspiration and agency.

People created the park, and the park created personhoods. Individual and group identities were authored, amongst others, by historians that turned the park’s geography into “symbolic zones” (Bunn, 2003: 211) inscribed with various narratives that valorised, otherised or demonised ever-fluctuating characterisations of in- and out-groups. Despite the fact that black South Africans had much more nuanced and agentic relations with KNP’s geography (Dlamini, 2020), their roles were typically reduced to “labourers” or “poachers,” whilst whites were cast as nature’s enlightened “conservationists” and benevolent “custodians” (Carruthers, 1995, 2005). Dlamini’s (2020) recently published historical account problematises one-dimensional stereotypes that assigned fixed identities to the black people that interacted with the park in its early days. Dlamini shows how tens of thousands of black tourists visited the park before the end of apartheid, aspiring to the same leisure opportunities enjoyed by their white counterparts. Park accommodation for “non-whites” was segregated

and decidedly sub-standard, but this did not stop determined African travellers from piercing through the park's racial borderlines (Dlamini, 2020).

5.3 Making a contested place

Social-symbolic manoeuvrings to define the relationship between people and place were buttressed by laws such as the Native Land Act of 1913, which allowed for black South Africans to be ejected from land that was deemed important for agriculture and conservation. Forced removals and the erection of high fences took place all over South Africa to keep local people out of protected areas (Pollard, Shackleton & Carruthers, 2003), and to separate domestic animals from wild ones. During the Apartheid era, and as the worldwide conservation movement grew, the government built on colonial traditions that applied conservation as a tool to control land-uses and landscapes for the benefit and use of a privileged (white) minority.

At face value, KNP was declared as a protected area to increase wildlife numbers by keeping human interaction with nature to a bare minimum. However, KNP's creation and management was also part of a less explicit political project: increasing the range of the colonial gaze over a vast and recalcitrant territory. The park helped to expand the long arm of state authority, enabling it to reach into remote and previously ungovernable places²¹, where the agency exhibited by local Africans threatened the authority of colonial rule, and later, of the newly declared (white) republic of South Africa. The park shared a permeable border with Mozambique (then a Portuguese colony) and also played an important strategic role in regulating the flow of goods and labour from its neighbour. The park was incorporated into the machinations of governance and became a place of state surveillance and control.

²¹ KNP's remote northern section shares a boundary with Mozambique and Zimbabwe. A labour recruitment agency that supplied workers from the region to the burgeoning mining industry in the early 1900s described this area as a "hotbed for illicit labor recruiting, poaching, robbery, and every kind of illegality on the part of various undesirables, who had for long haunted that part of the country beyond the reach of any police" (quoted in Dlamini, 2020:1366).

Colonial administrators recognised the strategic importance of the park's landscape and were "unified in their understanding that the success of any border resides not only in its ability to barricade but also in the way that it is able to naturalize its control" (Bunn, 2007: 377).

But not everyone respected the new borderlines and the rules that governed its geography. Many local Africans did not concede to the laws that banned hunting. Stevenson-Hamilton understood "poachers" to represent a threat not just to wildlife but also to colonial rule in far-off places. Dlamini (2020: 937) explains that "poaching was not only against the law; it also provided practice for armed insurrection. The colonial state could not allow that. Stevenson-Hamilton worried that, if left unchecked, poaching could develop into a bigger political threat to white rule in the lowveld." KNP's warden seemed to understand that poaching was not simply a law enforcement problem, but also a complex socio-political one. Carruthers (1995) explains that the practice of poaching is inherently political. It is an act that calls into question how nature's resources must be governed and for whose benefit. Hübschle's (2017) ethnographic study of poachers in communities living near KNP finds that, in some instances, poachers are seen as heroes by their peers, as "economic freedom fighters" pitted against a conservation regime widely perceived as unfair, espousing laws deemed irrelevant and even illegitimate.

If KNP was indeed a vigorous symbol, what it came to represent was greatly determined by the privileges afforded by the social fault-lines of nationality, class and race. As much as entering the park's topography signalled, for some, finding refuge from the hustle-and-bustle of an increasingly industrialised urban life, for others, the park was a geography of exclusion, restriction and resistance.

5.4 Decelerating modernity's clock

As much as national parks like KNP represent specific meanings associated with place and group identity, they also engender and encourage particular experiences of time, or

rather, ways of spatiotemporal being (Bunn, 2003). From its earliest years, the park not only represented and reproduced idealised white identities, it also embodied a romanticised white past. With the rapid growth of the mining sector in South Africa and attendant industrialisation, many white South Africans experienced a sense of alienation, caught up in the sudden rush of urban life, far removed from the farms and small rural towns from which many city dwellers originated (Carruthers, 1995). The park became a temporal bubble where white tourists could step back into the frozen past, a place and time (a timeless nature) unperturbed by modern progress and the ticking timepieces of early capitalism. The park's appearance was curated as a venerable Garden of Eden, "innocent of modern civilisation's ills, whereby people, local and non-local, are excluded if they are not tourists" (Nelson 2003: 70).

In a rapidly changing political, cultural and economic context, timeless nature could always be relied upon to provide regularity and cultural grounding, and perhaps most importantly, a feeling of stable social order (Macnaghten & Urry, 1997). Park aesthetics played an important role in maintaining that order. For example, in the 1900s, park employees and their relations living in the park were allowed to keep small herds of cattle and engaged in small-scale agriculture. Bunn (2007) observes that the sight of peaceful "natives" living in rustic harmony with the park formed part of the park's visual repertoire, instructing the (white) visiting public about the role and place of "natives" in relation to their own personhoods and to the nature.

Bunn (2003) summarises early temporal experiences of the park succinctly: "most visitors to the park also thought of themselves as travelling back in time, away from the city and its modernity. In these accounts, Kruger is a therapeutic environment that 'reserves' an older form of time and value" (p.207). The park became an affective place of nostalgic remembering as white South Africans constructed a collective memory that integrated them

as a now “unified” cultural group. KNP was and is a place brimming with historical artefacts, diverse narratives and special sites, and offers an array of opportunities for its staff and the public to “remember” an ostensibly “common” past within the boundaries of historically and topographically embedded identities (Wertsch, 2002).

But not all groups relate to the past with nostalgia. Dlamini (2020) recounts an illustrative episode from the 1990s where a local community was in conflict with the park following the killing of their cattle by lions that had escaped from the park. At the first meeting between park employees and community leaders there was an immediate tension between the cumulative weight of generational grievances against KNP and the objectives of forward-looking, expedient park administration. According to Dlamini (2020: 3794), “park officials went to the first meeting keen to discuss the future; African farmers went there to talk about the past.” Invoking the future to repudiate the complexity of the past and the challenges of the present remains an important temporal tactic that KNP draws on when engaging with its neighbours.

5.5 Whose nature is it anyway?

In the 1960s the idea became accepted that wildlife could be used for economic purposes, provided that the long-term survival of species was ensured through “prudent usage” (Carruthers, 1995). “Sustainable use” of natural resources was later enshrined in the South African constitution after the end of Apartheid and the notion that wildlife has economic, monetary value is now a taken for granted fact. South Africa has seen a boom in private wildlife ownership and the erection of game fences around game ranches and nature reserves. Today, 9000 wildlife ranches exist in South Africa (growing from only a handful in the 1960s), covering an area of over 200 000 km² and housing up to 20 million wild animals (Taylor, Lindsey & Davis-Mostert, 2016). The western boundary of KNP is flanked by a mosaic of private nature reserves and game farms, some sharing an unfenced border with the

park, giving these properties the enviable position - from a tourism perspective - of being *in* the “Greater Kruger National Park.” A century ago, KNP and the areas around it were seen as marginal agricultural land of little value, and local Afrikaner farmers/settlers complained that the area was crawling with “vermin” such as lion and leopard (Carruthers, 1995). Today, the properties adjacent to KNP are some of the most valuable real estate in the country and private reserves sport high-end safari lodges and luxury tourism establishments.

National parks like KNP remain important protagonists in post-Apartheid South Africa, mirroring the country’s unresolved and growing tensions around race, privilege, land rights and redress. KNP has been the subject of numerous land claims from local communities. Formal protected areas like KNP, deemed a “national and international asset” (GCIS, 2009), enjoy a special land claim dispensation. A 2008 cabinet decision determined that in these instances, the actual land would not be given back to the claimant. Instead, claimants would receive alternative compensation in the form of a financial settlement or the provision of substitute land. Sixteen land claims have been lodged against the park, with only a third settled by 2020 (RP 8). In and around KNP, land restitution is fraught with political opportunism, corruption, insecurity of tenure and a growing sense of disquiet amongst park officials.

From 1994 onwards, political changes in South Africa began to reconfigure the relationship between nature reserves and local communities. In its 2008 management plan, KNP stated: “in the mid-1990s, amidst tumultuous political and social change in South Africa, KNP redefined its relationship with stakeholders from one of perceived ‘fortress conservation’ to one of far more open involvement and more conscious regional co-operation and information-sharing” (KNP, 2008: 2). The era where nature was conserved purely for intrinsic, spiritual, aesthetic, or even scientific purposes, was coming to an end.

In recent years, there have been insistent calls from civil society to include local

people as “shareholders” and “stakeholders,” not just in managing and protecting the environment, but also in sharing more equitably in the benefits of the “wildlife economy” (DEA, 2019a; DEA, 2019b). A prominent safari lodge-owner in the Greater Kruger explained that wildlife and tourism are seen as an important vehicle for economic growth and ecological sustainability: “it is clear that the true solution to the sustainability of the reserves rests on our ability to grow the wealth of the people with whom we share our landscape, and this process is already well underway” (Scott, 2019, para. 5). A recent study found that the park and surrounding reserves contribute around \$440 million to South Africa’s economy, create 22 300 jobs and provide much-needed support to local businesses (Scott, 2019). Conservation actors continue to assert that the wildlife economy is a feasible strategy for socio-economic development whilst meeting conservation objectives (Magome & Murombedzi, 2003; SANParks, 2018).

Despite the demise of Apartheid and the earnest efforts of many government, NGO and private sector actors to transform the wildlife economy to be more inclusive, many black South Africans still view conservation as a “luxury or white pursuit” (Kepe, 2009: 871) of little wider benefit. The vast majority of local inhabitants who live near the park - some so close that they hang their washing out to dry on the park’s boundary fence - have never visited the park for recreational purposes. The long shadow of SA’s political history looms large over the conservation field. A drive through the rural and sprawling peri-urban areas adjacent to KNP and surrounding reserves shows that the wildlife economy has yet to fulfil its potential as a driver of equitable socio-economic development.²²

²² KNP straddles two provinces, Mpumalanga and Limpopo. Unemployment rates for these provinces fluctuate between 25-30% (StatsSA, 2018). Due to the devastating impact of Covid-19 on tourism in the Greater Kruger area, employment rates are certain to be significantly lower in 2020.

5.6 Paradise lost: illegal trade in the Garden of Eden

As much as law enforcement was always a part and function of conservation (Jooste & Ferreira, 2018), its current form, cost and prominence is unlike anything ever seen before in the Greater Kruger area. The globalisation and exponential growth of the illegal trade of wildlife products, and the increased sophistication and use of deadly force by poachers, have triggered an enormous retort by conservation actors to secure wildlife through a militarised approach.

Illegal wildlife trade comprises the fourth largest global illegal trade, after narcotics, counterfeiting and human trafficking, and is estimated to be worth at least US\$19 billion per year (WWF, 2019). Rhino poaching in South Africa garnered much public attention after incidents skyrocketed from 36 rhinos killed for the whole year in 2006 to three killings per day in 2015. According to Annecke & Masubelele (2016),

powerful international lobby groups in conjunction with media houses across the globe called for a variety of sanctions and actions including declaring war on rhino poachers while individual mercenaries and ex-soldiers offered their services in to kill poachers. The DEA [Department of Environmental Affairs] responded to local and international pressure by taking up the same mantle of war-mongering as the public, equating rhino poaching with threats to national security, declaring war on poachers, and noting that poaching threatens 'the reputation, eco-tourism industry, and the public image of South Africa. (p.195)

The unprecedented increase in rhino poaching triggered a concurrent growth in using sophisticated paramilitary practices, personnel and equipment to secure protected areas like KNP. Some commentators argue that a militarised response is having a long-term negative effect on conservation, since local communities are said to be alienated, victimised and antagonised by the increasing presence and actions of law enforcement actors (Annecke & Masubelele, 2016; Hübschle, 2016; Humphreys & Smith, 2014; Lunstrum, 2014). Others contend that robust law enforcement is an essential defence against relentless local poaching

and international trafficking (CSIR, 2020a; Jooste & Ferreira, 2018). The phenomena of poaching and law enforcement in KNP mirrors social dynamics in South African society.

As South African citizens, we experience daily the effect of ratcheting up the tensions between the middle classes living in fortified houses while the 'have nots' devise increasingly sophisticated or violent ways of transgressing the fortresses. It would appear that poachers are engaging in a similar ratcheting up of the tensions and an 'arms race' against the military in the Kruger National Park and other rhino sanctuaries. (Annecke & Masubelele, 2016: 196)

In 2016 an influential black South African politician declared that “black people are worth less than rhinos,” accusing white South Africans of caring more about poached rhinos than the deaths of 34 mine workers that were killed by police during a labour strike (Malema, 2016). His statement captures the racial frictions that pervade South African society and the conservation field is no exception.

5.7 Summary: the social-symbolic objects that make conservation

In the last century, the conservation field evolved through a series of logics, from paradigms built on the values of preservation, towards a neo-liberal market and securitisation logic. These logics did not develop in a linear fashion and one did not neatly replace another. Values underpinning the logics are interwoven and all, to a more or lesser extent, still bear influence on actors' purposive, and even paradoxical, efforts to shape the park's social-symbolic contexts. The SSOs most salient in my primary research data (place, identity, temporality) are equally prominent in the unfolding story of conservation in South Africa. These objects are therefore useful devices for parsing this historical account to emphasise the social-symbolic contours of the conservation field as a whole.

Place: Geographically speaking, the material impact of state and private-sector conservation on South Africa's rural topography and sense of place was considerable. Ecological and social systems were “cut up,” fenced off and categorised into land types with designated land uses, each with tightly managed attributes, access privileges and usage rules.

Different interpretations of what “conservation” meant had material impacts on how spaces were curated and transformed into protected places, and how diverse social groups related to these places, and to each other.

Social scientists have long worked to destabilise the taken for granted character of nature, and the fields of anthropology, sociology, history, ecology and geography have examined the social construction of “place” for decades. This tradition recognises that natural phenomena, like landscapes and wildlife, are infused with symbolic meanings, stemming from culture, identity, values, power and politics (Escobar, 1999; Macnaghten & Urry, 1997). Tuan (1977) notes the difference between a space and a place, the former being abstract, and the latter, imbued with human meanings, experiences and intentions. “A place can be seen as space that has a meaning.” As a place, KNP has been imbued with varied meanings. It was a site of colonial expansion and increased government control over pastoral subjects. It is a bastion for biodiversity conservation and natural science, and it is a target for international crime syndicates and local poachers. It is a natural resource acclaimed as the long-awaited antidote to rural poverty. Its landscape evokes nostalgia, love and reverence, as well as indifference, anger and resentment.

Protected areas are materially curated to reflect the social values, economic rationalities, organisational logics and power relations that are dominant in a particular place and time. These geographical arrangements established relationships between people, animals and landscapes, and these relationships appeared objectively real, and their ostensible naturalness/inevitability is seldom questioned.

Identity: Protected areas have been and still are important sites for the construction of individual and collective identities (Carruthers, 1995). Early conservationists were depicted as hardy pioneers tasked with taming an unruly nature. Today, this archetype lives on, but conservationists are also required to be economists, fundraisers, community development

specialists, diplomats, military strategist, law enforcement specialists, legal experts and loyal soldiers. At the same time, the physical boundaries of protected areas define who is an illegal and immoral “poacher” or a legitimate “hunter,” and diverse communities around the park are deftly categorised into orderly stakeholder groups. KNP started its life as an exclusive, and excluding, symbol of national (white) pride. After Apartheid, the park is still promoted as a cultural and natural asset of national importance, but in a manner that now includes previously excluded groups. Different historical forces and conservation management paradigms have proven to be generative of various individual, organisational and national identities. Over the last century, protected areas and the organisations and people that managed them have had many, evolving identities. An “us” vs. “them” discourse has informed the identity construction of conservation insiders (“rangers”, “scientists”, “managers”) and outsiders (“poachers,” “communities,” “stakeholders”).

Time: Temporally, protected areas were created as living museums, time-capsules that erected a mental and physical boundary around a sentimentalised era, when wild animals roamed free and humans and their artefacts were ostensibly absent from nature. Organisational scholars have shown how organisations use history as a resource to legitimise and stimulate current activities (Foster, Coraiola, Suddaby, Kroezen, & Chandler, 2016) and conservation actors discursively invoke nostalgic notions of wilderness to justify particular decisions to manage nature in the present. KNP is a place where visitors are invited to “remember” their rural, more authentic, “natural” past (Bunn, 2003). A particular temporal manipulation and orientation is therefore key to being *in* and experiencing a protected area like KNP. National parks did not just place fences around geographies, they also “fenced in” particular epochs and promoted specific temporal orientations, generally towards an imagined and sentimentalised past. This temporal orientation is experienced as real, even though it was subjectively constructed by social-symbolic elements such as emotions (nostalgia), aesthetics

(wilderness) and cultural myths (Edenic Africa). Today, pragmatic conservationists turn to the future to invoke a sense of optimistic change as political pressure mounts to transform a sentimentalised, but unequal past, into a more equitable pact between humans and nature.

Historically, how salient SSOs were constructed and arranged in relation to each other had important effects. They stand to legitimise particular conservation paradigms that determine how nature is managed and for whose benefit. Today, social, political, economic and cultural legitimacy are key themes in South Africa that animate how national parks are run. In the 1920s, the spending of taxpayer money on the upkeep of nature reserves could be justified since the viewing and study of wild animals was increasingly seen as morally and financially legitimate (Bunn, 2003; Carruthers, 1995). Today, the “if it pays, it stays” truism is often heard in the field and captures the neo-liberal market logic that underpins the long-term sustainability of both private and state conservation land (Kamuti, 2018). Private and state-run protected areas work hard to shake off the residues of white privilege through reinventing themselves as progressive engines of local economic development and sites that celebrate African cultural heritage.

The making of KNP was a long, complex and conflict-ridden endeavour that favoured actors in positions of power. Political by design (Carruthers, 1995) and of considerable interest to a wide array of societal groups, the social construction of the park is far from over. A variety of purposive actors continue to work to change the material and symbolic contours of what the park *is*. As it was in 1926, much of these struggles and negotiations are animated by larger institutional changes and pressures.

My focus now turns somewhat away from the juggernauts of history, and towards the actions of flesh-and-blood individuals who populate the airconditioned boardrooms, offices and swelteringly hot outposts of the park.

Fieldwork vignette 2: Saluting the corporal

It is December 2019 and I stray into the foyer of Skukuza's *Nombolo Mdluli* Conference Centre. The expansive airconditioned room offers instant relief from the heat: 41 degrees Celsius. I am drawn, as always, to the artwork on the furthest wall. Five large paintings hang enclosed in old, gold-coloured frames. They depict scenes where elephants graze among the yellow grass of winter. A family of lions stare majestically into the unending horizon, gathered to watch the setting sun. Impalas walk across the ageless sands of a dry riverbed. Vistas of undisturbed savanna, places free of human intrusion. I feel a sense of tranquillity and permanence as I gaze at them, drawn to the naturalness they subtly but insistently exude.

Visitors glance at the paintings, but the paintings glance back. They quietly pity and instruct us - we, the urbanised visitors who hurry in and out of the centre, clutching phones and laptops, disconnected from nature's stillness. Deaf to the calls, shrieks and songs of the wild. We, the visitors, who need patient reminding that nature is a place of majesty.

According to SANParks, "the conference centre has been built as part of SANParks' commercialisation strategy which was adopted in 2001 and which also included the need to diversify the product offering. The main target market for the conference facility is the South African business sector. This state-of-the-art facility which consists of a main hall and 4 breakaway rooms offers facilities for up to 500 people" (SANParks, n.d). The language of commercialisation is at odds with the park's aesthetics. Its stoic sentimentality.

Why am I so haunted by the paintings? I begin to realise that their purpose is to lure me into a myth. Into a temporal snapshot. A wilful representation of a world that once was. They invite me into the park's invented nature, one that could only be created through casting people out and by privileging the lives of animals and plants above those of (some) humans. Because animals and plants were "real nature" and local Africans the bothersome interlopers.

In the centre of the foyer is another artwork, a small, proud statue. Corporal Nombolo Mdluli served as a ranger in the Kruger National Park from 1919 until his retirement in 1958. He was memorialised in 2003 for his loyalty and bravery (he survived numerous lion attacks and taught countless white rangers life-saving bush skills).

His presence reminds me that the establishment of the park - real nature - did not happen by itself. It came at a price and was paid for in the blood, sweat, tears, ambitions and schemes of generations of politicians and park officials that established and defended KNP's boundaries. These efforts took more than a century. Corporal Nombolo reminds me that black people, since the earliest days of the park, played an integral role in its establishment, management and persistence.

As I stand there in front of the Corporal, I google him and follow a link to a newspaper article about the settlement of a recent land claim. In 2019, the disenfranchised Mdluli community won a successful claim against KNP and became the co-owners of a luxurious lodge inside the park, the *Mdluli Safari Lodge*. According to Chief Mdluli, the project will bring "stability and social cohesion to the community while ensuring that schools, roads and clinics shall be upgraded, and poverty eradicated through the creation of skills and employment opportunities" (Sowetan, 2019). This is not the first partnership between a

community and a corporate tourism venture in the Greater Kruger and whether poverty will be “eradicated” remains to be seen.

The protection of nature has a shadow side and the establishment of KNP has many moral hues. The plight of the Mdluli community was hidden for many decades. We don’t see paintings that chronicle their existence in and journey out of the park. We can read of their story in newspapers and the annals of history but not on the walls of buildings in Skukuza. Aesthetics inside the park are deployed in service of idealisations, not historical facts.

The Mdluli lodge’s new website (www.mdlulisafarilodge.co.za) invites visitors to “escape to the simple pleasures of nature,” and to “spot wildlife from the swimming pool, deck, restaurant, and bar.” Unlike the scenes in the faded paintings, the photographs on the website show wildlife, sunsets and vast savanna landscapes in high definition, full colour. I stand in the middle of the foyer, phone in hand. If I look up at the wall, the paintings entice me back to a placid yesteryear, if I look down, the website summons me into a contemporary world of safari elegance and sensory experiences in the here-and-now. A place where I can encounter a hyper-real, “real nature.”

The conference centre and the lodge invent nature through the careful placement of images. Images that invite time travel: remembering, forgetting and imagining. Through memorialisation and selective representation, some aspects of nature’s history are shown, and others hidden. As I stare at the paintings and the website, I become an onlooker, enrolled simultaneously in the colonial and tourist gaze. It is somewhat disorienting. The paintings make me nostalgic for the simplicity of the illusory, unadulterated past, and the website makes me crave the instant gratification of the newly invented present. I admit to myself that the wilderness I see on my phone is the most attractive. I would much rather be in that salubrious nature - or rather, in the swimming pool next to it - than in the uncomfortably hot and slightly dull one outside the building.

In-between the past and present stands the bronze figure of ranger Mdhuli. A devoted sentry forever on guard against the forces of modernity. Much is changing in the world around him. In fact, the conversations taking place in workshops and conferences inside the centre are fanning the winds of change. Here, park employees and other government officials, academics and NGO actors regularly meet to argue and negotiate how best to turn nature into an “asset” and “resource” for the benefit of people outside the fence line. I am part of those conversations and I too, come with a history. As a white South African I grew up, like so many of my peers, holidaying in the park. A place I learned to love for leisure and rejuvenation. A place where it was simply natural to see no local people nor the remnants of their existence.

I was complicit in the involuntary exit of the Mdluli community. And what of the Corporal? How many locals were force-marched out of the park under his diligent watch? How many wanderers did he expel? How many violent encounters did he have with poachers? Many. Because on all accounts, he loved his job and did it well.

It is time to go. I linger in front of the statue. I make sure that the only eyes on me are lifeless, the perpetual gawk of security cameras. Then I straighten my back, pick up my chin and salute the corporal. I make my way to the glass door, braced for Skukuza’s inimitable heat.

CHAPTER 6

FINDINGS: THE SOCIAL-SYMBOLIC WORK OF MAKING A GRAND CHALLENGE

I begin this chapter by examining how two sets of parallel forms of SSW were employed within two programmes of action to alter senses of place, selves and time, SSOs fundamental to how actors conceptualised and responded to poaching and inequity. Programmes of action encapsulated distinct, even contrary, objectives and practices, yet inspired similar bundles of SSW amongst Inclusion and Security Actors, targeting matching, imbricated assemblages of SSOs.

I identify the intended outcomes of SSW as it made challenges actionable. It transformed assemblages of SSOs, maintained two versions of “nature,” lent legitimacy to programmes of action and established paramilitarisation and inclusion as unquestioned institutions. An unintended outcome was that SSW fostered fundamentalism (strict adherence to a particular logic), polarisation and disengagement amongst actors, which made grand challenges less tractable.

Before embarking on descriptions of how Security and Inclusion Actors embarked on SSW, in Table 3 below, I provide a summary of the work, based on patterns of convergence in how actors targeted the SSOs of place, self and time.

Table 3: How to make places, selves and time

	PLACES	SELVES	TIME
SSW form	Boundary work: Manipulate the symbolic and material boundaries that determine an organisation's geographical sphere of influence as it engages a grand challenge.	Identity work: Construct individual and collective selves that are congruent with (and supportive of) organisational efforts to mitigate a grand challenge.	Temporal work: Manipulate organisational members' sense of time to shape organisational experiences of temporality and to shape the pace at which a grand challenge is tackled.
SSW tactics	Identify a strategically important geographical space salient to stakeholders of a grand challenge. Project preferred moral and/or utilitarian values onto it (integrity, productivity, sustainability) and establish a tangible threat to these values. Motivate stakeholders to action by creating an affective atmosphere of unease, anxiety, urgency or optimism. Establish control over strategic places by delineating them with novel conceptual and material boundaries, accompanied by rules and norms to govern the behaviour of stakeholders within the boundary. Reify the newly invented places by depicting them on maps/schemata to impart a sense of discovery, stability and objectivity. Assimilate diverse stakeholders and spaces into the new boundary to create a larger and more powerful spatial entity (with fluid boundaries to incorporate more actors and spaces).	Identify salient stakeholder groups most affected by a grand challenge. Choose desired utilitarian and moral attributes for in- and out-groups, in line with emerging conceptualisations of the grand challenge. Reinforce the desired traits through narrative, images and artefacts. Objectify invented stakeholder identities through artefacts, such as memorials, art, video imagery and uniforms. Make the grand challenge salient to a larger, more abstract, politically influential stakeholder group that is not directly involved with the challenge. Maintain this stakeholder group as an abstract, homogenous concept (e.g., "society," "South Africans") to obfuscate political tensions and to reduce possible contestation over the chosen program of action to mitigate the grand challenge. Petition and enrol newly invented actors ("black tourists") to participate in the program of action. Utilise resources	Disrupt the dominant habits, norms and sentiments that determine how organisational actors relate to time. Interrupt the flow of organisational time by using the grand challenge to create a temporal event that separates organisational history into a "before" and "after" period. Create and reinforce emotions and moral imperatives to focus actors' temporal orientation on the urgent present and the unrealised future. Revise conceptualisations of the past to include previously excluded stakeholder groups. Draw on economic abstractions to create an optimistic, utopian and apolitical future. Combine the above modes until all actors perceive their subjective experience of time as objective and as an intrinsic temporal quality of the grand challenge at hand. Continue making time until alternative temporal orientations are obfuscated.

	Smooth over differences between stakeholders to ensure easy assimilation into new places, governed by collective rules and values. Expand organisational influence by petitioning new stakeholders to be incorporated. Combine SSW tactics until actors treat novel geographical conceptualisations as objective and ontologically real. Continue with boundary work until all actors forget that places are invented, not found.	such as history (“heritage,” “traditions”) and emotions (sentimentality, nostalgia) to construct new collective identities. Combine all the above modes until actors treat novel identities (including their own) as objective and ontologically real. Continue making selves until asymmetrical power relations between groups are obfuscated, and until all actors have forgotten that identities are fluid, not fixed.	
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6.1 SECURITY ACTORS' MAKING OF PLACES

6.1.1 Security Actors' motivations: making (new, bigger and safer) places

In 2012, SANParks appointed a new head of anti-poaching for KNP to "develop innovative, modern ways of protecting the rhino in the wake of this well-organised onslaught" (SAPA, 2012). The charismatic appointee said, "the battle lines have been drawn, and it is up to my team and me to forcefully push back the frontiers of poaching" (Green Times, 2013). He told the then CEO of SANParks that he would set up the best anti-poaching unit in Africa and he understood that the frontlines extended far beyond KNP's fence line, even though the park was "in the eye of the [poaching] storm" (RP7). The appointment of a military expert did not just initiate the modernisation of the park's anti-poaching campaign, it fundamentally changed what the park *was*. Changing the identity of the park's geography required the manipulation of social-symbolic frontiers.

Security Actors had a predicament. KNP was the insulated "eye of the [poaching] storm" (Hübschle & Jooste, 2017) and the park drastically needed to expand its influence in neighbouring private and other state-run protected areas, including those in Mozambique. Poachers accessed the park in the east from Mozambique, and in the west, through private, state and communal land. There was incongruence between Security Actors' aspiration to have better coordinated, regional rhino security, and the fragmented approach to law enforcement that existed between various conservation entities around KNP, especially those near the park's fenced, yet "porous" (RP18) eastern perimeter. As one Security Actor put it, "our security is only as strong as the weakest link on the outside" (RP18). Entities around the park, like private reserves and state parks managed by provincial conservation agencies, had a long history of law enforcement since, like KNP, they contained high-value species such as rhino, elephant and lion. However, rangers in those reserves received irregular and diverse

types of training, used different kinds of equipment (if any) and generally lacked a coherent, sophisticated and disciplined approach to anti-poaching work.

Senior Security Actors understood that this brave new world of coordinated, cross-boundary collaboration required a paradigm shift inside and outside the park. Reflecting on his early days in the anti-poaching campaign, a Security Actor said that

in the beginning, I was afraid to go to Maputo (the capital city of Mozambique) to discuss rhino poaching. I was scared they were going to lock me up, 'here is the guy who is killing our people, a soldier from South West Africa [Namibia's name before independence] and he is white, and he is shooting again.' We've had to start a new mindset there and here, like the ability to work closely with the parks in Mozambique. South Africans want to 'fence them out,' and we said the fence must be on the other side of their whole conservation area. I said to them, let's make the whole thing bigger. Let's add allies to the estate.²³ (RP7)

To solve this fragmentation problem, decades of neglect, indifference and mistrust between KNP and its neighbours (RP7; RP8) had to be addressed, a bothersome legacy of the pre-poaching era when KNP could afford to be insular or even somewhat of an overbearing "big brother" (RP8; RP18; KNP, 2020: 71) in its relations with external entities. Security Actors thus had their social-symbolic work cut out for them and put shoulder to the wheel to transform the emotions, institutions, ideas, aesthetics and values that rendered disjointed, insecure spaces into unified, protected places.

6.1.2 Boundary work in the eye of the storm: how Security Actors made a place for paramilitarisation

"I know that there were once sections in this park, because there once were rivers, grassland and savannah and Mopani trees...and conservation. But we had to think big. And now we have this beast called Ranger Services, and inside it the air wing, the traffic department, the dogs, the protection services and the special rangers...The protection zones. We had to come and superimpose a whole new structure onto this place. We had to think big."
(RP7, 2016)

²³ "Estate" is a term used by actors to refer to contiguous protected areas like KNP with its unfenced private nature reserve neighbours.

Security Actors managed not just to establish a range of security-oriented cross-boundary alliances, but significantly increased their territorial influence in geographies far beyond the park's fence. This was achieved by transforming the boundary that had long separated the park from its wider region. Security Actors invented and superimposed new symbolic and physical boundaries in the broader landscape - beyond the park's fence - to create a collective sense of place that directed and organised a range of field-level actors who had a stake in the poaching grand challenge.

Security Actors discursively reconstructed the park as a vulnerable geography besieged by an external threat. In 2016, at the annual congress of African game rangers, (RP7 told the audience, "I can tell you about Kruger, the fragile fortress. I've lived how fragile this place is. Every river that flows in here is contaminated. Every bird that flies in here has some foreign seeds on its feet. And there are those that will plunder us, until there is nothing. They will clear Africa out, unless we keep doing new things, unless we find more innovative solutions." One year later, during an interview, RP7 reminded me that "the borders of the park, the fence lines, are the fault lines of this problem. Kruger is actually just a vulnerable bastion. It is this incredible natural resource protected by a cattle fence." RP7 makes reference here to the game fence around KNP that was erected for veterinary purposes (to separate wildlife and nearby domestic animals), never designed to be a steadfast barrier against armed and motivated trespassers.

Security Actors used various platforms (including the media) to draw attention to the high rates of incursions and poaching incidents (see, for example, News24, 2014, and Figure 8 and 9 below) and between 2013 and 2016, the paramilitarisation programme was routinely referred to as a "war" against poaching (RP7; RP18; RP20). Scenes of dead and bludgeoned rhinos in the landscape, like the ones in Figure 10, became ubiquitous in organisational documents (and media reports) about poaching.

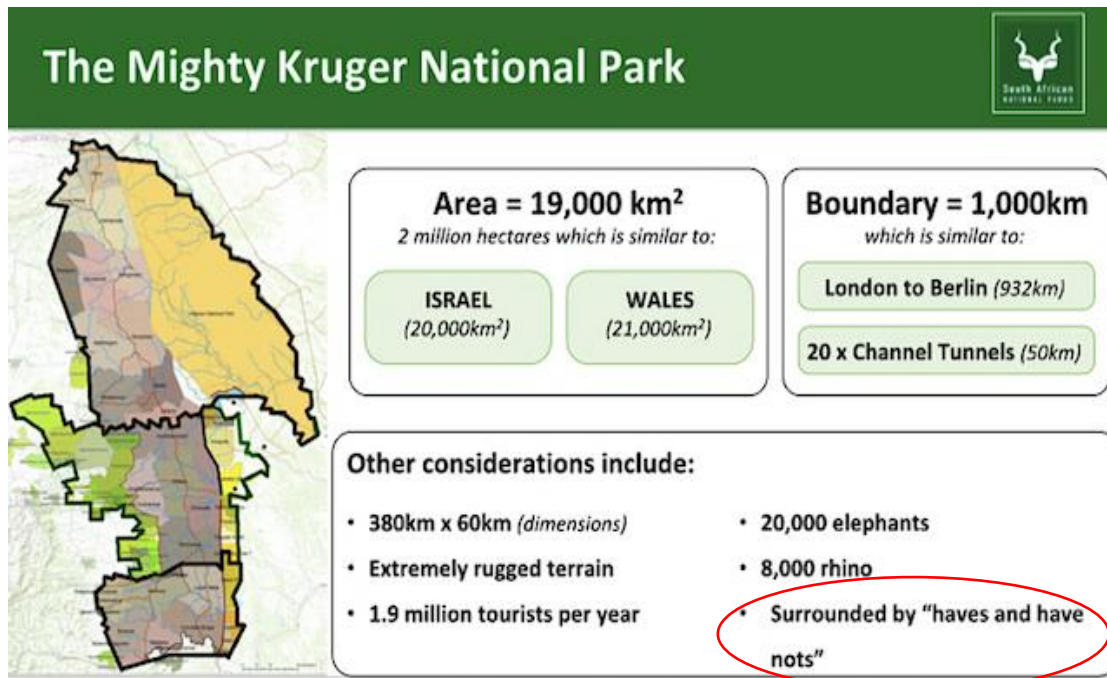


Figure 8: These slides were often used during internal and public-facing presentations to sensitise people to the increasing threat of poaching. The word "mighty" is used in an ironic sense to show that despite the park's size, it was still vulnerable to incursions, presumably by the "have nots" (a reference to communal areas that were generally poor, in stark contrast to the wealth of the "haves" who lived in nearby towns, farms and private nature reserves.)

Source: SANParks (2017c). (Note – red circle added for emphasis).

