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A Game of Horns

Transnational Flows of Rhino Horn

Studies on the Social and Political Constitution of the Economy

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Abstract

A multi-sectorial regime of protection including international treaties, conservation and security measures, demand reduction campaigns and quasi-military interventions has been established to protect rhinos. Despite these efforts, the poaching of rhinos and trafficking of rhino horn continue unabated. This dissertation asks why the illegal market in rhinoceros horn is so resilient in spite of the myriad measures employed to disrupt it. A theoretical approach grounded in the sociology of markets is applied to explain the structure and functioning of the illegal market. The project follows flows of rhino horn from the source in southern Africa to illegal markets in Southeast Asia. The multi-sited ethnography included participant observations, interviews and focus groups with 416 informants during fourteen months of fieldwork. The sample comprised of, amongst others, convicted and active rhino poachers, smugglers and kingpins, private rhino breeders and hunting outfitters, African and Asian law enforcement officials, as well as affected local communities and Asian consumers. Court files, CITES trade data, archival materials, newspaper reports and social media posts were also analysed to supplement findings and to verify and triangulate data from interviews, focus groups and observations.

Central to the analysis is the concept of “contested illegality”, a legitimization mechanism employed by market participants along the different segments of the horn supply chain. These actors’ implicit or explicit contestation of the state-sponsored label of illegality serves as a legitimising and enabling mechanism, facilitating participation in gray or illegal markets for rhino horn. The research identified fluid interfaces between legal, illegal and gray markets, with recurring actors who have access to transnational trade structures, and who also possess market and product knowledge, as well as information about the regulatory regime and its loopholes. It is against the background of colonial, apartheid and neoliberal exploitation and marginalization of local communities that a second argument is introduced: the path dependency of conservation paradigms. Underpinning rhino conservation and regulation are archaic and elitist conservation regimes that discount the potential for harmonious relationships between local communities and wildlife. The increasing militarization of anti-poaching measures and green land grabs are exacerbating the rhino problem by alienating communities further from conservation areas and wild animals. The third argument looks at how actors deal with coordination problems in transnational illegal markets. Resolving the coordination problems of cooperation, value and competition are considered essential to the operation of formal markets. It is argued that the problem of security provides an additional and crucial obstacle to actors transacting in markets. The systematic analysis of flows between the researched sites of production, distribution and consumption of rhino horn shows that the social embeddedness of actors facilitates the flourishing of illegal markets in ways that escape an effective enforcement of CITES regulations.

About the author

Annette Michaela Hübschle was a doctoral researcher at the IMPRS-SPCE from 2011 to 2015.

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Abbreviations and acronyms

ABSA: Amalgamated Banks of South Africa

ACTCM: American College of Traditional Chinese Medicine (United States of America)

AFD: Agence Française de Développement (French Development Agency)

AoIR: Association of Internet Researchers

ANC: African National Congress (South Africa)

APNR: Associated Private Nature Reserves (South Africa)

APU: Anti-poaching unit

AfRSG: African Rhino Specialist Group

ASEAN–WEN: Association of Southeast Asian Nations Wildlife Enforcement Network

BCE: Before Common Era

CAMPFIRE: Communal Areas Management Programme for Indigenous Resources (Zimbabwe)

CCAOM: Council of Colleges of Acupuncture and Oriental Medicine

CCR: Consultation Committee on Resettlement (Limpopo National Park)

CE: Common Era

CEO: Chief Executive Officer

CITES: United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora

CBNRM: Community-Based Natural Resource Management

CoE: Committee of Experts

CoP: Conference of Parties (CITES)

CRAVED: concealable, removable, available, valuable, enjoyable and disposable

CT: Computerized Tomography

DA: Democratic Alliance (South Africa)

DCS: Department of Correctional Services (South Africa)

DDR: disarmament, demobilization and reintegration

DEA: Department of Environmental Affairs (South Africa)

DEA: Drug Enforcement Agency (United States of America)

DEAT: Department of Environmental Affairs and Tourism (South Africa)

DPCI: Directorate for Priority Crime Investigation (South Africa)

DNPWLM: Department of National Parks and Wild Life Management (Zimbabwe)

DSC: Dallas Safari Club (United States)

DUAT: Direito de uso e aproveitamento da terra (Mozambique)

EFF: Economic Freedom Fighters (EEF)

EIA: Environmental Investigation Agency (conservation NGO)

ESPU: Endangered Species Protection Unit (South Africa)

EU: European Union

FRELIMO: Frente de Libertação de Moçambique (Mozambique)

GEAR: Growth, Employment and Redistribution (South Africa)

GEF: Global Environmental Facility (United Nations)

GIS: Geographic Information Systems

GLTP: Greater Limpopo Transfrontier Park

ICCWC: International Consortium on Combating Wildlife Crime

IFAW: International Fund for Animal Welfare (conservation NGO)

IGO: Intergovernmental Organization

ISS: Institute for Security Studies (South Africa)

ITC: information technology communication

IUCN: International Union for Conservation of Nature

KfW: Kreditanstalt für Wiederaufbau (German Development Bank)

KNP: Kruger National Park (South Africa)

KZN: KwaZulu–Natal (province of South Africa)

LATF: Lusaka Agreement Task Force (southern Africa)

LEDET: Limpopo Department of Economic Development, Environment and Tourism (South Africa)

LMMC: Group of Like-Minded Megadiverse Countries

LNP: Limpopo National Park

MK: Umkhonto we Sizwe (armed wing of the ANC)

MOU: Memorandum of Understanding

MPIfG: Max Planck Institute for the Study of Societies

NEMBA: National Environmental Management Biodiversity Act

NEPAD: New Partnership for Africa's Development

NSA: National Security Agency (United States of America)

NGO: Non–Governmental Organizations

NPA: National Prosecution Authority (South Africa)

NWCRU: National Wildlife Crime Reaction Unit (South Africa)

PGR: private game reserve

PH: professional hunter

PIU: Project Implementation Unit (Limpopo National Park)

PNL: Parque Nacional do Limpopo (Limpopo National Park in Mozambique)

POCA: Prevention of Organized Crime Act (South Africa)

PPF: Peace Parks Foundation (South Africa)

R: South African Rand (local currency) also shortened to ZAR

RENAMO: Resistência Nacional Moçambicana (Mozambican National Resistance)

RIM: Rhino Issue Manager (South Africa)

SADC: Southern African Development Community

SADC RMG: Southern African Development Community Rhino Management Group

SADF: South African Defence Force (defence force during the apartheid regime)

SANDEF: South Africa National Defence Force (defence force in post–apartheid South Africa)

SANParks: South African National Parks (South Africa)

SAPS: South African Police Service (South Africa)

SARPCCO: Southern African Regional Police Chiefs Cooperating Organization

SCP: situational crime prevention

SRT: Save the Rhino Trust (Namibia)

SWAPO: South West African Peoples Liberation Army (Namibia)

TCM: Traditional Chinese Medicine

TFCA: Transfrontier Conservation Area

TOPS: Threatened or Protected Species regulations (South Africa)

TRAFFIC: Trade Records Analysis of Flora and Fauna in Commerce

TVM: Traditional Vietnamese Medicine

UAV: unmanned aerial vehicles (drones)

UAS: unmanned aerial systems

UNEP: United Nations Environment Programme

UNITA: União Nacional para a Independência Total de Angola

UNODC: United Nations Office On Drugs and Crime

US: United States of America

USAID: United States Agency for International Development (US)

VAT: Value Added Tax

WAZA: World Association of Zoos and Aquaria

WTO: World Trade Organization

WWF: World Wide Fund for Nature

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Chapter 1: An unstoppable pathway to extinction?

“Only when the last tree is cut, only when the last river is polluted, only when the last fish is caught, will they realize that you can’t eat money.”

American Indian proverb

1.1 Setting the scene: Where have all the rhinos gone?

The days of the rhinoceros¹, the second largest living mammal after the elephant, appear numbered (Ripple et al. 2015). Black rhino populations in South Africa’s Kruger National Park (KNP) are believed to be declining, and white rhino numbers are likely to follow suit if rhino poaching trends continue (Ferreira et al. 2015: 16). South Africa has lost more than 5 000 rhinos since poaching surged in 2008. Some conservators give the African rhino species another 6 to 8 years in the wild (Interviews, 2014). Thereafter, the pachyderms might be relegated to zoos and high-security enclosures; and in years to come, possibly to the annals of natural history books and narratives of those, who shared the planet with the rhino at some point in the past. The rhino’s prehistoric ancestors and other species of charismatic megafauna have gone extinct over the millennia due to climate change, habitat loss and human intervention (Lorenzen et al. 2011). While these factors continue to impact the rhino’s chances of survival, the surprising bounty on its keratin-like nasal appendage – the rhino horn – and the associated illegal and gray markets constitute major threats to the modern rhino’s existence. Extraordinary regulatory, institutional and military measures have been implemented to save the rhino from extinction and disrupt the illegal market in rhino horn. So far, these measures have failed to stem the tide. The aim of this dissertation is to analyse rhino horn market structures and situate these within social, economic and political structures and the broader social system, thereby explaining why measures to disrupt flows of rhino horn have achieved limited success.

¹ The term “rhino”, the shortened form of rhinoceros, will be employed throughout the dissertation.