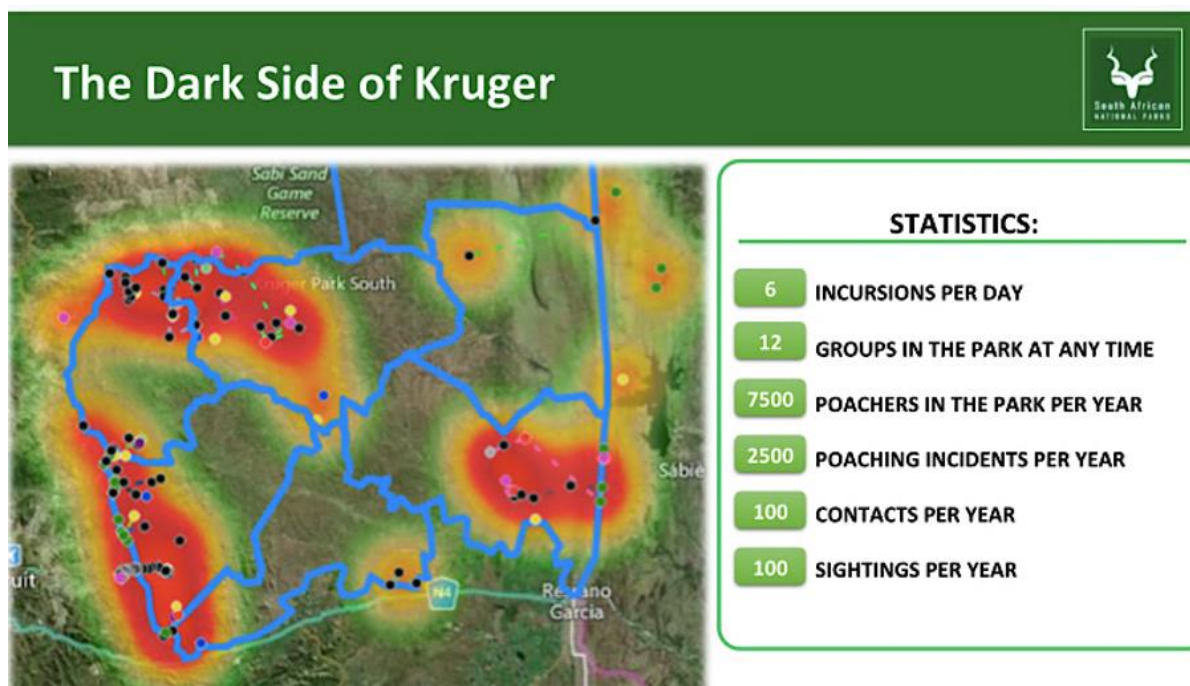


Figure 9: The heat map in the slide above shows the rate of poaching incursions and ranger interactions with poachers on the park's western (South African) and eastern (Mozambican) borders.

Source: SANParks (2017c).



*Figure 10: Scenes of poached rhinos and rhino orphans.
Source: SANParks (2017c).*

Narratives and images of relentless incursion and disappearing rhinos created an atmosphere of risk, crisis and insecurity. Security Actors constructed cross-boundary (coordinated, paramilitary) law enforcement initiatives as the only vital solution to the insecurity problem. Poaching would only be stopped by "clearing the park from the outside" (RP7), a phrase that served as the strategic slogan of the anti-poaching campaign (Jooste & Hübschle, 2017). Clearing the park from the outside required strong alliances with entities outside the fence to help make rhinos safe. RP18 explained what this meant in practice:

we do not, like the people on Facebook think, have rangers sitting on the border or the boundary, waiting for a cloud of dust where the poacher comes in. We also don't only work in-depth in the park only. Our first layer of defence is outside. The police and the people that must keep the criminals out of our house. Then you have the communities close to your boundary, the other reserves around us where we do detection. The rangers inside the park are

the final layer. And the same thing is going to happen from the Mozambican side. Where you have the foothills, the community, the fence, then the park with the security systems. So, you have five or six chances to pick someone up before they get in. Some people call it buffers.’ And around you there is a class A reserve in the middle, a class B and C and then a road, a reserve with a casino and swing in it.²⁴ That is how it really works. (RP18)

Security Actors instituted “seamless” (RP7; RP18) security operations between South Africa, neighbouring Mozambique and between KNP and surrounding reserves:

you need a standing operational procedure where you agree to do seamless operations. So here is my guy on a [poacher's] track and he has a K9 on it, and now they get to the fence. You don't now give away the track with a handshake and a picture, to the guy on the other side. You must have a standing agreement where you can take this thing all the way from track to arrest no matter where they [poachers] run to. (RP18)

For anti-poaching work to be seamless, KNP’s historical differences with neighbouring reserves and with Mozambican entities (where rhino hunting was legal until 2016) were assimilated under the banner of a single, urgent, common cause and a related set of law enforcement responses. Once a common threat and paramilitary remedy were accepted by neighbouring entities and allies, “petty” differences (RP7) were downplayed and overcome, and these entities were enrolled in formal and informal joint anti-poaching operations.

Security Actors created new boundaries that were superimposed onto the region, transcending the prominence of existing (long-standing) conservation-oriented classification systems,²⁵ and international borders that demarcated places inside and outside the park. According to the SANParks 2017/2018 Annual Report, one of the four-fold pillars of the park’s rhino management strategy involved a suite of “compulsory interventions” based on

²⁴ RP18 makes a sardonic remark to point out that alliances were made with reserves which KNP historically frowned upon, such as entities who were perceived to privilege profit and high-density tourism above biodiversity protection. Before the poaching era, cooperating between KNP and these “class B and C” reserves would have been all but unthinkable due to the different value-systems actors’ espoused.

²⁵ The geography of the park is zoned and classified according to vegetation patterns and land-use types that define which activities are deemed appropriate in specific spatial areas.

demarcating specific “operational zones” to further rhino safety. According to the report, “compulsory interventions aim to protect rhinos using zonal approaches with technology-lead, intelligence-based and rhino guardian-type options supported by strong legal systems and penalties” (SANParks, 2018b: 83). Through zoning, Security Actors gave the park’s geography new names, such as the Joint Protection Zone (JPZ), Composite Protection Zone (CPZ) and the Intensive Protection Zone (IPZ). According to RP7, the zones’ purpose was to “create safe zones, creating layers of special protection. We have to prevail. We must grow the estate, talk to neighbouring reserves, grow our parks.” The creation of security zones, such as the CPZ, which crossed political and other administrative boundaries, served to enable strong cooperation between South Africa and Mozambique (on KNP’s eastern boundary), and between KNP and private reserves on its western boundary - in other words, amongst actors who found themselves “inside” the frontiers of the newly invented zones. According to DEA, the use of security zones (such as the IPZ) blurred the distinction made between national, provincial and private parks, ensuring better security-related cooperation and coordination (DEA, 2019c).

Zones articulated a common cause (“one threat,” as per the CPZ map in Figure 11 below) and the IPZ now ringfenced the whole region’s rhino “heartland” (RP7) and “rhino stronghold” (DEA, 2019c).

CPZ – COMPOSITE PROTECTION ZONE

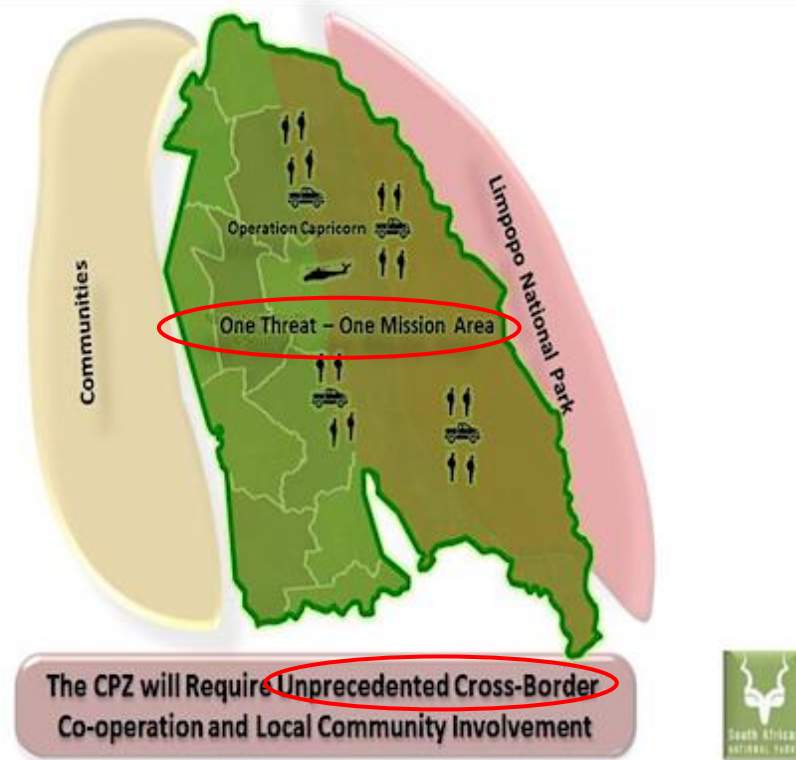


Figure 11: Graphic depictions of the new security zone designed to enable cross-boundary cooperation.

Source: SANParks (2016) (Note - red circle added for emphasis).

The map in Figure 12 illustrates how zones such as the IPZ were associated with a wide range of novel law enforcement practices, and how the CPZ united Mozambican counterparts and local communities against the “one threat,” which also necessitated “one mission area.” Zones drastically expanded the ability of Security Actors to influence activities in neighbouring places, since being “in” a zone triggered standardised rules and security practices, transferrable from the park to adjacent geographical areas.

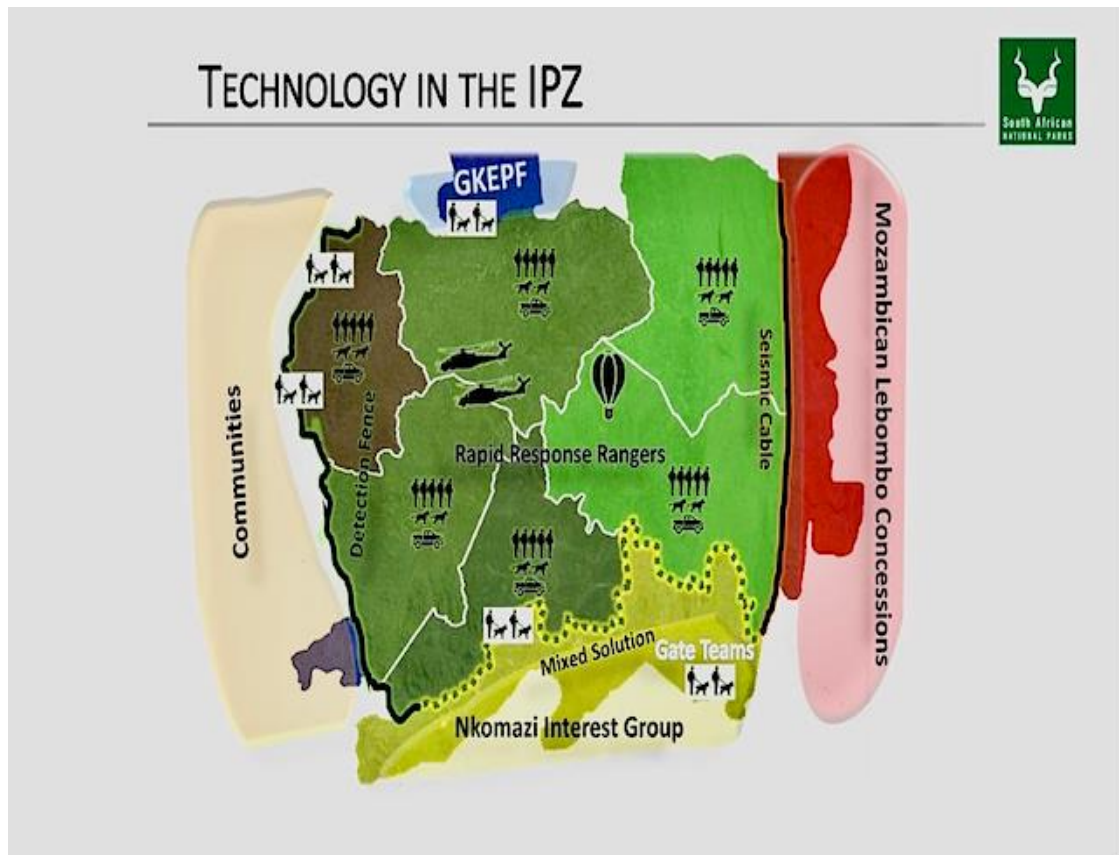


Figure 12: Graphic depictions of the new security zone to protect rhinos in the southern area of KNP.

Source: SANParks (2016)

Novel security boundaries of the (enlarged) landscape were reified through graphic representations on maps and infographics that were widely circulated. The park's long-standing conservation-orientated landscape classification systems were soon overshadowed by new ones, as the whole of KNP's geography (the park and areas adjacent to it) was reimagined in relation to the poaching threat and perceived risk levels. In 2016, in a meeting with other KNP managers, a senior Security Actor recognised that the tide was turning in favour of increased integration and cooperation with neighbours:

we forget the positive things that rhino poaching has contributed to conservation. We are talking to our neighbours to know what they are capable of. It has improved security at a regional scale, and coordination and communication. It is a positive thing. We have not seen an expansion of protected areas in general as we do today. Some private reserves are begging

us to drop fences. Because they think that we can help them, and we think they can help us.

(RP4)

What were the tangible effects of Security Actors' boundary work? KNP's

strategic influence is no longer confined to its own borders. A patchwork of disparate geographies, previously managed in relative isolation from each other, is now a borderless “operational arena” (RP18), seamlessly united in “one mission area.” Security zones and “seamless operations” were novel ideas that created new values and norms that allowed diverse entities, despite administrative, operational and political differences between them, to cooperate and rally behind the poaching grand challenge. New “compulsory” law enforcement rules materially affect who can go where, when, and do what, and rhino security deprioritised other management, conservation and scientific activities in the broader landscape (RP16; RP17). As KNP opened itself up to the (regional) outside world, challenging the long-standing stereotype that it was a “republic” onto itself (RP4), it greatly enhanced the power of Security Actors to define and “solve” the grand challenge. The practices and artefacts of paramilitarisation are now an embedded feature of the Greater Kruger's sense of place. In the Greater Kruger area (including areas in Mozambique on the park's eastern boundary, and especially in the IPZ), it is now commonplace to see law enforcement officers searching vehicles at roadblocks (see Figure 13 below), heavily armed rangers on patrol with K9's and low flying helicopters and fixed-wing aircraft swooping over the vast savannah. No longer a landscape defined by the “experience” of “ecology,” “savanna heterogeneity” (Mabunda et al., 2003, cover) and “nearly 2 million hectares of unrivalled diversity of life forms” (SANParks, 2019a, para. 1), the Greater Kruger became a “theatre” (RP7, RP18) for paramilitary anti-poaching operations.



Figure 13: Security Actors perform routine stop-and-search law enforcement activities inside the park.

Source: Own photo.

How was this achieved? Boundary work tactics included the use of narratives and images to imbue strategically important places with a sense of crisis and threat. New conceptual distinctions and symbolic boundaries (e.g., “Intensive Protecting Zone”) defined places into being in response to the common threat and downplayed other distinctions and differences between stakeholders. Zonation tactics rendered a contested landscape ahistorical, apolitical and objective. New boundaries were discursively constructed as obligatory (“compulsory”) and their material effects (such as access rules and regulations) were established as natural and unavoidable.

How did boundary work affect the social construction of poaching as a grand challenge? Security Actors constructed the poaching grand challenge as a vivid problem that required decisive, drastic, coordinated and cross-boundary paramilitary activities in a

vulnerable, borderless geography. Poaching was rendered a grand challenge existing in an ever-expanding place besieged by a singular risk, threat and crisis. Paramilitarisation evolved from being KNP's organisational objective to becoming an unquestioned regional institution that determines how the poaching grand challenge is dealt with in the Greater Kruger. Opportunities to think of poaching in any other manner than a landscape fortification problem became greatly diminished.

6.2 SECURITY ACTORS' MAKING OF SELVES

6.2.1 Security Actors' motivations: making heroes and villains

“Let me tell you, one day I will write a book called ‘this place has changed.’ When I left fifteen years ago, we were doing conservation in those days, I mean, stuff like field assessments, monitoring rivers, alien plants, erosion control, cutting firebreaks. But when I came back, I found that things have changed. If you don't mention a rhino, you are not a ranger.”
(RP4, 2017)

Security Actors had a predicament. Poaching involved the participation of multiple stakeholder groups, some worked “for” and others “against” (or were indifferent) to the anti-poaching campaign. To make diverse stakeholders manageable and pliable within the paramilitarisation programme, identities had to be transformed.

Prior to the poaching era, rangers did not spend every waking hour engaged in poaching-related law enforcement work. Many Security Actors bemoaned the fact that they were no longer doing “conservation,” since their work lives were now consumed with “law enforcement” (RP2; RP4; RP7; RP11). Law enforcement took up as much as 90% of ranger time, leaving little room for traditional conservation work²⁶ (Hübschle & Jooste, 2017). This change in daily routines and practices meant that rangers had to undergo a dramatic shift in how they understood their selves in relation to the park and their role in it. Existing ranger

²⁶ Traditionally, “conservation work” refers to routine conservation management practices, such as conducting wildlife censuses, getting rid of alien plants/animals, doing road maintenance, culling of antelope populations, conducting firebreaks, reporting on weather and vegetation patterns, participating in environmental education campaigns and assisting scientists with research projects.

identities were re-conceptualised: from “park rangers” into “response forces” (Gonçalves, 2017: 10). Ranger and poacher identity construction became deeply intertwined in an intransigent hero-villain narrative.

“Communities” were another important collective stakeholder. Security Actors developed an abridged, convenient account about *who* these communities were and what their role was in relation to the poaching grand challenge. More broadly, security Actors understood that they needed the broad support of “society,” and such a sympathetic, magnanimous society had to be invented. Anti-poaching required enormous financial resources from government and the private sector and exacted a human cost on poachers and rangers, which South African society had to tolerate. Security Actors thus had their social-symbolic work cut out for them and put shoulder to the wheel to transform the emotions, institutions, ideas, aesthetics and values that constructed the heroes, villains and benevolent bystanders required by their programme of action.

6.2.2 Paramilitarisation: making selves in the “eye of the storm”

For more than a century, ranger selves were modelled on the cultural icon of the hardy, loyal and creative pioneer²⁷ who gallantly pursued the conservation of nature against all odds. Illegal wildlife trade and the poachers who worked in service of it would however not be stopped by a loosely organised collection of individualistic mavericks. Security Actors required a disciplined, professionalised ranger corps who saw themselves as warriors and the extraordinary guardians of KNP’s rhino population.

Glamorising paramilitary practices and artefacts was an important tactic in creating the warrior identity. Security Actors developed an aesthetic genre where paramilitary operatives and artefacts were stylistically displayed in a variety of KNP’s wilderness

²⁷ Scholars have documented the “myths and masculine mystique surrounding game rangers” (Draper: 1998: 801), which Carruthers (1993) refers to as the “cult of the heroic individual” (p. 16).

landscapes and settings. Narratives and images valorised rangers as warriors and guardians of the landscape. Below, in Figures 14-16, are screenshots that capture images from a series of promotional videos that featured rangers' anti-poaching operations in the park.



Figure 14: A field ranger takes aim with an automatic firearm.
Source: SANParks (2018m).



Figure 15: Field rangers conduct patrols using night-vision equipment.
Source: Peace Parks Foundation (2017).



*Figure 16: Field rangers work with a K9 after a poaching incursion was detected.
Source: CSIR (2020b)*

The new “warrior” identity was powerfully embodied in 2017 when field ranger uniforms changed from the traditional dark green colour to a military camouflage pattern, signalling the end of a decades-old tradition and the beginning of a new era of pragmatic, tactical and professionalised law enforcement.²⁸ The entire ranger corps now gave visible and material form to the paramilitarisation programme and the values and practices that accompanied it. The contrast between the old and new uniforms can be seen in Figure 17 below.

²⁸ Individual rangers understood that they were not normal soldiers: “in a normal war there is back-up. In a real war, you get a medal if you shoot, here you might get an inquest or go to jail. This is not a normal war. But the people outside, in the court, the police, they weren’t there, they didn’t have to make the split-second decision. They are not the ones who get shot at.” (RP2). If a ranger shoots a poacher in KNP, he or she will be arrested for murder if they cannot demonstrate that the shooting was an act of self-defence in a life-or-death situation.



Figure 17: The two rangers on the far right of the picture are wearing the old “green” uniforms.

Source: Mahlokwane, (2019).

The creation of ranger and poacher selves were deeply interlinked and relied heavily on moralising tactics: valorising rangers and demonising poachers. In Figure 17 above, rangers lay a wreath for their colleague, Respect Mathebula, who was ambushed and killed in KNP by poachers in 2018. During the ceremony, the newly appointed Minister of Environment, Forestry and Fisheries, said: “we know ranger Respect Mathebula lost his life in July 2018 defending our land. To the Mathebula family, I want to say thank you; we honour your sacrifice. We will pick up your son’s spear and continue his fight. He shall not have passed in vain” (Mahlokwane, 2019, para. 9).

Ranger selves became associated with absolute moral righteousness, and at the same time, poacher selves were constructed as a ranger’s opposite: greedy, selfish and without conscience. A senior ranger said at an annual ranger conference: “sometimes it feels as if they [poachers] are always ahead of us. Why? Because they have no rules, no laws, no conscience, no nothing” (RP7). The previous head of KNP reiterated this sentiment, “these people [poachers] do not have the welfare of the communities at heart but are criminals without a conscience, and they need to be put behind bars for a long time for their criminal acts”

(SANParks, 2018g). Narratives and images (see Figure 18-20 below) reinforced the notion that poachers were exclusively motivated by economic forces, like “need” and “greed.” In his presentation to the South African parliament in 2016, SANParks CEO reported that poaching was driven by greed, culture²⁹ and basic needs (SANParks, 2016).



Figure 18: The two bottom pictures show poor people in Mozambique (left hand) and an arrested poacher with rhino horn (right hand). These slides were used to sensitise field-level actors about the causes of poaching.
Source: SANParks (2017c).

²⁹ Subsistence hunting has traditionally been a common practice in communal areas around KNP and is seen as part of local culture (RP9, RP10). Hunting inside nature reserves is illegal, and its criminalisation led to what Hübschle calls “contested illegality” (p. 177) where a practice is deemed “illegal” in law but not seen as such by all societal groups.



Figure 19: The above framing of the poaching grand challenge (as having four key elements) has stayed the same during my fieldwork. Greed and poverty were perceived to be causes of poaching.

Source: SANParks (2013).

A senior field ranger often said that “poor people get greedy so easily” (RP7). He was also quoted saying, “we are dealing with people at the bottom... poverty drives people into arms of international syndicates for the rhino horn trade. They are treated as cannon fodder³⁰ and they are unlimited” (Herskovitz, 2013).

³⁰ These types of statements dehumanised poachers. It should, however, be noted that many rangers had a more nuanced approach to constructing poacher identities. This was also true of RP7 quoted above; he often made reference to the “human cost” of poaching and the impact it had on poacher families if there was a fatal shooting or arrest. One of KNP’s most hardened and specialised rangers (RP2) told me a story of how he pursued a poacher close to the Mozambican border, and how, when he finally apprehended him near a makeshift shelter in the bush, he was shocked to find a woman and a small child in the shelter, and how this experience made him feel “terrible” about having to arrest the poacher (he became emotional as he told this story).



Figure 20: Above, field rangers can be seen taking care of rhino “orphans.”
 Source: SANParks (2017c).

The juxtaposition between the virtuous-ranger in-group and the evil-poacher out-group is perhaps best exemplified the statement by the Chief Operating Official of SANParks, issuing this warning about poachers “that by plundering the species in National Parks and other Protected Areas, they are selling their soul to the devil” (SANParks, 2018c). Poachers were routinely referred to as a “scourge” by organisational members and documents, including in public-facing annual reports (SANParks, 2015b; SANParks, 2017a; SANParks, 2018d; SANParks, 2021). At a 2017 World Rhino Day celebration, SANParks’ CEO said, “our rangers are doing their best inside the park but we need to replicate their efforts outside our parks to disrupt criminal activities. The scourge can be defeated if we all pull together” (SANParks, 2017d). When the previous head of KNP joined SANParks, he said that taking on the poaching “scourge” would be one of his first objectives (Lowvelder, 2015).

The identities of poachers and rangers were mutually reinforcing. Without a well-defined enemy, there could be no loyal, motivated soldiers to rid the park of its “scourge.” If

poachers were the immoral group responsible for the aberrant condition of rhino poaching, it logically followed that moral rangers had to rid the park of poaching, using any means necessary, including deadly force.

Another vital stakeholder identity that needed managing was that of “communities.” To make sense of and manage the role of communities, Security Actors constructed community selves as poor, destitute and prone to criminality. A senior ranger explained that poaching was a systematic process whereby outsiders [from criminal networks] infiltrated the areas around the park, leading to the “criminalisation” of surrounding communities (RP2). This view was affirmed by the SANParks CEO: “these criminals [poachers] reside in our neighbouring villages. We urge our neighbours to help us save jobs and create opportunities through tourism because people come to the park to see these magnificent animals” (Mabuza, 2020). The Minister of Environmental Affairs, Security Actors, high-ranking SANParks officials and other actors in the field routinely made statements that created a clear discursive link between poverty and criminality, implying that community members were continually vulnerable to criminality because they were poor. The Minister made the following statement in 2016:

to create real opportunities for local communities in the conservation and wildlife management space, and thus ensuring that they are less vulnerable to exploitation by poachers, steps are being taken to develop a reward or incentives system that supports the development of small businesses in communities to discourage them from becoming involved in poaching. (SANParks, 2016b)

In its recent annual report, SANParks Chairperson referred to the ostensibly “proven link³¹ between wildlife crime and poverty” (SANParks, 2021: 17). Other Security Actors’

³¹ See box 5 for a brief discussion on the linkages between poaching and inequity.

narratives emphasised that people in communities had no alternative livelihood options nor an economic stake in KNP, and this “drove” them into joining poaching syndicates:

we know there are only two ways to stop poaching: Demand reduction and the socio-economic development of people who live next to the fence. It is not enough for people to be able to say, ‘my father works there, my sister works there.’ It simply isn’t enough. What does it help you if you are standing by the entrance gate selling small bits of jewellery? People in those communities feel no sense of ownership. What benefits do they derive from Kruger? How do the animals in Kruger help them? They are totally apathetic because they are not deriving benefits. If you are in Africa and you drive out of the nature reserve, you are immediately confronted with tremendous poverty. People are destitute. They don’t have options. (RP7)

This statement implied that collaboration in illegal poaching activities was rampant in communities because people had no economic alternatives.³² Communities’ selves were constructed as non-agentic and easily malleable to the dubious demands of external forces.

The relationships between ranger and community selves were complex. Many rangers (the vast majority are black South African men) originate from KNP’s neighbouring communities. As a senior ranger said in 2016:

we must remember, poachers are coming from the communities where the rangers come from. These rangers are also community members, some are neighbours to these poachers. It is not an easy thing. Once you are a ranger, in that particular community, to some of the people, you become isolated. You become cursed, you get treated like a witch. Those things are a reality. And people don't want to associate with you. (RP20)

A few months after making this statement at an annual ranger conference, RP20 made headline news. He was arrested in the park in possession of a bloodied axe and a fresh rhino horn.

³² It is estimated that only 4.5% of the 3 155 265 people living in the municipalities next to KNP are directly or indirectly involved with wildlife poaching (Jooste & Ferreira, 2018).

In many ways, the shooting of poachers by uniformed law enforcers presented a politically challenging scenario in a post-apartheid South Africa. Poachers were mostly black, and many senior and veteran rangers and law enforcement officers in KNP were white, with careers spanning back into the Apartheid era. Security Actors had to get past this problem by inventing a supportive contemporary South African society, unencumbered by the ghosts of history and the complications of contemporary racial politics. An apolitical society was needed. One that valued the lives of rhinos above those of poachers (and rangers). One that tolerated the ongoing violence between opposing groups. One that endorsed the flow of tens of millions of tax-payer dollars to KNP's anti-poaching effort. In short, a society was needed that would view the work of Security Actors as urgent, just and necessary. Security Actors went to work to enrol "society" into their campaign, explaining,

you know, we talked about a whole of government approach, a whole society approach, I know it sounds very theoretical. How will you do it? You do awareness, you put up banners... you make speeches, you go to dinners. We've got to believe. It is everybody, right from the smallest NGO to the minister of police, to the European Union, to the United Nations. We need a whole society approach for our continent, our region, for our parks. (RP7)

KNP's anti-poaching technology partner explained that their role was to support SANParks to roll out a "whole-of-society approach, to align the effected stakeholders, neighbouring communities, law enforcement agencies and the industry" (CSIR, 2020a). This meant that the anti-poaching in-group had to be expanded to include the selves of the whole of South Africa. This was reiterated by SANParks media statements, such as the following:

the KNP has arrested 90 suspected poachers this year. This is not only thanks to the increased cooperation from ordinary members of the public but also from corporate South Africa joining the fight against rhino poaching. We need to go out there and expose these selfish people who are undermining our country. (SANParks, 2017d)

In 2018, SANParks CEO said, “society cannot stand by and watch helplessly as criminals declare war on our natural heritage. We all need to defend our heritage with everything we have and stand together to stop these killings” (SANParks, 2018f). Security Actors initially constructed poaching as a national security issue: “it is a fact that South Africa, a sovereign country, is under attack from armed foreign nationals. This should be seen as a declaration of war against South Africa by armed foreign criminals. We are going to take the war to these armed bandits and we aim to win it” (Africa Geographic, 2014). A senior Security Actor said, “we are fighting a counter-insurgency now. The war is escalating” (Herskovitz, 2013). Although the discourse of “foreign insurgents” has decreased much in recent years, organisational members and the media still refer to anti-poaching work as an effort to curb “counter-insurgency” (SANParks, 2017c, Goba, 2017).

What were the tangible effects of Security Actors’ identity work? One-dimensional, essentialist moral selves were created for rangers (good) and poachers (bad). Rangers became brave warriors, and poachers degenerate enemies, and both groups thus predictably, and interdependently, enacted their combative roles within the logic of the paramilitarisation script. One-dimensional identities were created for communities. If communities *were* indeed criminals, harbouring criminals, or simply waiting to “become” criminals, ranger’s far-reaching law enforcement work outside the park (like joint operations with the police and other agencies) was justified.

Through the “whole of society” discourse, the peril of rhino poaching became a totalising threat against the entire South Africa, including all the diverse societal groups within it, who were all seamlessly incorporated into a the paramilitarisation “solution.” This reduced the likelihood of rogue groups in “society” engaging in activities that might politically undermine the anti-poaching effort. In the last ten years or so, it has become commonplace to hear politicians, government bureaucrats, religious leaders, business

executives, sporting and media personalities speak out against poachers and to praise the work done by KNP's rangers (Eyewitness News, 2019).

How was this achieved? Security Actors engaged in identity work tactics that manipulated, reinforced and invented identities for salient stakeholder groups. Rangers and poacher selves were discursively reconstructed through the use of evocative and moralistic narratives and imagery. Narratives about community selves were constructed by strongly associating communities with economic concepts such as “greed” and “poverty.” Unlike rangers, narratives about community members (as was also the case with poachers), were deterministically constructed as economic (amoral) actors whose decisions were informed purely by economic greed or need. Out-groups were afforded little agency or moral interiority. Society was invented as a collective stakeholder through narratives that linked rhino poaching to an abstract national security threat, a threat that could only be resisted by a “whole of society” approach.

How did identity work affect the social construction of poaching as a grand challenge? The invention and enrolment of a “society” in the paramilitarisation programme had ramifications for how the grand challenge was conceptualised. In 2016, the South African government classified rhino poaching as a national security threat (Gonçalves, 2017) and as such, the responsibility for the poaching problem now belonged not only to conservationists (within Department of Environmental Affairs and SANParks) but also to securocrats (South African Police Service, Defence Force, National Security Agency, National Prosecuting Authority, etc.). This shift in conceptualising the problem was the result of intensive lobbying by Security Actors and represented an important defining moment in the public life on the poaching grand challenge. The phenomenon of poaching was now somewhat dislocated from a particular historical context and was turned into an abstract, ahistorical “transnational organised crime” (RP7), a concern for the whole of South African

society. The construction of community serves as fundamentally part of “the problem” diminished opportunities to see them as potentially helpful stakeholders or potential partners in the park’s fight against organised crime.

Box 5: Does poverty cause poaching? Linkages between poaching and inequity

As demonstrated earlier in this section, there is a strong belief within KNP and SANParks that poverty is the root cause of poaching. Is this link really proven?

In 2020, WWF South Africa commissioned a literature review investigating the application of criminology and crime prevention theory to high value poaching in Mozambique and South African. Part of this study aimed to better understand the linkages between poverty and wildlife crime, such as rhino poaching. The report found that “poverty and crime often occur simultaneously. However, analyses showed that crime is not driven by poverty alone, but rather by inequality. Countries with high overall levels of poverty do not necessarily have higher levels of crime. It is places with high levels of income inequality that typically have the highest levels of crime. Another driver of crime is a breakdown in social norms and values which results in, and is worsened by, factors such as unemployment, incomplete education, a break down in family structures, limited opportunities and exclusion from the formal economy. Many of these factors are present in South Africa: social and economic inequality, a lack of economic opportunities, poor education and many families are affected by migrant labour into urban centres. The legacy of Apartheid compounds inequality as it resulted in limited opportunities and weak public services, particularly in rural areas” (WWF, 2020a: 3).

Considering these findings, separate programmes of action to mitigate poaching and inequity seem more interrelated and less contrary. From this angle, the work of Inclusion Actors are complimentary to those of Security Actors, despite actors’ tendency to treat the two programmes of action as having different goals.

6.3 SECURITY ACTORS' TIME MAKING

6.3.1 Security Actors' motivations: the need for speed

“We are fighting organised crime. The pressure is building and I say to guys, ‘this is happening on our beat.’”
(RP7, 2016)

Security Actors had a predicament. The park’s somnolent organisational culture was well suited to preserving an idealised, timeless “nature” against the unwanted forces of change, but this temporal posture was incompatible with the clamorous demands of paramilitarisation. Incumbent Security Actors had to transform KNP into an organisation that could support an agile, fast-paced, high-tech and hybrid-military mode of law enforcement. The enormity of this task was exemplified by the following quote from RP7 who regularly expressed his frustration with the slowness of KNP's organisational processes:

the biggest challenge was, in an organisation focussed on nature conservation and tourism...to create a sense of urgency about what you are trying to do. Those guys think in terms of months, and drought cycles, and the gestation period of an elephant. And here I arrive, and I say, 'I need choppers,' 'we must do this now,' 'we need more rangers.' It was surely one of the most difficult things to do, that whole system just doesn't want to digest it, the system was not right. It took a lot of my energy. Nothing was delivered on time. Or the wrong things were delivered. The soles of the rangers’ boots were falling off. And you can go on and on, the radios didn’t really work. So much had to go into setting up the ‘Anti-Poaching Unit’...which is what I called it to avoid embarrassment.³³ (RP7)

In order to enable and normalise rapidly unfolding paramilitary practices and artefacts in landscapes that were previously considered “timeless” (SANParks, 2012) and “eternally cyclical” (RP11), time had to be interrupted from its normal flow and reconceptualised as

³³ RP7 suggests here that he found KNP’s anti-poaching personnel and infrastructure in an inadequate state when he joined the organisation in 2012. On another occasion, RP7 remarked that professionalising the ranger corps was about “catching up with the backlog,” suggesting that law enforcement had been neglected in the park before rhino poaching made it salient.

finite and rapidly “running out” (RP7). KNP’s long-standing affective atmosphere of sentimentality and nostalgia had to make way for a sense of imminent threat and a mood of volatility and haste. Security Actors thus had their SSW cut out for them and put shoulder to the wheel to transform the emotions, institutions, ideas, aesthetics and values to foster an organisational commitment to haste and speed.

6.3.2 Paramilitarisation: buying time in the “eye of the storm”

Security Actors discursively interrupted the flow of organisational time by signifying the dawning of a paramilitary era governed by a new temporal orientation. The golden age, in which conservation, science and tourism held sway over what the park prioritised, was over. Security Actors deployed narratives that emphasised the importance of rapid and urgent action, and the envisioned consequences of not doing so. According to Jooste and Ferreira³⁴ (2018: 55), “militarised law enforcement is an intervention of necessity to *buy time* whilst other more lasting solutions are pursued given this global context” (emphasis added). In describing KNP’s anti-poaching strategy, RP7 explained that,

we have to start small, there is no time for analysis paralysis. And we must *act now*, things are happening now while we are standing here. We have to act, do things. I repeat, the solution envisaged for communities and demand reduction³⁵ will take effect *too late* for Kruger, unfortunately. Because we are 15 years *behind* the curve. (emphasis added)

In justifying the militarisation of ranger work, RP7 wrote the following in an email to a detractor (who criticised the militarisation of park law enforcement):

there is no doubt in my mind that law enforcement is an *interim measure of necessity* with many unintended consequences. However – we have *NO choice*. The real long-term solutions (demand management and community ownership) will *take time* to implement. Maybe *too*

³⁴ Both authors were employees of the park during the publication of their paper and were influential rhino security thought-leaders.

³⁵ Senior Security Actors rhetorically maintained that a long-term solution to poaching could only occur if local communities became active stakeholders of the park and if international demand for rhino horn could be reduced (Jooste & Ferreira, 2018)

much time for the rescue of the rhino of Kruger. The thin green line' [KNP's rangers] is all that can *delay* and for now prevent the onslaught and irreparable consequences if unchecked. (emphasis added)

When talking about their work, it was commonplace for Security Actors to refer to a time “before” poaching, when their lives were unencumbered by the demands of professionalised law enforcement, when their day-to-day work involved doing “normal” conservation (RP2; RP3; RP4; RP7; RP13). The first-of-its-kind opening of a Mission Area Joint Operation Centre (JOC) in 2015, a nerve-centre dedicated to managing the poaching problem, was an important moment in creating “before” and “after” eras. SANParks described the opening of the centre as a “key milestone in the fight against rhino poaching” (SANParks, 2015c) and the opening event had such political importance that it was attended by South Africa's then-president, the Minister of Environmental Affairs, several provincial premiers, the SANParks Chief Executive Officer and local traditional leaders. RP7 was quoted saying that 2015 was the year in which the war on rhino poaching would be won or lost. “We are in trouble,” he commented, “it is unabated, and it is relentless and 2015 is a critical year” (CSIR, 2020a). Security Actors used evocative images to reinforce the sense of crisis (see Figure 21 below) and of diminishing time.

The experience of time as compressed and quickly waning was discursively constructed and materially reinforced through poaching incidence reports and paramilitary artefacts that increased the speed and pace of law enforcement work. Security Actors used technological innovations to detect, respond to and communicate about poaching incidents. Security Actors now marked the passing of time not according to annual performance plans and seasonal drought cycles, but according to quantitative sets of security metrics, tipping points and measures such as the daily numbers of poaching incidents, incursions, lead-time between detecting an incursion and making contact with poachers, “contacts” with poachers, poacher arrests and so forth.



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Figure 21: The image above portrayed the sense that time was running out and more had to be done to “save” the rhino.

Source: SANParks (2013).

News about poaching incidents travelled instantly (using tailor-made internet platforms and social media applications) between actors using social media and secure communication platforms. These technological artefacts and metrics created a sense of pressure and haste, a feeling that time was running out for rhinos (as tracked in “real-time”).

The importance of statistics and metrics were visible in this comment by RP7:

predictions are that we can get more than 10% [poaching incidents] down. It is still a disgusting amount of rhino to lose, but at least we can stabilise things. It is far from victory. What is victory? Maybe when we lose two animals per week. 100 per year? I'm not sure, and we keep thinking about that, what would normality be, for factors given in Africa? The number of carcasses is still on the rise. At one stage we lost three per day, 1.8 a day, at one stage we lost 4 carcasses for every poacher we caught. Those are measurements of effectiveness and efficiency that we have to apply.

When the JOC was opened, South Africa's then-president praised the technology used in the

centre: "joint situational awareness through electronic means and live-streaming of information now informs in-time decision making, faster reaction and more often proactive operations. This enables us to employ resources more intelligently and to be one step ahead of the poachers and their bosses" (SANParks, 2015c). Actors spoke about "losing" rhinos when sharing information with each other about poaching statistics and on more than one occasion did I hear a ranger say than even losing one rhino was one too many.

Security Actors felt that poaching happened "on our watch" (RP13) and "our beat" (RP7). In a pamphlet to raise awareness about elephant poaching, Security Actors said that "Now is the time to act to secure the safety of these magnificent beasts for future generations to experience and to have the joy of watching a tusker roam freely in the bush" (SANParks, n.d; see also Figure 22 below). RP4 appreciated the impact of constructing poaching as a crisis had on KNP, saying that "we should thank the rhino for doing all of this, it forced us to do all of this. If you have a crisis, sometimes, that is where conservation becomes very successful because the decision-making is quick, everyone is worried about the crisis and things start to happen."

Security actors invoked the future through narratives and images that called for urgent action in the present to protect rhinos. Both Security and Inclusion Actors referred to "future generations" as important imagined stakeholders in the poaching grand challenge, and the paramilitary programme of action was justified by imagining a "future without rhinos," (RP10) where "our children would never even see a single rhino in the wild" (RP9).



*Figure 22: Rhino calves are featured in the above slide, as well as a young girl and a rhino, to establish a link between the present and the future.
Source: SANParks (2017c).*

In such an organisational climate, the time was (made) ripe for the idea that action had to be swift, paramilitary in nature and technology-intensive to enable a more rapid ranger response to poaching incidents.

What were the tangible effects of Security Actors' temporal work? Security Actors drew an abrupt line in the sand of organisational time. The grand challenge of poaching was constructed as an exceptional kairotic moment and window of opportunity that called for swift and action. The park relinquished its long-standing temporal orientation conditioned by a hundred years of ecological rhythmicity and bureaucratic cadence. Ironically, in order to “save” timeless nature, Security Actors had to dial up the tempo of how the organisation experienced time itself. The values of slowness and continuity were overtaken by the value of speed and disruption. The increased tempo and “relentlessness” (RP 2; RP3; RP4; RP7; RP13; RP18) of poaching incidents and responses, and the “panic of activity” (RP7) occurring in KNP’s anti-poaching operation centre, has become the new

normal. Compressing time focussed actors' temporal orientations on the present, on a moment-to-moment, perilous "now," distracting attention away from the long-term consequences of current actions.

How was this achieved? SSW tactics created an atmosphere of anxiety and haste. Narratives, imagery and technological artefacts were deployed to speed up and compress time, to periodise the organisation's history into a before-and-after era and to construct the present as a rare kairotic moment. Novel temporal orientations were created and recursively reinforced by time-making concepts, slogans, metaphors and artefacts (technologies).

How did temporal work affect the social construction of poaching as a grand challenge? Poaching was rendered a vivid grand challenge, existing in a temporal bracket that was soon taken for granted - a rare and diminishing window of opportunity "in" a time of crisis. By periodising KNP's lifespan into two eras - before and after poaching - the poaching grand challenge was established as an exceptional and atypical episode or fragment, separated from the park's long history. The poaching challenge was thus released of its historicity and socio-political pedigree (fraught with asymmetrical power relations). The emphasis on a rapid response legitimised the use of one-dimensional numerical measures (such as numbers of rhinos poached or numbers of incursions) as indicators of the success of the programme. A focus on numerical indicators, in turn, diminished actors' ability to think about the social dimensions of the poaching problem, such as the quality of the park's relations with local communities. Paramilitarisation became an unavoidable "intervention of necessity," since there was said to be no other "options in the medium term" during "desperate times" where rhino "assets" (RP7) were rapidly being depleted. The haste with which the poaching problem was tackled precluded deliberations amongst multiple stakeholders around the park. Constructing the poaching grand challenge as occurring within a never-to-be-repeated kairotic moment called for immediate and decisive action, concealing

other possible (non-paramilitary) courses of action.

Table 4 provides a summary of Security Actors' SSW and its effects on SSOs salient to the poaching grand challenge.

Table 4: Summary of Security Actors' SSW on SSOs

SSO	PLACE	SELVES	TIME
Trigger	Security Actors' need to create, adapt and uphold the meaning of places, selves and time to be compatible with the goals and practices of the paramilitarisation programme.		
Type of SSW	Boundary work on the symbolic and material boundaries that defined the park's landscape.	Identity work to modify/bolster existing identities and to invent new ones.	Temporal work to modify subjective experiences of time.
SSW work tactics	Use narratives, images and artefacts to create sense of immanent crisis and threat. Assimilate diverse entities into newly labelled geographies (e.g., "Intensive Protection Zone," "Greater Kruger") to prioritise KNP's security priorities within the wider region. Reify newly invented boundaries/zones by depicting them on maps/schemata. Enrol strategically important stakeholders (despite differences between them) within the new geographical boundary.	Use narratives, images and artefacts to reinforce moral in - and out-group distinctions. Essentialise traits for in- and out-groups. Invent a new group ("society") to form part of the in-group.	Use narratives, images and technological artefacts to create a temporal sense of haste, panic and urgency. Interrupt the flow of organisational time by periodising it into "before" and "after" eras for anti-poaching work.
Prominent narratives	Fragile fortress Compulsory interventions. Vulnerable bastion. Clear-the-park-from-the-outside. Seamless operations.	Rangers-as-warriors. Scourge-of-poaching. Poachers-as-cannon-fodder. Whole-of-society.	Happening-on-our-beat. Act-now. Running-out-of-rhinos/time. Buying time. Future generations.
Effects	Creation of a new landscape identity: a borderless, "zoned" place defined by a common security threat. Establish control over strategic territories beyond the park's boundary. Normalise paramilitary practices in landscape.	Creation of essentialised, compliant and moralised stakeholder selves. Normalise paramilitary-related roles, behaviours and actor traits.	Creation of a novel temporal orientation defined by an intense focus on the present. Normalise the pace of paramilitarisation.
Effects on social-symbolic context	Creating an affective climate of alarm, stress and unease where the grand challenge is experienced as palpable and imminent.		
Effects on construction of grand challenges	Grand challenge constructed as a fortification problem in a borderless geography.	Grand challenge constructed as moral battle between those who are wrong and those who are right.	Grand challenge constructed as an ahistorical aberration, a crisis occurring in a kairotic moment.
	Transformation of a multi-faceted social, political and economic problem into a security threat, solvable through technology-intensive paramilitary interventions.		

Fieldwork vignette 3: Integrity lost

“Wildlife security” was next on the agenda, and a sudden solemnity entered the room. It was Mark’s* turn to give his report. He seemed uncomfortable, shifting in his seat before speaking, his normally confident manner somewhat subdued. Everyone in the room knew what was coming. Mark chronicled a long list of poaching-related incidents that occurred in his section of the park. Everyone listened intently and some attendees shook their heads, made brief eye contact with each other, sighed and stared at the floor. I did the same, equally affected by the darkening atmosphere. I felt awkward, as if I had clumsily intruded upon an intimate gathering of secretive acquaintances.³⁶

Between 2016-2018, I attended several quarterly meetings - like the one described above - where senior KNP rangers met with their peers from private and other state-run reserves adjacent to the park. Many “joint management” topics were discussed, such as rainfall, wildlife diseases, fence maintenance, erosion control, water management and so forth. During each of these meetings, poaching was an important topic. Without fail, this agenda point triggered a sombre mood as one manager after the other reported on poaching “incursions” and rhinos killed in their areas of jurisdiction. Mark managed one of the hardest-hit poaching areas in KNP, inside the IPZ (“Intensive Protection Zone”). He had become somewhat of a legendary figure, and I heard more than one story about his passion and resolve to protect KNP’s rhinos (“Nobody knows what Mark has been through,” said one of KNP’s most senior Security Actors sympathetically as he explained to me where the park’s hardest-hit poaching areas were). Paradise was getting lost, and those charged with protecting it clearly felt the weight of the endeavour on their shoulders.

After the meeting that day, small groups of men continued their conversations outside, sometimes in lowered voices. The scene and atmosphere resembled that of a funeral, where people mingled and exchanged reticent sympathies once the intensity of the ceremony was over. But here, the funeral-goers wore khaki and many carried pistols and two-way radios on their hips. Over a cup of cheap instant coffee, a local ranger (whose job title contained the phrase “protected area integrity”) told me how he felt ashamed each time it was his turn to provide statistics on incidents in his section. He said he was tired of “losing the battle.” He had dark rings under his eyes, smoked a lot, and mentioned that, in the last week, he had to “deal” with three rhino carcasses.

That was the first time I heard the phrase “protected area integrity” - a concept I would later regularly encounter as I immersed myself in the field. Within KNP and the conservation field in general, the term is commonly used to describe the function of law enforcement personnel in protected areas like national parks. Accordingly, the role of rangers is to “ensure the integrity of their section and therefore counter-poaching efforts count very high amongst a long list of responsibilities” (SANParks, 2019d). It is the ranger's duty to ensure vast areas are patrolled on a regular basis, and that poaching incursions are detected and thwarted. The job of a ranger is, put simply “to ensure Area Integrity e.g., the desired ecological and security status of a Protected Area” (SANParks, 2019e).

³⁶ Poaching-related information was sometimes closely guarded by Security Actors, such as statistics about the number of rhinos poached and the frequency of violent encounters between rangers and poachers. Actors worried about strategic information making its way to poachers due to internal corruption, but were also concerned about bad publicity. Poaching solicited very strong emotions from social media users (Büscher, 2016) and park officials were regularly castigated for their seeming inability to stop poaching.

The use of this phrase infused KNP's landscape as a place with a moral trait normally afforded to humans - integrity. Conceptualising KNP's geography as one with inherent "integrity" sets up poachers up as those who violate the moral goodness and intactness, denigrating it through their malicious activities. In turn, within the contours of a moral landscape, rangers were the masculine, heroic soldiers who patrol not just the park's fence lines, but its normative boundaries, fighting a just war to protect nature's innocence and honour.

It was perhaps not surprising that rangers felt guilty, even embarrassed, when they failed to protect rhinos, and per implication, the overall "integrity" of the park's sacred wilderness landscape. As I attended more of these meetings, it was not just the practical, material loss of rhinos that affected the mood in the room. It was the demoralising sense of individual and organisational failure that seemed to force the eyes of the men (and a few women) downward - staring at the floor - as if they were the ones caught in some immoral act. They, the armed, uniformed and relentless (but wanting) custodians of nature.

It later occurred to me that these meetings enabled attendees to engage in ritualised, institutionalised mourning. Nature's guardians were expected to be tough, fearless and stoic. In gatherings like these, they could subtly express and mediate their strongly felt emotions - despair, disbelief, anger - through the austere metrics of law enforcement. Grief and wrath could be translated into numerals. Ultimately, it was a space where they could comfort each other with silences, nods, sighs and gazes. They would leave these meetings, troubled by the latest spate of bad news, but strengthened by a sense of resolve, their collective devotion to the integrity of a borderless, shared landscape.

*All names are pseudonyms.

6.4 INCLUSION ACTORS' MAKING OF PLACES

6.4.1 Inclusion Actors' motivations: making new, bigger and more productive places

"Although protected area management should still focus on internal issues, it cannot be as inward-looking as in the past because external influences, including the needs of surrounding areas and communities, must be taken into account. KNP management acknowledges that many of their historical issues have been 'internal' ones, such as fencing, population control, water-for-game provision and fire policy, that now appear to be relatively small 'internal' matters compared to the new, and apparently massive, 'external' onslaughts."

(Venter et al., 2008: 181)

"I say to the guys, we were actually shooting ourselves in the foot all the time talking about 'conservation' because it has legacies, it comes with a lot of political baggage and shit. It alienates some of our other government colleagues. But when I start talking about sustainability, look at what happens then, even the minister of police starts to listen."

(RP6, 2018)

According to KNP's 2008 Management Plan, the park was adopting a more progressive stance towards "external matters" like cooperative governance and integrated land-use planning, stating that KNP's "isolation is considered pertinently counterproductive and ecologically dangerous" with "considerable progress made by the KNP in somewhat softening the social boundary³⁷ on the South African side through activities of the People and Conservation Division" (KNP, 2008: 73). The pressure was growing steadily to address the tenacious "social boundary" that isolated the park from its surrounding landscape, perhaps reaching its peak in 2019 when the "People and Conservation" department changed its name to "Socio-Economic Transformation."³⁸ In 2017, in the Chief Executive's Report (SANParks, 2017: 12), "radical socio-economic transformation" was named as one of three key pillars of the organisation's work (together with "sustainable conservation assets" and "diverse and responsible tourism.") At a SANParks tourism summit, the then Minister of Environmental Affairs said: "in February this year President Jacob Zuma announced during

³⁷. The "social boundary" refers to the park's isolation from the social, political and economic world outside its fence.

³⁸ In 2017 the phrase "radical socio-economic transformation" was first propagated by South Africa's then-president, Jacob Zuma, as he promised to initiate more aggressive (and populist) policies to increase economic benefits to black South Africans (Davis, 2017).

his State of the Nation address that South Africa has entered a new chapter of advancing radical socio-economic transformation. This means that the State will drive transformation of the economy by utilising all available strategic levers” (South African Government, 2017).

Inclusion Actors had a dilemma. They had to find a way to share the benefits of the park with their neighbours without sacrificing the ecological values of the park. They had to break (as opposed to merely "soften") the social boundary that had historically separated the park from its neighbours to "unlock" economic transformation for the region as a whole. The 2018 ten-year KNP management plan stated that “protected areas have resources that can be used to unlock opportunities with substantial contribution to the socio-economic development of communities” (KNP, 2018a: 35). Other government departments and local communities expected KNP to unlock “inclusive rural development” (RP19) and to do so rapidly.

Inclusion Actors realised that they could not tackle the grand challenge of inequity alone. However, inclusion-related work was historically seen as peripheral to the core (biodiversity protection) mandate of the park and the reserves around it (RP8; RP10; RP22; RP25), taking place at a small scale and unhurried pace. Many private nature reserves did historically initiate development projects in local communities, such as drilling boreholes, building schools and clinics, supporting small business development and offering bursaries to promising students. However, these activities were seldom coordinated, making it difficult to amplify (and monitor) their collective impact (RP8; RP19). Inclusion Actors complained that there were “too many cooks in the kitchen” (RP8; RP25) and that uncoordinated socio-economic programmes created confusion and “stakeholder fatigue” in communities outside the park (RP8; RP10; RP14; RP24). A somewhat eclectic and sometimes muddled mix of government, private and NGO stakeholders around the park presented a formidable challenge to KNP’s ambition to systematically “coordinate” socio-economic development in the region (KNP, 2018a).

Despite these obstacles, Inclusion Actors understood that the era of protected-area-as-insulated-island was truly over, and that the future of all state and private nature reserves depended on their ability to be relevant to and “embedded in a broader environmental and socio-economic landscape” (RP8). For KNP and neighbouring reserves to become so embedded, a new kind of landscape was needed, useful to Inclusion Actors’ plans for solving the inequity challenge. Inclusion Actors thus had their SSW work cut out for them and put shoulder to the wheel to transform the emotions, institutions, ideas, aesthetics and values that rendered fragmented, privileged areas into integrated and inclusionary places.

6.4.2 Boundary work in a productive landscape: making a place for inclusion.

Inclusion Actors set out to transform the park’s landscape from an aesthetic wilderness and exclusive tourist enclave, into a progressive geography of economic utility, development and redistribution. Inclusion Actors turned the park into a place brimming with “resources” and “assets” (KNP, 2018) and greatly increased the sphere of socio-economic influence outside the borders of the park. This was achieved by transforming the boundary that had long kept the park separate from the socio-economic concerns of the wider region. Inclusion Actors invented and superimposed new symbolic and physical boundaries on the regional landscape to create a collective sense of place that categorised and organised a range of field-level actors who had a stake in socio-economic development.

Inclusion Actors manipulated the meanings that constituted KNP’s geographical identity, discursively reconstructing the park as a vulnerable geography besieged by external threats, but also one abounding with unrealised economic potential. During meetings³⁹ with other organisational members and external stakeholders, Inclusion Actors shared a

³⁹ Between 2016 and 2018, the park prepared the write-up of its ten-year management plan and negotiated the details of a Cooperative Agreement that was signed with other protected areas on its western boundary. These initiatives were mostly driven by senior Inclusion Actors who conducted several “roadshows” in and outside the park to build support for the initiatives and to obtain inputs from KNP colleagues and other organisational actors, such as the managers of private reserves and government departments.

standardised set of PowerPoint slides (see Figure 23 below) depicting the risks of a "fragmented" conservation landscape, displaying scenes where waste was discarded in the landscape, where drought, erosion and illegal mining devastated communal areas, and where bludgeoned rhinos and other illegally hunted animals littered the area. Inclusion Actors drew on narratives that emphasised the park's "embeddedness" in the region's "land-use mosaic" (KNP, 2018: 13) and the park's vulnerability to the social and ecological problems in it.



Figure 23: The images above portrayed the risks that were perceived to be threatening the "Greater Kruger."

Source: SANParks (2018k).

Inclusion Actors constructed a common threat, or rather, a set of barriers that endangered not just KNP but the regional geography, the "protected area footprint" (KNP, 2020: 8) as a whole. The barriers were understood to be "crime, land-use fragmentation, unemployment, pollution, slow socio-economic transformation and access to information,

and poor service delivery resulting in protests” (KNP, 2020:8). At the heart of these various problems was the need for “equitable sustainable development,” understood to be essential for creating a desired state for the park where “functioning” ecosystems provided a sound “infrastructure” and related “services,” such as water provisioning (KNP, 2020: 23).

Inequity and related problems were no longer “external onslaughts” threatening an insulated park from the “outside.” They were reconceptualised as threats on the “inside” of the Greater Kruger⁴⁰ regional landscape, and therefore were squarely moved into the realm of KNP’s strategic concerns. As Figure 24 below shows, threats and opportunities to solve them were now collective in nature, rooted in a shared landscape. Various maps were used to explain the dimensions of KNP’s embeddedness in the landscape. For example, some maps depicted the park in relation to the thirty-eight traditional authorities and villages on its western boundary, whilst other maps illustrated the park in relation to ecological threats (e.g., wildlife crime, sand mining, water pollution) and economic opportunities (e.g., biodiversity economy, tourism) in the region (KNP, 2020).

⁴⁰ In the 2008 ten-yearly KNP Management Plan, the term “Greater Kruger” is never used. Ten years later, in the 2018 Plan, the term shows up thirty-one times and is used in sentences that describe the park’s high-level objectives, such as: “improve protected area management effectiveness at the park and regional Greater Kruger conservation network levels” (KNP, 2018a: 85). Similarly, the phrase “integrated land-use” is used twice in the 2008 KNP Management Plan and forty-three times in the 2018 version.

Pursuing environmental, social and economic goals in the Regional landscape

- What can KNP do for the Greater KNP regional landscape?
- What can YOU do for the Greater KNP Region?
- Pursue joint goals in response to emerging opportunities and threats.

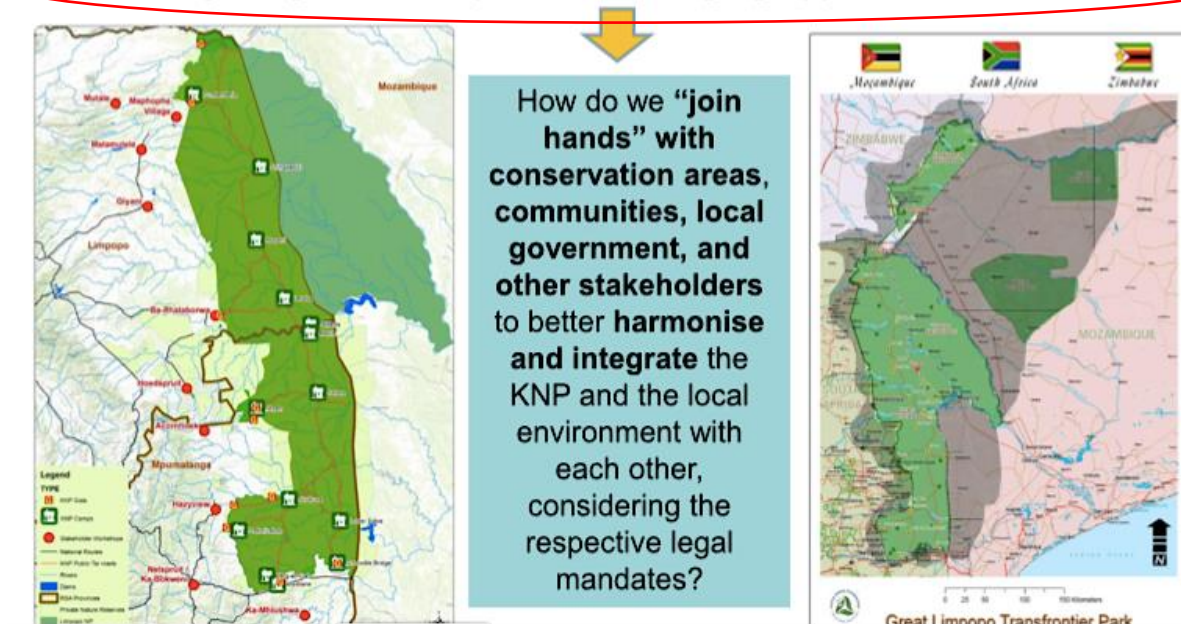


Figure 24: The slide above were presented by the then head of KNP to garner support from neighbouring reserves to “promote cooperative governance in the broader regional context.” Source: SANParks (2017e)
(Note – red circle added for emphasis).

Inclusion Actors’ narratives and images rendered the Greater Kruger’s suite of problems regionally significant, yet solvable, through “unlocking” opportunities within a “strategic partnership approach” (KNP, 2020:8) and an “integrated landscape-based approach” (KNP, 2020:12) between government, communities and the private sector. One of the park’s eight high-level management objectives were to “enhance regional sustainability through facilitating access to a range of economic opportunities and cascading benefits from the park by participating in and developing local economic initiatives, including the

biodiversity economy”⁴¹ (KNP, 2018a: 470). The geography of the park was commodified as a "biodiversity" and "wildlife economy," which loosely referred to economic activities along value-chains associated with consumptive and non-consumptive use of natural resources and wildlife. Over time, the Greater Kruger became strongly associated with these abstract economic concepts.

To (jointly) manage inequity and the related suite of ecological and socio-economic problems, KNP developed the Greater Kruger Strategic Development Programme (GKSDP) to foster “conservation-compatible inclusive rural economic development. Programmes should support sustained, rapid and inclusive economic growth that leads to an increase in the number of people with employment. Such programmes that expand the set of available routes out of poverty will facilitate improvement in poor people’s prospects, thereby reducing inequality” (SANParks, 2020: 38). This GKSDP drew attention to the unrealised potential of the Greater Kruger, a place where “ecosystem services” could be “secured” and “ecological infrastructure” restored (SANParks, 2020: 30), where solutions to the grand challenge of inequity were waiting to be “unlocked.” Inclusion Actors emphasised the hypothetical economic potential of the Greater Kruger landscape, constructing a utilitarian geography that could be materially useful to the people “in” it if adequately managed.

Multiple government, NGO and private reserve entities were enrolled in the GKSDP initiative, and Inclusion Actors negated administrative, operational and political differences between these entities through uniting them against the abstract, cross-boundary threat of inequality. A legally-binding Cooperative Agreement was an important mechanism for “integration” of multiple and diverse stakeholders, designed to “stimulate cooperation in managing landscape-level ecological issues, unlocking sustainable benefits, growing

⁴¹ According to DEA, the purpose of the biodiversity economy is to “enhance fair and equitable sharing of benefits from biological resources and to improve the socio-economic benefit flow from biodiversity conservation” (KNP, 2018a: 135).

responsible economic development, and promoting compatible land-use practices" and to "empower local communities and influence them to be part of the solution in tackling issues such as wildlife crime which are a threat to the biodiversity of Kruger National Park" (KNP, 2018d). The Cooperative Agreement banded stakeholders together who had vastly different operating models and value systems. For example, well-resourced and sophisticated private nature reserves and very poorly resourced provincial state-run reserves, as well protected areas that belonged to local communities (who had successfully land-claimed those areas), were to cooperate in solving the landscape's social, economic and ecological problems. KNP understood that they could not afford to alienate the "buffer bandits"⁴² (RP8; RP18; RP19) and that they were much better off reforming and enrolling them into the Greater Kruger vision, making them part of the preferred suite of solutions. The Cooperative Agreement was unambiguous about its purpose: "address risks associated with a variety of entities, with different legal statuses, business models and management approaches being part of a single open system that constitutes a landscape-level conservation initiative" (SANParks, 2020: 33).

Being part of the Greater Kruger conglomerate, through the mechanism of the Cooperative Agreement, came with a compliance price tag. All signatories had to commit to meeting a set of minimum requirements, norms and standards relating to "responsible tourism, financial sustainability, socio-economic development, wildlife security, disease management, sustainable utilisation, water use and alien plant clearing" (KNP, 2018d). The Agreement sought to standardise and normalise a set of landscape-wide conservation management practices, including how the "benefits" of protected areas were supposed to be shared with local community neighbours. In this sense, the Agreement did not just enable the geographic "consolidation of vast landscapes" and "the expansion of the GLTFCA

⁴² This was a tongue-in-cheek term used to describe the "rule-breakers" who operated within the buffer zone. A buffer zone is defined by conservation legislation and refers to the 20km wide area immediately outside the park's boundary. Buffer bandits were typically hunting or tourism operators who did not adhere to sound environmental management practices.

conservation estate" (KNP, 2018a: 48). Multiple culturally and economically diverse communities became assimilated and enrolled *in* the Greater Kruger geography.

Inclusion Actors invented specific “hubs,” “clusters” and “zones” embedded in the “Greater Kruger” and “spatially integrated cooperative zones.” For example, six specific “cooperative zones” were established to enable the formalising of cross-sectoral partnerships that share a joint vision, interest and mandate (KNP, 2020). This had practical consequences for the park’s ability to geographically expand the size of the “conservation estate” and to “harmonise” compatible land-use developments (RP8; RP19). Spatial stratifications and the resultant creation of zones and nodes were widely depicted on maps, infographics and schemas, as can be seen below on Figure 25.

The Six Cooperative Zones

Six cooperative zones with distinct characteristics and functional outcomes have been identified (See adjacent map and summary of characteristics and function in the following table) across the Greater Kruger landscape.

Zone 1: The core Protected Area network open to the KNP covered by the GLTFCA Cooperative Agreement.

Zone 2: Areas directly adjacent to the western boundary of the Greater Kruger Protected Area network with significant conservation expansion and Biodiversity Economy development potential.

Zone 3: Traditional Authority or urban areas adjacent to the western boundary of the Greater Kruger Protected Area network with significant socio-economic development priorities.

Zones 4 & 5: Broader Local and District Municipality areas where institutional alignment is required to support programmes mostly focussed in other zones.

Zone 6: Focusses on Strategic Water Source Areas and river connections vital to securing water supply needed to ensure survive downstream local people and the biodiversity.

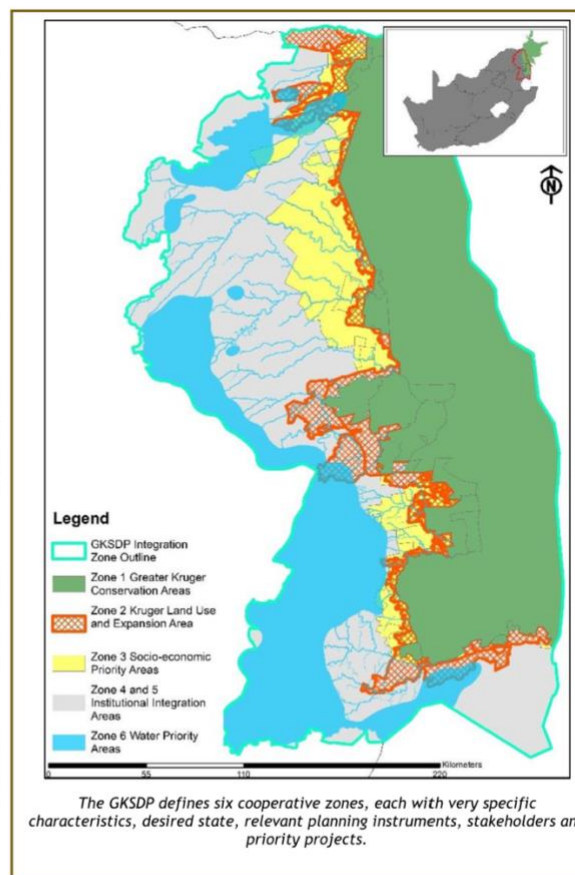


Figure 25: Map depicting the six cooperative zones.
Source: SANParks (2020g).

As was the case with boundary work conducted by Security Actors, the repeated use of these geographical conceptualisations soon served to establish the “Greater Kruger” and various sub-sets of nodes, hubs and zones as taken for granted and objectively real. Initiatives and partnerships in these places materially affected who would be “developed”, when and how.

What were the tangible effects of Inclusion Actors’ boundary work? Inclusion Actors drastically altered the invisible line that had long limited the park’s strategic influence. A socio-economic problem was constructed as strategically important, occurring in a larger “Greater Kruger” landscape within which KNP was embedded. Inclusion Actors expanded their influence inside and outside the park and came to be respected as the legitimate custodians of the geography’s “assets,” “resources” and “infrastructure.” Natural resources inside and outside the park were rendered economically valuable (as opposed to only having esoteric “wilderness” qualities). Inclusion Actors fundamentally altered what a nature reserve was. No longer a landscape defined by the “experience” of “ecology,” “savanna heterogeneity” (Mabunda et al., 2003, cover) and “nearly 2 million hectares of unrivalled diversity of life forms” (SANParks, 2019a, para. 1), the Greater Kruger became a place of cross-sectoral integration, multiple-land use and economic development. Landscapes were no longer just “wild,” they were “*productive* wild landscapes” (SANParks, 2020: vii. Emphasis added).

New norms of cooperation between different conservation organisations in the Greater Kruger were created. It is now commonplace to see multi-stakeholder meetings between public, private and civil society actors to plan the roll-out socio-economic development initiatives (such as the GKSDP, which in 2020 was successfully presented to the Minister of the Department of Environment, Fisheries and Forestry). Powerful conservation actors, such as KNP and neighbouring reserves, who were responsible for some of the

historical violations of local people's land rights, were now the legitimate protagonists in charge of tackling the inequity grand challenge.

How was this achieved? Boundary work tactics were employed to construct a new landscape identity and sense of place. Narratives and images created the sense that KNP was embedded - part of - a larger Greater Kruger landscape, imbued with a shared sense of crisis, but also opportunity and optimism. New conceptual distinctions (e.g., “cooperative zones”) defined new places into being in response to a common threat and downplayed other distinctions and differences between newly united stakeholders. New boundaries were reified and had material effects on how development projects were prioritised, as areas that fell within delineated zones were prioritised for tourism developments or the funding of small businesses.

How did boundary work affect the social construction of inequity as a grand challenge? Inclusion Actors constructed the inequity grand challenge as a landscape-level economic development problem that transcended the park's boundaries. It became the type of problem that required state-led, coordinated and cross-boundary initiatives in an apolitical geography. Poverty - the key symptom of inequity - was conceptualised as an anomaly that required technical fixing. Abstract economic solutions (“wildlife economy,” “ecosystem services,” “integrated land-use”) were proposed to foster (hypothetical) economic growth in a borderless Greater Kruger landscape. Actors' ability to conceptualise alternative models for socio-economic development (other than state-led, macro-level strategies) was diminished.

6.5 INCLUSION ACTORS' MAKING OF SELVES

6.5.1 Inclusion Actors' motivations: winning hearts and minds

“Our people [neighbouring the park] are the first line of defence for the animals in our protected areas and they have a critical role to play not just in protecting our wildlife assets, but in growing the wildlife economy to make it more inclusive,’ says Minister [of Environmental Affairs] Molewa.”
(SANParks, 2016b, para. 5)

Rooted in the legacy of Apartheid, Inclusion Actors had two separate but interlinked predicaments. Firstly, they were under mounting pressure to demonstrate that the park provided tangible socio-economic benefits to neighbouring communities, to “strengthen SANParks’ relationships with neighbouring communities by addressing their social development needs” and “winning the hearts and minds of our neighbours” (SANParks, 2019e: 11). This effort - to win hearts and minds, to create a lasting legacy and to invent livelihoods - required a certain kind of “community” and “neighbour,” one congruent with being “developed” and “transformed.”

Secondly, political and financial pressure was mounting to include and attract a wider segment of South African society (namely, black South Africans) to enjoy the tourism opportunities the park had to offer⁴³ and to enrol them as supportive stakeholders in fulfilling SANParks' vision to be a "sustainable national park system connecting society" (SANParks, 2019d). The need to enrol black South Africans as an important "broad-based constituency" (SANParks, 2018a: 126) was also a financial necessity - “It should be noted that the growth of black visitors to the national parks is a strategic imperative in the interest of business sustainability” (SANParks, 2019f).

Inclusion Actors thus had their SSW work cut out for them and put shoulder to the wheel to transform the emotions, institutions, ideas, aesthetics and values that constructed their own selves, the selves of communities neighbouring the park, and the selves of “black South Africans.”