Of the five extant rhino species (see Map 1), the black rhino (*Diceros bicornis*) and the white or square-lipped rhino (*Ceratotherium simum*) live in Sub-Saharan Africa. Two subspecies of white rhino are recognized: the northern white species (*Ceratotherium simum cottoni*) and the southern white species (*Ceratotherium simum simum*). The northern white subspecies were wiped out through poaching in their natural range in Central and East Africa by 2007. The last four potential breeding northern white rhinos were moved from a zoo in the Czech Republic to a rhino sanctuary in Kenya, where armed guards protect the survivors around the clock (Jones 2015).² The other subspecies – the southern white rhinos – are currently listed as “near threatened” on the International Union for Conservation of Nature (IUCN) Red List (IUCN 2012a). With approximately 5000 animals remaining in the wild, the IUCN categorizes the black rhino species as “critically endangered” (IUCN 2012b).³ The greatest number of black rhinos – approximately 1 850 animals – live in Namibia. Community-based conservation initiatives are believed to have led to positive growth rates after a period of severe poaching during the border wars of the 1970s and 1980s. The Namibian rhino populations recovered until 2014 when 24 rhino carcasses were discovered in the north-western desert regions (New Era 2015). In light of a further 81 illegal rhino killings in 2015, rhinos are facing an uncertain future in Namibia.

South Africa is home to about three-quarters of world’s remaining rhinos (Milliken/Shaw 2012: 8). By the 1960s, an estimated 650 white rhinos were left in Africa. The Natal Parks Board rescued the white rhino from almost certain extinction through innovative conservation

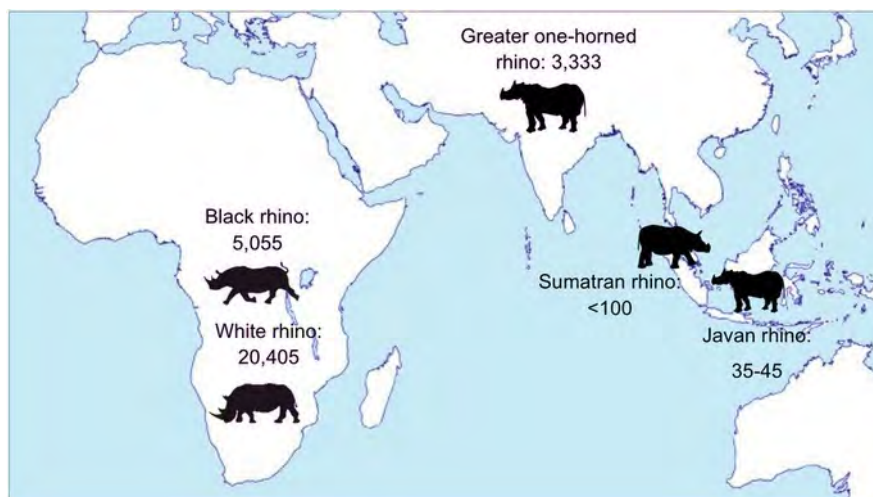
² Scientists were hoping that the move to the rhino’s natural habitat would encourage breeding. One of the two rhino bulls died of natural causes in October 2014, pushing the subspecies closer to extinction (Knight et al. 2015: 13).

³ The IUCN Red List is the world's most comprehensive inventory of the global conservation status of plant and animal species. It uses a set of criteria to evaluate the extinction risk of thousands of species and subspecies. These criteria are relevant to all species and all regions of the world. With its strong scientific base, the *IUCN Red List of Threatened Species* is recognized as the most authoritative guide to the status of biological diversity. Within the Red List the concept “threatened species” is used as an overarching concept. The following categories of imperilment are relevant:

- “critically endangered”: species face an extremely high risk of going extinct in the wild
- “endangered”: species face a very high risk of going extinct in the wild
- “vulnerable”: species face a high risk of going extinct in the wild (IUCN Standards and Petitions Subcommittee 2010)

measures in the 1970s (Player 2013). Of the remaining 21 000 rhinos⁴ – 19 300 are southern white rhinos and approximately 1 700 animals belong to the black species (Milliken 2014: 15) – between 8 001 to 9 290 white rhinos survive in the Kruger National Park (KNP) (Molewa 2015), South Africa’s signature national park. Roughly one-quarter of South Africa’s rhinos is on private land while national and provincial parks authorities host approximately 15 700 black and white rhinos (Ferreira 2013a). A critical tipping point in rhino populations was reached in 2014 with rhino deaths outstripping births in that year. At the current rate of attrition (three rhinos are poached each day), rhinos might be extinct in the wild in South Africa by 2022 (African rhino expert, personal communication, 2015). With the exception of Nepal where the rhino population increased by 21 percent between 2011 and May 2015 (WWF 2015), the Asian rhino species are not faring better than their African relatives. The Indian or greater one–horned rhino (*Rhinoceros unicornis*) – from which the Nepalese population stems– is the most common Asian species at an estimated 3 350 animals. The Javan or lesser one–horned rhino (*Rhinoceros sondaicus*) and the Sumatran or two–horned rhino (*Dicerorhinus sumatrensis*) both count less than 100 animals.

Map 1: Global population numbers



Source: Save the Rhino (2014)

⁴ Milliken collated rhino numbers from IUCN/SSC AFRSG data that was last updated on 13 October 2013. In 2015, conservators (personal communication, 2015) estimated that the total number of rhinos had dropped to 19 700 animals of both species.

At the core of the rhino crisis is the tenacious demand for rhino horn in consumer markets. Powdered rhino horn has been used in Traditional Chinese medicine (TCM) for more than four millennia. Carved into hilts for traditional daggers known as ‘jambiyas’, rhino horn was also in high demand in Yemen during the 1970s and 1980s (Varisco 1989a). Small pockets of demand remain in the Middle Eastern country (see for more detail: Vigne/Martin 2008); however consumers cannot compete with the high prices offered in the southeast and eastern Asian markets (Vigne/Martin 2013: 324).⁵ Another centuries-old tradition relates to the trophy hunting of rhinos. The resultant hunting trophies are exported to the hunter’s home country where they are kept in private collections, galleries and museums. While these old uses endure to lesser degrees, rhino horn is increasingly employed as an investment tool and as a criminal currency. It also serves as a status symbol, religious or cultural artefact and gift amongst the upper strata of Asian societies. The horn of the three-toed ungulate is amongst the most expensive commodities in the world (see Graph 1).

Graph 1: Price comparison in US \$/kg of rhino horn to other commodities



Source: Data collected for this project in Southeast Asia and Bloomberg Business (2015)

⁵ In fact, the recent economic crisis in Yemen has led to some *jambiyas* getting sold off. Vigne and Martin (2013: op cit) observed that Yemenis appeared more guarded and avoided showing off their daggers in public for fear of theft. While old daggers remain in circulation and a remnant demand for ‘fresh’ rhino horn persists, alternative materials have been developed to replace rhino horn, which resembles rhino horn but is cheaper and not deadly to rhino populations. Gum and some secret ingredient are used that provide *jambiyas* with the authentic look of rhino horn (Vigne/Martin 2008).

As the number of live rhinos grows less, the price for rhino horn appears to be surging. According to reports from northern Vietnam (Amman 2015a) consumers were paying between \$ 100 to \$ 120/g for rhino horn bangles and prayer beads in 2015. However, fieldwork undertaken for this project in Vietnam in 2013 found a range of prices between \$25 000 to \$65 000/kg. The price was contingent on the type of horn (African versus Asian/fake or real), use (medicinal versus status) and size/composition (whole horn/disks/powder). At an average weight of 5,5 kg per pair of rhino horns (Pienaar/Hall–Martin/Hitchens 1991), the horns of a single free-ranging white rhino are worth close to half a million Dollars on consumer markets. Meanwhile, the average weight of a pair of horns of black rhino in South African national parks and reserves is 2,65 kg (Pienaar/Hall–Martin/Hitchens 1991: 102). The current poaching statistics provide an approximate size of illegally hunted rhino horn entering illegal markets each year. In light of South Africa losing 1004, 1215 and 1175 rhinos to poaching in 2013, 2014 and 2015 respectively (see Table 1), a minimum of 4 tons of illegally and freshly harvested rhino horn entered illegal flows each year. In addition, rhino poaching has flared up in Namibia and Zimbabwe and continues to trouble safari parks in Kenya and other rhino range states, further augmenting fresh horn supplies. Gangs of thieves have been stealing rhino horn from private collections, state-owned stockpiles, museums and galleries across the globe. An unknown amount of previously harvested, even antique rhino horn, horn artefacts and hunting trophies are either in circulation or safely stowed away. Due to the high value of rhino horn, entrepreneurs have also developed fake or ‘ersatz’ horn, for which consumers are willing to part with substantial sums of money.

Rhinos and their body parts were among the first species to be afforded variable degrees of protection when the United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)⁶ entered into force in 1975. In spite of the partial trade ban and various other conservation, protective and security measures, the illegal hunting of rhinos continues. The Kruger National Park (KNP) and several publically and privately owned game reserves have become ‘battlefields’, where state security forces, game ranger and private

⁶ CITES protects about 5000 species of animals and 28 000 species of plants against overexploitation through international trade. Protected species are included in one of three lists, called the Appendices. Each Appendix details the extent of the threat to a species and trade controls. Species are considered for inclusion in or deletion from the Appendices at meetings of the Conference of Parties, held approximately once every three years.

anti-poaching units fight for the rhino’s survival in the South African bush. The South African National Defence Force (SANDF), a multitude of private security companies, public and private intelligence operatives, law enforcement agencies and hundreds of NGOs have stepped up measures to ‘save’ the rhino. In spite of all these interventions, financial donations and the increasing militarization of responses, more than 5 000 rhinos have been poached in South Africa since 2008 (see Table 1).