6.5.2 Inclusion: the making of selves for a bigger circle

The stakeholder group most directly involved with and materially affected by inclusion initiatives were communities living close to KNP’s boundary fence. Historically,

⁴³ Black visitors comprise 41% of South African day visitors to KNP, but only 11.7% of overnight visitors (Brett, 2018).

the park conceptualised communities in terms of how local people directly utilised the park, through cultural and spiritual practices (performing rituals at ancestral and other significant sites), resource use (harvesting and collecting plants and insects), and education (learning about plants and animals associated with cultural totems and improving general knowledge) (KNP, 2018a). These practices were rooted in long-standing traditions that linked local people with the natural environment and the park. The small, rural, traditionally governed and harmonious African village was the idealised embodiment of community's collective identity, and veteran KNP scientists and managers referred to a sentimentalised past when there were “only a few small villages on the western boundary” (RP11) and “you only saw a few kayas when you drove from Kruger Gate and Hazyview⁴⁴” (RP1).



Figure 26: Back cover of a report depicting an idyllic scene where communities live in harmony with the park and with nature.
Source: Swemmer & Mmethi (2016).

⁴⁴ A “kaya” is a *Xitsonga* word for “home” (*Xitsonga* a local language spoken on KNP’s western boundary). Hazyview is one of the large towns near KNP, and the 50km drive between Kruger Gate (one of KNP’s main entrance gates) and Hazyview now meanders through a densely populated peri-urban area.

Despite the harmony depicted in the scene above in Figure 26, time had marched on. Over three million people now reside in towns and extensive peri-urban areas alongside the park's boundary. Macro-level forces demanded of the park to "expand its role in the developmental support provided to neighbouring communities as an entity of the developmental state"⁴⁵ (SANParks, 2017a: 25). The grand challenge of inequity would not be solved by allowing a minor fraction of local people from neighbouring communities to harvest plants and to perform sacred rituals at the foot of a mountain. The purported solution to inequity was the large-scale socio-economic development of local communities and this required community selves that were thoroughly modernised, transformed into inhabiting "vibrant, equitable and sustainable rural communities" (SANParks, 2021: 27) and an "environmentally sustainable, climate change-resilient, low-carbon economy and a just society" (SANParks, 2021: 62)

To achieve this utopian, yet to be realised state, Inclusion Actors authored community selves that were rational, sensible and biddable "beneficiaries," imbued with the faultless traits of *homo economicus*.⁴⁶ Community actors were reimagined as rational economic actors in steadfast pursuit of economic gain, with (future) material rewards mollifying other social, political, environmental and cultural values and aspirations. Their novel selves were defined by the abstractions of developmental economics. In its 2018-2021 annual reports, multiple references to "communities" were made that were directly linked to concepts such as "market access," "circular economies," "biodiversity economies," "the green economy," "preferential

⁴⁵ Developmental states play a central role in economic planning, policymaking and regulation. The term was coined by Chalmers Johnson in 1980s (Öniş, 1991), defined "as a state that is focused on economic development and takes necessary policy measures to accomplish that objective." The state, therefore, assumes a "developmentalist character" (de Wee, 2016: 489)) where it pursues economic development according to the state's conceptualisation of what development is, who should be developed, and how.

⁴⁶ The notion of "economic man" originated during the 19th century, part of the enlightenment project which aimed to bring natural science to bear on all areas of knowledge. "The term...refers to an idealised person who acts rationally, with perfect knowledge and who seeks to maximise personal utility or satisfaction" (Kenton, 2020). Although the idea that humans are always rational has been debunked by newer economic theories, "economic man" remains a powerful assumption underpinning contemporary economics and policymaking.

bidding,” “small, medium and micro-enterprise (SSMEs),” “entrepreneurship,” “natural capital” and the organisation’s “BBBEE scorecard”⁴⁷ (SANParks, 2017a; 2019f; 2021).

In 2020, during a GKSDP consultative workshop attended by traditional leaders, government departments, business representatives, NGOs and civil society representatives, SANParks CEO told attendees to “drop mind fences that KNP was an island” (SANParks, 2020h: para. 3) and urged delegates to “begin to talk business amongst themselves and how they can eradicate unemployment.” He further said that “the park was ready to transact with local communities” (para. 4). Increasingly associating community selves with these concepts assigned them with a one-dimensional economic identity that abbreviated the idiosyncrasies of diverse local demographics, cultures, politics and histories.

The SANParks Socio-Economic Transformation (SET) department was guided by a Five-Year Implementation Plan, described as “a roadmap for developing new transformational programmes within SANParks as well as updating existing programmes to create a greater impact in society” (SANParks, 2019e: 6). The SET department focussed on corporate social investment projects, SMME development, eco-tourism development, biodiversity enterprise development (wildlife, bioprospecting), land claims and beneficiation, and environmental education. The word “beneficiation” entered KNP’s lexicon when large tracts of land within the park were claimed by communities as part of South Africa’s land reform process. “Beneficiary” groups receive preferential shareholdings in commercial ventures inside the park, preferential bidding and employment opportunities and are eligibility for cash donations (as illustrated by Figure 27 below).

⁴⁷ B-BBEE (Broad-Based Black Economic Empowerment) scorecards measure economic transformation and redistribution within the South African corporate sector, to the benefit of racial groups who were previously discriminated against. Organisations are assigned a score based on various criteria.



PROPOSED BENEFICIATION SCHEME

Generic Identified Opportunities

- Preferential equity in identified new operations/ products, e.g. skukuza lodge, selati restaurant, Letaba Concession, and Phalaborwa Logde;
- Participation in adventure activities in KNP (e.g game drives, trails etc)
- Investment in opportunities at wild hubs i.e Phalaborwa and Shangani gate

- Preferential job opportunities
- Non- tourism opportunities
e.g game donation

South African NATIONAL PARKS

Figure 27: A slide explains the type of beneficiation practices that Inclusion Actors conceptualised to provide "equitable redress" to KNP's land claimants.
Source: SANParks (2018i)

SET initiatives reimagined community members as potential entrepreneurs and nascent enterprise developers, ready to “capitalise” on KNP-led regional development programmes to “unlock sustainable benefits and grow local and regional economies” (SANParks, 2017e). Youthful community members were imagined as budding tourism value-chain entrepreneurs, ready to embrace the “fourth industrial revolution” (SANParks 2021: 9). Park-based SET programmes reflected the values of the developmental state as the main custodian of socio-economic development efforts.

KNP’s SET initiatives were centrally conceptualised, controlled and performance managed by the SANParks’ head office in Pretoria. Individual national parks had to align with national deliverables, reporting back against national targets (SANParks, 2019e). “Beneficiaries” had little influence over how SANParks designed its SET strategies and priorities, nor did Inclusion Actors who worked daily on community-park interactions and

negotiations. Figure 28 below shows how SET programmes were strategically conceptualised by SANParks for roll-out in all national parks in South Africa.

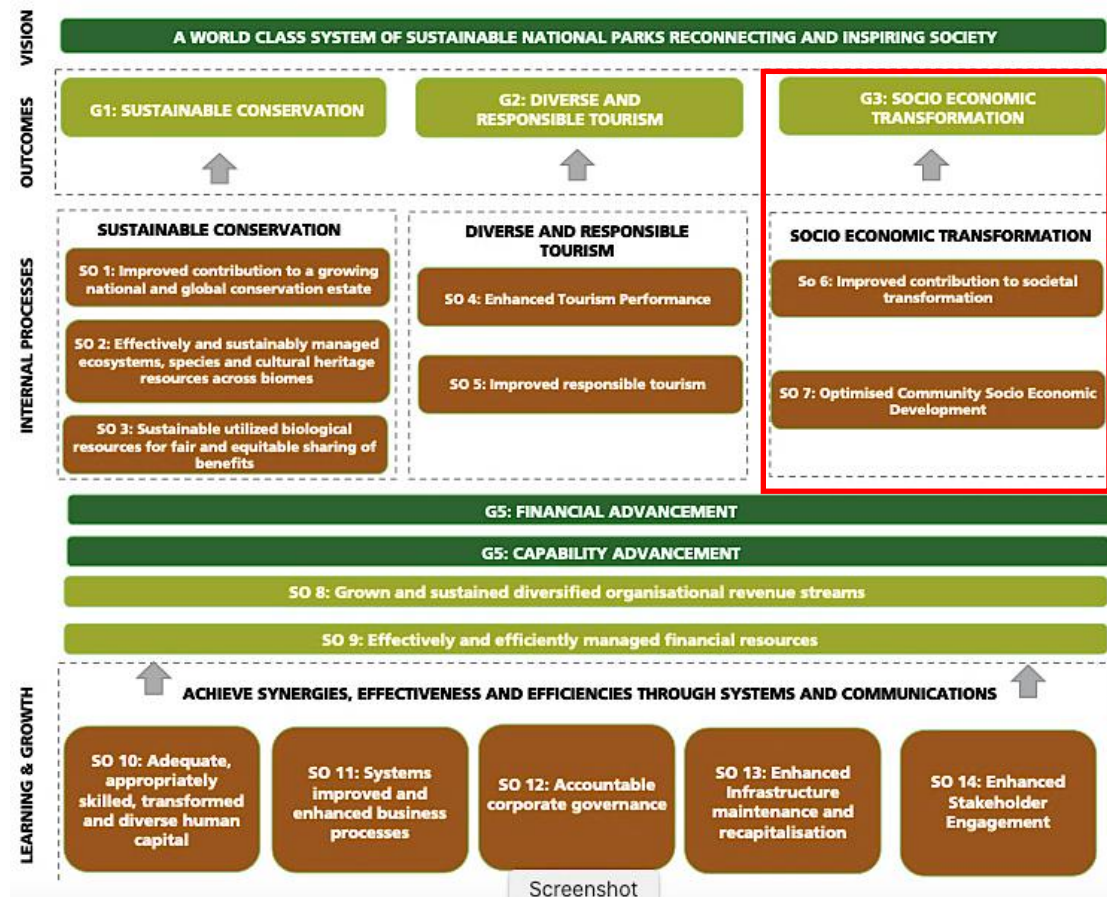


Figure 28: Screenshot from SANParks 5-Year Strategic Plan 2019/20 – 2023/24 & Annual “Performance Plan 2019/20. In the previous Annual Performance Plan (2018-2019), the G3 outcome was described as “radical (equitable and fair) socio-economic transformation.” Source: SANParks (2019.d).

Inclusion Actors at the operational level appeared unaware and even indifferent to the grand plans developed by their head office in Pretoria, since they were consumed by solving granular problems in the here-and-now. For example, whilst senior Inclusion Actors designed high-level plans, an actor working at the operational level was so busy “keeping the peace” (RP25), he hardly had time to attend to strategic matters. Two communities were in an escalating conflict with each other over a recent park employee appointment. Both communities were angry with RP25 (as the park’s representative) because the new employee

did not come from “their” communities. RP25 vented some of his frustration in an email to all parties, pleading with them to “do away with discrimination and tribalism” and to “work together as South Africans regardless of where we are coming from.” Furthermore, Inclusion Actors also faced internal resistance from their colleagues who preferred to think of KNP as an idyllic wilderness sanctuary untouched by the demands of a rapidly changing world.⁴⁸ The selves of Inclusion Actors were pulled in opposing directions as they balanced day-to-day challenges, the high expectations of local communities and the promises made by the parks’ beneficiation schemes and socio-economic development plans.

The skewed power relations between Inclusion Actors and those they were trying to “include” is exemplified by how a prominent Inclusion Actor spoke about some of his negotiations with local communities about the opening of a new tourism initiative in the park, which was designed as a “beneficiation” project for local people:

we recently have gone through the process of the Skukuza Safari Lodge development construction, where most of the people were *expecting* to be employed, most of the people *expecting* to be given a tender opportunity, most of the people were *expecting* that we would hire an X number of people from their constituencies. It is very difficult to have expectations of what exactly you are going to get [when attending meetings with local community representatives], but it is the same, most of the time. Mostly it is about *getting* jobs, about *addressing* DCAs [damage-causing-animals], it is about *giving* them bursaries, about *addressing* the legacy projects, like they are always saying “build a school *for* us, build a clinic *for* us, *give* us a water tank.” (RP9, emphasis added)

⁴⁸ The park’s SET department has a troubled history. Started in 1995 as the “social ecology” unit, it was tasked with setting up structures to enable better communication between the park and nearby communities. However, “management marginalized the Social Ecology programme, arguing that it did not fall within the organizations core functions. This resulted in frustrations and a lack of well-defined paths for Social Ecologists, which resulted in high staff turnover, and eventually a near collapse of the Social Ecology programme.” (SANParks, n.d, para 1). Even though SANParks’ website declares that the department has evolved and now builds external constituencies with “great success” (SANParks, n.d, para 5), the lived experiences of Inclusion Actors suggest that they face many demoralising challenges, inside and outside the fence.

RP9 did not express frustration at the passivity of communities and resigned himself to the fact that it was the role of communities to “ask,” the role of the park to selectively “give,” and his job, specifically, was to be the judicious gatekeeper. Communities were thus discursively authored as passive recipients of the state’s benevolence, and the park authored itself as the protagonist with the capacity to decide how socio-economic development takes place, and who gets to be “developed,” and where and when.

In addition to local communities, SANParks understood that black South Africans were key societal stakeholders in the park’s political legitimacy and financial sustainability. To bring this stakeholder group into being, black South Africans (beyond those living near the park) were authored as budding “nature-based” tourists and consumers. Inclusion Actors imagined black consumers as social-symbolic clones of their white counterparts, constructing their identities in such a way that they would engender similar sentiments towards the park as those long-held by their white compatriots.

Inclusion Actors had the challenging task to significantly enlarge KNP’s societal stakeholder group and to change its skin colour. In 2016, the SANParks General Manager of Tourism said that “it would be welcomed if black people embraced the culture of visiting the country’s national park” (Mashigo, 2016). Along the same vein, SANParks’ General Manager for media, events and stakeholder relations, said that the organisation was involved in a range of outreach initiatives to “cultivate a culture of pride in all South Africans in their relationship with the country’s natural, cultural and historical heritage” (IOL, 2016). As much as the park had an undeniable natural, cultural and “heritage” significance to many local black people, the same could not be said for “all” South Africans, the vast majority who had never been near the park. Even in 2020, SANParks recognised that “the historical legacy of our national parks has led to a situation where not all sectors of society have the sense of loyalty and belonging that is felt by the traditional visitor-base to the parks” (SANParks,

2020e). The sentiments that the park had cultivated with its white constituency - pride, loyalty and a sense of belonging - therefore became the resources by which a new collective “consumer” identity for black South Africans was constructed. Inclusion Actors had virtually one hundred years of sentimentalities⁴⁹ at their disposal with which to construct this new stakeholder identity. In fact, it was less a case of construction and more of replication – identity cloning - where meanings that white people held towards the park were repurposed for a new black consumer group. For a century, white South Africans have visited KNP and were greeted by Afrikaner nationalist politicians upon arrival (see Figure 29 below). Annual visits to the park were part of a family ritual ingrained into the hearts and minds of many white people (Carruthers, 1995). In this sense, there were well-established tourism routines, practices and emotions that Inclusion Actors used in the building of a new consumer identity and “market segment” (SANParks, 2019f).



Figure 29: Statues of prominent Afrikaner politicians ("our founders") that played a role in the founding of KNP greet guests as they check-in at Skukuza, the park's biggest tourist centre. I have observed many instances where people from different races, including black families, pose for a photo in front of this statue. Upon entering the park gate closest to Skukuza, visitors see a large statue of Paul Kruger, which perhaps ironically, looks away from the park and towards densely populated peri-urban areas adjacent to the park. Source: Own photo.

⁴⁹ White people's nostalgia towards KNP and other nature reserves in South Africa has been well documented (see, for example, Carruthers, 1995 and Brooks, 2005) and reserves like KNP were, and still is, “nostalgic spaces for alienated urbanites” Brooks (2005: 223).

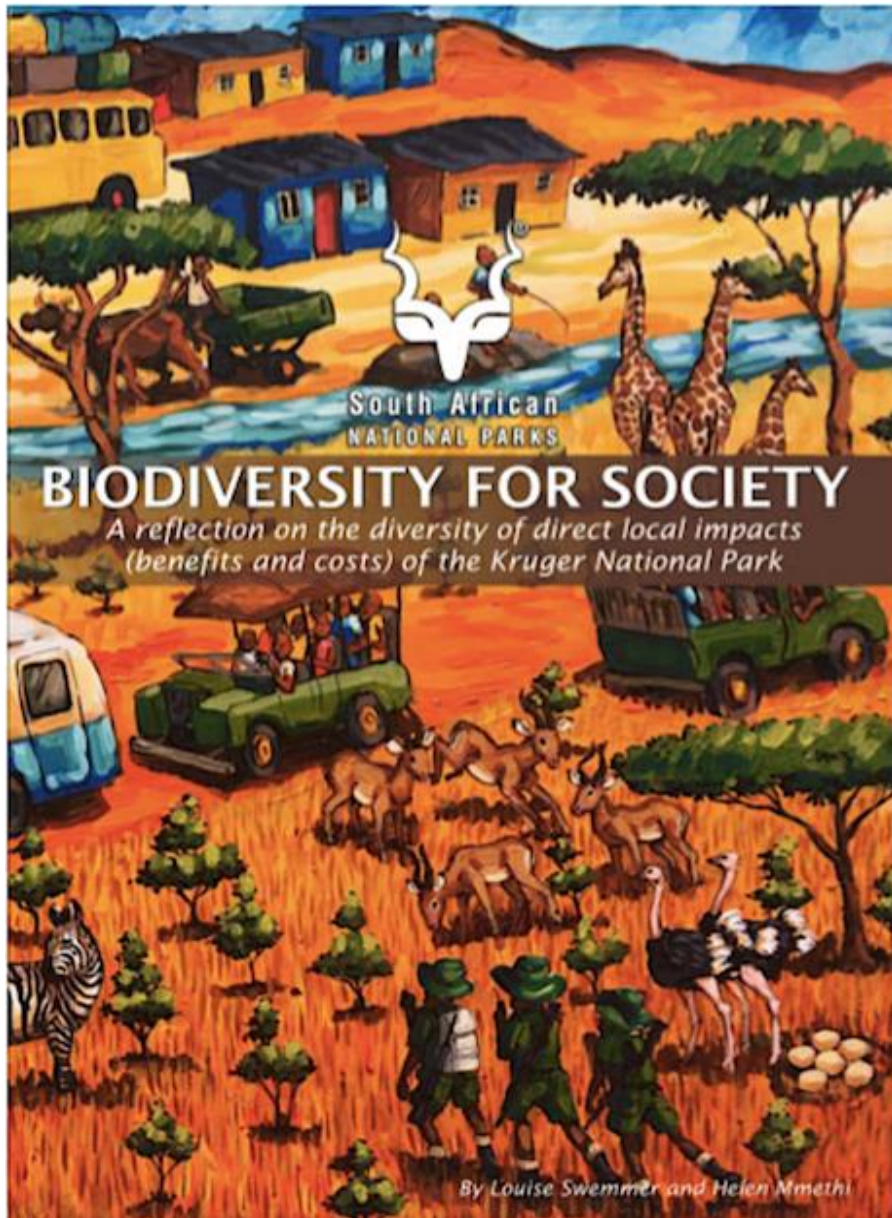


Figure 30: Front cover of a 2016 KNP report. This scene depicts harmonious between local people and nature (on the far side across the river locals are seen fishing and farming), on the near side of the river, the park provides employment to black people (three rangers walking in the bush) but also leisure and tourism opportunities (black people sitting in an open-game viewing vehicle). This imagery challenges old stereotypes where black people - in relation to the park - were only ever portrayed as park labourers or poachers (Dlamini, 2020).

Source: Swemmer & Mmethi (2016).

A striking example of identity work tactics took place in 2018 and again in 2019, as SANParks published a bid to appoint a TV company to produce a reality TV series aimed at addressing KNP's black-South-African-tourist-deficit. The bid stated: "SANParks' brand

positioning is perceived to not be inclined towards the black community due to historical events within South Africa. The need to grow the SANParks existing consumer base is apparent as is the need to fulfil the mandate that talks to transformation of the market segmentation and staff compliment” (SANParks, 2019f). The objectives of the bid are highlighted in Figure 31 below:

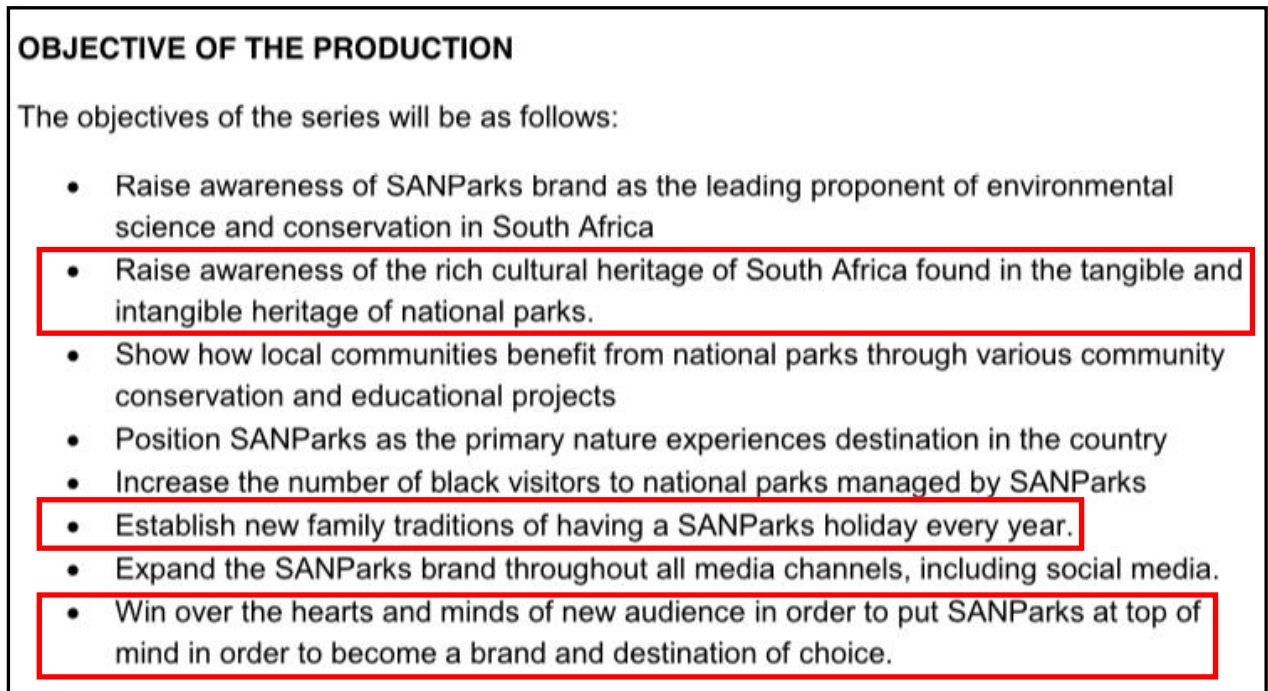
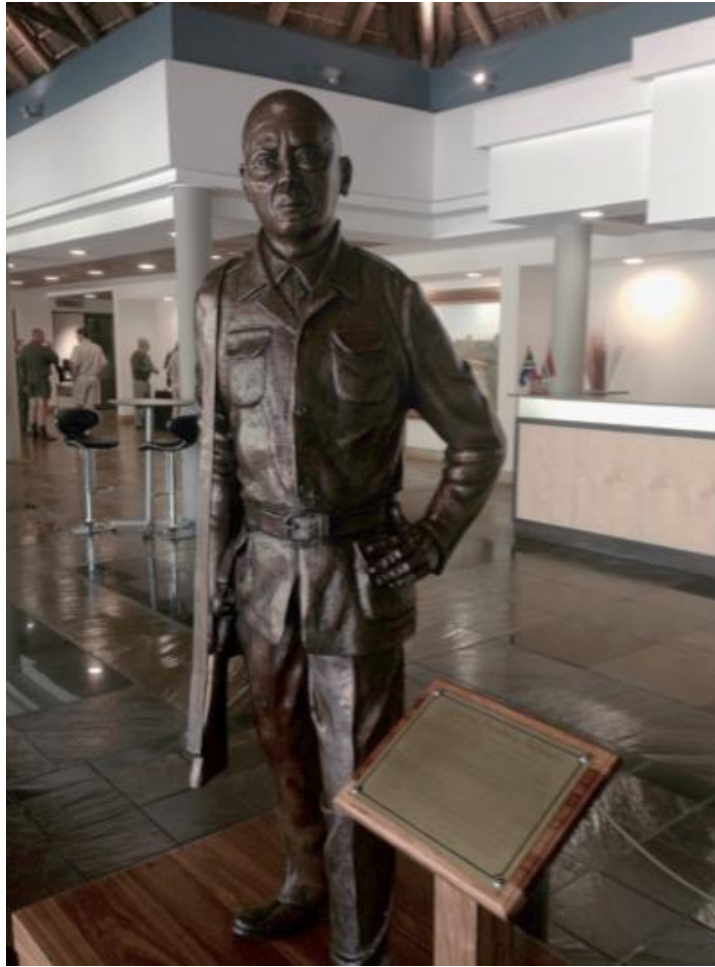


Figure 31: Screenshot of the bidding document showing the objectives of the tender.
Source: SANParks, (2019f)

Due to the legacy of Apartheid, the vast majority of black South Africans did not have a positive affective relationship with KNP. The park did not represent a “rich cultural heritage,” nor was there a long-established custom of having an annual holiday in KNP. This heritage had to be invented and had to include a history that a new black-South-African “market segment” could relate to. Inclusion Actors began to include more contemporary events and artefacts into the park’s displays of “heritage,” such as places in the park that played a role during South Africa’s liberation struggle and memorialising prominent black people that played an important (but previously unrecognised role) in the park’s history.



*Figure 32: A statue of ranger Nombolo Mdluli in a conference centre in KNP named after him. He was an assistant ranger in KNP for 52 years, starting his career in 1919.
Source: Own photo.*

If the park was going to welcome new consumer selves, there were going to require new heroes and icons. A newly unearthed heritage had to be created. Inclusion Actors worked to make black South African history and the history of significant black park employees visible to the public (a good example is Figure 32 above, see also fieldwork vignette 2). Inclusion Actors planned to open up a “freedom fighter route” to show that “Kruger is not only a conservation area but represents different histories for different people. Kruger was used by Freedom fighters as an entry point into South Africa. From a cultural and political history point of view, it would be critical to map the routes used by freedom fighters which would allow for the interpretation of the park from different points of view” (SANParks, 2020f).

To win over the hearts and minds of black consumers, SANParks symbolically transplanted - or rather, cloned - the hearts and minds of white consumers and retrofitted black identities with the desired traits and behaviours that were already part of the white tourist's sense of self. The park unearthed "hidden" histories to create linkages to black consumers their recent political past.

What were the tangible effects of Inclusion Actors' identity work? Neighbouring communities were established as one-dimensional, rational economic actors who had the untapped (idealised) capacity to be entrepreneurs and/or employees or "beneficiaries." A transactional and utilitarian relationship between local people and the park, and per implication, communities and the park's natural resources, was reinforced. The meaning given to community selves reinforced an asymmetrical power relationship between communities and the park. To be a "beneficiary" of something implies a relationship between a party that bestows something and one that receives it. It also implies a relationship where the bestowing party does so in a certain way, at a certain time, to a recipient willing to receive the offering in the manner deemed fit by the bestowing party. The rendering of communities into recipients of the park's benevolence served to expand the power of Inclusion Actors to pursue the monolithic priorities of the "developmental state," and their leadership role in this regard became an unquestioned institution.

Identity cloning constructed a new type of black South African - or rather, an emerging black middle-class segment of society - open to being cultivated, and willing to participate in the social-symbolic retrofitting of what natural, cultural and historical "heritage" meant in a contemporary South Africa. The newly invented and adapted normative and utilitarian values that defined stakeholder selves were accepted as intrinsically real.

How was this achieved? Through deploying narratives, community selves were assigned a set of intrinsic utilitarian traits, drawing on economic abstractions and discourses

(“beneficiaries,” “shareholders”). Narratives set the park up as the powerful protagonist, implementing a range of socio-economic initiatives that were centrally conceptualised and controlled. A constituency of black South African park supporters were constructed through narratives, images and artefacts that established a historical link between black South Africans and the park (“heritage”) and to position them as contemporary consumers of nature-based tourism activities. History (“heritage”) and emotions (sentimentality and nostalgia) were evocative building blocks that already existed in white imaginaries of KNP, and, with a slight shift in focus, were repurposed for the identity construction of black consumers.

How did identity work affect the social construction of inequity as a grand challenge? The grand challenge was constructed as an abstract, technical economic problem that existed because community selves were “underdeveloped.” The park was set up as the powerful protagonist and those that needed “development” - local communities - became passengers in the state-driven journey towards inclusion. This positioning of communities in relation to the grand challenge diminished Inclusion Actors’ ability to see them as potential (generative) partners in conceptualising and implementing their own “development.”

6.6 INCLUSION ACTORS’ TIME MAKING

6.6.1 Inclusion Actors’ motivations: towards a more inclusive future

“On a daily basis I have to work with different perspectives and perceptions about KNP’s existence, and its history and impact on people’s lives, you know all the history of forceful removal, it is one aspect that you can’t gloss over. Even if it means we have a new generation, their forefathers, their grandfathers, would have told them about how painful it was when they were forcefully removed. When people think of “Skukuza” they think about the past. My job is to change that, to make the people see that they are part of us. This place belongs to everyone and to future generations. I’m playing a role of mind-changer between SANParks and the people” (RP9, 2018).

Inclusion Actors had a predicament. Due to Apartheid policies, KNP was also associated with the history of state-sponsored, race-based exclusion. In SANParks’ 2017

Annual Report, in the foreword, the then Minister of Environmental Affairs captured the temporal dimension of the predicament succinctly: “today South Africa is part of a global conservation movement as we strive towards securing a more sustainable *future* for our Planet. As we move *forward* on this journey, special effort should be made to *move away* from our *painful conservation past* - where public institutions were used to alienate the majority and deny them access to the country's most beautiful and biodiverse regions (SANParks, 2017a: 10 - emphasis added).

Inclusion Actors had to do something about the organisation’s past, since, after 1994, it progressively became a barrier to the inclusion programme of action and the park’s political legitimacy. As recent as 2019, a political party in South Africa called for KNP’s name to be changed: “echoing calls the party made four years ago - on Heritage Day 2015, no less - they explain that the Kruger National Park holds the name of the 19th-century President of South Africa, Paul Kruger. For the EFF (Economic Freedom Fighters), Paul Kruger is ‘a sign of colonialism, and his name must be removed from the gates of South Africa’s national treasure.’” According to the party, a genuine celebration of heritage could only be achieved “once the hangover of apartheid has cleared” (Head, 2019, para. 6).

KNP’s detractors - which included some of its own employees - referred to the organisation’s past as they deplored the slow speed of “transformation.” At the same time, communities alongside the western boundary grew increasingly impatient with the park (RP8; RP9; RP10, RP26, RP27), demanding their immediate share of the park’s bounty of resources. This placed much pressure on Inclusion Actors who lived and worked in nearby communities (RP9, RP27), the gatekeepers tasked with protecting KNP against the constant influx of demands from the “outside.”

In order to mobilise broad-based internal and external support and to neutralise negative political sentiment, Inclusion Actors had to adjust how key stakeholders experienced

the temporal dimensions of the inequity grand challenge. This was done by transforming a focus on the past and the present, to a focus on the (distant) future. A future that needed inventing. Such a future could only be politically tenable if it welcomed a wide range of societal stakeholder groups, if it promised a better life for poor people and if it was optimistic about its own potential to foster “inclusive” rural development. Inclusion Actors thus had their SSW work cut out for them and put shoulder to the wheel to transform the emotions, institutions, ideas, aesthetics and values that gave meaning to the park’s past and future.

6.6.2 Inclusion: remaking the past, making the future

In section 6.5 (“making selves”) I explained how the long history of the park was updated to foreground the role of black employees in the park’s biography and the historical places that linked the park to South Africa’s transition to democracy. I also explained how Inclusion Actors promoted the idea that KNP was part of the “heritage” of all South Africans, thereby inventing a novel, shared past. Inclusion Actors’ identity work had temporal dimensions, but rather than repeat those descriptions here, I draw attention to how Inclusion Actors invented a new utopian future.

SANParks’ 2017 mission statement is a telling example of how Inclusion Actors managed to influence the organisation’s temporal orientation, invoking the newly invented past (a shared heritage) and the newly envisioned future (a more inclusive society). The vision stated: “to develop, expand, manage and promote a system of sustainable national parks that represents biodiversity and *heritage assets*, through innovation and best practise for the just and equitable benefit of current and *future generations*” (SANParks, 2017a: 3 – emphasis added). This statement made it clear that the protection and management of the park in the present had a political purpose: a more just and equitable dispensation for current and future generations. But such a dispensation would not be achieved overnight. Its potential had to be constructed as residing in the future. Unlike the programmes of action of Security

Actors, the work of Inclusion Actors was incremental, unfolding at a slower pace, and its goals stretched across longer time horizons. The park understood that the achievement of its "envisaged future" within "broader regional landscapes" would require at least ten years (KNP, 2018a: 15). The GKSDP was positioned as a long-term development framework, and the words "long-term" and "longevity" were repeatedly used in documents that explained its purpose, such as, "successful and meaningful regional implementation requires the mobilisation of optimal resources and investment to ensure the longevity of sustainable livelihood within the Greater Kruger landscape" (SANParks, 2020: 29). Where Security Actors were concerned with an immediate emergency, Inclusion actors were invested in stability and durability. Where Security Actors compressed time, Inclusion actors stretched it. In Figure 33 below, the goals of the inclusion programme of action are articulated as taking place within a longer-term temporal window.

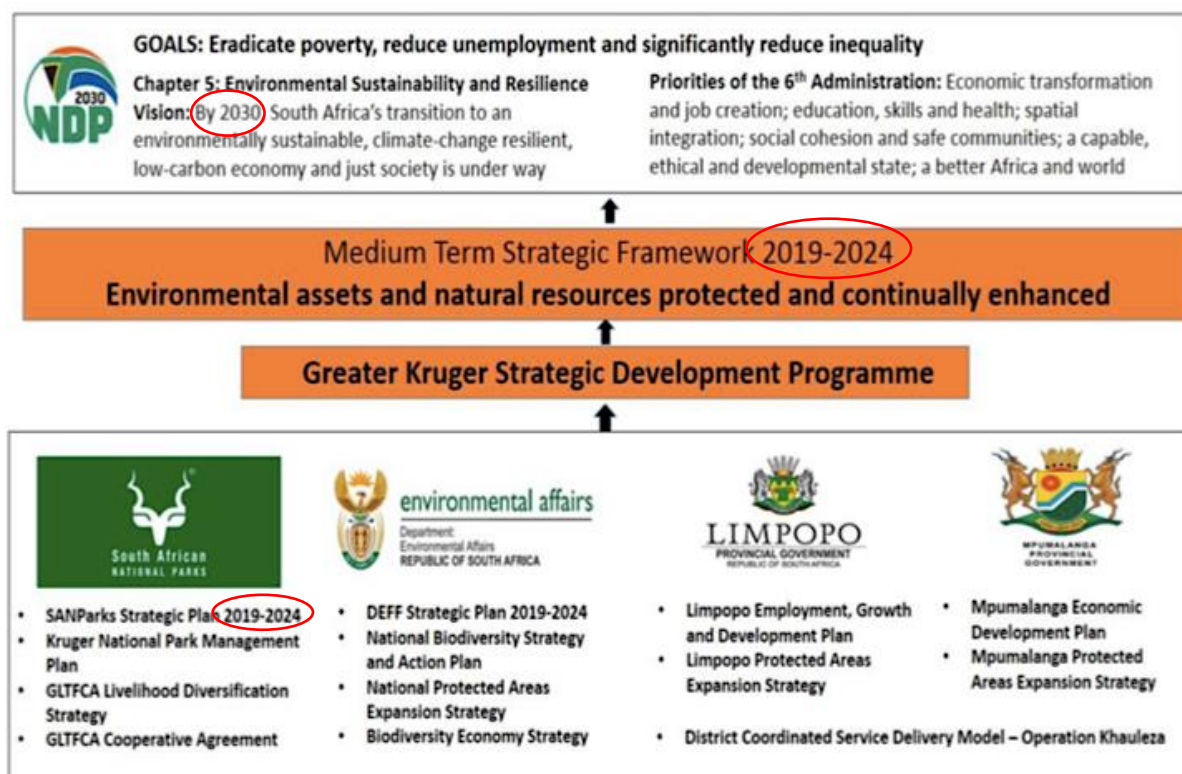


Figure 33: Depiction of how the GKSDP contributed to other national-level government-led development programmes. Red circles added.