Table 1: South African rhino poaching statistics (2000 – 2015)

Year	Kruger National Park	Rest of South Africa	Total
2000	0	7	7
2001	4	2	6
2002	20	5	25
2003	14	8	22
2004	7	3	10
2005	10	3	13
2006	17	7	24
2007	10	3	13
2008	36	47	83⁷
2009	50	72	122
2010	146	187	333
2011	252	196	448
2012	425	253	668
2013	606	398	1004
2014	827	388	1215
2015	826	349	1175 ⁸

Source: Department of Environmental Affairs (2014b) & Molewa (2016)

It is not only rhinos that are losing their lives in what is described as a “War on Poachers” in public discourse: anti-poaching units have shot dead dozens of suspected poachers in the KNP since 2009.⁹ As will be shown in later sections of this dissertation, the increasing militarization

⁷ 2008 is highlighted in red to indicate a sudden increase in the frequency of rhino poaching.

⁸ The Department of Environmental Affairs (DEA) is responsible for collating poaching statistics, which were released on a monthly basis until 2015. Since the beginning of 2015, the statistics are released at irregular intervals.

⁹ Meanwhile, a Kruger Park ranger and a police officer were shot and killed in April 2012 in a “blue on blue”

of anti-poaching responses comes at a high cost not only in economic terms but has also led to the further marginalization and alienation of rural communities living in the vicinity of conservation areas.

Taken at face value the regulatory, military and conservation measures, as well as demand-reduction campaigns employed to safeguard the rhino suggest that the wild animal should be one of the best-protected and cared for creatures in the world. What explains the failure of regulation, and the limited success of military and other interventions? What is the role of markets for rhino horn in this? To what extent can a sociological understanding of the illegal global trade in rhino horn, and an analysis of the mechanisms of the market help us understand why these measures have failed and continue to do so?

It is against this background that the leading research question of this dissertation focuses on the resilience of illegal wildlife markets. The dissertation explores why the myriad measures employed to disrupt the market have failed to protect the rhino effectively. A theoretical framework grounded in economic sociology is applied to explain the structure and functioning of the illegal market in rhino horn. It will be argued that a sociological study of valuation, competition, cooperation and security in the illegal market for rhino horn can assist in understanding the reasons why it is so difficult to disrupt the flows of rhino horn. Central to the analysis is the concept of “contested illegality”, a legitimization mechanism that actors employ to justify illegal economic action in contravention of the law on the books. Actors may also use it to defend the exploitation of legal or regulatory loopholes. The dissertation shows how contested illegality tied to the valuation of the rhino and its horn plays an important role in the constitution and resilience of the global market in rhino horn. The notion of “contested illegality” is further unpacked and conceptualized in the theoretical framework (section 1.3). The next section provides a review of scholarly research into the global trade in rhino horn, identifies gaps in the literature and expands on the contribution of this dissertation.

incident. Five soldiers were killed in a helicopter crash in April 2013. In May 2013, a ranger was accidentally shot in the stomach and seriously wounded by a soldier (data supplied by Julian Rademeyer). While the death toll is comparatively low, the emotional and psychological burden faced by those formerly employed to conserve all wildlife in the Park and now re-deployed to “fight a war” to save the last rhinos is immense (Interviews with KNP officials, 2013).

1.2 Problematizing the resilience of illegal markets

Of interest to this dissertation is the question why the illegal market in rhino horn has not been disrupted in spite of regulation, law enforcement and other methods of intervention such as demand reduction campaigns in consumer countries. Different streams of scholarly literature have attempted to answer this question through distinct theoretical or paradigmatic lenses. The sheer abundance of papers and books dealing with the plight of the rhino seem to suggest that we should have a clear understanding of how the illegal market in rhino horn is structured, how it works and how to disrupt it. This is however not the case (Nadal 2015).¹⁰ Many scholarly and policy contributions suffer from paradigmatic convergence employing either anthropocentric or ecocentric perspectives (Shoreman-Ouimet/Kopnina 2015), as well as ethnocentric or cultural relativist interpretations of social facts (Sitas 2014). Scholars who employ anthropocentric perspectives centre their analysis around human beings and social concerns whereas ecocentric scholars regard the ecosphere as fundamental to the planet's existence and survival. Central to the argument of this dissertation is an elaboration of how these biases and interpretations weaken normative claims about rhino protection and conservation. This dissertation has benefitted significantly from insights gathered from so-called gray literature such as position papers, blogs and technical reports. In the following subsections, I will discuss a selection of relevant scholarly contributions and gaps within the literature. The net is cast wider through the inclusion of insights from other wildlife and illegal markets.

1.2.1 Rhino horn trade as a poaching problem

There is a noticeable bias towards describing the supply side of wildlife markets within the literature, as many studies focus almost exclusively on the first segment or stage of the supply

¹⁰ Roughly, the literature can be divided into reports aimed at influencing policy with the implicit or explicit suggestion that regulatory responses could lead to an disruption of rhino horn markets ('t Sas-Rolfes 2012; 't Sas-Rolfes 2011; Di Minin et al. 2014; Economists at Large 2013; Eustace 2012; Martin 2012; Nadal/Aguayo 2014; Taylor, Andrew et al. 2014), papers that assess or suggest responses to rhino poaching (Duffy 2014; Duffy/Emslie/Knight 2013b; Duffy/St John 2013; Humphreys/Smith 2014; Lunstrum 2014; Massé/Lunstrum ; Mouton/de Villiers 2012; Lopes 2014; Koen et al. 2014; Eloff 2012; Eloff/Lemieux 2014) and analyses of market segments or supply chains of rhino horn (Milliken/Shaw 2012; Montesh 2013; Rademeyer 2012; Swanepoel 1998; Milliken 2014; Orenstein 2013; Milledge 2007; Ipsos Marketing 2013; Ellis 2013; Ayling 2013).

chain with little consideration of what happens further down the line. Scholars thus portray “poachers” as the principal suppliers of wildlife contraband,¹¹ ignoring the role of the state, the wildlife industry, NGOs and criminal networks in the overall market structure. An analysis of actor constellations at the source of rhino horn and the structural conditions under which poaching takes place are nonetheless essential to any sociological study. Criminologists have set the tone in the literature on wildlife trafficking by describing the crime, profiling wildlife offenders and providing instrumental explanations why wildlife crime is perpetrated, such as motivations to poach, and structural or geographic drivers.¹²

South African criminologist Gerhard Swanepoel (1998: 8–9), for example, examined 45 police dockets, profiling offenders involved in the illegal trade in rhino horn in the mid–1990s.¹³ Back then, close to 80 % of the offenders were of South African origin while 2% hailed from Asia. According to rhino crime investigators and prosecutors (Interviews, 2013, 2014 and 2015), about 70% of rhino offenders were of Mozambican descent, and the overall percentage of Asian offenders had also increased during the active research phase. Greg Warchol (2004) undertook a similar study about ten years later, focusing on the transnational illegal wildlife trade in South Africa and Namibia. Although observing “hundreds of confiscated ivory tusks and rhino horns” in the ESPU’s warehouses in 2004, Warchol regarded the threat to rhinos and elephants as marginal at the selected research sites. He linked the abundance of stockpiled rhino horn and ivory to South Africa’s geographical position, which served (and still does) as a transshipment node for poached wildlife from other African countries (Warchol

¹¹ I will problematize the distinction between poachers and hunters later in the dissertation. Suffice to note here that the distinction denotes race and class differences in the southern African context.

¹² Mainstream criminologists have shown limited interest in the study of environmental security and illegal wildlife markets. There have been efforts to expand the boundaries of the discipline to include what has been termed ‘green criminology’, ‘conservation criminology’ or ‘environmental criminology’ (Wellsmith 2011: 126). Each sub-discipline applies different theoretical frameworks. The green criminological approach offers rich and diverse studies dealing with problematic human – environment relations; however, it lacks “a core set of theoretical concepts that explain the meaning of green and green criminological orientation” (Lynch/Stretesky 2011: 293). Moreover, the definition of green criminology per se is contested and has been associated with political perspectives and a “narrow range of associated issues” (Gibbs et al. 2010: 125). Scholars at Michigan State University have developed conservation criminology, which offers a multidisciplinary and interdisciplinary framework for the study of environmental crimes and risks “that lie at the intersection of criminology, natural resources and risk sciences” (Gibbs et al. 2010: 129). Central to the Michigan definition of “environmental crimes” are political, cultural, economic and social influences.

¹³ Swanepoel obtained 45 dockets dating from 1992 to 1995 from the now defunct Endangered Species Protection Unit (ESPU) formerly located within the South African Police Service (SAPS).

2004: 62). Poachers and traffickers were “individual operators” rather than belonging to organized criminal groupings with abalone traffickers¹⁴ being the exception (Warchol 2004: 63). Noteworthy is the observation that “unsophisticated poachers” struggled to locate buyers for rhino horn: “If they succeed in locating a buyer, they may be offered as little as US \$ 50 for the rhino horn” (Warchol 2004: 63). The question arising here is: How have rhino poachers addressed the problem of finding a suitable trade partner since then? What has changed?

In 2011, Warchol collaborated with South African criminologist Friedo Herbig. The researchers applied the routine activity theory to explain the poaching problem in South Africa’s protected conservation areas. According to this theoretical approach, crime is more likely to occur when a motivated offender is present, a suitable target is nearby and the absence of “capable guardians” (Herbig/Warchol 2011: 5).¹⁵ The assumed rational choice considerations of criminal actors, together with the crime’s situational features, and “the target’s degree of attractiveness in the context of levels of guardianship” (ibid) are used to explain why poaching occurs in some places and not in others. While the notion of opportunity structures is useful, the study says little about the social setting, the role of market demand and how poachers, traffickers, and traders locate and trade with each other. Eloff and Lemieux (2014) examine how criminal opportunity structures develop and are exploited by rhino poachers in the Kruger National Park. Conceived as an extension of the routine activity theory, the researchers propose situational crime prevention (SCP).¹⁶ This approach incorporates an intervention that attempts to defuse opportunity structures along the trade chain from the African bush to Asia. Eloff (2012) uses Geographic Information Systems (GIS) and remote sensing to plot rhino poaching incidents in the Kruger National Park in another study. He differentiates between “organized” and “foot” poachers:

“The organized poacher with his helicopter, night vision and technologically advanced

¹⁴ Warchol found that Chinese organized crime groups controlled the trafficking in abalone.