Source: SANParks (2020a).

The future was described in terms of ambiguous economic notions that would undo the inequalities and other social problems of the past. Inclusion Actor narratives invoked hypothetical, unrealised concepts, such as "unlocking sustainable benefits," "functional regional landscapes and ecosystem services," "environmental sustainability and resilience" and "compatible land-use practices" that would enable government's vision for a just society "by 2030" (SANParks, 2020: 10). Local power relations and political, cultural and social idiosyncrasies made developmental efforts in the present very difficult but could be rendered manageable within an ambiguous future. Actors' discourses enabled them to imagine a "better" future for nature and people without being hamstrung by the practicalities and specifics of exactly what such a future would look like. Actors' vision subdued complex local political issues and the skewed power relations linked to thorny matters such as land reform, land tenure, corruption, elite capture and gender discrimination within communal governance institutions.⁵⁰ In this vision of the future, the park would overcome the challenges of working with "multiple role-players at different spheres and competency levels" and the "complexity between strategic partners, enablers and interest groups" (SANParks, 2020: 68).

Figure 34 below show multiple images of what such an utopian future would look like: thriving safari-tourism operations, a healthy ecosystem, local communities sustainably harvesting natural resources and flourishing local people living peacefully in communal areas.

⁵⁰ Communal governance institutions, such as traditional authorities, do not function according to democratic principles, yet are the *de facto* entry point in KNP's engagement with local communities. Membership (who are virtually always male) is typically determined by a chief, who acquire his position through family lineage. Traditional authorities in the Greater Kruger are subject to elite capture and allegations of corruption are common (RP8; RP14; RP24; RP26).

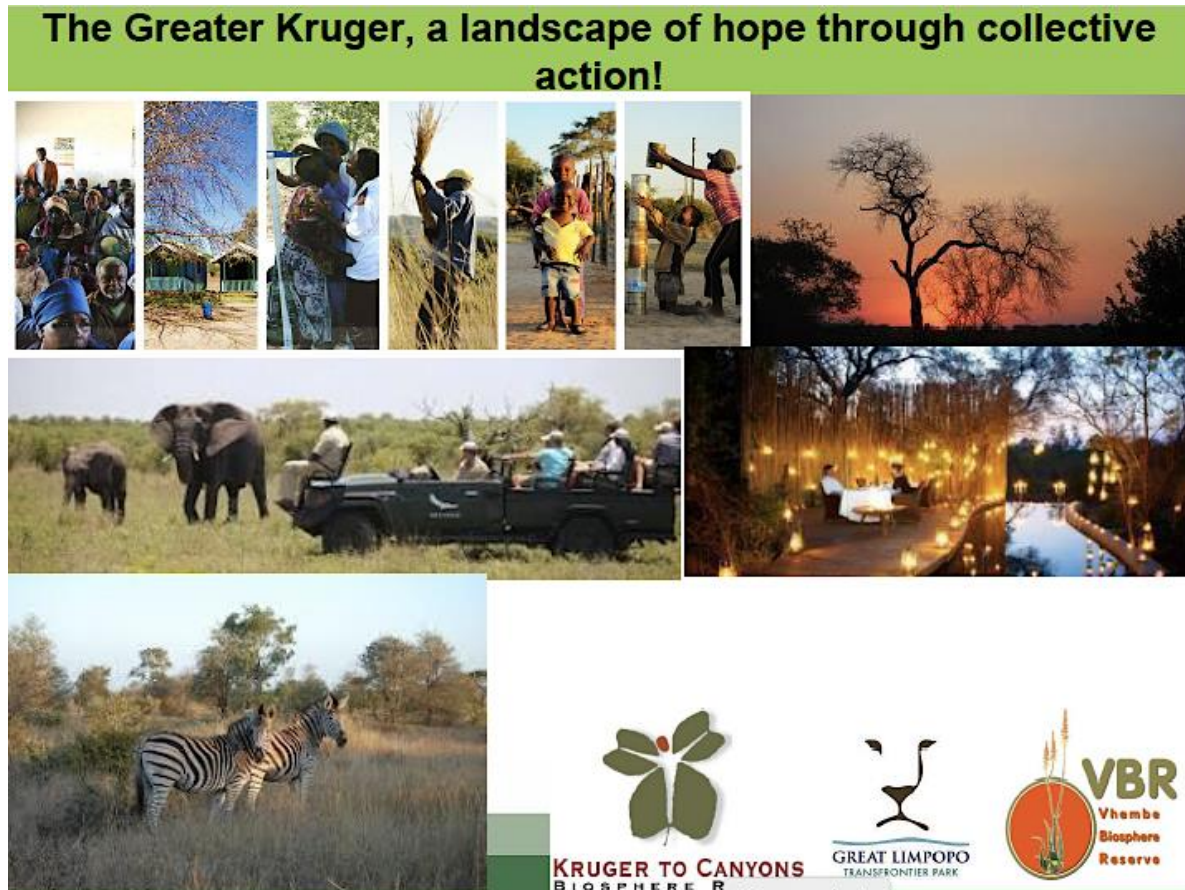


Figure 34: Idyllic depiction of how regional development programmes and cooperative agreements would enable a future full of educational opportunities, sustainable natural resource use, eco-tourism and ecological wellbeing.

Source: SANParks (2018k).

Optimism was an important emotion used to rally support from a wide range of stakeholders (NGOs, private nature reserves, other government departments) who needed to buy into Inclusion Actors' novel vision for the future. For example, in 2018, KNP took the lead in setting up a Cooperative Agreement with the various conservation areas on the western border of the Park, including communal areas, state and private reserves with the Greater Kruger area. According to SANParks, this was a "historic event" and the dawn of a "new era of conservation in the Greater Kruger," aimed at the "optimising of social development opportunities within and adjacent to the Greater Kruger" (SANParks, 2018l). In a slideshow that was shown at the signing ceremony of the agreement, the last slide contained

the following text (in all caps): “THE GLTCA COOPERATIVE CONSERVATION AGREEMENT: A LEGACY OF HOPE FOR GENERATIONS TO COME!” (SANParks, 2018j). Inclusion Actors used the signing of the Cooperative Agreement to periodise the organisation's history into a before-and-after era and to construct the present as a watershed moment, signalling the dawn of a more inclusive era, and calling to action multiple organisations in the landscape for the sake of “future generations.” SANParks CEO, called national parks “beacons of hope for socio-economic development” (SANParks, 2021: 17).

What were the tangible effects of Inclusion Actors’ temporal work? Inclusion Actors invented grand, state-led socio-economic development initiatives and plans that could unfold at a safe temporal distance away from the complexities of current local power relations and politics that were foundational to the inequity problem. The notion that socio-economic development required long time periods was normalised, suppressing the notion that inequity was a critical, urgent, here-and-now emergency (as was the case with poaching). Inclusion Actors constructed a distant and ambiguous future and anticipated its arrival with a sense of hope and optimism, and enrolled other stakeholders in this affective atmosphere. This collective mood served to neutralise potentially disruptive forces, such as internal organisational and external stakeholder groups who might have demanded more radical and rapid transformation.

How was this achieved? Inclusion Actors’ aspirational narratives and images invoked an optimistic, apolitical collective vision of the future. The process of socio-economic inclusion was narrated as an orderly, stepwise and long-term process. By periodising KNP’s lifespan into two eras - before and after signing the Cooperative Agreement - the inequity grand challenge was established as important, signalling the park’s commitment to tackle the problem in a “developmental” manner.

Narratives about "cultural heritage" and "future generations" reinvented a shared past and “collectively” envisaged a shared future amongst diverse, and highly stratified, social groups. Inclusion Actors’ narratives created an evocative climate of optimism and hope and a sense that a turning point was reached in the park's relationship with its neighbours.

How did temporal work affect the social construction of inequity as a grand challenge? The grand challenge of inequity was socially constructed as a one-dimensional apolitical economic problem with aspirational solutions in the future that needed time to come to fruition. In this sense, local communities would simply have to wait for the tree of inclusion to grow and bear fruit. What this fruit would look like was difficult to fathom, since the future was defined in ambiguous, utopian terms, not rooted in the lived experiences of community members and Inclusion Actors who worked daily with communities outside the park (please see fieldwork vignette 5 for a sketch that describes the kinds of settings in which Inclusion Actors work).

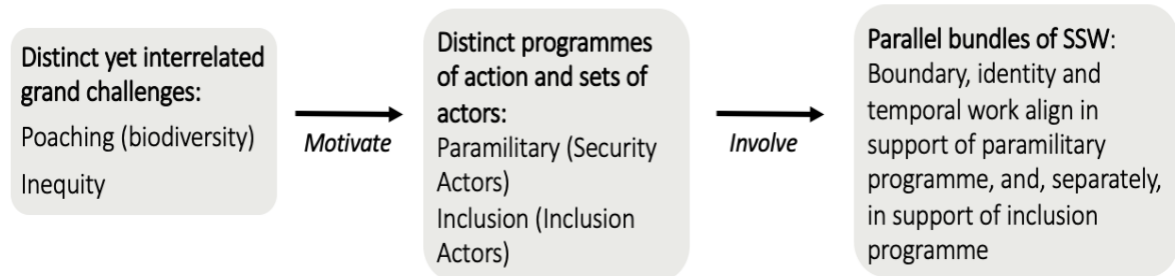
Table 5 provides a summary of Inclusion Actors’ SSW and the effect on SSOs salient to the inequity grand challenge.

Table 5: Summary of Inclusion Actors' SSW on SSOs

SSO	PLACE	SELVES	TIME
Trigger	Inclusion Actors' need to create, adapt and uphold the meaning of places, selves and time to be compatible with the goals and practices of the inclusion programme.		
Type of SSW and its purpose	Boundary work on the symbolic and material boundaries that gave KNP's geography meaning.	Identity work to craft new group and national identities.	Temporal work to modify subjective experiences of time.
SSW tactics	Use narratives and images to create an affective sense of threat and opportunity and assimilate diverse entities into a homogenous and newly labelled "Greater Kruger" landscape. Integrate KNP's sustainability with that of the wider region. Reify newly invented boundaries/zones by depicting them on maps/schemata. Enrol strategically important stakeholders (despite differences between them) within the new geographical boundary.	Create narratives, images and artefacts to construct black constituency groups (communities, tourists). Use concepts ("cultural heritage," "future generations"), to construct a shared sense of belonging to a national identity.	Create narratives and images that interrupt the flow of organisational time by periodising it into "before" and "after" era for inclusion work. Direct attention away from the complexities of the present by constructing an ambiguous, aspirational shared future.
Prominent narratives	Unlocking development. Natural resources, natural assets, ecological infrastructure. Integrated land-use. Productive, functional landscapes. Greater Kruger.	Communities-as-beneficiaries-and-shareholders. Black-tourists-as-consumers. Nature-as-shared-natural-heritage.	Natural heritage. Heritage assets. Future generations. Legacy of hope.
Effects	Transforming the boundary that had long separated the park from the economic wellbeing of the wider region. Reduce fragmentation amongst actors in the region with a stake in socio-economic development. Establish control over strategic territories adjacent to the park. Normalise the existence of a singular socio-economic development framework for diverse landscape.	Creation of homogenous stakeholder selves based on moral and utilitarian values. Normalise the roles, traits and power relations within and between stakeholder groups.	Creation of a novel temporal orientation defined by a reinterpretation of the past and a focus on the future. Normalise the notion that socio-economic development occurs in the future.
Effects on social-symbolic context	Creation of an affective climate of optimism and hope, but also (inadvertently) one of powerlessness and indifference. Grand challenge is experienced as theoretical and distant.		
Effects on construction of grand challenges	Grand challenge constructed as a shared problem in a boundaryless landscape.	Grand challenge constructed as an abstract economic problem.	Grand challenge constructed as a problem solvable in a distant, idealised future.
	Transformation of a multi-faceted social, political and economic problem into a technical one, solvable through state-led, managerial interventions.		

Figure 35 shows how grand challenges inspired programmes of action within which actors “bundled” their intersecting and simultaneous forms of SSW.

Figure 35: Empirical model: Programmes of action and bundles of SSW



6.7 The intended outcomes of SSW: Actionable, legitimate and ontologically real grand challenges

Security and Inclusion Actors were skilful social-symbolic workers: cartographers, biographers and horologists. As cartographers, they worked on the material and symbolic boundaries that changed spaces into places. As biographers of stakeholder selves, they worked on the identities of key groups with a stake in each grand challenge, notably “rangers,” “poachers,” “communities” and South African “society.” As horologists, they shaped subjective temporal experiences for other organisational members and groups. To make the inherent uncertainties and ambiguities of poaching and inequity intelligible and operable, the two grand challenges were constructed so that they had *somewhere* (geographically) to take place, *sometime* (temporally) to happen in and *someone* (with an individual or group identity) to implicate.

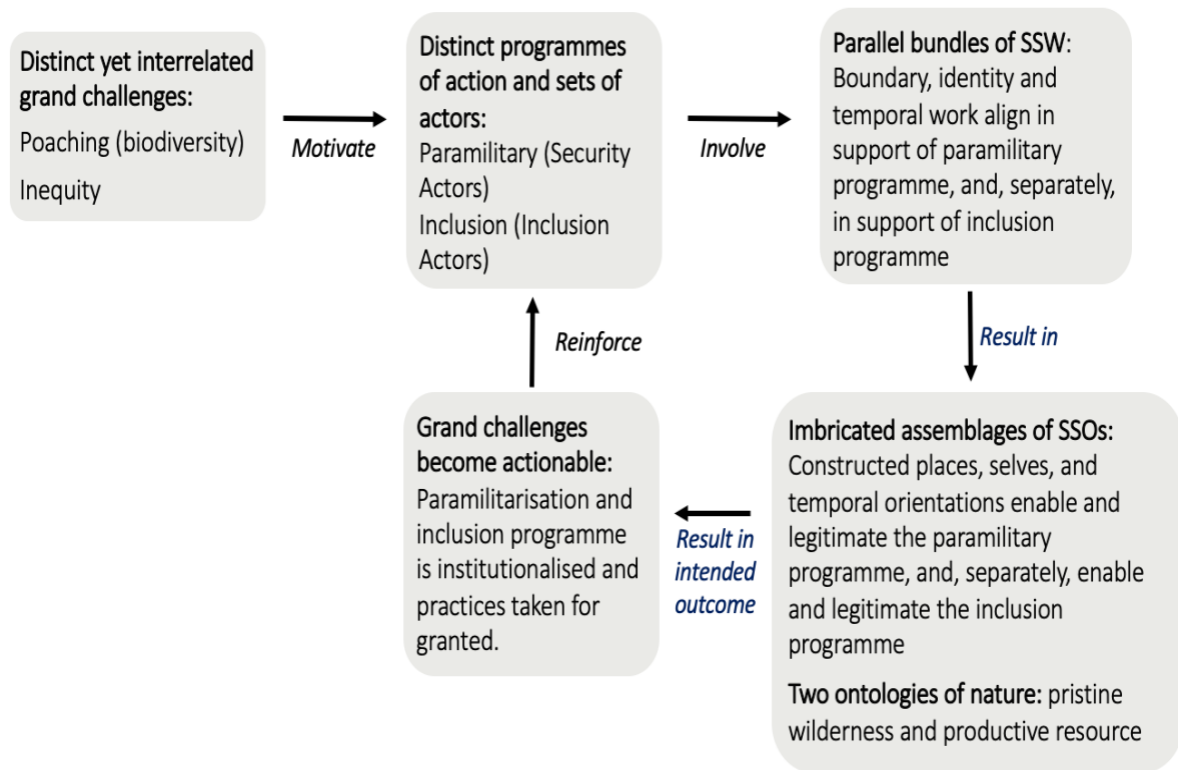
Actors experienced the SSOs of place, selves and time as objectively real, with intrinsic characteristics and merits. SSW led to a remarkable organisational achievement: the rendering of grand challenges into actionable objects that could be subjected to discrete (and legitimised) programmes of action, despite tensions and contradictions between them. Despite the contradictions between the logics and practices of paramilitarisation and inclusion, both programmes were seamlessly absorbed into the organisations’ identity and

mandate. Today, KNP is a single entity with two, concurrent personalities: a paramilitary and socio-economic development organisation.

As much as actors were cartographers, biographers and horologists, they were also worldmakers. Actors became complicit in the construction of one of the most foundational and taken for granted ontological divisions that affect human and non-human life: the distinction between humans and nature, society and environment. Developing a set of solutions to solve grand challenges in and around “nature” requires an ontological category of nature compatible with problem framings and solutions. It requires a world in which programmes of action make sense and are deemed legitimate. This motivated actors to not just “manage” and “protect” a received reality - an objective natural world - but to actively construct and maintain it.

Without the existence of these “natures,” it is hard to imagine how actors would have convinced others of the legitimacy of their prescribed remedies for poaching and inequity. For example, the notion of creating a “wildlife economy” to benefit local communities could only be realised if landscapes were seen as “productive” and if nature was a usable “resource” and “asset.” SSW, therefore, influenced not only the *where*, *who* and *when* of how grand challenges were constructed, but fundamentally altered the *what* of actors’ ontological orientation towards the natural world.

Figure 36 below shows how bundles of SSW created an assemblage of SSOs with mutually reinforcing meanings that served actors’ strategic interests. SSW also created and upheld two separate ontologies whose meanings legitimised actors’ programmes of action. SSW thus made grand challenges intelligible and actionable, legitimising novel practices and institutionalising both the paramilitarisation and inclusion programmes of action. Thanks to the meanings SSOs bestowed on challenges, practices to tackle them were soon taken for granted and at the same time, upheld the meanings of SSOs.

Figure 36: *Empirical model - The intended outcomes of SSW*

Fieldwork vignette 4: The gospel of the buffer

“I’m preaching the gospel of the buffer!” It is mid-2016 and Jan* is dressed in his green ranger uniform, his boots worn but polished. There are twelve senior managers in the room: ecologists, rangers, scientists and community engagement specialists. Everyone is gathered to prepare for the write-up of the park’s ten-year management plan. The plan lays out the park’s key threats, opportunities and conservation strategies for the decade ahead. Today’s meeting focusses on assessing the security, economic and ecological risks that neighbouring areas pose to the park.

When I ask a conservation manager why he is attending the meeting, he says: “the park is not an island. It is an open system. We have to manage the threats on the outside in order to protect what is on the inside. We can’t control it, but we can manage it.” RP11 has worked in the park for 40 years and has seen his fair share of things that needed managing.

The “buffer zone” is a pivotal part of the meeting discussion. Jan, a white, ex-military newcomer to KNP and influential security strategist, repeatedly admonished his colleagues for referring to neighbouring nature reserves as being “in the buffer zone.” “We must stop using that terminology,” he implored, “a buffer is somebody that dies on your behalf and doesn’t get paid. We must talk about integrated land use. Because we are moving towards seamless operations with nature conservation and security and all that stuff. And if we want to do seamless work, our allies shouldn’t have a second-rate application. We have alliances, not buffers.” When he talks about “the people” and “alliances,” he refers to neighbouring nature reserves which are mostly privately owned. The reserves alongside KNP are also home to rhinos (and other big-five animals), and they share KNP’s poaching burden. As poaching incidents began to soar, KNP suddenly had something very pressing in common with reserves surrounding it: wildlife security. Jan understands that KNP does not have the capacity to fight off poachers by itself. The landscape is too big, the fence too permeable and the number of boots-on-the-ground to patrol it too few.

In the back of the room, another influential (black) Security Actor, Samson*, sits listening attentively, his arms folded as he gently rocks back-and-forth on his chair. He raises his hand and says, “we have all these alliances with private reserves. But I don’t understand why it is so difficult for us to form alliances with black, poor communities. We are struggling to get them on our side.” The communities he referred to form part of the patchwork of towns, commercial farms, communal land and nature reserves that constitute the buffer zone. There is a somewhat awkward silence following his comment. Nobody offers a suggestion regarding how to remedy the vexing problem Samson just raised. The hum of the air-conditioner is the only retort.

Jan wraps up his presentation. An ecologist takes to the floor to outline threats KNP face as a result of poor water management in the buffer zone. A few more presentations follow, and the issue of formal community partnerships (or lack thereof) is not spoken of again. Samson’s comment gets side-lined by presentations on ecology, security and the park’s grand plans to enrol their protected area neighbours into joint economic development projects. Finding concrete ways to effectively engage community neighbours was proving far more elusive and is a fundamental reason why the inequity challenge is such a grand one.

Jan had a point. The term “buffer zone” can come across as disparaging towards those who are ostensibly “in” it. Discursively, it locates KNP in the centre of the landscape and classes everything around it as peripheral. KNP is the crown jewel, and the layers around it simply serve to keep it intact. Diverse groups of people were neatly “zoned” and homogenised into living in the “buffer.” I thought it ironic that in this multidisciplinary meeting, it took a military man to problematise the term.

Jan’s concern, however, was not with local communities. For him, they posed a risk, a source of poaching incursions and the very reason why alliances with other nature reserves were essential, and why “seamless” cooperation was needed for joint anti-poaching operations. Samson, on the other hand, did not question the use of the buffer zone term, but highlighted a fundamental facet of the inequity grand challenge, namely, the park’s struggle to build strong, formal relationships with its community neighbours.

Why did the park emphasise formal relationship-building with other nature reserves, seemingly at the expense of achieving the same with local communities? The park’s alliances with neighbouring reserves were, for the most part, sophisticated organisational pacts between educated, white conservationists who shared similar passions and mandates. Alliances with local communities entailed engaging with black leaders from traditional backgrounds, who generally had no conservation training, with dissimilar passions and mandates. Community engagement never achieved the same levels of urgency and efficiency as did Security Actors’ alliance-making to curb poaching.

In the months before the finalisation of the park’s 2018 management plan, Security and Inclusion Actors often interacted and conjointly struggled to make sense of the complexities of both grand challenges - poaching and inequity. The two challenges were interwoven, and so were the actors who worked on them.

*All names are pseudonyms.

6.8 The unintended outcomes of SSW: making grand challenges less tractable

The end of the previous section highlighted how parallel bundles of SSW combined to serve the strategic interests of sets of actors. I highlighted how the meanings of discrete but imbricated SSOs were purposively changed in service of actors' programmes of action, and how SSOs made challenges actionable and bestowed legitimacy on novel practices.

Actionability, however, does not assure tractability. In this final section of chapter six, I examine the unintended outcome of SSW. SSW inhibited the emergence of novel solutions to two distinct, yet interlinked, grand challenges, making them less tractable. SSW led to polarising ontological commitments, hot and cold affective repertoires and suppressed paradox. SSW entrenched ontological assumptions about nature that reduced actors' inclination to explore alternative framings of the problem and possible responses. SSW inadvertently created hot and cool affective repertoires that encouraged fundamentalism amongst Security Actors and disengagement amongst Inclusion Actors. Actors' SSW and their corresponding affective repertoires dissuaded actors from noting and harnessing potentially generative interdependencies and contradictions.

6.8.1 Making inelastic ontologies

Nature is a fundamental ontological category that defines our human experience of reality and working "in" and "on" nature invokes enduring (and sometimes arcane) spiritual and religious ideas, and scientific and management traditions, all laden with timeworn values, myths, practices and routines. Security Actors reproduced a nature that was morally pure and innocent, buttressed by religious and spiritual meanings and embodied by a vast, timeless wilderness devoid of humans (apart from those "protecting" those exceptional places, the mostly male rangers). Key protagonists were valiant heroes (Security Actors and their allies), and evil villains (poachers and their aides). Nature was a place governed by security rules and access restrictions. It was a place where passionate law enforcers risked life and limb to

protect rhinos, whilst tourists sip their sundowners, taking in the pristine “wild” and timeless experience that KNP still has on offer.⁵¹ This version of nature is super-natural and atavistic. Community members outside the park do not “belong” in the landscape, and park visitors and society at large play the role of detached voyeurs who enjoyed nature from the safety of vehicles or the luxury of tourist camps. A securitised human-nature relation and logic is created, determining who could access, be in, use and protect a fenced-in nature.

Poaching is framed as more than just a crime, it is a crime against *nature*. Within this logic, such a crime necessarily warrants an immediate, passionate and singular paramilitary response to remove the threat to nature, which finds its form in poachers. Security Actors’ ontological beliefs infused the poaching challenge with inelastic value judgements, defining the problem (and responses to it) in terms of ethical “rightness” and “wrongness.” Religion and spirituality (including esoteric “wilderness”⁵² myths and aesthetic norms) played a central role in how actors determined what was “right” or “wrong” for nature and the human-nature relationship. Actors’ use and deployment of moral values lent absolute justification to their practices, cementing actors’ belief that their chosen course of action - enacting a paramilitary logic - was irreplaceable and virtuous. Paramilitarisation became an unquestioned and singular institution.

In contrast, Inclusion Actors worked to relax the strict moral and aesthetic boundaries that typically enclose the idea of pure “wilderness.” They created a nature that was extracted into an economic commodity. This version of nature was assembled from the utilitarian

⁵¹ In a 2017 interview, a senior ranger explained how impressed he was with the stealthy manner in which a private company managed the security operations in a nearby (highly commercialised) private reserve. He strongly felt that security operations should never interfere with the aesthetics and wilderness experience of being in the park: “you are in the bush, thinking nobody is there, and you are sipping your gin and tonic. But he [the ranger] is lying in the bush, watching you sip your gin and tonic. And you don’t know it, so your experience is not corrupted. And that’s their job, to not be seen. If you have a wilderness experience and you see armed clowns cruising around, it ruins your experience, you think you are in a military zone, not a place of relaxation” (RP3).

⁵² According to Venter (2008), “wilderness qualities are the intangible spiritual and experiential aspects associated with protection areas” and are the most important reason why people are drawn to visiting KNP (p. 111)

values of functionality and productivity. Nature included multiple land-uses and a protected area like KNP was part of a connected “land-use mosaic” (as opposed to a bastion of wildness). In this version of nature, humans and human needs were interwoven with nature, and “sustainable” ways are sought to give equal attention to the needs of people and ecosystems. Society and nature are intertwined and interdependent.

According to the inclusion ontology and logic, the park has a political imperative to share its natural “assets” with impoverished local communities. However, this version of nature established local communities around the park purely as economic actors, with less attention given to their spiritual, cultural and social relations with nature. In this sense, communities - not unlike visiting tourists - become connected to nature in terms of how they utilise it and are described and organised according to distinct “user groups” (KNP, 2018a). Human-nature relations were set up where powerful organisational actors were the agentic and benevolent stewards of nature's bounty, whilst an amalgamated group of “beneficiaries” were the inert recipients of such resources.

These two diverging ontologies encouraged actors to remain comfortably within the logic of each constructed world. This had consequences for actors’ ability to engage contrary ideas and paradox, and I elaborate on this point in section 6.8.3.

6.8.2 Making affective repertoires

Meaning-making did not unfold according to neat, linear trajectories. Bundles of SSW and SSW tactics combined to produce effects beyond just changing the targeted SSOs. The organisational context was also deeply altered as actors grappled with grand challenges. Most notable was the impact of SSW on the affective repertoires that mediated actors’ emotional, moral and aesthetic relationship with grand challenges. Hot and cool affective repertoires further encouraged fundamentalism and polarisation, and inertia and disengagement, discouraging actors from generating imaginative and novel solutions to grand challenges

Security actors created and upheld *hot* affective repertoires that both reflected and amplified their subjective experience of working on the grand challenge of poaching. A hot affective repertoire is assembled by rigid identities and roles, intense (mostly negative) emotions and devotion to stringent moral and aesthetic codes.

The construction of stakeholder and actor identities created a moral organisational universe with unbending lines between opposing camps, an “us” (Security Actors and their allies) and “them” (poachers and communities). Security Actors created and were inspired by an emotional atmosphere of distress, haste, crisis and urgency, a constant sense of “running out of time” (RP7; RP18) and “running out of rhinos” (RP2). RP2 captured the mood succinctly, often reporting that, “from one day to the next, we’re in survival mode.” Field rangers became increasingly burnt-out (WWF, 2020b), and I witnessed how Security Actors became gradually more cynical due to the stress, pressure and escalating violence between themselves and poachers. Emotions of urgency and crisis drew the park nearer to the proverbial “zero hour” (RP18), the much feared and debated “tipping point” (Global Initiative, 2016) that would signal the coming extinction of rhinos. Security Actors expressed intense emotions when they talked about poaching, such as shock, outrage, grief, resentment and guilt (RP2; RP3; RP12; RP13; RP18), intertwined with ethical beliefs that positioned law enforcement work as unconditionally righteous. Many security actors reported being motivated by a sense of moral duty and higher calling (RP2; RP3; RP13; RP7; RP28) and experienced inner turmoil at their inability to keep poachers at bay (RP12; RP13). The opposing emotions of love and hate - experiencing and expressing it - underpinned the dedication that many Security Actors displayed towards their cause. They experienced passionate love for the park and its wilderness, but also intense feelings of loathing towards the “scourge” of poaching and corruption within their own ranks.

In contrast, Inclusion Actors created a *cool* affective repertoire that defined their context. Where Security Actors relied on strong moral-affective tenets, Inclusion Actors

assembled their affective repertoire with ambiguous and abstract ideas and temperate emotions that mediated their experience of the grand challenge of inequity. They constructed the inequity problem through the ostensibly value-neutral language of developmental economics. This apolitical framing of the problem helped them to create an aspirational and forward-leaning affective climate. Rationalising the inequity problem - turning it into something unexceptionable and technically amenable - enabled Inclusion Actors to sidestep the considerable historical, social, cultural and political messiness of the challenge. Even though Inclusion Actors carried a heavy moral burden - “the legacy of social injustice in the Greater Kruger Landscape” (KNP, 2020i) - senior Inclusion Actors and their external partners were galvanised by optimism, reinforcing the notion that the Greater Kruger's bounty of economic resources was waiting to be unlocked (RP8; RP14; RP15; RP27). An optimistic, positive emotional climate was strengthened by the previous head KNP, who was passionate about building relationships with external entities (RP19) and he projected great enthusiasm and a can-do attitude during internal and public-facing meetings.

However, I observed that optimism was generally generated and experienced by senior Inclusion Actors and their external project partners (e.g., NGO and private-sector partners). Inclusion Actors who worked at the coalface of park-community relations sometimes seemed lukewarm towards their work, even reporting similar signs of burn-out and fatigue (RP10; RP24; RP25) as their Security Actor colleagues. RP9 told me that he woke up on most days “not knowing what new problem is brewing outside the gate” and another actor said that “every small disagreement [between communities and the park] can explode in your face, I tell myself that all the time, ‘watch out, be careful’” (RP25).

Inclusion Actors who lived and worked directly with local communities were best placed to detect the (demoralising) chasms that existed between the park's grand visions for socio-economic transformation and the reality of communities' lived experiences with rural and peri-urban poverty. Figure 37 below and field vignette 5 offer a glimpse into the

disjuncts between the lived realities of actors and the bold but ambiguous plans they were expected to implement. Figure 37 shows a dilapidated, sparsely furnished community hall where community members meet regularly with park officials and NGO actors. The hall is in the middle of an extremely impoverished area, only a few km's away from the park's entrance. Infrastructure in this community, such as "rickety mud structures" (Mabeba, 2009) that serve as housing, offers a stark comparison with well-developed, even luxurious, infrastructure inside the park and nearby private lodges.

As much as ambitious socio-economic targets and forward-looking goals galvanised regional stakeholders (such as those participating in the GKSDP), due to their theoretical and abstract nature, plans were difficult to translate into practical action. Unemployment rates in communities adjacent to the park are as high as 40%, significantly higher than the national average of 26% (SANParks, 2020g). It was in this context that the park's sophisticated by hypothetical development plans envisioned "transboundary ecosystem-based approaches," "inclusive, transformative social compacts," "livelihoods diversification," "addressing climate change vulnerability," "unlocking sustainable benefits," "responsible economic development" and "compatible land-use practices" (SANParks, 2020g). These concepts were distant from many Inclusion Actors' lived realities, affecting their resolve and ability to stay engaged in service of the grand challenge of inequity. Inclusion Actors' resolve to pursue the objectives of the inclusion programme of action became tempered, and they felt disengaged from its strategies and practices.



Figure 37: Community hall, village on the northern outskirts of KNP. The building houses community-meetings between the park and people from the village.
Source: Own photo.

Security and Inclusion Actors, respectively and concurrently, constructed hot and cool affective repertoires which oriented them towards rapid action and sometimes, drawn-out inertia and disengagement. Security Actors relied heavily on vivid emotions, values, aesthetics and identities to create a social-symbolic context that supported strong, even zealous, commitments to paramilitary logics and practices. Inclusion Actors relied on abstract ideas and institutions and Senior Inclusion Actors galvanised field-level support for their logics and practices. However, some Inclusion Actors were disaffected by the chasm between the park's grandiose plans and their lived experiences of poverty. Their sense of disempowerment encouraged them to focus on the mundane aspects of the inclusion problem. This is illustrated by the view of a senior KNP scientist,

KNP bribes people the same way as politicians, giving them food and T-shirts. This has resulted in a broad-scale entitlement. But there is a co-learning process that has to happen, rather than just bringing people in and teaching them about antelope. When we have stakeholder meetings, the biggest worry of some of my colleagues is, 'is there enough food for everyone?' And our rhetoric about the off-takes [animal culling], we say 'giving people a meal provides an opportunity to have a discussion.' No. I don't need a meal to talk. We are constantly managing the symptoms, but we are not thinking about the learning processes, we are not process-oriented. We don't take the long view. (RP6)

Affective repertoires had unintended consequences for the organisation's ability to make grand challenges tractable. Security Actors' hot repertoires made them passionate, but insular and fundamentalistic. Ethical commitments fan passionate emotions, especially salient in the work of senior rangers who firmly believe that paramilitarisation is the singular means by which rhinos, and a God-given, irreplaceable wilderness, can be protected.

Initially, Inclusion Actors' cool affective repertoire made the inequity challenge actionable as it galvanised stakeholders around a common cause and offered optimistic solutions aligned with dominant macro-level economic discourses. However, as years went by and the chasm between grand plans and actors' lived realities stayed firmly in place, Inclusion Actors at the coalface became disengaged from proposed solutions. Senior Inclusion Actors continue to create a context built upon abstract ideas, rational economic values and a forward-looking, optimistic emotional climate. However, Inclusion Actors that work at the forefront, daily mitigating the tensions between the park and local communities, are excluded from this buoyant mood. Their lived experience of observing the harsh disjuncts between the park's high-level "transformation" and socio-economic development plants leave them feeling estranged and demotivated. It is hard to imagine how these Inclusion Actors must encourage other stakeholders (such as local communities and other government departments) to stay committed and engaged if they struggle to do so themselves.

In the case of both sets of actors, the manner in which affective repertoires constructed their contexts, dissuaded them from the very actions that grand challenge scholars call for: sustaining collaboration and ongoing engagement amongst groups with diverse values, interpretations and worldviews. In short, it inhibited the emergence of novel solutions.

Fieldwork vignette 5: The gentle gatekeeper

Tendani* likes to talk. That is quickly apparent on our drive to a small village on the outskirts of the park. He makes me smile with his irreverent, yet compassionate wit. Tendani is a community outreach specialist (Inclusion Actor) and I'm accompanying him on his mission to resolve a nearby community's latest grievance. Village representatives claim that the park does not employ enough youth from their village. They also complain of elephants "climbing over" the park's fence, destroying their crops. When I ask him about these allegations he sighs and shakes his head. "Lots of problems here, let me tell you, lots of problems." Lots of problems indeed, I think to myself. According to a senior Security Actor, the village is "swarming" with poachers and smugglers. It is one of the poorest areas alongside the western boundary of the park, with youth unemployment as high as 60%.

We arrive for our meeting and suddenly my organisation's shiny white pick-up truck, sporting the logo of an international conservation NGO, stands out like a sore thumb. Just another normal car, one would think. But here, it looks ostentatious and I feel ashamed. Implicated, somehow, in the contrast between the vehicle and its surroundings.

About ten villagers stroll into the large, derelict meeting hall. In the back of the room are books with faded covers in disorganized piles. Tendani explains that the building is also used as a creche and a school, and an NGO occasionally helps out with supplies. I pick up one of the books: *Oliver Twist*, by Charles Dickens.

The meeting starts ninety minutes late. The chairperson, a skinny young man in flip-flops (duct-taped to keep them in a working order), opens with a prayer. I close my eyes. It is ten o'clock and already thirty-four degrees Celsius. For three hours the meeting proceeds in the local *Tshivenda* language. There are ebbs-and-flows of conversational intensity. At one point, an old man stands up and bellows at Tendani for twenty minutes without pause. Tendani nods dutifully and the meeting goes on.