¹⁵ “Capable guardians” refers to the quality of game rangers and supervisors, and presence or lack thereof due to labour laws or inadequate budgeting (Herbig/Warchol 2011: 13).

¹⁶ Situational crime prevention seeks to reduce opportunities for particular forms of crime (Lemieux/Clarke 2009). Ronald Clarke’s theory, which he conceptualised in 1980, has found resonance amongst criminologists and practitioners.

rifles receives an estimated R12 000 per kg compared to the unorganized “foot” poacher who receives an estimated R81 000 per horn.¹⁷ The final buyer will pay between \$20 000 to \$60 000 per kg, depending on whether it is a black or white rhino horn.¹⁸ The “money” circle involved within this criminal activity leads to various secondary crimes – the bribing of public custom officials, the illegal issuing of poaching permits, and so on.” (Eloff 2012: 4)

The rational choice and the routine activity theories stand out from classical criminological approaches, as they do not focus on criminal offenders and suitable criminal justice responses only. These theories consider situational features and the target, thereby bypassing critiques of mono-causal fallacies (Brantingham/Brantingham 1993: 259). Scholars claim to explain the complexities of the crime and the interconnectedness of offenders, situational features, and the target. The approach, nevertheless, falls short of explaining the social embeddedness of economic action, non-economic reasons for poaching (such as defiance of the rules or rule-makers) and the framing of the problem. An advantage to most criminological approaches is the action- or policy-driven agenda underpinning theory building. The routine activity and situational prevention approaches are both tailored towards offering policy and criminal justice interventions. In other words, theoretical constructs provide advice on how best to respond to the crime at hand. The action-orientated approach of criminology can also constitute a shortcoming: law enforcers and regulators are targeted with immediate and often short-term policy interventions, such as the provision of additional boots on the ground, new technologies, and military equipment. With regards to illegal wildlife markets, there tends to be limited consideration of the overall market structure, the structural drivers of offending and the question of demand. The theoretical and normative objectives of such approaches appear to overlap with the policy and budget objectives of law enforcement agencies and the military-industrial complex, which calls into question the autonomy and objectivity of such research (Abercrombie, Nicholas/Hill, Stephen/Turner, Bryan S [1984] 2006: 88).

¹⁷ The website www.oanda.com is used for currency conversion throughout this dissertation. Oanda offers historical currency conversions, which allow for a truthful reflection of the price of goods in the past. Where appropriate and known, historical rates of foreign exchange are reflected. As regards the current quotation: R 12 000 approximated € 1 120 and R 81 000 was worth € 7 600 in 2012.

¹⁸ This information is incorrect. According to data collected for this project and independently verified, buyers and sellers do not differentiate between white and black horn but between Asian and African horn. The former is highly coveted in TCM markets due its potency and rarity; consumers are hence willing to pay a premium. African rhino horn was traded for 25 000 to 45 000 \$/kg while Asian horn cost 45 000 to 65 000 \$/kg in Vietnam in September 2013.

The role of wildlife professionals in illegal supply markets is omitted in many contributions with a few notable exceptions: Milledge (2007) refers to the unregistered stockpiling of rhino horn and the laundering of horn into illegal flows. Milliken and Shaw (2012) and Rademeyer (2012) describe permit fraud and organized poaching. Beyond wildlife industry professionals, there are myriad NGOs, private security companies, and the military–industrial complex, all of which have become inextricably linked to anti–poaching measures and broader conservation issues. Their role in creating public awareness (a “moral panic” of sorts), and the framing of poaching as a security issue has been largely overlooked in the literature. Lunstrum (2014) observes a growing and mutually–beneficial partnership between public conservation officials and private military companies in the Kruger National Park. She refers to “the use of military and para-military (military-like) actors, techniques, technologies, and partnerships in the pursuit of conservation” as “green militarization” (Lunstrum 2014: 2), which has “led to a conservation–related arms race” (Lunstrum 2014: 7). Duffy (2014: 819) argues that parks agencies and conservation NGOs are “waging a war to save biodiversity.” According to Humphreys and Smith (2014: 795) the “rhino wars” have led to the “rhinofication” of South African security. The anti-poaching strategy has been fused with “broader issues of national security, such as the concern over South Africa’s borders and transnational crime” (ibid) and the persistent legacy of apartheid in the form of “white exceptionalism”, which precludes broad-based participation in wildlife management and conservation (Humphreys/Smith 2014: 818). Büscher and Ramutsindela (2016) extend the notion of “green militarization” and “rhinofication” to the broader concept of “green violence”, arguing that the discourse of war and violence underpins conservation initiatives in and beyond the physical boundaries of conservation areas. This dissertation deals with the impact of the conservation ‘arms race’ on economic and social structures. The “collateral damage” of these military interventions on social structures, such as village communities living in and around conservation areas, remains under-researched. Moreover, we do not know whether military and non–military interventions lead to the social reproduction of historical inequalities, stigmatization, and alienation of village communities, who, under different circumstances and framing, might be agents of change and disruptors of illegal horn supplies.

What is known about poaching in the broader literature on illegal hunting? Scholars face several dilemmas when writing about poachers and the act of poaching. Von Essen et al.

(2014: 7) comment on the difficulty of categorizing the motley assortment of actors involved in poaching and defining criteria to use in the process of categorization. The scholars distinguish between three main approaches that have been used to deconstruct poaching or illegal hunting: “drivers of deviance”¹⁹, “profiling perpetrators”²⁰ and “categorizing the crime” (von Essen et al. 2014: 1). In their opinion, the existing approaches ignore the socio-political dimensions of illegal hunting “that render a number of hunting crimes difficult to explain by use of economic and opportunist models of behaviour” (von Essen et al. 2014: 14–15). Instead of stigmatizing poachers as criminals,²¹ they propose a systematic examination of the socio-political context that may lead to illegal hunting (von Essen et al. 2014: 14). While

¹⁹ Muth and Bowe (1998) provide a comprehensive typology of poaching motivations, which includes commercial gain, household consumption, recreational satisfactions, trophy poaching, thrill killing, protection of self and property, poaching as rebellion, poaching as a traditional right, disagreements with specific regulations and gamesmanship.

²⁰ Using interviews with state conservation officials in Kentucky as a basis for classification, Eliason (2008) provides a motive-grounded typology of “backdoor poacher/hunter”, “experienced/habitual poacher”, “opportunist poacher”, “trophy poacher”, “poacher that mixes up his schedule” and “the quiet one”. Some scholars have subsumed these categories in their analyses (Blevins/Edwards 2009; Kahler/Gore 2012; Filteau 2012; Pires/Clarke 2012; Crow/Shelley/Stretesky 2013; Groff/Axelrod 2013). Others focus on the rural-urban divide (Brymer 1991; Jacoby 2003; Ingram 2009), trophy or sports hunting versus subsistence poaching (Parker/Wolok 1992), opportunistic versus sophisticated or organized poaching (Ayling 2013; Warchol/Zupan/Clack 2003; Brymer 1991). While these typologies provide useful analytical tools, they allow little flexibility as regards categorization of actors in more than one category, actors morphing from one category to the next, or their relationships with the state or wildlife professionals. For example, actors seeking upward social mobility may graduate from opportunistic poaching to pre-meditated organized poaching. In the African context, a continuum (rather than a typology) of subsistence, opportunity, trophy and organized poaching appears appropriate (my idea).

²¹ Scholars have made normative differentiations between “good” and “bad” poachers, which ties into the greater debate on the morality of hunting and gun ownership. In Western folklore, the notion of poaching conjures up images of Robin Hood and his gang sneaking through Sherwood Forest, hunting the King’s deer in defiance of the Sheriff of Nottingham (Muth 1998: 5). In this historical context, the act of poaching is shrouded in mythologies of resistance of the weak against the powerful or the oppressed against the oppressor. The myth of “good” versus “evil” poaching persists in many societies to this day. “Good” poachers are socially sanctioned or accepted by their community and law enforcement agents (von Essen et al. 2014; Fischer et al. 2013); “bad poachers” are perceived as morally repugnant and hence lack social and institutional legitimization. Hunters that engage in thrill-seeking (Muth/Bowe 1998; Katz 1988; Forsyth/Marckese 1993), trophy hunting of protected species (Eliason 2011), organized poaching to supply illegal markets (Cohen 1997) or hunting more than what they need or the use of unethical hunting practices (e.g. blinding animals with bright lights at night or electrofishing) lack social sanctioning amongst large sectors of society and the hunting fraternity (Bell/Hampshire/Topalidou 2007). The poachers themselves may engage in poaching for a number of reasons; some might be socially sanctioned, others not. Micro-level justifications for poaching range from the perceived harmlessness, through to necessity and reasonable action due to unfair rulemaking. The normative differentiation between “good” and “bad” poachers reveals not only what is acceptable to the poachers themselves, fellow community members and law enforcement but also to political and economic elites, who are responsible for steering the moral compass in society and hence, the development and implementation of wildlife rules and enforcement.

observance of the socio-political and socio-economic context is indeed overlooked in many contributions, some scholars consider socio-political factors influencing compliance or non-compliance with hunting or poaching rules. Kahler and Gore (2012) undertook a study of stakeholders' perceptions and motivations to uphold wildlife laws in Namibia. A number of motivations extended beyond what they termed "cooking pot and pocket book" explanations for poaching behaviour. Some poachers were motivated by rebellion or disagreements with the rules. These were linked to negative sentiments towards the establishment, governance or benefits distribution system of certain community conservancies in Namibia (Kahler/Gore 2012: 115).²² Filteau (2012) found that the interaction between game wardens and poachers was an important determinant of voluntary compliance with conservation rules. In studying motivations for illegal fishing in Lake Kerkini in northern Greece, Bell and colleagues (2007: 415) portray poaching as a form of collective resistance and "violation of the cultural aesthetics of the human-nature interaction". Poachers are seen as social actors "with group solidarity forming an important part of poaching behaviour". With the aid of a case study on the illegal protest-driven hunting of wolves in Nordic countries, von Essen and Allen (2015) argue that illegal hunting should be construed as a crime of dissent. Instead of focusing on crime and punishment, they suggest that the onus is on regulatory agencies to better communicate hunting directives and garner buy-in from hunters. Von Essen et al. (2014: 14) thus recommend an examination of the setting, the legitimacy of the legislation and interactions between hunters and the rest of society. They suggest defiance theory²³ as a theoretical anchoring for this approach. This theory has been tested in the broader field of criminology; however few wildlife crime studies (Bell/Hampshire/Topalidou 2007; Filteau 2012; Kahler/Gore 2012) classify illegal hunting as an expression of defiance or rebellion.²⁴

²² Kahler and Gore (2015) conducted a follow-up study in the north-western Zambezi region of Namibia. The study looked at how human-wildlife conflict (HWC) might influence the valuation of wildlife and potentially lead to poaching decisions. The study revisited inequitable benefit distribution systems, suggesting broader community engagement and nuanced open communication and messaging with local communities.

²³ The originator of the theory of defiance, Sherman (1993: 460) theorized that shaming offenders and excessive deserts increased the likelihood of reoffending under conditions where weak social bonds to the sanctioning society, and perception of unjust laws existed.

²⁴ Resource governance and management scholars apply the environmental justice framework to explain why actors operate outside resource management rules and systems. The case of abalone fishery in South Africa, for example, is used to demonstrate how management and anti-poaching responses have failed to suppress abalone poaching. Maria Hauck (2009) argues that social justice principles were not considered when fisheries law and policy were formulated and adopted after the end of the apartheid regime in South Africa. Local fishers do not

One technical report (Fenio 2014) in the broad literature on rhino poaching, references anger and marginalization of communities living adjacent to conservation areas as drivers of rhino poaching. The socio-political, economic and historical context of village communities living adjacent to conservation areas and their interactions with the state, conservation authorities and broader society, as well as consideration of how these contexts might tie into conservation objectives and rhino poaching, constitute gaps in the literature.

While this stream of scholarly work provides important empirical and theoretical contributions regarding poaching and supply-side dynamics, there is limited consideration of actors other than poachers, the consumer market or demand for rhino horn. A significant contribution is a critical engagement of some scholars regarding the usefulness of military interventions to disrupt poachers (green militarization, green violence, rhinofication). Others, on the other side of the normative spectrum, regard rhino poaching as an act of war (Gwin 2012) or as a “matter of national security” (Sellar 2015), linking the resilience of rhino poaching to insufficient law enforcement, inadequate legislation and unjust deserts, lack of political will and the need for more boots on the ground. Some scholars propose the legalization or free market regulation of the trade in rhino horn as a viable option to disrupt flows.²⁵ The resilience of the supply chain is hence linked to a failure of regulation on the supply side.

Other open questions are: How do poachers and buyers locate one another? Or formulated in more general terms: How do supply-side actors find buyers for illicit wildlife contraband in

support fishing governance arrangements due to socio-political and cultural factors, a top-down process of rule-making and implementation of the new fishery management system (Raemaekers et al. 2011; Hauck 2009). In an expression of unhappiness with the status quo and the quest for environmental and social justice, fishers catch protected species of fish in protected areas or exceed their quotas. In order to satisfy scientific and conservation agendas, the state often pays little attention to the needs of local people living in or near conservation areas.

²⁵ Several scholars offer a pro-trade stance in peer-reviewed journals (Child 2012; Conrad 2012; Moyle 2013; Biggs et al. 2013; Di Minin et al. 2014), technical reports (‘t Sas-Rolfes 2011; Martin 2012; Ferreira/Pfab/Knight 2014; Vigne 2013) and grey literature (Eustace 2012; ‘t Sas-Rolfes 2012). The surge in rhino poaching is frequently linked to the trade ban. Trade in horn (and other wildlife products) is suggested as a viable policy option to save the rhino from extinction. Proponents of this approach offer different trade models, such as legal trade through a central selling organization (Martin 2012), through ‘futures trading’ (Interview with pro-trade activist, 2013) or once-off auctions (Msimang 2012). At the other end of the spectrum is the anti-trade faction, whose stance and associated remedial policies differ in levels of persuasion, explanation and alternative strategies offered (Examples include: Scholtz 2012; Nadal/Aguayo 2014; Collins, A./Fraser, G./Snowball, J. 2013; Mason/Bulte/Horan 2012).

overseas markets? And vice versa (should the market be demand-driven): How does the prospective buyer of an illicit good pinpoint a supplier living on another continent? What are the roles and functions of other actors at the point of supply? Is the contestation of rules and rule-makers an issue only at the supply-end of the market? This dissertation aims to address these open questions.

1.2.2 Rhino horn trade as a transnational organized supply chain

Another stream of literature describes rhino horn trade as a “global supply chain” or “global production chain” that is demand-driven and dominated by organized crime networks. Australian criminologist Ayling (2013) provides a nuanced structure of this global supply chain. She subsumes poaching and organized crime networks under the category of “harvesting networks”. Ayling’s classification also includes theft networks that obtain rhino horn through theft from public and private stockpiles. Both harvesting and theft networks are linked to distribution networks that distribute rhino horn to consumers. She attributes the resilience²⁶ of the rhino horn supply chain to the inherent features of criminal networks and the operational environment they operate in. Environmental factors that facilitate resilience include “non- or partial implementation of rules”, “social norms that contradict the rules” and “the existence of complex or ambiguous rules and corruption” (Ayling 2013: 76 –77). She identifies gaps in knowledge with regards to how actors find each other and proceed to establish trust-based relationships and how they communicate and trade across national borders (Ayling 2013: 75). The question arising here is whether these relationships are necessarily reliant on trust; or whether a healthy dose of distrust, as suggested by Gambetta (1988b: 166) in his analysis of the Sicilian mafia, accompanied by secrecy, duplicity, intelligence sharing and betrayal, characterize such relationships.

The question of whether rhino horn poaching in specific and illegal wildlife markets in general, constitute a form of organized crime²⁷ or whether organized crime networks are the main

²⁶ Ayling (2013: 69) attributes two capacities to the concept of resilience, namely “the ability to absorb and thereby withstand disruption” and “to adapt, when necessary, to changes arising from that disruption”.

²⁷ The concept of ‘organized crime’ is contested. I will problematize this in later sections of the dissertation. Suffice to mention here that the term is used interchangeably to depict a group of actors or criminal activity.

players, is a contested issue in the literature. Ayling is somewhat ambiguous in her analysis, citing an authoritative report produced by Milliken and Shaw (2012) for the trade monitoring network TRAFFIC. The researchers provide a detailed description of South African actors involved in the supply chain between South Africa and Vietnam and the consumer market in Vietnam. According to them, “the organization and planning of South Africa’s rhino horn trade has rapidly evolved into a sophisticated and efficient phenomenon” (Milliken/Shaw 2012: 76). The assertion that multinational crime syndicates specializing in a bouquet of related illicit trades²⁸ have moved into the lucrative trade in rhino horn (Milliken/Shaw 2012: 12), is not further explained or referenced in the report. Milliken and Shaw proffer a hierarchical structure of the levels of organized crime involved in the rhino horn trade (see Graph 2).²⁹

Graph 2: Structure of rhino horn conduits



Source: adapted from Milliken and Shaw (2012: 61 and 78) and data provided by South African law enforcement officials

²⁸ These illicit trades include drug and diamond smuggling, human trafficking and economic exchange of other wildlife products like elephant ivory and abalone.

²⁹ The ‘levels’ pyramid reflects the thinking of South African law enforcement agencies such as the Directorate for Priority Crime Investigations (DPCI) and the National Wildlife Crime Reaction Unit (NWCURU).

It is suggested that local, national and international levels of organized crime manage the transnational trade chain, of which the highest level “invariably comprised Asian individuals” (Milliken/Shaw 2012: 62). Montesh (2013: 19) also points to the role of African-based Asian syndicate leaders in the supply chain, suggesting links to organized crime groups such as the Chinese Triads already resident in South Africa. It remains unclear how the different levels of organized crime are connected to one another. Milliken (2014: 18) explains in a subsequent TRAFFIC report that Level 4 operatives (international exporter, buyer or courier as per Graph 2) are “African-based Asian operatives with permanent resident or long-term status within key countries such as South Africa”. These operatives associate with corrupt actors within the private sector and state. They are highly mobile and well-financed, which allows them to travel in the southern African regions and Asia to set up deals (Milliken 2014: 18). While not further explained, the implicit suggestion is that the Level 4 operatives fulfill a bridging function between poachers and buyers by way of cooperative alliances and corruption. Milliken’s contribution is thus the acknowledgment of the existence of an interface between illegality and legality (the significance of the interface is explained in the next section) and the use of corruption by criminal players to ensure the continued flow of rhino horn from the source to the market. Investigative journalist Julian Rademeyer (2012)³⁰ supports the notion of a hierarchical structure underpinning organized rhino and wildlife trafficking networks but he also points to the flexibility and changeability of the overall network structure and its components. Rademeyer tracked down the “Pablo Escobar of animal trafficking”, Laotian national Vixay Keosavang, who is believed to head the Xayasavang network.³¹ The kingpin “remained in the shadows, a distant puppet-master reaping the rewards of the killing but rarely dirtying his own hands” (Rademeyer 2014b). He explains the resilience of the Xayasavang network by way of Keosavang’s arms-length approach to running the network, protection from arrest by Laotian law enforcement officials and huge financial resources as compared to the lesser resources of law enforcement agencies, bureaucratic red-tape and “investigations [*that*] stop where borders start”. Hendrik and Elise Daffue (2013) provide a