By the time we get back into the car, we are exhausted and slightly dehydrated. I ask him about the meeting, but he wants to talk about something else. He tells me a story of how, some years back, the then head of KNP flew in with a helicopter to attend a short meeting with local people. Tendani explains how the arrival of the "flashy, noisy helicopter in the dusty, small village" made his "heart sink," because it signalled to the community that the park had "lots of money" (Tendani spends much of his time deflecting requests from multiple communities for financial assistance from the park). Tendani knew that soon the helicopter would be gone, and it would be up to him, the gentle gatekeeper, to manage expectations.

Government's vision (SANParks, 2021: 62) of an environmentally sustainable, climate change-resilient, low-carbon economy and a just society had not yet been realised for the people of the village. Notions of "beneficiation" and the "biodiversity economy" was forever out of reach, as distant and implausible as the tales of *Oliver Twist*.

"You have a difficult job, my friend," I say to Tendani. "These people always want to fight. *Eish*, I'm tired," he replies, staring out the window. For most of the drive back, we sit in silence.

6.8.3 (Un)making paradox: love and war to save nature(s)

“There is a nice ecological word...the elasticity, the resilience of people to be like, normal, when they are being stretched, how far do you stretch a rubber band before it snaps, when you can't anymore, when their ‘stretchiness’ has been eroded?”

(RP2, 2018)

The story of KNP’s response to grand challenges is also a story of engaging paradox – or rather, of *not* engaging paradox. This was a significant social-symbolic achievement and not simply the result of actors’ accidental neglect. However, it is an achievement that detracted actors from noting and harnessing potentially generative interdependencies and contradictions, and this, in turn, suppressed the generation of imaginative and novel solutions to grand challenges.

SSW enabled actors to simultaneously live in two distinct ontological and organisational worlds. They managed a “nature” that was both a mythical wilderness and a productive asset and pursued organisational strategies to both police and share the park’s resources. The remarkable pacification of tensions between ontologies and strategies is an unintended consequence of actors’ SSW. Firstly, actors’ creation of affective repertoires deterred them from engaging paradox, and secondly, the manner in which they manipulated SSOs reduced their ability to detect tensions and contradictions. In this section, I pay particular attention to the paradoxical tensions that existed between the organisations’ three-legged “core business” model, where two of the legs strongly align with the inclusion and paramilitary programmes of action, respectively. I explain how SSW helped to achieve the negation of strategic tensions and its unintended consequence on the tractability of the two grand challenges.

Figure 38 below, and variations of it, is a graphic that actors use to explain SANParks’ business model. It succinctly captures the three poles of KNP’s most fundamental strategic paradox. In Figure 38, “core business” is biodiversity conservation, supported by

social, ecological and economic dimensions, combining to create tangible “benefits” and intangible “intrinsic” outcomes.

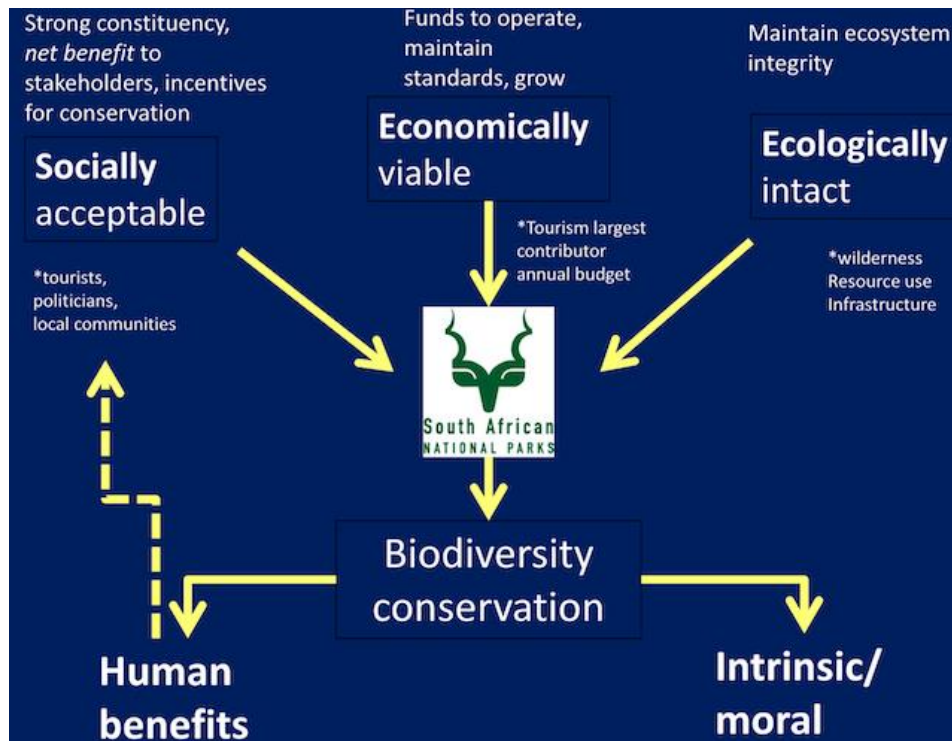


Figure 38: Slide summarising the triad of SANParks' core business.
Source: SANParks, 2017f

The park's core business makes multiple concurrent demands on actors. Whilst protecting biodiversity, actors must ensure that the park remains socially acceptable to tourists, politicians and local communities. Establishing this legitimacy is primarily the work of Inclusion Actors, necessitating the winning of hearts and minds and the sharing of the park's cultural and economic resources with local communities. On the other hand, the park must be ecologically intact and maintaining its integrity is the primary tasks of Security Actors. This is the work of keeping unwanted people out, who typically come from or through local communities next to the park. At the same time, the park needs to be economically viable, even as the high costs of anti-poaching operations reduce the funding available for socio-economic projects (SANParks, 2019g), the very thing that could make the park more socially acceptable. As one actor stated, “if we go on like we do now, we will bankrupt SANParks with the poaching war. And if SANParks disintegrates, the rhino and

everything and everyone around us is screwed anyway” (RP5).

The work of Security and Inclusion Actors (ecological intactness and social acceptability) is discrete yet interdependent. Both sets of actors work to protect the long-term viability of the park but go about this task in very different ways, concurrently fortifying and loosening the parks’ physical and symbolic boundaries. This leads to a nested tensions and contradictions. To protect ecological “assets” against over-exploitation, law enforcement takes a (highly costly) paramilitary form. Paramilitary practices are effective at keeping at least some poachers away from rhinos but alienate members of surrounding communities. Paramilitary law-enforcement is, per definition, intransigent and abrupt and involves rapidly unfolding violent practices against violent perpetrators. The work of Inclusion Actors is per definition non-violent, discursive and incremental in nature. In protecting its natural “assets,” the park inadvertently turns them into liabilities - especially for those around the park who are negatively impacted by law enforcement practices to protect those “assets.” Paramilitary efforts to protect the park’s ecological integrity, therefore, come at a high cost, exacted from the park’s stocks of social acceptability and economic viability. When viewed in isolation, security and inclusion logics serve their respective purposes, but when viewed together, rifts emerge.

Despite their apparent agreeable co-existence, the opposing poles of paramilitarisation and inclusion work frustrate some organisational actors and perplex and sometimes alienate the park’s key “beneficiaries,” local communities. Tensions are aptly captured by the following quote by an Inclusion Actor:

the relationship [between communities and the park] is heavily affected by poaching, because there is law enforcement that needs to be applied and as the facilitator, I know we need to work together harmoniously [with communities]. Where is the harmony when somebody must be interrogated for information? Probably there is nothing, so even those that are not the evildoers, they will say, ‘last week we were talking about being friends to each other, now my

brother is arrested for poaching, why should I support such an entity that is arresting our people when they want to make ends meet?’ Think about the situation where one of the forum members, his cousin, was killed in the rhino poaching war. Sometimes people have negative associations with me, because I am from ‘Skukuza,’ because of this stigma, it can be difficult for me to go out there into communities, representing the park on the outside. I even attend funerals when someone gets shot inside the park [due to poaching] and at the funerals, people dance around the coffin and sing songs, ‘Kruger killed our hero, he was just trying to make money like any other person.’ It changes everything. It is a dicey situation. If I had the power like Skukuza, like Stevenson-Hamilton, I would swipe all these evil activities away and so we can have a clean society to work together. (RP10)

Another Inclusion Actor drew attention to the complexity of his role but emphasised the interdependence between the social and ecological dimensions of the park’s sustainability:

doing liaison work [between the park and communities] makes you a vulnerable person, because you are in-between. The park thinks you are too easy on the communities and the communities think you are just there to look after the park. But I say, ‘as a community you need the park, because of socio-economic reasons, as the park you need the community for your protection,’ because the fence is not actually the best protection. (RP9)

Even a high-ranking Security Actor recognised the link between the social and ecological dimensions of the park’s core business but was frustrated by the silos within which programmes operated, complaining of

gatekeepers who do not want to see anything that have to do with the outside world, the outside of the park, they say, ‘it is not a ranger's job.’ I'm saying, if you want to win any war, you need the support of society. That's my argument, I'm saying, ‘you employ me to manage KNP, but the outside world is influencing me, and I'm influencing the outside world.’ If I can't work with that, I don't see any long-term sustainability. (RP4)

On another occasion he acknowledged the interdependencies between his realm of

work and that of Inclusion Actors, but seemed uncertain about how to connect the two worlds:

we are going to run out of funds. Unless we can come up with a new strategy. Law enforcement is one element, but it is not the only element when dealing with challenges like this. We are still struggling to use other tools that are out there. Law enforcement is simple, actually, if you see them [poachers] you go and arrest them. But other tools are very difficult to implement. We need other tools. But we were trained to look after *bokkies* [antelope], not how to talk to people. (RP4)

When I asked a senior Security Actor about whether he perceived tensions between programmes, he acknowledged them and foregrounded their implications for communities, saying,

maybe there is a contradiction, you can't say, on the one hand, 'the key to this strategy lies in the communities,' and then the communities have to go through what they are going through. The communities struggle. Either your brother or son is under pressure to go and poach, and why not? Then you can also buy a second-hand 4X4 and start a Shebeen [informal bar]. Now tomorrow there are [law enforcement] people knocking on your door and they want to ask you all kinds of questions, or tonight you wake up and your neighbour is getting arrested. And it goes on and on because there are no other options. (RP7)

When the park conducted wide-ranging consultations with its neighbours in 2018/2019, community members expressed reservations about the consequences of the park's law enforcement initiatives. Community leaders were concerned about rhino poaching and wanted it to stop, but worried about the impact of anti-poaching operations on their relationship with the park, noting the social consequences of poaching-related incidents and arrests (SANParks, 2019g). The park's interlinked social, economic and ecological imperatives are operationalised in a disconnected manner and lead to problematic contradictions. The park's pursuit of ecological intactness is undermining its economic viability and social acceptability.

Multiple linked paradoxes remain latent, such as the competing practices at play as Inclusion Actors work to turn the park into an asset for communities, whilst Security Actors inadvertently turn it into a liability. Such as the ideological chasm between the need to preserve biodiversity and to develop local people. Such as the tensions between obtaining long-term buy-in from communities to ensure the success of anti-poaching work, even as short-term law enforcement interventions make communities unsympathetic towards the park. Such as the identity and belonging contradictions (Lüscher & Lewis, 2008) experienced by both Security and Inclusion Actors who represent the park but are also members of local communities around the park.

Security Actors' hot affective repertoire encouraged them to form close bonds with their peers, develop a common sense of purpose and stay motivated under very taxing circumstances. However, it intensified their commitment to a particular logic and suite of solutions, deterring ideational intrusions that were not in harmony with existing beliefs. It dissuaded them from communicating across the confines of informal in-group and formal departmental boundaries. It created stable and inelastic pathways for actor's ways of being, seeing and doing in the context of a tackling a grand challenge. A Security Actor with close to 30 years of experience in KNP lamented, "we are supposed to be a learning organisation, but we are not doing adaptive management here, because we are not learning. We are losing out in Ranger Services. People lose sight, they work hard but they lose perspective, they forget the global picture" (RP2).

Identities and roles were rigidly defined and there were limited opportunities for sets of actors to see the world through each other's eyes, let alone to walk a mile in each other's shoes. The valorising of Security Actor selves made it difficult to imagine them as anything but the righteous defenders of the park's faltering biodiversity. In this moral universe, it was

disloyal and unusual for organisational members to critique paramilitary practices,⁵³ since ranger work was constructed as inevitable, good and urgent. Pointing out oppositional elements between security and inclusion work undermined the absolute moral legitimacy of the paramilitarisation programme. Along the same vein, the demonising of poachers (and in some cases, whole communities associated with poaching) made it difficult to explore interrelationships. The idea that rhino poaching was an exceptional and aberrant problem, belonging to its own special moral-affective class, further separated the work of Security Actors from other organisational actors, solidifying the departmental walls around them. It strengthened the in-group relatedness among Security Actors, and the more Security Actors differentiated themselves from other actors in the organisation, the more refuge they found within the confines of their in-group.

Ontological commitments were interwoven with hot affective repertoires. Strong emotions and moral convictions, rooted in ontologies, discouraged actors from exploring different framings of what nature was and what the human-nature relationship should look like. Believing that nature had immutable, intrinsic and esoteric properties, fanned actors' passions to act as nature's armed guardians. Many Security Actors viewed paramilitary anti-poaching practices (and the forcefulness that necessarily accompanied such practices) as a moral necessity to protect nature and rhinos. Even though paramilitarisation caused tensions with, and sometimes undermined, the work of Inclusion Actors, these tensions and contradictions would always be secondary to and less important than the primary aim of guarding a God-given nature.

Beyond the affective and subliminal contextual factors that enabled actors to negate paradox, actors' SSW also created similar conditions that downplayed paradox. The boundary work that constructs meanings of place reduced the organisations' likelihood of

⁵³ For a notable exception, see Annecke and Masubelele (2016).

noticing paradox. Security Actors' boundary work created operational zones that made it possible for them to expand their paramilitary practices in these zones. Here, Security Actors cooperated with other entities such as private nature reserves and other law enforcement bodies and Inclusion Actors did not participate in the analysis of information coming from nor the management of these zones. As Security Actors expanded the geographical size of the area they influence, the circle was made ever bigger by including more like-minded actors who passionately adhere to a security logic.

At the same time, the boundary work of Inclusion Actors increased the size of their geographical influence, and again, the circle was made bigger by including more like-minded entities who shared Inclusion Actors' vision for socio-economic development. Security and Inclusion Actors often worked in and around the same physical locations (such as overlapping areas on the western boundary of Kruger where both poverty and poaching are prevalent), yet their day-to-day work in these places generally occurred separately. Distinct organisational departments, with distinct actors, executed distinct practices in places that were distinctly zoned, mapped, labelled and managed. Different sets of actors were deeply immersed in the demands of their own work (in what appeared to be distinctive geographical worlds) and the opportunities to observe, surface and explore the oppositional elements between worlds were thus greatly diminished. For example, Inclusion Actors working directly with communities living near poaching "hotspot" areas reported that they have never met prominent senior Security Actors and rarely participated in strategic meetings with Security Actors to discuss matters of mutual concern (RP9; RP24; RP26).

Actors' identity work to construct meanings of and for selves reduced the organisations' likelihood to detect and encounter paradox. Structurally, Security and Inclusion Actors are separated into distinctive departments, reducing opportunities for collectively noticing and engaging with opposing elements of each other's' work and each other's ways of being, seeing and doing. I have observed, on multiple occasions between

2016 and 2020, during events that bring KNP employees together across different departments, that rangers in particular band together more so than delegates from other departments. Their propensity to seek out each other's company is hard not to notice, given the striking camouflage uniforms that make them (ironically) very visible, especially in numbers, amongst their colleagues in civilian clothes. The more insular their selves and their work became, the easier it was for Security Actors to disregard how their practices connected and were in tension with other elements of the park's core business. Rigid categorisations of stakeholder selves limited actors' ability to think outside the proverbial box about the perspectives that different stakeholder groups offered on "this" and "that" side of the fence.

Actors' temporal work to create particular experiences of time enabled an organisational context that concealed paradox. Security Actors constructed a short-term temporal reality defined by the urgent needs of the rapidly unfolding present, a time in which urgent, extraordinary paramilitary action is the professed only solution. Such a hurried atmosphere precludes opportunities for dialogue with other (diverse) organisational actors and external stakeholders where interdependent tensions could be surfaced. Such dialogues are, per definition, time-consuming, and "time" was the one thing Security Actors did not seem to have. On the other hand, Inclusion Actors elongated the experience of time by creating aspirational goals, longer time horizons for their initiatives and advocating for an incremental approach. Inclusion Actors invoked the future to smooth over difficulties in the present. The paramilitary and inclusion programmes unfolded within distinct, disconnected temporal epochs, each with an applicable logic and accompanying set of practices that made sense within that epoch. The classification of paramilitary work as "short term" and inclusion work as "long term" normalised the contradictions between them.

Two programmes of action become increasingly separate and impermeable to much-needed novel ideas that could be put in service of both grand challenges. In KNP, the "rubber bands" that RP2 referred to in the quote that opened this section have not snapped and

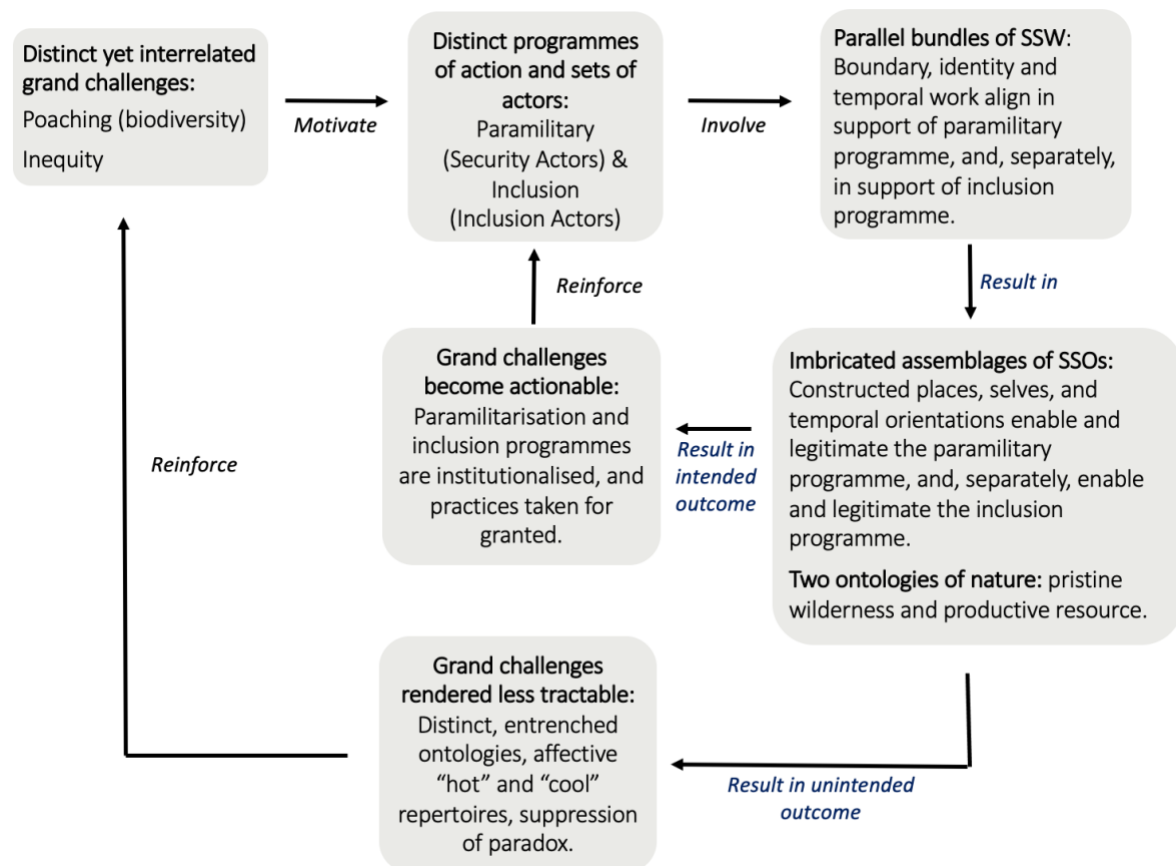
differing interests, practices and strategies still stretch across and between programmes of action with relative ease. Actors therefore created simultaneous but separate social-symbolic worlds where differently constructed selves worked in differently constructed places during differently constructed times - domains of experience with little connection and overlap between them. These worlds were so *naturally* separated from each other, that the contradictions, tensions and interdependencies between them faded from view and actors' attention was single-mindedly focussed on the complexities and demands of their respective challenges. Thus, how actors socially construct a grand challenge can create a paradox differential between the interdependencies and tensions that constitute a grand challenge and an organisation's capacity to detect and learn from them.

The "ecologic intactness" pole of the park's core business received a disproportionate amount of symbolic power, favouring one of the three strategic pillars of the organisation. This is evident in how the park allocated resources to the two challenges. Financial data about SANParks' spending on security vs socio-economic development is not available. However, the number of people formally employed across departments provide a glimpse into the strategic value the organisation attaches to the poaching and inequity problem. In KNP, roughly 20 people are employed in the Socio-Economic Transformation (SET) department that is responsible for the majority of inclusion work and is the primary interface between local communities and the park. The SET department only has one senior manager based in the park. In contrast, the park has close to 500 rangers and multiple other agencies (such as SAPS) and a range of NGOs support their work. Many high-level managers in the park concern themselves with the poaching problem, enabling security matters to receive significantly more managerial attention. It is also telling, that in 2017, a South African parliamentary delegation representing the National Council of Provinces (NCOP) met with KNP management to discuss how local communities were benefiting from the park: "while the delegation was impressed by efforts of the park's rangers to fight poaching, the levels of

transformation and economic empowerment of the park to its neighbouring communities were below satisfactory."

Figure 39 below adds the final addition to my empirical model, highlighting the unintentional outcomes that resulted from actors' SSW and the consequences thereof on the tractability of grand challenges. The model accentuates how rigid ontological commitments, hot and cool affective repertoires and the suppression of paradox hinder the emergence of novel ideas. SSW shapes how actors experience and act on grand challenges, which directly shapes how challenge phenomena are manifested.

Figure 39: The SSW of making a grand challenge and its outcomes



6.9 Conclusion

This chapter explained how creative, inspired and passionate actors deployed bundles of SSW to purposively influence the meanings of imbricated SSOs that gave two grand challenges coherent sets of meanings, made them actionable, and rendered those actions legitimate. SSW inadvertently restricted actors' ways seeing, being and acting, since engaging grand challenges reflect and amplify actor's entrenched ontological commitments, and emotional and moral dispositions. In some cases, intractability was caused by fundamentalism and polarisation, and in others, by actors' sense of inability and disengagement. Another important cause of intractability was the organisation's reluctance to engage paradox. In the next chapter, I further examine this key finding - that actors shape the tractability of the very problems they attempt to address - in light of the literature on grand challenges, SSW and paradox.

Fieldwork vignette 6: Kruger National Park – A “green militarised” space?

I introduce my Ralph, my PhD supervisor, to Jason,* a prominent Security Actor working at the tactical coalface of anti-poaching operations. His office is packed with of military kit, ranging from webbing, harnesses for K9 tracker dogs, large “ambush lights” used during “clandestine night-time operations” and an assortment of two-way radios, handcuffs, backpacks and empty cartridges that fill every nook and cranny in the small room. I keep an eye on Ralph, trying to discern his reaction to these unusual surroundings. I know I have become habituated, even desensitised, to seeing the severe instruments of law enforcement that nowadays define the practice of nature conservation in KNP. Perhaps I can notice them anew today through Ralph’s fresh eyes. As we take our seats next to Jason’s untidy desk, we notice three large, colourful, spongy-looking projectiles. I pick one up, casually juggling it from one hand to the next. It feels dense and heavy. I ask Jason, whom I’ve interviewed several times over the years, what it is.

Jason explains that his unit is constantly experimenting with new anti-poaching methods: “we push the envelope, we explore new tactics, we do stuff like this (he points to the projectiles), we use grenade launchers to fire these at poachers, they are non-lethal. We are trying to use less-lethal ammunition on an armed suspect.” There is a slight edge in his voice as he says this. “I guess you didn’t sign up for all of this?” asks Ralph, pointing at the paramilitary artefacts. “No, I didn’t,” smiles Jason. His smile projects irony, resignation and a tiny hint of bitterness. His career in conservation started in 1990s as a trail ranger, guiding tourists through KNP’s popular wilderness walking trails. “But this is what we do now,” he says, “exploring all this stuff. And at my own cost. Because I must try this (he points at the projectile) over the standard-issue, so it is less lethal, it will injure the suspect, but maybe he shoots me first - dead. So, what was the point in using less lethal, when you're dead?”

Neither Ralph nor I volunteer an answer.

We spend ninety minutes with Jason discussing his experiences and the park’s use of violence to deter violent poachers. It is clear that all Jason wants is for poaching to stop and for rhinos to live. But it is also clear that he believes that the use of violence is the only viable way to deter poachers. He explains: “to protect society and keep it law-abiding, at some point in time, there has to be violence. Otherwise, you'll be the one that is always receiving the violence. I'm not saying you ignore the rules, the laws. I'm saying we follow the law and apply it as a warrior and an upholding citizen, but, when the time comes to shoot, you must be prepared to shoot, and that's the violent part. And you don't exceed the bounds of your appointment as a law enforcement person, you don't get on the wrong side of the law, you operate within it.”

As much as Jason is a law enforcement official, and as much as he works in conditions that could be described as war-like, he understands that he is not a normal soldier. “If we shoot a poacher, they open a murder docket against us. You don’t get a medal here. We are looking after the economy, we are the security guards of the lowveld, and they want to arrest us?” He exhales sharply. “The violence becomes necessary. To uphold the values of society, because otherwise the bad people, the wolves, they go and eat all the sheep, and then you just have wolves, and everything is chaos. Whether we like it or not. In other words, if it comes to that, are you the wolf or the sheep?”

After our appointment with Jason, we rush over to our next interview. We meet Busi,* a prominent Inclusion Actor who has been working as a liaison official between the park and local communities for over two decades. Her office is decorated with African art and posters that showcase the park's outreach initiatives with local schools. We see smiling children partaking in a range of environmental education initiatives. Busi tells us how she recently took a busload of “old ladies” from a nearby village on a game drive, a first for the ladies, many who grew up only a few kilometres from the park. Busi then tells us the story of how difficult it was, when she joined SANParks in the 1990s, to get park management to appreciate the importance of community engagement. “Back then, it simply wasn't seen as core business. The only things that mattered were the animals inside the park.”

Ralph asks her about the impact of rhino poaching. She tells us the story of how she - as a park representative - occasionally attends funerals in neighbouring villages if someone lost their life during a poaching excursion. She explains that many local community members do not see poaching as a “real crime” and blame the park for clashing with poachers who are “only trying to make a living.” She talks about a recent episode where a group of community members protested outside a nearby court as a prominent poacher attended his hearing. One of the protesters held up a placard that said, “where will we get jobs if he [the poacher] is in jail?”

As much as Busi commiserates with local families that are negatively affected by the death or arrest of a poacher, she expresses a moral concern about community members abetting poachers. She says emphatically: “what kind of communities will we be having if this goes on? They have to understand that rhinos are not there to be looted for quick money. Rhinos are there to be kept.”

At the end of our second interview, Ralph and I note the contrasts between our two meetings. “It is almost as if Security and Inclusion Actors inhabit two separate organisations,” Ralph says. I agree with him but explain that actors rarely point out the contradictions between paramilitarisation and inclusion practices. Such tensions are rarely acknowledged, let alone problematised. Ralph says that this is not surprising. “Creating a sense of coherence is a big part of a manager's job.” In other words, overlooking paradox, downplaying tensions, creating a sense of straightforwardness in the midst of challenges and change. Keeping the rubber bands - the programmes of action and actors embedded in them - neatly tied, despite them being stretched in multiple, opposing directions.

Is Kruger a militarised space? Jane Carruthers said that national parks are mirrors of society. South Africa and its mirror are cracked. 60 people are murdered in the country every day (Bloomberg, 2020). The state cannot protect its citizens from violent crime. KNP is perhaps no more militarised than Johannesburg's suburbs where scores of armed security guards patrol neighbourhoods and electric fences keep violent introducers out. Where citizens who otherwise profess to a lifestyle of non-violence source out the use of lethal force to private contractors.

People like Jason and Busi spend (and in Jason's case, risk) their lives daily to pick up the shards, assiduously working to glue a more harmonious and orderly picture back together.

*All names are pseudonyms.

CHAPTER 7

DISCUSSION: SOCIAL-SYMBOLIC WORK AND THE (IN)TRACTABILITY OF GRAND CHALLENGES

I begin this chapter by exploring research findings that are transferrable (Lincoln & Guba, 1985) to contexts other than the one featured in my study. I then outline my contributions to the grand challenges and SSW literature. I conclude my thesis by highlighting the practical implications of my findings, future avenues for research and the limitations of my study.

7.1 Transferring my findings

According to Donmoyer (2008), generalisability concerns the question, “will knowledge of a single or limited number of cases be useful to people who operate in other, potentially different situations?” (p. 372). In this section, I connect my research findings to other settings. In doing so, I don’t claim to hold “context-free... general truths” (Blair & Hunt: 1986: 155) but propose that particular elements of my study are useful to other organisations and actors working on and in the context of grand challenges. I begin this section by providing an abstract model (Figure 40) of my findings.

In a continuous cycle, grand challenges, SSW and organisational responses give form to one another. Grand challenge phenomena are typically ambiguous and do not greet actors with fully assembled definitions, root causes or pathways to action. Those meanings are created as organisations respond to challenges. Organisational responses to challenges take the form of purposive and explicit programmes of action, often involving the enactment of novel practices. Within these programmes, SSW is bundled to generate new meanings, or transform and uphold existing ones, to make complex phenomena intelligible. To rid challenges of their ambiguity, actors target salient SSOs that give them stable, palpable

patterns of meaning. This is a crucial step in not just making sense of complexity, but in legitimising problem framings and suites of solutions.

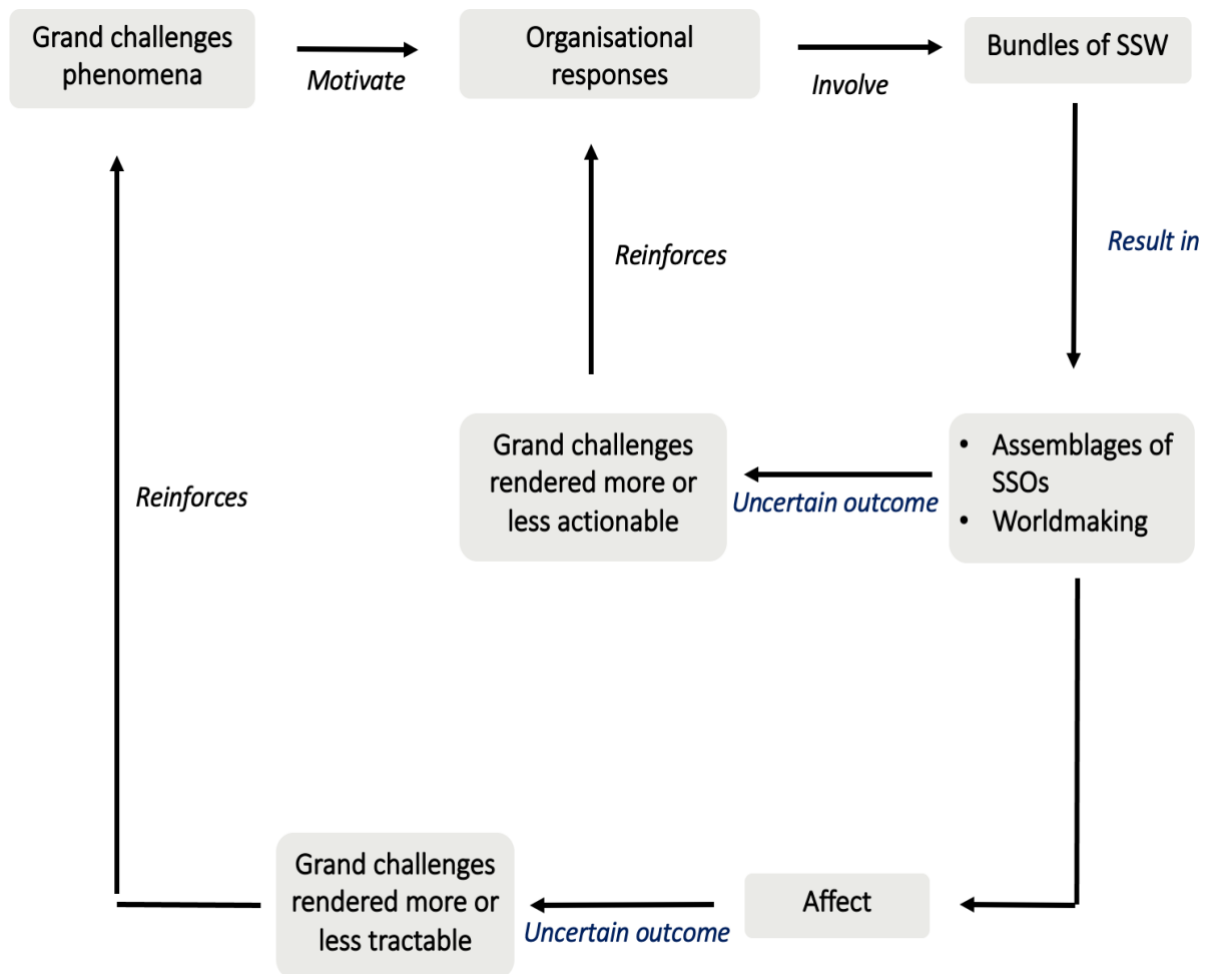


Figure 40: Abstract model: SSW and grand challenges.

Simultaneously, an ontological order is created or upheld within which problem framings and solutions make sense, but also, where programmes of action are taken for granted. Thus, SSW makes grand challenges actionable in an ontological world where such actions are sensible. Actionability is reliant on manipulating multiple, imbricated SSOs in a coherent and mutually reinforcing manner that institutionalise programmes of action.

Actionability, however, is not an automatic precursor to tractability. SSW inspires, transforms and reflects actors' affective outlooks - moods, emotions, moral dispositions - that have a direct impact on organisational responses. Affective repertoires are an important

aspect of organisational contexts and are interlinked with the relative strength of actors' ontological commitments. Affective dispositions influence actors' ability to exploit paradoxical tensions and interdependencies and to engage challenges collaboratively and creatively. Affective repertoires therefore directly impact on whether a challenge is made more or less tractable by actors' SSW.

The model shows two important feedback loops that influences the challenges' trajectory. Programmes of action do not respond to grand challenges as objective objects. Challenges are given purposive, explicit meanings through SSW bundled into programmes of action. Actors' therefore make a challenge (more or less) actionable, an artefact of their own making. The feedback loop is not deterministic; how SSOs and ontologies are given meaning determines challenges' actionability. Actors' practices to address the grand challenge and the meanings assigned to the grand challenge shape each other recursively. The more these meanings are entrenched, the more actors' ontological beliefs and organisational responses are taken for granted.

An additional feedback loop attends to the more subliminal, affective and unintended aspects of SSW. As with the first feedback loop, SSW manipulates SSOs and produces and reproduces ontological assumptions. SSW imbues imbricated SSOs and the resulting ontologies with rigid or flexible, novel or received, positively or negatively valenced meanings. SSW therefore transforms actors' affective stance towards the grand challenge, which in turn, determines whether actors can create the novel solutions that scholars call for. Actors' response to the challenge shapes how it is manifested, which in turn, shapes the phenomena actors respond to. Again, the feedback loop is not deterministic; how SSOs and ontologies are given meaning, and how affective repertoires are constructed, determine challenges' tractability.

Counter-productive outcomes and diminishing tractability do not manifest only because of some inherent trait of the challenge at hand. Instead, they arise due to the

unintended affective consequences of actors' SSW. In some cases, intractability is caused by polarisation, and in others, by actors' sense of inability and detachment. Another important cause of intractability is a reluctance to engage paradoxes within or between different grand challenges. All these elements relate back to affect.

My model questions the assumption that grand challenges have objective traits that make them “messy” (Eisenhardt et al., 2016), “stubborn” (George et al., 2016: 14), “wicked” (Wright & Nyberg, 2017), “super wicked” (Lazarus, 2009: 1159) and inherently contentious (Ferraro, et al., 2015). The social construction of grand challenge can indeed provoke an affective sense of messiness and wickedness, but these are not inherent qualities belonging to complex problems. Rather, they are artefacts of actors' SSW. Focussing on the interplay between SSW and affect offers a novel perspective on why certain challenges are so remarkably hard to address.