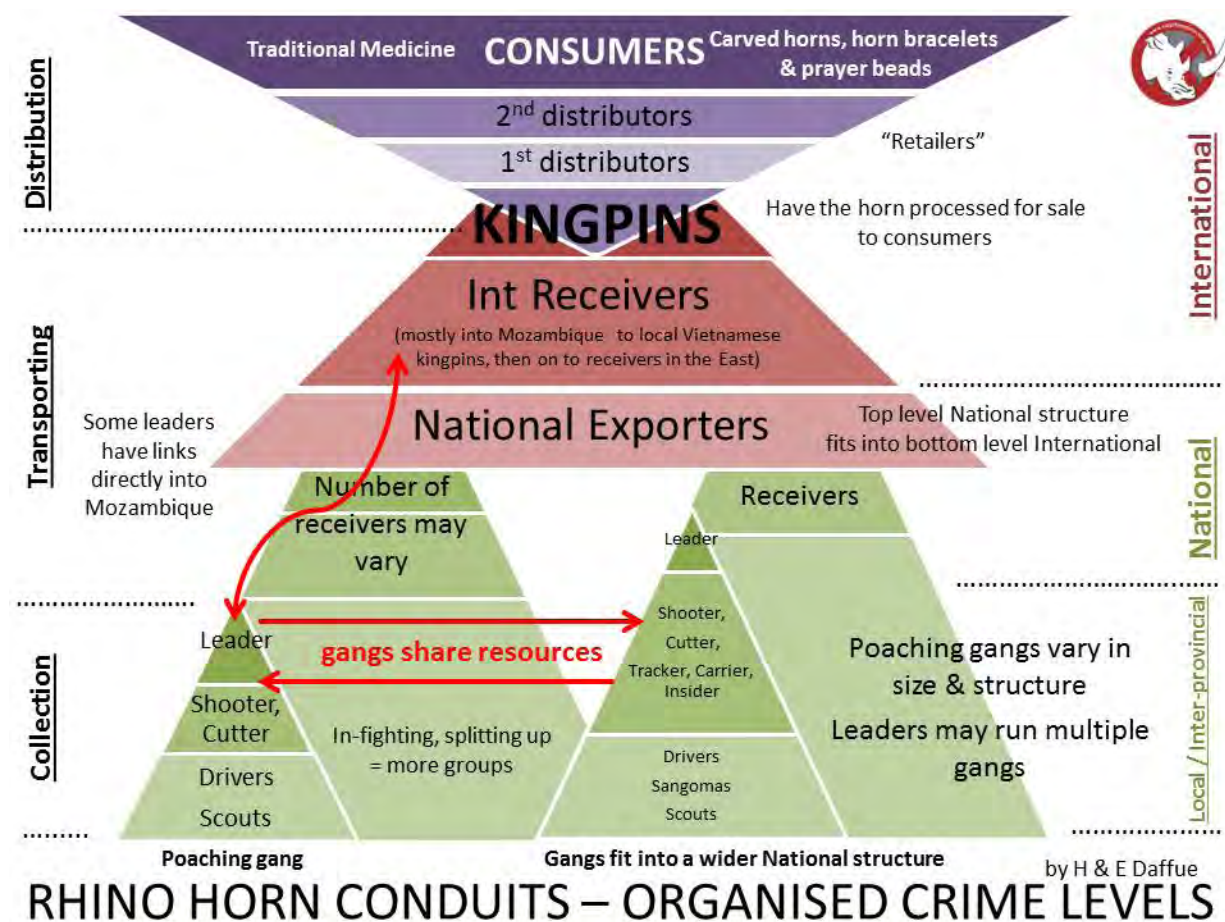
³⁰ Rademeyer researched the illegal rhino horn trade over a 2-year period, culminating in the publication of his non-fiction book *Killing for Profit: Exposing the illegal rhino horn trade* in 2012.

³¹ US authorities issued a one million Dollar reward for information leading to the dismantling of the network in 2013 (Kerry 2013). The criminal network was involved in a clever scam, which involved the falsification of hunting permits. The scheme will be discussed in later sections of the dissertation.

nuanced structure of the global trade chain (see Graph 3) in a newsletter publication of a rhino conservation NGO (for more details see: Daffue 2013). The newsletter provides a detailed analysis of the composition of rhino poaching groups and their modus operandi, dealing with what is termed the “collection” stage of the supply chain in the graph. The authors provide no further explanations as to the mechanisms that connect the ‘collection’ stage to the subsequent segments of the horn conduits, other than the sidebar “some leaders have links directly into Mozambique”.

The stated role of organized crime in rhino and wildlife crimes echoes the sentiments of several organized crime scholars and high-level practitioners (Sellar 2008; Bennett 2012; UNODC 2010; Nellemann et al. 2014; Gosling/Reitano/Shaw 2014; Felbab-Brown 2011). These experts see transnational organized criminals increasingly entering the illegal wildlife trade as a “low-risk and high-reward activity” (Cook/Roberts 2002: 4).

Graph 3: Structure of organized rhino horn networks



Source: Hendrik and Elise Daffue (2013)

Retired CITES law enforcement official John M. Sellar (2014c: 2) notes the ability of organized crime networks to innovate and to venture into new commodities, territories and markets – he believes that the trade in endangered species offers a lucrative new business opportunity. Links to terrorist and rebel groupings have also been suggested, especially in relation to elephant poaching and ivory trafficking in East Africa (Lopes 2014; Cardamone 2012; Levey 2007; Brooke Darby 2014; Vira/Ewing 2014). Vira and Ewing (2014: 3) argue:

“At the most macro level, the ivory trade is essentially a large-scale illicit resource transfer from Africa to Asia; on the ground, however, ivory is bush currency for militants, militias, and terrorists, and one of the most valuable pieces of illicit contraband for organized criminals and corrupt elites.”

Organized crime scholars and practitioners look at the structure and composition of organized crime to provide answers as to why this group of actors is difficult to disrupt. Within the literature four models of organized crime have been suggested (Standing 2006: 71–77): the bureaucratic, network, clan or mafia, and business model. The bureaucratic model (Cressey 1969) tallies with Max Weber’s understanding of a rational bureaucracy (Weber [1921] 1972: 551–579). Social order is achieved through rules and planning, a hierarchical award structure, a predetermined contract setting out norms and rules of engagement, and areas of specialization. According to the network model (Chambliss 1988; Williams 1998), actors pursue a flat, flexible and informal approach to coordinating criminal activities. Shared economic objectives are achieved through relationships based on trust while mutual dependency operates as the central coordinating mechanism (Standing 2006: 72–73). Networks are formed through introductions and shared connections, which complements Granovetter’s theory on the strength of weak ties (Granovetter 1983).³² Paoli (2001) has devised the ‘clan’ model of organized crime. Family and kinship ties determine membership while group loyalty and solidarity are the central coordinating mechanisms. According to the ‘business’ or ‘enterprise’ model of organized crime (Reuter 1985; Schelling 1967; Schelling 1978), rational economic actors coordinate criminal activities on the basis of cost/benefit

³² Granovetter (1983: 1378) argues that weak ties are essential to an individual’s opportunities and integration into communities while strong ties lead to local cohesion but overall fragmentation. I will return to Granovetter’s assumptions in the next section.

calculations.³³ Market forces are believed to shape the coordination and organization of crime. In direct contradiction of the other three models, Reuter (1985) argues that ‘organized crime’ seldom achieves monopoly control in illegal markets due to economic forces including economies of scale, and peculiarities to illegal markets (such as legally unenforceable contracts). According to Reuter, organized crime may make use of violence to increase its market share in illegal markets; however, the use or threat of violence comes with its own potential pitfalls such as competition by other violent groups or unwanted attention from law enforcers (Reuter 1985: 20–21). Both elements – the use or threat of violence and competition – constitute important analytical considerations in understanding illegal markets and hence deserve further attention in the section on theoretical framing (discussed in the next section).

Cost/benefit calculations constitute explicit rational choice assumptions of the business model³⁴ - the other models are however also steeped in rational choice assumptions. Scholars present each organized crime model as a superior crime coordination mechanism against regulation (law enforcement). Moreover, the officially recognized but contested definition of organized crime emphasizes the profit motif of organized crime irrespective of the ideal type or model.³⁵ Law enforcement responses to disrupt or dismantle organized crime are tailored according to the assumptions of the preferred model of organized crime, ignoring hybrid formations or the transnational reach of some organized crime groups. Nonetheless, the composition and structure of organized crime groups, as suggested by these models, shed light on questions of trust, group cohesion, and control, and thus on the issue of the resilience of such groups. These insights, however, do not constitute a sufficient explanation of the

³³ Elements of the previous paragraph were used as part of a paper entitled “Economic sociology and opportunities for organized crime research” in *Economic Sociology – The European Electronic Newsletter*. The newsletter was published in July 2015 and is available at: http://econsoc.mpifg.de/archive/econ_soc_16-3.pdf#page=38.

³⁴ Curiously, economists had initially snubbed organized crime research due to the perception that criminal actors were irrational, and the field was better suited “to a sociological analysis of pathologies and deviances” (Fiorentini/Peltzman 1997: 2).