Notwithstanding the proliferation of research on grand challenges, and our increased, purportedly objective, scientific understanding of them, the boldness, ingenuity, and collaboration needed to address these problems seem as elusive as ever (Ferraro, Etzion, & Gehman, 2015; Homer-Dixon, 2002). Why are grand challenges so hard to solve? Why do environmental grand challenges (such as wildlife trafficking and climate change) persist despite the proliferation of scientific and technical knowledge concerning them?

I found that grand challenges are not reducible to dispassionate facts and indexable properties. They are also embodied human experiences. Below, I shed light on the affective factors that render grand challenges intractable, and the nature of the SSW that triggers intended and unintended outcomes. I offer three reasons (related to the “affect” element of my model) that explain intractability. Firstly, actors' SSW in making grand challenges actionable also engenders and reinforces implicit but entrenched ontological commitments. These reduce their ability to consider alternative framings of the problem and possible responses, and they encourage inelastic normative positions and fundamentalism. Secondly,

actors' construction of hot and cool affective repertoires generate polarisation and disengagement. Thirdly, the obfuscation of paradox deprives actors from learning from the interdependencies and tensions amongst diverging practices to address grand challenges.

According to Howard-Grenville (2020), scholars today are interested in probing the nature of grand challenges and question depictions of their “discreteness and tractability” (p. 2). I join this scholarly conversation about how challenges come into being, how organisations interact with them and how they are rendered more (or less) tractable. I answer the call of De Rond and Lock (2016) to explicate the role of contextual organisational factors that greatly influence how grand challenges evolve.

I contribute to the SSW literature by answering the call of Lawrence & Phillips (2019) for more research set in empirical settings where the alignment of SSW can be studied. I shed light on how actors align multiple forms of SSW and how this alignment is likely to trigger unintended consequences. I also draw attention the subliminal motivations underpinning SSW, a neglected theme in the literature.

7.2 Contributions to the literature: The (in)tractability of grand challenges

7.2.1 Polarising ontological assumptions

The grand challenges literature provides rich detail on how organisations respond to complex problems in the world. However, a constructivist account of how organisations construct the world - ontologies - even as they act in it, offers novel perspectives on this. Rigid ontological beliefs, interwoven in hot affective repertoires, explain why some of the world's “grandest” problems lack what Brammer et al. (2016) call a shared definition. Currently, the grand challenge literature explains disagreements between multiple actors mostly by drawing on concepts such as institutional logics, institutional complexity and stakeholder theory (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011; Huault and Rainelli-Weiss, 2011; Olsen, Sofka & Grimpe, 2016), and scholars go as far as taking the

existence of conflict between actors for granted, with Ferraro et al. (2015: 380) stating that contentiousness is an inherent attribute of grand challenges. I propose that opposing ontological positions is a disruptive source of incongruence between multiple stakeholders working on environmental grand challenges.

Value-laden problem framings, rooted in ontological commitments, fill actors with passion and strong sense of purpose (such as wanting to save an endangered species or threatened habitat). However, having a sense of purpose does not automatically lead to actors' embracing the values of "plurality," as George et al., (2016: 15) and Hollensbe, Wookey, Loughlin, George and Nichols (2014) claim. My study shows that the opposite can be true. Actors holding opposing ontologies literally inhabit different worlds, making the finding of collective common ground and a common purpose very difficult. It undermines the values of plurality and fosters fundamentalism. According to Purtik and Arenas (2019), solving grand challenges requires shifts in social customs, morals, and assumptions. If actors' ontologies are threatened by such shifts, they "attempt to ontologically oppose a grand challenge by undermining its foundational claims, e.g., by critiquing what can be known about cause and effect under dynamic complexity and deep uncertainty" (Brammer et al., 2016: 523). Instead of embracing plurality, actors can engage in SSW to make their ontological belief system the dominant one.

Inelastic ontologies hinder the generation of imaginative and collaborative solutions to grand challenges. Different actors and organisations involved in the issue field continuously construct elaborate social-symbolic structures that not only frame the problem and possible solutions differently but also construct and invoke different versions of nature. In turn, communication or even collaboration between different actors is likely constrained by conceptual (value-laden) versions of nature that normally remain implicit, even though they are continuously and proactively reproduced. Ontologies are crucial sources of legitimacy for actors who devise programmes of action and novel practices in response to

grand challenges. However, ontological assumptions can make it difficult for actors to conceptualise alternative and collective problem- and response-framings. Strongly held ontological assertions lead to inflexible normative beliefs about how nature, and the human-nature relationships, should be managed.

The more a grand challenge implies (or threatens) fundamental ontological beliefs, the more intense actors' emotional and moral projections within their affective repertoires are likely to be. I propose that problems originating in certain domains are more likely to encourage actors to cultivate rigid ontologies and to foster polarising debates that undermine each other's' ontological claims. Specifically, actors working on environmental grand challenges, such as the protection of biodiversity and mitigating climate change, are particularly prone to having entrenched ontologies and attendant normative beliefs, reflected in and reinforced by hot affective repertoires.

7.2.2 Hot and cool affective repertoires

The grand challenges literature's focus on institutions, fields and logics (Ferraro et al., 2015) obscures the fact that grand challenges are experiences that occur in and shape organisational contexts. To focus attention on the significance of actors' subjective, embodied experiences in organisational contexts, I offer the notion of affective repertoires. Interlinked with ontologies, but creating additional effects, are hot and cool affective repertoires. These respectively lead to polarisation and disengagement and ultimately suppress the emergence of novelty.

The creation of a hot affective repertoire makes challenges less tractable. In the creation of hot repertoires, in-group identities, strong emotions and rigid moral values are fostered and strongly entrenched. As members of an in-group become more psychologically attached to their social identity (Tajfel & Turner, 1979), they are less likely to consider ideas, perspectives and practices that do not resonate with the group's dominant norms and beliefs. According to De Rond and Lok (2016), strengthened in-group connections can lead to

pejorative othering of out-groups as actors protect the legitimacy of in-group positions. I propose that actors who engage challenges from within a hot affective repertoire, increases the potential for estrangement from and contestation with other stakeholders.

Actors' engagement with grand challenges can also foster collective, emotional and somatic experiences of crisis, disorder and change. When actors construct challenges as emergencies and disasters (especially for prolonged periods of time), they share intense emotions driven by stress, disquiet and fatigue. Scholars examining organisational responses to extreme contexts also commonly identify the expression and amplification of negative emotions, including anxiety, fear and sadness (Maitlis & Sonenshein, 2010).

If a challenge is constructed as an immediate and urgent calamity⁵⁴ organisational responses take the form of an elaborate disaster response. According to Carley and Harrauld (2008), during the earlier phases of a crisis, personnel “are often in a highly charged emotional state suffering from stress and sleep deprivation” (p. 114). This affective repertoire can quickly become accepted as the new normal. In these settings, actors are motivated to maintain psychological security and organisational stability, leading to the simplification of convoluted, interlinked problems - turning the entangled into the discrete and keeping them neatly separated.

The creation of a cool affective repertoire also makes challenges less tractable. In the creation of cool repertoires, actors rely on optimistic emotions, distant temporal orientations and hypothetical framings of solutions. Actors create affective repertoires that draw organisational members and stakeholders' attention towards the buoyant, hypothetically possible future, away from the vagaries of the messy, actual present. Cool affective

⁵⁴ Edelman draws attention to how certain problems are construed as a “crisis” whilst others are not - “problems that impoverish or ruin millions of lives (which) are not perceived as crises because we attach labels and ‘explanations’ to them that portray them as natural and inevitable, or as caused by the people who suffer from them rather than by outside, unexpected threats. We see poverty, crime, sickness, emotional disturbance, carnage on the highways, and similar disasters as chronic ‘social problems’ rather than as crises, though they hurt people more severely than any of the crises do” (Edelman, 1977: 47)

repertoires promote the adoption of doctrines and concepts that envision a (distant) and alternative utopian future, with unintended consequences for the practical execution of plans in the present. Cynicism and disengagement can follow if practical progress towards the attainment of the future is too slow or non-existing, or if the aspirational future is too decoupled from lived experience (Christensen et al., 2013).

Scholars have noted how actors' engagement with time horizons and orientations towards "the future" affect their responses to challenges and change (Augustine, Soderstrom, Milner & Weber, 2019; Flammer & Bansal, 2017). Distant futures are typically constructed during times of uncertainty and crisis when actors turn to doctrines or theories to guide them through uncertain times (Swidler, 1986). Augustine et al., (2019), McCrea, Liberman, Trope & Sherman (2008) and Oettingen (2012) demonstrate how an over-reliance on futuristic abstractions and utopias can pacify actors, making future plans less believable. These abstractions are contained in narratives, or rather, what Christensen, Morsing & Thyssen (2013) call "aspirational talk" (p.372), denoting the stories an organisation shares about where it wants to be and what it wants to do in the future.

Brammer et al. state (2016), that grand challenges "must balance actionability and ambition in their articulation" (p. 522) and that chasms between organisations' ambitions and assertions and resultant action may create cynicism among stakeholders (Zyglidopoulos & Fleming, 2011). I propose that actors within cool affective repertoires imbue problems with abstract, aspirational and future-oriented meanings that are likely to encourage inertia and disaffection amongst diverse stakeholders.

Affective repertoires deserve more scholarly attention, since the very "grandness" (e.g., emotional valence, sense of urgency and vividness, intensity of ethical commitments) of how a grand challenge is constructed can inadvertently thwart efforts to mitigate it.

7.2.3 Paradox lost

Contrary to the predictions of grand challenge and paradox scholars, my study found that actors' efforts to address grand challenges suppressed paradox. According to scholars, grand challenges are typified by the existence of paradoxical tensions and interdependencies (Brammer et al., 2019; Ferraro et al., 2015; Schad & Bansal, 2018; Schad & Smith, 2019). Scholars claim that working in complex contexts foster actors' perceptions and awareness of paradox (Denis, Langley & Sergi, 2012; Schad & Bansal, 2018; Schad & Smith, 2019; Smith & Lewis, 2011; Quinn & Cameron, 1988), as "increased environmental dynamism and complexity intensify the experience of paradox" (Schad, Raisch & Smith, 2016: 13). Smith and Lewis (2011) explain that organisational paradoxes are often unseen until triggered by plurality (having to attend to multiple actors with contradictory views), change (needing to create a future by breaking from the present) and scarcity (having limited resources to meet multiple goals). My study, however, find the opposite to be true and paints a less optimistic picture about the role paradox can play in the tractability of grand challenges.

Despite complexity and plurality in an organisation's setting, paradox can lead a hidden life. Even though an organisation tackles multiple grand challenges, the very paradoxes that constitute them can lie dormant, unexamined and therefore untapped. This finding is unexpected, given the emphasis of both the paradox and grand challenge literature on actors' purported capacity to detect and engage contradictions and tensions in productive ways. Both the grand challenge and paradox literature suggest that organisations' potential and capacity to "work with" paradox will grow as they "work on" grand challenges. However, my study suggests that the recursive link between SSW and affective experiences reduce actors' ability to engage them in such a circumspect way.

Grand challenge and paradox scholars agree on the positive effects that engaging paradox(es) can have on fostering organisational learning, adaptability and creativity, and ultimately, on solving grand challenges (Ferraro et al., 2015; George et al. 2016; Schad &

Bansal, 2018; Smith & Tracey, 2016). According to Schad, Lewis, Raisch and Smith (2016: 4), “paradoxes stare us in the face - taunting our established certainties while tempting our untapped creativity. They denote persistent contradictions between interdependent elements. While seemingly distinct and oppositional, these elements actually inform and define one another, tied in a web of eternal mutuality.” As much as the experience of paradox can be cognitively and emotionally taxing (stress, anxiety, ambiguity), scholars - including ancient Greek and Eastern philosophers - have long explicated the generative potential (creativity, innovation, transcendence) of engaging paradox (Schad et al., 2016).

Why then, when their members can most benefit from it, do organisations shy away from paradox? The paradox literature notes that responses to paradox are not just cognitive and behavioural, but also emotional (Schad et al., 2016). Psychological perspectives, as offered by Smith and Berg (1987), acknowledge that encounters with paradox are anxiety-provoking, triggering diverse psychological reactions. Importantly, one such reaction is the raising of defence mechanisms, fuelling “vicious cycles [of denying paradox] through attempts to maintain reduced anxiety levels” (Schad et al., 2016: 39).

Echoing statements made earlier in this chapter, grand challenges are not just problems, they are cognitively and psychologically taxing experiences. SSW inadvertently creates an intense affective repertoire with an emphasis on negative valence. Much of actors’ cognitive energy is then taken up by processing negative affect (Barsade, 2002). Negative emotions are more contagious than positive ones (Barsade, 2002) and rapidly infiltrate an organisation’s social-symbolic context since humans are prone to adopting and mirroring each other’s emotions (Hatfield, Cacioppo, & Rapson, 1992). Studies of extreme contexts have shown how intense negative emotions constrain actors’ from seeing alternative courses of action, fostering “staunch commitment to a particular set of meanings [that create] substantial blind spots that impede adaptation (Maitlis & Sonenshein, 2010, p. 562). Weick (1993) proposes that negative emotions can trigger crude responses to complex problems.

Thus, actors are discouraged from thinking paradoxically, a practice too cognitively and psychologically taxing for those whose mental flexibility is already stretched to the limit.

In studying change, Oldham and Kleiner (1990) identified a series of organisational defence mechanisms, such as refusing to accept the shifting reality and resorting to timeworn ideas and practices that have proven successful in the past. These defences discourage awareness of paradox, so that “the emotional discomfort that such contradictions imply, are repressed, denied or projected, often unconsciously” (Vince & Broussine, 1996: 2). Hot affective repertoires are likely to trigger such defences. Howard-Grenville (2020) points out the risks of focusing on only “one seemingly tractable aspect of an extraordinarily complex phenomenon.

Are actors aware of the counter-productive outcomes of their SSW? Psychoanalytic and institutional theory acknowledge that behaviours are underpinned by unconscious and emotional dimensions as people cope with day-to-day challenges and traumas (Voronov & Vince, 2012). These theories also acknowledge that agents’ own motives are not always transparent to them. Affective repertoires and contexts can therefore develop without actors’ explicit intentions and the results of SSW can unfold outside actors’ conscious awareness. Johns (2006) confirms that actors are not always aware of the features of their organisational contexts, despite the pivotal impact they have on organisational performance, and more specifically, on actors’ ability to engage paradox constructively.

7.3 Contributions to the literature: SSW

I now move my focus to the contributions of my study to the SSW literature. Most SSW studies focus on the efforts of actors as they target a discrete SSO with a particular form of SSW. My research provides an empirical case of SSW alignment (Lawrence & Phillips, 2019), a strategy used by actors to combine forms of SSW in parallel to achieve a specific goal or, in the case of my study, two distinct sets of goals as articulated by two programmes

of action. I shed light on how aligning SSW within each programme of action necessarily requires bundles of work that are interdependent, especially so when actors embark on ambitious meaning-making projects. I also show that two sets of parallel SSW (inspired by two separate programmes of action) within a single organisation can trigger strategically important, but unintended, consequences.

7.3.1 Aligning social-symbolic work

Actors who grapple with grand challenges necessarily embark on “grand” social-symbolic endeavours because grand challenge phenomena commonly implicate multiple ambiguous moving parts: nested sets of problems, multiple and diverse stakeholders, competing interests and contested prescriptions for solutions. In order to maintain coherent of meaning, actors have to target multiple assemblages of SSOs with diverse, parallel forms of work.

I propose that ambitious meaning-making projects, such as those embarked on by sets of actors in my study, necessarily require the doing of parallel forms SSW. Cagnin, Amanatidou and Keenan (2012) confirm that grand challenges that are ambitious in scope are more likely to foster disputed meanings amongst stakeholders. Parallel forms of SSW are thus required to marshal stakeholders around a common meaning structure, such as a problem definition and suite of solutions. Grand challenges are enacted as particularly vivid problems that inspire actors’ SSW. But other organisational phenomena, such as mergers, changes in leaderships and the adoption of new logics are likely to inspire similar “grand” meaning-making projects.

Bundles of SSW occur in parallel within each programme of action. For example, for actors to legitimise far-reaching programmes of action, geographies, identities and temporalities are needed that are congruent with their ambitions. Actors thus make places that are populated with the right kinds of people (stakeholders with distinct identities), subject to temporal norms that served their strategic interests. This is achieved through a bundle of

boundary, identity and temporal work, which in turn, required multiple, interdependent and ongoing SSW tactics, such as the labelling of new geographies, creating narratives, images and artefacts to construct stakeholder group identities and to reconstruct experiences of time - the past, present and future. Both sets of actors change the meanings imbued in a geography, which requires simultaneous changes to stakeholder identities and experiences of time. As a result of actors' manipulation of key, imbricated SSOs, programmes of action can occur in a particular place and time, with particular groups of people fulfilling obligatory roles.

Such undertakings require assemblages of SSOs whose meanings are stable, interdependent and mutually reinforcing. It is, for example, hard to imagine that actors in my study would have legitimised their programmes of action if they only worked on one discrete SSO, such as place, or selves, or time, at any given moment. Or, if they invented meanings for SSOs that undermined each other. Each set of actors therefore mobilised all three SSOs concurrently and moulded their meanings with SSW that created an internally harmonious meaning system.

Alignment amplified actors' ambitions and social-symbolic feats, perhaps best illustrated in their accomplishment of two separate ontological orders that are accepted within the organisation and at the field-level as objective and real. Lawrence and Phillips (2019) suggest that SSW can produce effects beyond the sum of their individual parts, and the work actors in our study provides a formidable empirical example of this. Ironically, the efficiency of actors' alignment of two sets of SSW in service of two programmes of action, impede their ability to engage with other perspectives and paradoxical tensions.

In highlighting future avenues for SSW research, Lawrence and Phillips (2019) note that combining forms of SSW might require specific motivations and resources. I find that parallel forms of SSW require the sustained manipulation of multiple SSOs and facets of the social-symbolic context, instead of only picking out one element. Actors in my study modulated every facet, such as abstract ideas, aesthetic penchants, moral commitments,

values, passionate emotions, entrenched institutions and novel individual and group identities. According to Phillips and Lawrence (2012), the aspect of the social context on which actors focus is the “‘X’ in ‘X work’” (p.2). As much as I find that actors harnessed discrete sets of similar and simultaneous SSW, these bundles of work had effects beyond just the targeting of a particular SSO. SSW transformed every aspect of the organisation’s social-symbolic context, including affective repertoires, sometimes in opposing, even contradictory directions. This denotes the unintended outcome of aligning SSW. Its combined, cumulative and long-term organisational effects are hard to control. For example, it is unlikely that actors would purposively create meaning structures that undermine their efforts to address grand challenges. Yet, bundles of SSW resulted in desired imbricated assemblages of SSOs, but the effects of manipulating distinct (implicit) ontologies and affective repertoires are harder to control and had inadvertent consequences.

Aligned SSW are intertwined and valid within each programme of work, but disjunctive across programmes. Sets of SSW occur on parallel trajectories but were not conjoined with each other across programmes of action, leading to important strategic organisational disjuncts. Each set of actors focusses on “their” grand challenge. In doing so, each set of actors pulls more organisational resources (symbolic and material) towards a particular strategic pole that defines an organisations’ core business. It is not uncommon for organisations working on grand challenges to have to balance diverse and possibly competing interests, such as pursuing ecological versus social objectives. The highly successful social-symbolic amplification of some goals undermines the goals of others, ultimately undermining the combined goals of the organisation. Two (decoupled) parallel sets of SSW therefore can come at the cost of internal strategic balance between multiple goals. In a sense, the social-symbolic success of a particular programme of action, at the expense of another, can become the organisations’ Achilles heel.

7.3.2 Subliminal dimensions of SSW

Studies of SSW can benefit from going beyond the purposive, reflexive (Phillips & Lawrence, 2012) and conscious (Hochschild, 1979) dimensions of SSW by paying attention to the subliminal origins, motivations and consequences of SSW, especially in high stakes settings, such as those emerging around grand challenges. Through my focus on the critical role of implicit ontological assumptions and affective repertoires, I aim to do just that.

SSW created and were inspired by affective repertoires, denoting the emotions, morals and aesthetics that enabled actors to make challenges meaningful and actionable. These repertoires have deep-rooted subliminal origins. For example, the SSW literature highlights the conscious deployment of emotions in order to achieve a specific aim (Hochschild, 1979; Lawrence & Phillips, 2019), but emotions are also subliminal coping mechanisms that help individuals respond to change: “primitive, pre-linguistic, pre-cognitive and pre-social, an inner world of passion, ambivalence and contradiction which may be experienced or repressed, expressed or controlled, diffused or diluted” (Antonacopoulou & Gabriel, 2001: 438). Actors can create contexts (fanned by emotions such as anxiety and an exaggerated sense of responsibility) that amplify such pre-cognitive coping mechanisms. Cognitive facets (such as abstract ideas) are important, explicit and strategic, but I propose that the emotional, subliminal, and concealed elements deserve more attention in SSW research.

My study therefore responds to calls such as those by Goodwin and Pfaff (2001: 283) to recognise “the ubiquity of emotions, moods, and affect in social life and [to treat] emotions as potential causal mechanisms, or components of such mechanisms, and not simply as epiphenomena or dependent variables.” In my study, emotions, affect and organisational moods impact actors’ ability to engage grand challenges. How they construct affective repertoires that have unintended consequences for actors’ ability to see the forest for

the trees, or rather, to see the “forest *and* the trees” (Schad & Bansal, 2018: 1490 - emphasis added).

Lawrence and Phillips (2019) acknowledge that actors cannot always be in a state of reflexive self-awareness where they are able to “suspend habits and intuitions” (p.29). The authors further state that the possibility of SSW is not dependent on the ability to be continuously reflective, but rather, on actors’ ability to fluctuate between acting and thinking. My study finds that the very nature of the actor-created context constrains actors’ capacity to suspend habits and can foster non-reflexive responses to challenges and change.

7.4 Practical implications

My study shows that SSW greatly impacts on actors’ ability to examine the tensions, contradictions, and the interdependencies at play between different, but linked, grand challenges. The actors in my study tackled two interlinked challenges that reflected global debates about how to balance social and ecological wellbeing, such as managing “growing inequality and the likelihood of breaching planetary boundaries” (Bowen, Cradock-henry, Koch, Vogt, Patterson & Barbi, 2017: 90). Many NGOs, corporations and state agencies simultaneously work on multiple, nested grand challenges, such as those defined by the SDGs (e.g., reducing poverty and inequality, fostering climate change action, and protecting life on land and below water (SDGs, 2021)). These themes point to the trade-offs between ecological and economic imperatives within various approaches to sustainable development (Bowen et al., 2017). In my study, the SSW of one group of actors rendered “their” grand challenge more urgent and vivid, attracting greater managerial attention and organisational resources to it. The manner in which actors infused the challenge with meaning (through SSW), as well as the structural separation between different departments focussed on different challenges, rendered two interlinked challenges as distinct, despite the interdependencies between them that were apparent, even frustrating, to some actors. Each

challenge unfolds on its own separate trajectory, and in some instances, the endeavours of one group of actors undermine the responses of other. Ironically, SSW creates affective repertoires that create deeply immersive experiences for actors in particular contexts, but the intensity of these contexts can blind actors to important dynamics occurring in other contexts.

Tackling social and ecological problems as separate phenomena is common in many organisational contexts. A poignant example is KNP where the Socio-Economic Transformation (SET) department is structurally separate from both “conservation management” and “ranger services.” Another example is how in South Africa, government structurally separates the “department of environment, fisheries and forestry” from “social development”. Dysfunctional tensions between approaches and practices to solve the two (now distinct) challenges can however soon be normalised.

As a result of working in silos, actors miss out on the opportunities afforded by paradoxical thinking, multiple interpretations and the emergence of potentially novel solutions. Addressing grand challenges cannot occur if they are constructed into proverbial silos. Even if separate groups of actors implicated by multiple challenges are structurally separated, platforms must be created for them to discuss shared priorities, interdependencies, trade-offs, and importantly, learnings from failures (Bowen et al. 2017). Hamann, Luiz, Ramaboa, Khan, Dhlamini, & Nilsson (2020) identify the importance of “dialogical contextualism” (p.1) as a form of multi-actor deliberation that allows actors to suspend entrenched assumptions about each other’s context. For example, dialogical contextualism can encourage a natural science trained conservationist and a community development practitioner to see the value in engaging with each other’s work and contexts, since both are enabled to think critically about assumed contextual differences and similarities. Dialogical contextualism discourages actors from assuming defensive positions to advance their knowledge claims and practices, but rather invites actors into a process that asks, “how can we meet as person to person, subject to subject, rather than as subject to object?” (Hamann et

al., 2020: 14). Dialogues can help actors explore their own embedded assumptions, as well as cognitive and affective framings of grand challenges (that might blinker them from seeing interdependencies and novel solutions). Importantly, the authors point out that such dialogues cannot be short, once-off events. Organisations therefore need to normalise and institutionalise such dialogues between internal actors, as well as with external stakeholders.

My most poignant practical finding is that actors construct the very problems they purport to solve. This finding is not meant to invoke a sense of pessimism, but rather, points to actor's agency and creative proclivities that enable them to invent selves, organisations, grand challenges and entire ontologies. Narrow constructions of grand challenges are, therefore, per definition, open to interruption and transformation. Rigid path-dependencies can be disrupted by new ways of dialoguing, thinking, being and acting. Grand challenges require actors to have an affective and cognitive stance towards them that are best summarised by what a retired scientist told me during my first week of fieldwork, "when working in a complex system, you need to hold your strong opinions lightly" (RP16). Grand challenges can be endlessly assembled and reassembled as long as actors' affective repertoires afford them the freedom to hold strong opinions lightly and to meaningfully engage other actors in contexts different from their own.

Narrowing the paradox differential is an important aspect of finding new ways to tackle persistent problems. This means surfacing the interdependencies and tensions that constitute a grand challenge so that an organisation can learn from them. Through paradoxical thinking, or forms of paradox inquiry (Lüscher & Lewis, 2008), various stakeholders of a grand challenge can jointly surface the tensions, contradictions and interdependencies that exist between their two grand challenges, and they can address the current imbalances that exist between the organisation's core business - ecological intactness, social acceptability and economic viability. A paradoxical inquiry into this strategic (but tenuous and tense) triad is of critical importance for the sustainability of the park. Such an

inquiry can identify how the objectives of each pole can be achieved simultaneously, without privileging one pole or allowing particular sets of practices to undermine others. This can best be achieved through using an external facilitator to support actors with this cognitively taxing task, and studies have shown the efficacy of planned and guided paradox interventions (Beech, Burns, de Caestecker, MacIntosh, & MacLean, 2004).

If paradoxical thinking needs to be a mental habit of those working on grand challenges (as the literature suggests), organisational contexts need to support such an ongoing practice. Where an organisational context is earmarked by a sense of crisis and fatigue, the metaphor of the stretched rubber band captures the emotional climate aptly. This climate does not encourage cognitive flexibility (Rothman & Melwani, 2017), which is the ability to note and engage differing perspectives in a balanced manner (Kleiman & Hassin, 2013; Nijstad, De Dreu, Rietzschel & Baas, 2010). In such a context, the “hotness” of the affective repertoire needs moderation. Moderation can be achieved by toning down the rhetoric used by leaders and senior managers when talking about the problem. When engaging challenges, organisation can benefit from having a strategic internal and external communication plan to help them reinvent grand challenge narratives. Multiple actors need to participate in the development of such a plan so that a wide range of perspectives and interests are included in it.

According to Sterman (2001), in analysing grand challenges, causes and culprits are generally assumed to be singular, even though root causes are located in systems, institutions and networks. Stacey (2001), however, says that those working on grand challenges can’t observe the workings of an entire system and only attend to local actions and consequences. Multi-actor deliberation and reflection can go a long way to alleviate the inevitable blind spots that emerge as actors focus on only one particular element, framing or strategy related to a grand challenge. Inviting multiple, diverse actors into strategic organisational processes and dialogues can help surface new insights and assumptions, and paradoxical thinking can

interrogate tensions and interdependencies amongst different elements of a shared, complex problem. Dots can only be connected if they are rendered visible.

7.5 Future research

In studying grand challenges, scholars endeavour to support practitioners in their pursuit to find solutions (Howard-Grenville, 2020). I propose future avenues for research to elucidate important aspects of grand challenges, which, if better understood, can contribute to making them more tractable.

A SSW perspective is key for understanding how ways of thinking, being and acting are maintained that can either mitigate or amplify grand challenges. Crucially, further studies of grand challenges using a SSW lens can help to determine whether the findings of my study can be extrapolated to other settings and types of challenges. We therefore need to analyse, and expand where necessary, the social-symbolic dimensions (such as affective repertoires, ontological commitments and dispositions towards paradox) that influence challenges' tractability in a variety of settings. This is perhaps more important than ever, as George et al., (2016) note how dialogues surrounding social problems are becoming increasingly polarised. The evolution of the COVID-19 pandemic and the attendant proliferation of ideology-driven conspiracy theories (Lewis, 2020) surrounding it is a casing point. One year after the disease entered public awareness, few would argue against the proposition that COVID-19 is one of the biggest grand challenges of our time, and yet, contestation rages between (and amongst) scientists, politicians and members of the public about what the disease is, how it spreads, how it must be avoided and treated.

More work (such as empirical case-studies) is needed on organisational contexts that enable diverse and multiple actors to collaborate positively on contentious grand challenges (such as COVID-19), given the passions and high stakes imbued in these problems. The differences between hot and cool affective repertoires, and their consequences, can benefit from being studied in different settings. My study focussed much on emotional and moral

dimensions, but in some contexts, cognitive and institutional dimensions might be more salient (for example, such as those espoused by public health officials or members of a scientific community).

Future research can examine positive cases where actors avoid or overcome the unintended consequences of SSW. According to Vince (2017: 274), “the paradox viewpoint does not seek to identify a middle way; it is about sustaining tensions because they generate possibilities.” The nuts-and-bolts of how these possibilities are generated deserve more attention. We need to better understand what kinds and combinations of SSW enable affective repertoires where members’ defence mechanisms against paradoxes are lowered, and cognitive complexity is encouraged to thrive. In my study, I witnessed the power of leaders to discursively construct a grand challenge as an organisational crisis and to generate an emotional climate that gave the challenge meaning. More questions need to be asked about why and how leaders do SSW that either narrow or widen the paradox differential.

Future research can also examine positive case studies where actors are able to cooperate despite holding diverse values and assumptions. According to Ferraro et al. (2015), actors must engage in “discursive and material activity that sustains different interpretations among various audiences with different evaluative criteria, in a manner that promotes coordination without requiring explicit consensus” (p. 373). My research found that sustaining multiple interpretations among various audiences is problematic when affective repertoires are hot and ontological commitments rigid. Empirical examples of how actors maintain multiple framings and conceptualisations, and coordination without overt consensus, would enrich the literature and support practitioners’ multi-stakeholder efforts to address challenges.

My study provides an empirical example of SSW occurring in parallel. I outlined the achievements and drawbacks of sets of actors working to achieve two separate, but ultimately

interdependent, goals. My findings highlight the importance of scale when exploring the outcomes of SSW. For example, if examined from the vantage point of actors within a programme of action, their bundles of SSW are highly successful insofar as it furthers their strategic intents. However, when taking an organisational or even field-level perspective, the consequences of aligned and bundled SSW become problematic and unpredictable, creating strategic imbalances and disjunctions. We need to better understand the effects of SSW at different scales, especially how unintended consequences reverberate from and between micro, meso and macro levels.

As much as the SSW literature emphasises actors' purposiveness and ability to act strategically, my findings suggest that SSW also originates from actors' subliminal aspirations and drives, which is the domain of emotion, fantasy, dream and myth. For example, many actors working in contemporary, sophisticated conservation organisations adhere to romanticised, 19th-century ideals about what nature is and whom it is for (Lorimer, 2015). Efforts by conservation organisations to "rewild" parts of Europe and North America present an interesting empirical setting where SSW in relation to nature can be examined further. A question here is how actors "mask" proposals that are steeped in myths and fantasies as rational arguments, in step with scientific discourse that pervades modern nature conservation organisations. The rationalisation of highly subjective and ideology-driven conservation practices is in itself a social-symbolic achievement warranting further inquiry, given the high stakes of these initiatives and their political and material ramifications for affected communities and ecosystems.

7.6 Limitations of my study

Although my findings might not be applicable to all organisations working on complex problems everywhere, my study does however offer a compelling example (Siggelkow, 2007) of organisational responses to grand challenges (as outlined in the beginning of this chapter). I recognise that my study's setting and the nature of the grand

challenges I studied limit the extent to which findings can be generalised and extended to other settings. My study focussed on actors' practices and affective dispositions to explain why grand challenges become less tractable. In other settings, the role of macro-level institutions and field-level dynamics might be more salient, and particular constructs, such as ontological commitments, might be less relevant. Whether a setting is influenced more, or in different combinations, by micro, meso or macro factors, my study draws attention to the malleability and socially constructed nature of grand challenges, an insight that is useful in a variety of contexts where actors tackle complex problems.

Sampling choices have limited the breadth of my study. If I had been able to interview a larger and more departmentally diverse respondent group, I might have identified other salient SSOs and other forms of SSW that actors draw on to inform how they think, feel and act towards grand challenges. Also, biodiversity concerns and matters around inequity are not the only challenges the park face. Nevertheless, for the sake of practicality, depth and analytical focus, I ringfenced my study around two core themes, targeting a more limited number of key informants. My study never set out to write an authoritative and historical account of how the park responds to poaching and inequity. Rather, I set out to better understand actors' interpretations, actions, affects, artefacts and discourses that helped them come to grips with ambiguous challenges. The practical limitations of sample size were somewhat offset by the ethnographic nature of my study and my ongoing immersion in the field. Several meetings, workshops and field trips I attended since 2016 involved actors from multiple departments and this gave me access to perspectives outside those held by the key informants of my research.

Much of grand challenges research focusses on the organisational problems-solvers as key protagonists⁵⁵ and feature these actors in idealised descriptions of what the organisational

⁵⁵ For notable exceptions, see Amis, Mair & Munir (2020) and Hamann & Bertels (2017).

engagement of grand challenges should look like (Ferraro et al., 2015; George et al., 2016). A focus on problem-solvers is drawback, or blind spot, in my study. I have focussed on the SSW of those working to solve a particular problem, not on those who purportedly cause it. My study did not include organised crime organisations, informal poaching networks or community-based and traditional leadership organisations. Their inclusion could have led to a deeper appreciation of all the paradoxes at play in the poaching and inequity grand challenge and would have likely highlighted different SSOs and conceptualisations of “nature” and the human-nature relationship.

Finally, as mentioned in this chapter, poaching is constructed as a vivid and urgent grand challenge. As a researcher, it is the grand challenge that caught my attention first and was the singular focus of my research project for my first year of study. My choice of topic was in itself as sign that the SSW of Security Actors had *worked*. I experienced the park’s poaching problem as important, urgent and worthy of study. It was only about a year after I entered the research field that I “noticed” the salience of the inequity problem, which was much less vivid in the imaginations of park employees, journalists, and wildlife activists. There are arguably many more (but less vivid) grand challenges other than poaching, such as the effects of climate change on the park and people around it, that deserve to be studied.

CHAPTER 8

CONCLUSION

In this final chapter, I briefly summarise the key aspects of my study. I started my research project by asking, how do actors engage in SSW as they grapple with grand environmental challenges, and in doing so, how does SSW shape the tractability of these challenges?

As actors grapple with grand challenges, they deploy purposive SSW, bundled into explicit programmes of action. Multiple forms of SSW targets imbricated SSOs - places, selves and time - that are pliable but stable patterns of meaning. SSW turns actors into worldmakers as they invent or uphold ontological assumptions that are congruent with programmes of action. SSW thus create an intended outcome, the rendering of challenges as intelligible and actionable. Over time, the interplay between the meanings of SSOs and ontologies turn programmes of action and related practices into unquestioned institutions. SSW thus has an intended outcome. It garners legitimacy for programmes of action and the novel practices contained therein.

SSW also fosters an unintended outcome. Actors' ontological assumptions are interwoven with normative beliefs that blind them to alternative problem framings and solutions. Also, SSW transforms hot and cool affective repertoires, interlinked with ontological commitments, which orient actors' ways of seeing, being and doing. Actors become zealously committed to a particular logic or become disengaged from the challenge. The likelihood of actors' creatively engaging paradox and potentially useful contrary ideas is reduced. Ultimately, the emergence of novel solutions to grand challenges is suppressed.

I contribute to the grand challenges literature with a constructivist, actor-centric account of why grand challenges are so intractable, foregrounding actors' experiences, subliminal commitments and affective repertoires. Scholars have a tendency to take for granted the capacity of organisations to be creative, collaborative and pro-active in their engagement with grand challenges. I show how the organisational context, decisively created

and shaped by actors' subjective experiences, reduce the likelihood of making the challenge tractable.

I contribute to the SSW literature by explicating how ambitious meaning-making endeavours require parallel forms of SSW, and the sustained manipulation of multiple SSOs and facets of the social-symbolic context, instead of only picking out one element. However, if multiple, parallel sets of SSW evolve on their own trajectories, it can come at the cost of internal, organisation-wide strategic balance between multiple goals. A cross-cutting theme between literatures is the importance of powerful, but often subliminal (and therefore readily overlooked), emotional and moral dispositions that inspire SSW and how actors construct and ultimately respond to complex problems.

Finally, I call on actors working on grand challenges to recognise the power and agency they have in constructing the very problems they purport to address. I appeal to actors to practice reflexivity while they construct programmes of action and to engage in inclusionary dialogue to explore multiple perspectives and paradoxical thinking.

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APPENDIX 1: Methodology

Table 1: Notable field visits / participant observation events

Date	Location	Participants	Description	Duration (days)
May-16	Bushbuckridge / Ackornhoek	NGO employees and local community members.	Accompanied an NGO that sponsored "rhino ambassadors" - local community members who engaged their peers in environmental education and other initiatives to improve relations between KNP, private nature reserves and local communities.	1,5
Mar-16	Skukuza	KNP Inclusion Actors and NGO employees	Workshop between KNP and NGO partner to develop a joint project to improve the wellbeing of cattle in communities surrounding the park (to foster economic opportunities for cattle production). A few months later, I also attended the launch of a mobile abattoir that formed part of the cattle/rangeland project.	2,5
May-16	Skukuza	KNP Security and Inclusion Actors, scientists and conservation managers.	"Integrated Land-Use Planning" meetings to discuss formalising ecological and security park management norms in such a way that they can be adopted and enforced within other private - and state-run nature reserves around KNP.	3
Jun-16	Berg-en-dal, KNP	Game Rangers Association of Africa	The annual gathering of Game Rangers Association of Africa (GRAA). Most speakers and attendees were rangers working in KNP. Rhino poaching was the focal topic. I attended a ranger "campfire" storytelling and social event in the evening.	2
Aug-16	Nature reserve adjacent to KNP	NGO ranger instructors and ranger trainees	Attended 3-days of "field deployment" at the Southern Africa Wildlife College (SAWC) with newly trained field rangers. I joined the rangers and their trainers in a wilderness area open to KNP and accompanied recruits on field patrols. Anti-poaching tactics formed a big part of the training programme.	3
Oct-17	Nature reserve adjacent to KNP	Private nature reserve employees	Spent 3-days in a flagship private nature reserve bordering KNP. I accompanied the Warden on his routine duties and spent a day with a K-9 specialist visiting the ranger outposts on the reserve. I also spent a day at an Environmental Education centre that the reserve's foundations sponsored in a nearby community.	4

Feb-17	Utah Village	NGO staff	I Accompanied NGO project staff to site visits in communal areas near KNP border, where they promoted a cattle health/rangeland improvement project in partnership with other conservation actors.	1
Mar-17	Skukuza	KNP scientists, conservation managers, media practitioners and Inclusion Actors, and members of the public.	Public meeting about KNP's culling programme. "Concerned stakeholders" criticised KNP for distributing meat (obtained from culling antelope in areas where they are overpopulated) to local communities. The meeting entailed KNP scientists and Inclusion Actors explaining the ecological and social rationales of the meat distribution programme.	1
Mar-17	North-west province	Rhino farmer	Visited the farm of South Africa's largest private owner of rhinos in South Africa and a prominent activist promoting the legalisation of the trade in rhino horn. In the same month also attended the annual conference of Wildlife Ranching South Africa (WRSA), a group that lobbies for the commercial breeding, production and marketing of wildlife.	3
May-17	Skukuza & surrounds	KNP Inclusion Actors and neighbouring reserves	Stakeholder "focus group" meetings. Meetings led by KNP Inclusion Actor to gather inputs from neighbouring reserves to feed into KNP's ten-year management plan, which focused on the park's relationship with its private reserve - and community neighbours.	7
Jun-17	Skukuza	KNP Inclusion Actors and representatives from the Department of Environmental Affairs (DEA)	Workshop to gather inputs for KNP's 10-year management plan	2
Jul-17	Hoedspruit (a town near KNP)	KNP Inclusion Actors, civil society, private sector and government actors.	"Living with Wildlife" workshop, led by KNP Inclusion Actors and attended by a wide ranger of private reserves, local NGOs and other state entities to discuss key ecological, social and security problems facing the "Greater Kruger" landscape	3
2016, 2017, 2018	Hoedspruit (a town near KNP)	KNP Inclusion Actors, civil society, private sector and government actors.	Attended several meetings hosted by the "Lowveld Protected Area Group," where Inclusion Actors (and to a lesser extent Security Actors) shared information about ecological, social and security matters of joint concern. Attendees represented KNP, private reserves, NGOs and other government entities.)	4
2016, 2017, 2018	Nature reserve adjacent to KNP	Associated private nature reserves (APNR)	Attended several "Associated Private Nature Reserve" meetings where KNP, private reserves and other state-reserves met to discuss joint management	3

			matters of concern in the fenceless "open system." Ecological and social matters were discussed, but rhino security dominated the agenda.	
2019 & 2020	KNP	KNP rangers & legal consultant	I accompanied a private legal consultant that trained KNP's rangers on the "rules of engagement" to ensure legal compliance during their interactions with poachers in the park. I had several informal conversations with field rangers and their managers.	6

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Table 2: Entering the field - Interviews conducted during first years of fieldwork.

Date	Organisation	Role	Duration (mins.)
Nov-15	<i>A NGO focussing on socio-economic development of local communities near KNP to foster pro-conservation attitudes and behaviours.</i>	Senior manager	60
Feb-16		Senior manager	60
Feb-16		Fieldwork/project manager	60
Feb '16		Senior manager	60
Mar-16		Senior manager	90
Jul-16		Senior manager	60
Jul-16		Fieldwork/project manager	120
Dec-16		Senior manager	90
Feb '17		Fieldwork/project manager	140
Apr-17		Senior manager	60
Feb-16	<i>A UNESCO-Biosphere NGO focussing on social and ecological wellbeing and environmental educating in communities near KNP.</i>	Fieldworker	90
Feb-16		Fieldworker	30
Feb-16		Fieldworker	90
Feb-16		Senior manager	90
Nov-16		Senior manager	60
Nov-16		Senior manager	45
Feb-17		Fieldworker	80

Nov-16	<i>Private rhino owners' lobby group promoting the interests of South Africa's private rhino owners through advocating for the legal trade in rhino horn.</i>	Senior manager	100
Nov-16		Private rhino owner	320
Dec-16		Lobby group members	300
Feb-16	<i>Tertiary training and conservation NGO on a property that shares an unfenced border with KNP. Trains field rangers and conducts specialised law-enforcement work.</i>	Senior manager	60
Feb-16		Senior manager	90
July-16		Senior manager	90
July-16		Senior manager	60
Aug-16		Senior manager	60
Nov-16		Senior manager	90
Nov-16		Senior manager	180
Dec-16		Senior manager	120
Feb-17		Senior manager	60
Mar-17		Senior manager	120
Feb-16	<i>Flagship private nature reserve sharing an open border with KNP.</i>	Landowner	90
Oct-16		Field ranger	90
Oct-16		COO	90
Oct-16		Professional hunter	90
Feb-17		Landowner	120
Dec-17		Senior manager	80
Dec-17		Scientist	90
Nov-16	<i>International NGO implementing several rhino-conservation initiatives.</i>	Senior manager	180
Nov-16		Senior manager	90
Nov-16		Fieldwork/project manager	90
Nov-16		Fieldwork/project manager	100
Nov-16		Fieldwork/project manager	100
			3585 mins.
			60 hours

Table 3: Primary research respondents (KNP)

Date	Role	Research Respondent code	Duration (mins.)
Apr-16	Senior Security Actor	RP7	60
May-16	Operational Security Actor	RP2	60
Jun-16	Conservation manager	RP1	90
Jun-16	Conservation manager (retired)	RP11	90
Jun-16	Operational Security Actor	RP20	45
Jun-16	Communications officer	RP22	90
Jun-16	Senior Security Actor	RP7	90
Jul-16	Scientist (retired)	RP16	120
Jul-16	Scientist (retired)	RP17	120
Dec-16	Scientist	RP23	60
Mar-17	Senior Security Actor	RP7	90
May-17	Senior Inclusion Actor / scientist	RP14	60
May-17	Senior Security Actor	RP3	180
May-17	Senior Security Actor	RP7	60
Aug-17	Operational Security Actor	RP2	90
Aug-17	Senior Security Actor	RP4	90
Aug-17	Conservation manager	RP5	120
Aug-17	Scientist	RP6	90
Dec-17	Senior Security Actor	RP18	120
Dec-17	Senior Security Actor	RP16	60
May-18	Senior Security Actor	RP12	60
Dec-18	Operational Security Actor	RP2	60
Dec-18	Senior Inclusion Actor	RP10	90

Dec-18	Senior Security Actor	RP3	60
Dec-18	Senior Inclusion Actor	RP8	180
Dec-18	Operational Inclusion Actor	RP9	60
Feb-19	Senior Inclusion Actor / researcher	RP14	60
Jul-19	Senior general manager	RP19	90
Oct-19	Scientist	RP15	60
Jan-20	Operational Inclusion Actor	RP25	180
Jan-20	Operational Inclusion Actor	RP26	180
Jan-20	Operational Inclusion Actor	RP27	120
Jun-20	Senior Security Actor	RP13	60
Oct-20	Senior general manager	RP21	60
Nov-20	Operational Inclusion Actor	RP24	60
Feb-21	Operational Security Actor	RP28	30

3195 mins.

53 hours*Table 4: Secondary sources and their value*

Source & Type	Volume	Reference	Description	Analytical value
Book: Historical monograph	201 pages	Carruthers, 1995	A social history of KNP up to 1995.	Political undercurrents that led to the formation of KNP.
Book: Historical monograph	330 pages	Dlamini, 2020	An (updated) social history of KNP, published in 2020.	Role of black people in the establishment of KNP and the broader conservation sector in SA.
Book: Scientific publication	170 pages	Mabunda, Pienaar & Verhoef, 2003	Overview of a century of ecological research and management paradigms in KNP	KNP's management concerns in the pre-poaching era. How a variety of actors conceptualise the natural world and the problems in it, including the human-nature interface.

Internet: Public-facing information	4 pages	DEA, n.d	South African history of conservation	History of conservation as seen through the eyes of Department of Environmental Affairs.
Journal: Academic article	19 pages	Venter, Naiman, Biggs & Pienaar (2008)	The Evolution of Conservation Management Philosophy: Science, Environmental Change and Social Adjustments in Kruger National Park	KNP's management context in the pre-poaching era. How a variety of actors conceptualise the natural world and the problems in it, including the human-nature interface.
Journal: Academic article	3 pages	Venter, 2007	Balancing Conservation Management and Tourism Development With Wilderness Stewardship in the Kruger National Park, South Africa	KNP's conceptualisation of wilderness and human-nature interactions. How a variety of actors conceptualise the natural world and the problems in it, including the human-nature interface.
Journal: Academic article	7 pages	Jooste & Hübschle, 2017	Interview with Major General Johan Jooste (Retired), South African National Parks, Head of Special Projects	Security Actor's framing of poaching problem and explanation of paramilitary practices and rationales.
Journal: Academic article	10 pages	Jooste & Ferreira, 2018	An Appraisal of Green Militarization to Protect Rhinoceroses in Kruger National Park	Security Actor's justification of paramilitary practices to curb poaching.
Journal: Academic article	16 pages	Swemmer, Grant, Annecke, & Freitag-Ronaldson, 2015	Toward More Effective Benefit Sharing in South African National Parks	Inclusion Actors conceptualisation of communities and benefit-sharing. How a variety of actors conceptualise the natural world and the problems in it, including the human-nature interface.
Journal: Academic article	10 pages	Anneck & Masubelele, 2016	A review of the impact of militarisation: the case of rhino poaching in Kruger National Park, South Africa	A critique of the paramilitary response to poaching by Inclusion Actors.
	770 pages			

Videos: Public-facing promotional/documentary videos	75 mins.	CSIR, 2015; Online Media TV, 2016; Peace Parks Foundation, 2017; SANParks, 2018; CNN, 2020	Four videos showcasing the park's anti-poaching initiatives, including a 24min 2016 television interview with KNP's head of anti-poaching.	Insight into organisational narratives and images that framed the poaching problem.
	75 mins			
Reports & Plans: Organisational document	216 pages	SANParks, 2017a	Annual report 2016/2017	Public-facing discourses about inclusion and anti-poaching strategies and practices.
	239 pages	SANParks, 2019f	Annual report 2018/2019	
	261 pages	SANParks, 2021	Annual report 2019/2020	
	110 pages	SANParks, 2019d	Annual performance plan 2018/2019	
	108 pages	SANParks, 2020e	SANParks strategic plan 2016-2020	
	410 pages	KNP, 2008; KNP, 2018a	KNP Management Plan 2008 & 2018	Public-facing discourses about inclusion and anti-poaching strategies and practices. How a variety of actors conceptualise the natural world and the problems in it, including the human-nature interface.
	78 pages	Swemmer & Mmethi, 2016	Report on park's efforts to share the benefits of biodiversity with local communities.	KNP's understanding of itself in relation to local communities, how the park conceptualises "benefits," how the park socially constructs "communities" and relations with them.
	193 pages	SANParks, 2018k; SANParks, 2020a, g.	Various internal and public-facing documents explaining the GKSDP	Inclusion Actors discourses, practices and strategies concerning regional socio-economic development.
	21 pages	KNP, 2018c , j	Various internal and public-facing documents explaining the GLTFCA Cooperative Agreement	
	113 pages	SANParks, 2018h.	SANParks research report 2018	Research projects related to security and inclusion work.

	72 pages	SANParks, 2019f	Invitations to bid for appointment of TV production company & bid for firearms training.	Insights into the products and services forming part of programmes of action.
	30 pages	n.a	Diary containing information about anti-poaching tactics, as well as images and text aimed at building ranger morale.	Images and narratives that construct ranger identities.
	250 pages	KNP, 2018b; SANParks, 2019c, e, g.	Memos describing park initiatives to engage communities with socio-economic development projects, memo's detailing broader stakeholder engagement with other conservation stakeholders. Also includes internal reports/plans.	Details of Inclusion Actors' programmes of action.
Internet: Public-facing information	30 pages	SANParks 2018i; DEA, 2019a-c	Information regarding the Wildlife & Biodiversity Economy concept as promoted by DEA and SANParks	Government discourses concerning socio-economic development. How a variety of actors conceptualise the natural world and the problems in it, including the human-nature interface.
	25 pages	SANParks, 2012b; SANParks, 2017f; SANParks, 2019a-b; SANParks 2020b-d.	SANParks sub-pages: Manager profiles, Expanded Public Works programme People & Conservation, socio-economic development, transformation mission, research priorities, KNP bookings landing page.	Public-facing organisational discourses and narratives about inclusion work and tourism.
	22 pages	SANParks, 2015a, c; SANParks, 2016a-b; SANParks, 2017d; KNP, 2018d; SANParks, 2018c-g, l; DEA, 2019c; SANParks, 2018c - j	11 media releases covering topics related to poaching, community engagement, launch of the GLTFCA Cooperative Agreement and GKSDP.	Organisational discourses and narratives concerning poaching and inequity.

	8 pages	SANParks, 2011, 2012	Public speeches by the first black CEO of SANParks	
	2186 pages			
Slideshows / Powerpoint: Organisational documents	388 slides	<i>SANParks, 2013; SANParks, 2016; SANParks, 2017c; SANParks, 2017e; SANParks, 2017f; SANParks, 2018k; SANParks, 2018i; SANParks, 2018k; SANParks, 2019d; SANParks, 2020a; SANParks, 2020g.</i>	Slideshows showcasing anti-poaching strategies and technologies, wilderness conservation plans, ecological management issues, raising awareness of the benefits the park provide to local communities, lobbying support for socio-economic development initiatives.	Insight into how a variety of actors conceptualise the natural world and the problems in it, including the human-nature interface. Slideshows were good examples of how senior managers engaged in internal and external sensegiving to frame particular problems and programmes of action to mitigate them. Slideshows contained aesthetical cues, such as maps, illustrations, graphs and photographs of the natural environment and technological and other artefacts salient to both grand challenges.

Table 5: ATLAS.ti codes

Codes (39)	
◇ "Whole of society" response to grand challenge	7
◇ Artefacts of anti-poaching	8
◇ Artefacts of socio-economic development	8
◇ Assigning sentiments and meaning to rhino	13
◇ Constructing a common heritage	15
◇ Constructing a temporal orientation	48
◇ Constructing communities as stakeholders	68
◇ Constructing nature as an asset / commodity	16
◇ Constructing poachers as stakeholders	18
◇ Constructing the conservation/anti-poaching group as stake...	13
◇ Creating a sense of urgency and importance	31
◇ Differentiating between stakeholder and group identities	15
◇ Embedding KNP in broader landscape	9
◇ Emotioning_Anger, disgust	3
◇ Emotioning_Burnout, fatigue	2
◇ Emotioning_Cynicism, pessimism	13
◇ Emotioning_Disappointment	5
◇ Emotioning_Embarrassment	3
◇ Emotioning_Love or reverence for nature	10
◇ Emotioning_Sense of higher calling	4
◇ Expand power and influence over a geographical area	27
◇ Fetishizing technology	13
◇ Fetishizing the market	6
◇ Framing the inequality challenge	16
◇ Framing the poaching challenge	21
◇ History repeats itself	1
◇ Imbuing a geographical space with meaning	45
◇ Interesting Vignette	3
◇ Invoking morals and ethics	19
◇ Justifying the use of violence in anti-poaching work	25
◇ Narrowing options to a grand challenge	23
◇ Organisational change	29
◇ Organisational tension or contradiction	34
◇ Paradox	18
◇ Paramilitarisation process & practices	17
◇ Radical Socio-economic transformation	5
◇ Research reflexivity	4
◇ Sentimentalising/valorising an individual or group identity	41
◇ Zonation for rhino security	9

Table 6: Quotation excerpts from one of the codes under the “constructing geography” category

ATLAS.ti Report

Quotations

Filter:

Is coded with Code "Imbuing a geographical space with meaning"

1:4 The borders of the park – the fence lines – are the fault lines of this problem. Kruger is actually...

Content:

The borders of the park – the fence lines – are the fault lines of this problem. Kruger is actually just a vulnerable bastion. It is this incredible natural resource that is only being protected by a cattle fence.

2:9 You have to remember, and this is what gets totally forgotten - we don't address why..

Content:

You have to remember, and this is what gets totally forgotten - we don't address why is it that people flock 10 000km from where it is cold, spending millions to get here to come and see this stuff, pay R10 000 a night to stay at XXX. What is the rationale, why do they do it? To see a rhino, a lion, a leopard? Ja, OK. But there are rhino, leopards and lion in the zoo in London. But that is not good enough for them, because it isn't wild. You can't forget wildness. You cannot. So if you are going to farm rhino for horn, be careful, you could turn rhino canned. So rhino in a camp, 50 by 50, is not as special as a rhino walking past in this clearing here. That is untamable. He is unattainable. Untamable is unattainable. And people chase stuff that they can't tame. So they have a passion and an obsession to come 10 000km - it is the human psyche. It is wild. And they are fascinated by wildness. Take the wildness and the fascination is lost.

2:18 Yes, we have wilderness, we have zoned wilderness. But we are losing the people in this place...

Content:

R: Yes, we have wilderness, we have zoned wilderness. But we are losing the people in this place that understand, cherish and protect and fight for wilderness. I was totally obsessed with it when I got into the park. XXX is still very on it. And fortunately he said we need wilderness. And I only have it because I was a wilderness trails ranger, and many of my colleagues were not. So XX was never. XXX was, XXX was. XXX in the South wasn't. The ones that never were there don't understand the value of it. They won't let themselves explore to that point, to become obsessed with it. Remember, the asset, in order to keep is sustainable, we have to keep it wild. It's that wilderness, and then degraded states away from it. This is a degraded state to me, but not to you, you think it is beautiful. I've looked at it for XXX years. But my benchmark is totally 100% pure, and that has to be very far. And I don't want to hear an airplane. And unfortunately in Kruger there are nowhere of pure wilderness.

3:17 I'm not going to use "wilderness" in the North American sense...

Content:

L: So what does "wilderness" mean for you?

X: I'm not going to use "wilderness" in the North American view, I'll use it in a more African way.

L: What is that view? (North American)

N: Wilderness in the US, as pristine, "no trace," no humans, no machines, nothing. I'm not referring to that. For me a wilderness is not necessarily a place. It can be place, it can be an experience. If I walk up the mountain, even if I see an airplane, but that is not intruding on my wilderness. Because especially in Africa, the word "wilderness" should not take away people. And wilderness can be a place where people can get food, nature's goods and services. That is how I see wilderness. I don't see wilderness as a place where I'm not supposed to harvest. That I'm not supposed to use. What is wrong with taking a buck for the pot to sustain oneself? You go to wilderness in some countries and they say there can be no hunting in wilderness.

9:6 When asked XXX about "wilderness" she said that the word caused conflict between her and some colleagues...

Content:

When asked about "wilderness" she said that the word caused conflict between her and some of her colleagues. She said she didn't believe that there was any place in KNP where humans did not exist previously, where they did not leave some kind of "spoor." (It was clear that she felt that "wilderness" was invoked by her colleagues to exclude humans from "using" certain parts of the park, to exclude "use" of natural resources in these areas). She pointed out that wilderness areas also determined where further tourism development could take place or not.

13:11 Obviously you need control, but the control must be about sustainability, to let things continue to...

Content:

Obviously you need control, but the control must be about sustainability, to let things continue to exist. Sustainable. The only way you can do that is by making sure people can benefit from it. If something doesn't make sense for you, why would you do it, or accept it, or tolerate it? You won't. That is my norm around nature.

14:9 XXX explains the protected areas legal planning framework. New challenges...

Content:

XXX explains the protected areas legal planning framework. New challenges, such as the rhino poaching, has come up since the Park Management Plan was developed nine years ago. Highlighting the different drivers, risks and opportunities within the protected areas in the KNP buffer, that includes issues like rhino poaching. This is where the negotiation with your partners, or your alliances, become very important. It's not about only then looking at the park's desired state anymore, it's looking at the Greater Kruger System and our alliances, what is beneficial to them. I think this is where the issue comes in, XXX, as you mentioned, they are not supposed to be the "buffer" anymore, they are as part of the core as Kruger. Today we'll spend some time to understand some of these drivers so it can start our management planning review.

14:12 Last year we had a visioning exercise internally, and then with the smaller external group, to look...

Content:

Last year we had a visioning exercise internally, and then with the smaller external group, to look at the vision for the Greater Kruger, the vital attributes and objectives. We came up for a vision for the greater region, and this is part of the management plan review when we engage with partners. The vision is "A good quality of life and benefits for all in a thriving greater lowveld

region, founded on healthy diverse landscapes” And this also includes the GLTFCA footprint, not only the Western boundary.

Table 7: Quotation excerpts from one of the codes under the “constructing a temporal orientation” category

ATLAS.ti Report

Quotations

Filter:

Is coded with Code "Constructing a temporal orientation"

4:25 Isn't it part of the challenge for the park, you want to enforce the law, but part of the challenge...

Content:

It is something that urgently needs to be addressed by I don't know how one does it, it's not my field. I don't even know XXX or anyone can solve it. There are just too many people in this world. How many people are on the Western boundary, 1.8 million or something crazy. If you look at missed opportunities, I think those opportunities were missed 40-50-100 years ago, actually, its too late, we are too far down.

9:1 I did not really prompt her much as she immediately started explaining that Kruger's understanding...

Content:

I did not really prompt her much as she immediately started explaining that Kruger's understanding of rhinos was as something that needed to be “preserved” and “conserved” because KNP “found rhinos there,” and had to make sure it “remained there for future generations” - “It is part of your heritage, if something is part of your heritage it is part of who you are, it defines you.”

11:36 There is success, but there is also disappointment, because there is no victory, we shouldn't...

Content:

There is success, but there is also disappointment, because there is no victory, we shouldn't tease each other. Africa's problems in this war... The rhino war is a 20-year war. We are now in year 5. And the next five will determine what the next ten will look like. Whether it will be an inferno or a big mess. I'm angry, feeling “let down” too many people are just talking. The participants in this national issue, are very tentative and very few. Theoretically they say all the right things, the go to parliament and say the right things. But the support we really get...

17:9 It is far from victory. What is victory? Maybe when we lose two animals per week. 100 per year? I

Content:

It is far from victory. What is victory? Maybe when we lose two animals per week. 100 per year? I'm not sure, and we keep thinking about that, what would normality be, for factors given in Africa? Nr of carcasses are still on the rise, bit of a double-turn there. At one stage we lost three per day, 1.8 a day, at one stage we lost 4 carcasses for every poacher we caught. Those are measurements of effectiveness and efficiency that we have to apply.

26:3 Heritage assets are assets that have a cultural, environmental, historical, natural, scientific...

Content:

Heritage assets are assets that have a cultural, environmental, historical, natural, scientific, technological or artistic significance and are held indefinitely for the benefit of present and future generations.

27:2 Mission To develop, expand, manage and promote a system of sustainable national parks that represent...

Content:

Mission

To develop, expand, manage and promote a system of sustainable national parks that represents biodiversity and heritage assets, through innovation and best practice for the just and equitable benefit of current and future generations

31:2 6.6.1 Wilderness zone Objectives The objective of this conservation orientated zone is to protect are...

Content:

6.6.1 Wilderness zone

Objectives

The objective of this conservation orientated zone is to protect areas of the park that are un-impacted by human developments to provide an experience aimed at intangible attributes such as solitude, remoteness, wildness, and serenity (wilderness qualities). As such, they are areas where the sights and sounds of human activities are infrequent or that have high scenic or natural qualities allowing for an experience of isolation. The main accent of management is biodiversity conservation and the conservation of the wildness for the appreciation by future generations.

31:3 This is a zone retaining an intrinsically wild appearance and character, or capable of being restore...

Content:

This is a zone retaining an intrinsically wild appearance and character, or capable of being restored to such a state, and which is essentially undeveloped and roadless. The primary characteristic of this zone is the experience of wilderness qualities with the emphasis on solitude and remoteness

58:1 The battle to protect our elephant heritage has gone beyond just heritage. It is imperative that we...

Content:

The battle to protect our elephant heritage has gone beyond just heritage. It is imperative that we act now otherwise we will be accused of a dereliction of duty if we stand by and do nothing. Now is the time to act to secure the safety of these magnificent beasts for future generations to experience and to have the joy of watching a tusker roam freely in the bush. or 30 years.

102:12 We are in the business of protecting all fauna, including megafauna, specifically rhino and elephant...

Content:

We are in the business of protecting all fauna, including megafauna, specifically rhino and elephant. The last of these species are in Africa, and the money involved in their protection is staggering. We have no option but to act now.

Table 8: Quotation excerpts from one of the codes under the “constructing stakeholder identities” category

ATLAS.ti Report

Quotations

Filter: Is coded with Code "Constructing communities as stakeholders"

 **1:3 So where do you think the solution lies? The people outside the park need to be seen..**

Content:

“The people outside the park need to be seen as part of the park. If you are in Africa and you drive out of the nature reserve, you are immediately confronted with tremendous poverty. People are destitute. They don’t have any options. Those who live in the city will still try something, you know, maybe do some “piece” work here and there. Like working on a building site. But in the rural areas there are no options. And why should they now look after rhinos if rhinos have no value for them, no benefit? We urgently need beneficiation if we want to solve this problem in a sustainable manner.”

 **3:9 I mean, how do you internalise a rhino to a community? That they feel ownership of a rhino.**

Content:

“I mean, how do you internalise a rhino to a community? That they feel ownership of a rhino. And if we think that we are going to win this with the military, it is unsustainable, and already we are picking up donor fatigue. And once we reach that stage we are going to get into trouble. It is one of those difficult things. I have this thing that people don't like very much. I'm saying, we are losing about 500 rhinos in the park, what I'm proposing to the Department and other NGOs, let's train community rangers, and you say to them ‘if I can lose less than 500 per annum, the difference out of 500 I give to you to convert into money and use it for community development.’ I still maintain that model can work.”

 **3:10 That's my argument, I'm saying "you employ me to manage KNP, but the outside world is influencing me...**

Content:

“That's my argument, I'm saying "you employ me to manage KNP, but the outside world is influencing me, and I'm influencing the outside world". If I can't work with that, I don't see any long-term sustainability. How can the communities see the park as an asset, not a liability?”

 **5:1 L: I've seen you around a lot, but I don't yet really understand what does a day in the life of Soll...**

Content:

Because on a daily basis I have to work with communities, with different perspectives and perceptions about KNP’s existence, and its history and impact on their lives, you know all the history of forceful removal, it is one aspect that you can't overwrite. Even if it means we have a new generation, their forefathers, their grandfathers, would have told them about how painful it was when they were forcefully removed. That alone gives them a negative attitude towards

conservation or protected areas such as Kruger. However, my daily activities revolve on creating linkages between KNP and the community, creating understanding of what we stand for, and our government mandate as an organisation. And why we should keep the park as the custodians of the biodiversity, it is not our own call, it is a government call which we need to respond to. Probably, I would say my day-to-day role is to create a positive stakeholder engagement process between the community and the park through various mechanisms.”

 **5:2 R: What does it feel like to go to a community meeting or forum or whatever, and to say, "I represen..."**

Content:

“The community themselves are the first line of defense. Because if we don't have a good working relationship with them, it is easy for them to vandalise the fence and create an open space for whatever they would want to do, but because of the fact that I play a role of being a middle person and create awareness of each other, and how we need each other.”

 **6:7 If you look at our stakeholder meetings. We come to talk to them, to listen to them, but it is about...**

Content:

If you look at our stakeholder meetings. We come to talk to them, to listen to them, but it is about our problem. They never come to listen about what they want to say about their problem. We say we are going to do some ‘upliftment.’ Upliftment according to whom? Those are examples of how we do not yet understand these social processes.

 **11:37 We need to be realistic about sustainable use. The guys in Bushbuckridge are going nowhere...**

Content:

“We need to be realistic about sustainable use. The guys in Bushbuckridge...Protected areas must be owned by them, if they don't own these areas, then the credibility isn't there. Is the ranger my friend or not? The park isn't his friend. His mother works in the linen room, his dad is a driver, and his brother made it big, he is a gate official. It's not enough.

 **25:1 The mandate of South African National Parks (SANParks) is to manage and conserve both natural and cu...**

Content:

The mandate of South African National Parks (SANParks) is to manage and conserve both natural and cultural heritage through the network of protected areas that we manage and to connect our national parks to society. SANParks appreciates that connecting national parks to society requires new thinking about the role of local communities in the management and future of national parks and the role of national parks in the development and provision of opportunities to communities.

It is clear though that although millions of people benefit from the existence of the park annually, there is a need to focus on more tangible, real opportunities for local communities and this has been a focus of the benefit sharing work in Kruger over the past few years. Kruger is particularly well placed to make a significant contribution towards the wildlife economy initiatives and has already started exploring how to share opportunities around higher value resources such live game donations and loans, as well as protein that becomes available through management actions inside the Park. The recent drought served as one of several catalysts for moving forward with discussions on sustainable use in Kruger. Opportunities created through small scale buffalo off-takes both for community relationship building and disease research as well as ad hoc animal off-takes related to human-wildlife conflict have enabled a number of local schools adjacent to Kruger to receive venison in the form of either fresh meat or biltong over the last few months of 2016.

51:4 Quotation 51:4

Content:

people living in these areas. Although the Kruger neighbours are diverse in many respects, currently many of the people living next door to Kruger can be characterized as low-income earning households, with high levels of unemployment, high dependency on social grants and high reliance on subsistence agriculture and natural resources (**Figure 1, inside cover**). Many of these neighbours continue to experience costs associated with human wildlife conflict emanating from Kruger, which further erode people and parks relationships. SANParks has made a concerted effort from the mid 1990's to engage positively with local neighbours in order to build positive relationships. However, it was only in the Protected Areas Act of 2003 where National Parks were officially defined as existing for sustainable use by broader society and where an emphasis is placed on their potential contribution to local economic development and the ecosystem goods and services that flow from them.

51:5 Quotation 51:5

Content:



Boxes 1-3: Memo Excerpts

Box 1: Excerpt from memo

3 February 2019: Hot and cold challenges

Grand challenge of poaching seems very much embodied: "an expression of or give a tangible or visible form to (an idea, quality, or feeling)" - Embodiment - "a physical entity typifying an abstraction." It is visceral, emotionally hot. Actors display intense emotions when talking about it, I sense a charged atmosphere when rangers are together. Sometimes their meetings have the same

serious, sombre atmosphere as a church service. Poaching is treated as something exceptional...an aberration. On the other hand, inequity is abstract: "existing in thought or as an idea but not having a physical or concrete existence" - "disassociated from any specific instance." It appears emotionally cold, or cool. It is not surrounded by emotions as such, but rather by cognitions, ideas, thoughts, abstractions. Also, inequity is treated as something normal (e.g., poverty and inequality has become accepted as an unfortunate side-effect of modern-day capitalism). Showing images (e.g., in slideshows and reports) of people living in poverty further serves to normalise it (?), even as actors work to mitigate poverty/inequality. Imagine if poverty/inequality in the Greater Kruger was tackled with the same zeal and sense of urgency as poaching? Why is it not?

Code Links: Emotioning, moralising

Box 2: Excerpt from memo

17 July 2019: Remembering and forgetting

KNP seems to be simultaneously engaged in ritualised acts of remembering and casual forgetting. "Remembering" the sentimentalised past, when everything was more natural and when there were fewer people (see art and artefacts in official buildings in Skukuza that features animals and landscapes = absence of people). "Timeless nature" (See David Bunn's work on waterhole photography, the collection of old skulls, bones everywhere, displaying natural science specimens). The park has a problematic political history, forceful removals of local communities, white privilege... This history is best forgotten and is silenced through foregrounding some art and artefacts over others. XXX said the other day, "we are making history." Indeed... KNP is engaged in the social-symbolic work of making/manufacturing history (see reality TV show tender). While the park is weighed down by its past (where white people were the exclusive protagonists and agents), it re-invents itself to create a new history of the present - "Connecting to society," "People in Parks," "Beneficiation" where new (black) protagonists enter the scene, where new groups and factions have agency. This is the time when ideas around our "shared heritage" and "national assets" have to be re-framed to shake off the old (white) connotations and to make the discursive circle bigger... But rhino poaching complicates and interrupts this - the new friends on the outside of the fence (communities) are also the source of poaching incursions and have been key actors in the poaching "war." I wonder if these deep tensions are being hidden, or usurped by, the rhetoric of "heritage" and "national assets?" The deep irony here is that winning over "hearts and minds" to unite behind some form of shared "heritage" is a century-old theme in KNP. Paul Kruger's original project was to create KNP to help forge a shared identity between Afrikaans and English white South Africans (See Carruthers' book). Back then it was an explicitly political project, driven by the logic of Patriotic Nationalism. What is it today, apart from being an explicit commercialisation project?

Code links: Constructing a shared history, smoothing over differences and diversity, (also links to identity?)

Box 3: Excerpt from memo

29 January 2019: Identity, power, and the politics of representation

There is something going on here regarding how stakeholder identity is constructed and the impact this has on their sense of self-efficacy (agency?). Also, how agency is constructed, "dished out," by powerful actors, and the impact this has on less powerful actors. Inclusion and Security Actors don't seem to afford much agency to poachers, treating them as these one-dimensional characters "driven" by poverty and greed. It is all very deterministic. On the other hand, how does the SSW of constructing ranger identity influence ranger's sense of agency, in the sense of "charting varying degrees of manoeuvrability, inventiveness, and reflective choice" (See Day, 2018). I also wonder how the emotion-scape associated with ranger work influence their self-efficacy, because they

often seem to so...tired, disillusioned, even defeated. [Does it even matter? Soldiers in a war are not expected to have ideas, they are expected to follow orders..?] The SSW of constructing rangers as soldiers and heroes needs a closer look. And the SSW of constructing “communities” as the passive recipients of “development” projects...how much “reflective choice” does this afford them? A key question in all of this - Who gets to invent identities? Who gets to represent the selves of other groups? How are these representations normalised?

Code links: Valorising rangers, constructing a sense of agency