³⁵ State actors involved in the Palermo negotiations leading to the final text of the United Nations Convention against Transnational Organized Crime agreed that four characteristics were essential criteria of the crime. Organized crime thus involved a group of two or more persons, who were acting in concert to commit a “serious” crime repeatedly for financial or material gain (United Nations General Assembly 15 November 2000).

resilience of illegal markets. The clan model, for example, suggests that trust is contingent on membership of the group and reproduced through family or kinship ties. The internal control structure centres on *omertà*³⁶ and enforcement of the same oath against those who break it. As suggested by Gambetta (1988b), distrust of one's associates and business partners might lead to additional security precautions. Trust within network or business-like structures might be negotiated through different strategies such as reputation and the reliance on existing or previous network connections within legal and illegal markets. Another mechanism relates to the tricky issue of information sharing: operational information might thus be shared on a need-to-know basis with those networks or nodes necessary for the execution of a planned activity. In the case of defection or neutralization, only those directly linked to the node or network (strong ties) might be temporarily or permanently disabled. The four models are presented as stand-alone and opposing ideal types in the organized crime literature. Each model, therefore, carries explicit normative assumptions with regards to the benefits of its associated type of crime coordination and suitable law enforcement interventions. Scholars face the danger of paradigmatic convergence by presenting or tailoring data to suit the normative and theoretical assumptions of their chosen model (Standing 2003: 17). Criminal entities are however unlikely to conform to any one of the suggested models (ibid). In fact, crime coordination may rely on hybrid formations that align with the geographic, political and temporal context, as well as the personal preferences of those involved (Standing 2003: 20).

A final noteworthy aspect of organized crime literature is the dominant narrative of stigmatizing "the other". Although the so-called 'alien conspiracy theory'³⁷ has been discredited in the literature (Varese 2011; Gambetta 2009; Naylor 2004 (b); Reuter 1987); stereotypical notions of "good versus evil" or an underworld of criminals versus a sea of law-abiding citizens persists in much of the literature.³⁸ Of concern in the rhino literature is the

³⁶ 'Omertà' refers to the code of silence practised by some mafia groups, preventing Mafiosi from cooperating with agents of the state. Similar oaths, signs, and symbols have been observed in the Triads, Yakuza and street gangs.

³⁷ The alien conspiracy theory was borne out of findings of the US Senate's Kefauver Committee. The report identified organized crime with the mafia or mafia-like groups (foreigners). These groups were supposedly hierarchically organized, threatened the integrity of local government while infiltrating legitimate business and subverting the integrity of a free society.

³⁸ Beare postulates that this narrative is also visible in the international conceptualization of organized crime as per the United Nations Convention against Transnational Organized Crime (United Nations General Assembly 15

“othering” and stigmatization of foreign criminals while the role of local crime syndicates, wildlife industry players and state actors is downplayed (Daffue 2013; Montesh 2013). This further contributes to established notions of foreign or “transnational” organized crime networks disrupting political governance and economic structures in southern Africa while local or “indigenous” criminal groups serve as the foot soldiers of these foreign groups (see for example: Standing 2003). Corruption is presented as a key strategy of organized crime to undermine the government, law enforcement, and the formal economy. The idea of a foreign-dominated parasitic conspiracy that rides on the weaknesses of regulatory and legislative structures as suggested in the literature is critically interrogated in this dissertation. The reliance on this traditional notion of ‘organized crime’ as the driving force behind the illegal rhino horn market ignores the role of other ‘non-criminal’ actors within the supply chain, such as the role of consumers, cultural frames that influence valuation, tastes and preferences (Dewey 2014a: 5–6).

While these models provide partial explananda as to why organized crime is resilient and why some illegal markets are difficult to disrupt, the social embeddedness of illegal economic action, the impact of regulation on the organizational structure of illegal markets, the interface between legality and illegality, as well as cultural explanations for the resilience of illegal markets constitute gaps in existing literature and research. An important analytical consideration is whether the difficulty of disrupting rhino horn markets is linked to the profile of the actors (such as the composition and structure of organized crime), or whether intrinsic (valuation of rhino horn) and structural features relating to the market and different flows of horn provide sufficient or partial explananda of the resilience of rhino horn supply chains. Similar to the research gap pointed out in the previous sub-section, this stream of literature falls short of providing a convincing answer as to how different segments in the rhino horn supply chain are interlinked. Put differently, using the suggested hierarchical model of organized rhino crimes: How do the various levels in the rhino horn organized crime hierarchy connect to one another? Put into a sociological perspective: How are illegal economic actions

November 2000). According to her, the convention “reproduces a global hegemonic rhetoric and countermeasures that depend on the public’s perception of a growing threat of transnational crime that originates from countries foreign to the ‘developed’ metropolis, led by organized ‘mafia’-like networks and gangsters who are seen to threaten the peace and security of the core capitalist nations, and requiring a state response of strict border and immigration controls”(Beare 2003: XVIII).

at the micro-level (poaching, illegal harvesting and theft) connected to trade structures at the macro-level (horn trafficking and distribution)? With regards to the overall rhino horn market structure, an open question pertains to whether the notion of “organized crime” as conceived in the rhino and broader organized crime literature is a useful conceptual and theoretical construct, or whether it serves to muddy the analytical waters and feeds into regulatory objectives.

1.2.3 Rhino horn trade as a multi-actor business enterprise

The dominant narrative assigns organized crime as a rising if not dominant actor in illicit wildlife markets, a few researchers (Ellis 1994; Naylor 2004; Wyatt 2009; Wyatt 2011) nonetheless point to the significant role of agents of the state, the wildlife industry and conservation NGOs in such markets. In this stream of literature, illegal rhino horn trade is described as a business enterprise facilitated by a multitude of diverse actors with close, limited or no links to ‘organized crime’. Insider knowledge of market structures and exposure or access to political or economic elites render such actors important facilitators or intermediaries of illegal wildlife markets. The issue of agency in the illegal wildlife markets is not only theoretically significant but also bears policy consequences in the real world. Regulatory responses to ‘insider trading’ within the wildlife industry, corruption and collusion between state and industry players, as opposed to organized crime and terror networks, are likely to differ in terms of the perceived seriousness of the crime, punishment and recompenses.

Several reports attempt to debunk the ascendancy of organized crime in wildlife crime. A report issued on behalf of WWF and TRAFFIC in 2002 for example, found limited evidence of the involvement of “major” organized crime groups³⁹ in illegal wildlife markets (Cook/Roberts 2002). The authors observe an exception with regards to illegal caviar markets in Russia and “in key drug production and distribution states which coincide with major range states for wildlife” (Cook/Roberts 2002: 23). Schneider (2012: 53) postulates that due to transnational

³⁹ The authors denote as “major” organized crime groups well-known South American, West African, Chinese, West Indian and Russian networks.

criminals having mastered the art of trafficking legal and illegal contraband and people across borders, the inference that such criminals might be involved in the illegal wildlife trade is not far-fetched. Beyond the illegal trade in sturgeon/caviar, abalone, shark fin and tigers, she found, however, anecdotal and speculative evidence only to suggest the link (Schneider 2012: 57). Naylor (2004: 263) refers to the “recurrent fables” of “Organized Crime” (Naylor’s capitalization) operating in illegal wildlife markets “along with stories about links between wildlife trafficking and drug smuggling, and parallel claims that the contraband in wildlife ranks second only to that in drugs in terms of value”. Naylor (2004: op cit) points to the dominant role of the wildlife industry and corrupt state officials in the illegal wildlife trade:

“In reality this is a business largely run by industry insiders from the forest to the factory, from primary acquisition to final sale, although it may be aided and abetted by complicit politicians and corrupt functionaries.”

Green criminologist Tanya Wyatt (2009) found that strict regulation of the Russian fur trade constituted significant barriers to entry, preventing ‘organized crime’ and other ‘outsiders’ from entering the lucrative illegal trade. Local impoverished villagers from the *taiga*, registered hunters, wealthy individuals, and law enforcement officials poach, hunt or lay traps for wild animals whose pelts are destined for the fur trade. Well-heeled people with political connections or business interests in the legal fur trade act as the intermediaries and launder illegally obtained pelts into legal trade channels. Cook (2002: 23) argues that familiarity with trade controls, government regulations, and transport routes would provide actors already in the legal trade with knowledge of the ‘tricks of the trade’ and possible legal loopholes to exploit opportunities in illegal markets.⁴⁰

A limited number of scholars cast the net beyond the ‘usual suspects’ – poachers and organized crime – in research analysing the rhino horn supply chain. Stephen Ellis (1994) provides a succinct analysis of the South African apartheid state’s involvement in the ivory and rhino horn trade structures of the 1970s and 1980s by showing how these illicit trades financed the South African secret services and individuals linked to them. The historian

⁴⁰ Some studies point to the falsification of CITES permits, import/export customs documents or to the manipulation of domestic permitting systems regulating domestic or cross-border trade of live wildlife or wildlife products (Naylor 2004; Schneider 2012; Felbab-Brown 2011), and specifically in the case of rhinos (Rademeyer 2012; Falberg 2013; Milliken/Shaw 2012; Orenstein 2013; Leader-Williams 2003).

provides fascinating insights on the nexus between the military apparatus and conservation actors in southern Africa, which are not only relevant to current debates relating to the militarized conservation paradigm but also point to the possible beginnings of a blurring between legal and illegal market exchanges in rhino horn. Other researchers (Rademeyer 2012; Milliken 2014; Milliken/Shaw 2012; Animal Rights Africa 2009) depict the complicit role of wildlife industry actors along rhino horn supply chains. Rademeyer (2012), for example, shows the involvement of the “boeremafia” (white Afrikaners who are involved in the wildlife industry) in the illegal rhino horn trade. While authors describe permit fraud and the laundering of illegally harvested horn into legal flows, the literature remains silent on the social mechanisms and market structures that enable these flows.

It also remains unclear how wildlife industry actors (and the ‘usual suspects’) are connected to Asian distribution networks. Another gap relates to how actors make initial contact and establish business relations despite cleavages based on language, culture, nationality, social status and ethnicity. Moreover, little is known about the vertical and horizontal integration of these diverse actors in the transnational trade chain. While the public discourse on the “rhino crisis” is increasingly steered towards the ‘underworld’ of organized crime and terrorism, important questions relating to the interface between legality and illegality remain unresolved.

Meanwhile, scholars from the field of antiquities trafficking have shifted the theoretical focus from static structural notions of ‘organized crime’ to conceiving of hybrid formations that move looted cultural objects from the source to the market. Mackenzie and Davis’ research into the anatomy of antiquities trafficking networks in Cambodia provides significant insights on the integration of ‘groups’ and ‘networks’ of actors using a social capital approach (Mackenzie/Davis 2014).⁴¹ The scholars identify trade channels along which looted artefacts are moved from cultural-historical sites to the international market buyer (frequently a legitimate trade outlet). The responsible trafficking networks are “stable, hierarchical and

⁴¹ Wing Lo (2010: 868) pioneered a social capital framing and applied it to a study of Triad societies in Hong Kong and China. He identified internal ‘bonding capital’ in traditional hierarchical organized crime groups, together with horizontal ‘bridging’ and vertical ‘linking’ capital. These social coordination mechanisms provide opportunities for illegal trade, including the collusion with other legitimate and illegitimate groups, or corrupt state interests.

repetitively functioning supply chains” (Mackenzie/Davis 2014: 16). Given the many parallels between antiquities and wildlife trafficking supply chains,⁴² their conclusion (Mackenzie/Davis 2014: 4) provides helpful hints on how to model rhino horn supply chains:

“Broadly stated, our conclusion will be that while the present case study is undoubtedly of a network, in which nodes, contacts and certain types of social capital are useful explanatory concepts, there is also an observable stability, and identifiable forms of hierarchy, both along the chain of the whole network and within each of its nodes. We conceptualize the network as a repetitive process, having developed by way of linking nodal actors in long-term trading relations, and harnessing the benefits at different stages in the chain of both localized territorial ‘structure-controlled’ organized crime and (as the trades move increasingly towards the transnational) more flexible entrepreneurial trafficker-dealers who are less tied into frameworks involving territory or group.”

1.2.4 Synthesizing the research gaps

The earlier sub-sections were aimed at highlighting important theoretical contributions and gaps within the literature. An overview of the literature on the demand or consumer market was excluded from the literature review as too little is known to warrant a separate subsection. When it comes to the distribution and trade of rhino horn in consumer markets, the literature predominantly refers to the traditional medicines markets in Asia (‘t Sas-Rolfes 2012; Nowell 2012a; Drury 2009; Rademeyer 2012). Several technical reports and journalistic investigations (Ipsos Marketing 2013; Milliken/Shaw 2012; Gwin 2012; Amman 2013b) reference new demand and user groups and are considered as such in the chapter dealing with the demand and valuation of rhino horn. With regards to understanding the demand for rhino horn, many open questions remain. It is unclear why consumers are willing to pay a premium for a keratin-like substance and how quality control is enforced in light of the high

⁴² Alder and Polker (2005) and Brodie (2003) note similarities regarding the functioning of the illicit supply chain, differentiation, the main actors and roles, exploitative effects, smuggling networks and corruptive influences. Bowman (2008: 226) argues that unlike other trafficked goods, the trade in antiquities is legal per se; however, the illicit source has to be disguised to render the stolen artefact profitable. When it comes to gray flows of wildlife contraband, the illicit source (poaching) is also changed to legal sources (trophy hunting). Moreover, illegal wildlife contraband is equally sold at high prices to buyers of high socio-economic status (Bowman 2008) or those seeking upward social mobility.

incidence of fake rhino horn at the source and in the consumer market (Amman 2013a). Other unanswered questions pertain to the structure and functioning of distribution and trade networks.

In synthesizing the contributions of existing literature on the illegal rhino horn trade, several gaps and shortcomings have been noted. The different streams of literature suffer from theoretical separateness in that only a specific aspect or segment of the illegal trade chain is considered. While scholars acknowledge the existence of a “global supply chain” or of a “transnational trade chain”, it remains unclear how the different segments of the supply chain are bridged across cleavages from different nationalities, ethnicities, social strata, languages, and cultures. With a few notable exceptions (Ellis 1994; Milliken/Shaw 2012; Rademeyer 2012; Naylor 2004), scholars focus on the “usual suspects” – poachers and organized criminals – without interrogating the role of the state, the wildlife industry, and other actors. The resilience of the supply chain is linked to shortcomings within the regulatory framework. Scholars recommend that the state should put more “boots on the ground” (increased securitization and militarization), amend the regulatory framework or refocus attention to the perceived organized crime threat. A few scholars (Büscher/Ramutsindela 2016; Lunstrum 2014; Massé/Lunstrum 2015) have questioned the prudence of such measures, thereby pointing to the flawed basis of the regulatory framework. Others (Ayling 2013; von Essen/Allen 2015) have argued that the perceived illegitimacy of rules and norms might provide a conducive environment for wildlife crime to flourish. With the exception of the final stream of literature (subsection 1.2.3), scholars have paid limited attention to the interface between legality and illegality. An open question relates to the role of ‘organized crime’ in the illegal rhino horn trade and how regulation impacts the global supply chain. None of these streams of literature delivers a satisfactory answer as to why the rhino has not been better protected in light of the myriad measures to disrupt illegal rhino horn markets. It is against this background that a theoretical framework based on the sociology of markets in the field of economic sociology is proposed in the following section.

1.3 Theoretical framing

A theoretical approach grounded in economic sociology has been chosen to address the gaps identified in the previous section. This theoretical lens offers both theoretical and empirical integration by studying networks, institutions, and cognitive frames. The recognition that markets are socially, culturally and politically embedded is of significance here. Economic sociologists are concerned with understanding (“*verstehen*”) the social embeddedness⁴³ of economic action and institutions (Granovetter/Swedberg 2011: XIX). Granovetter (1985: 487) explains:

“Actors do not behave or decide as atoms outside a social context, nor do they adhere slavishly to a script written for them by the particular intersection of social categories that they happen to occupy. Their attempts at purposive action are instead embedded in concrete, ongoing systems of social relations.”

Strategic sites of inquiry within economic sociology include markets, social networks and institutions. While a growing body of literature considers the structure and mechanics of the informal economy,⁴⁴ the study of illegal and transnational markets remains understudied in the field of economic sociology.⁴⁵ Specific caveats identified by Beckert and Wehinger (2011),

⁴³ Granovetter revived the concept of “embeddedness” in his much-cited article published in 1985, which suggested that economic action was embedded in social structures (Granovetter 1985). The article inspired many sociologists to become interested in the field and gave a new life to the concept of “embeddedness”, which had featured in Karl Polanyi’s collaborative book *Trade and market in the early empires*’ (Polanyi/Arensberg/Pearson 1957). Polanyi’s usage of the concept was limited to pre-industrial societies, which he deemed to be embedded in social, religious and political institutions. To him and other scholars, the Industrial Revolution presented a watershed. As of then, economic transactions were no longer defined “by the social or kinship obligations of those transacting but by rational calculations of individual gain” (Granovetter, 1985: 482).

⁴⁴ Labour anthropologist Keith Hart coined the term “informal economy” after conducting research on urban labour markets in Ghana during the 1970s. He postulated a dualist system of income opportunities of the urban labour force by distinguishing between wage labour and self-employment. The World Bank, the International Labour Organization (ILO) and many others have since re-appropriated the concept, and it has become somewhat contested in development literature. Several conceptually and theoretically interesting research studies have been published in recent years (Hart 1990; Portes/Haller 2005; Portes 2010; Feige 1989; De Soto 1989; Jenkins 1988; Schneider 2002; Fernández-Kelly/Shefner 2006). Geertz (1978: 120-121) in his seminal text on informal economies shows, for example, how the quest for information in Moroccan bazaars “is an advanced art (...), a matter upon which everything turns.”

⁴⁵ Amongst the few published contributions are Beckert and Wehinger’s theoretical and conceptual framework for illegal markets (Beckert/Wehinger 2011; Beckert/Wehinger 2013); Wehinger’s monograph comprising a detailed review of literature on illegal markets (Wehinger 2011); and journal articles on the emergence of illegal markets after a crisis scenario (Dewey 2014a), police protection in the used car parts market in Argentina (Dewey 2011), “street capital” and cannabis dealing in Norway (Sandberg 2008), the importance of culture in the illegal

include amongst others, the organizational features of illegal markets, the interface between legal and illegal markets and the role of the state in illegal markets. These caveats dovetail with the research gaps identified in the previous section. In spite of scholarly interest in globalization, economic sociologists have also paid scant attention to ‘global’ or ‘transnational’ markets (Aspers 2011: 175; Quack 2009: 125). Quack (2009: 134) attributes the lacuna to scholarly preoccupation with the nation state as the sole political authority and the preference for perceiving markets as unified social orders. Transnational markets are “likely to be populated by actors with heterogeneous cultural and institutional orientations”.

The discipline of economic sociology provides nuanced ideas as to the theoretical integration of social networks, institutions and cognitive frames when explaining the structure and functioning of markets. The following sub-sections will highlight theoretical constructs, the explanatory approach and argument of the dissertation.

1.3.1 Rhino horn markets are socially embedded

Of interest to my project is the subfield of the sociology of markets, which attempts to “understand the origins, operations, and dynamics of markets as social structures”(Fligstein/Dauter 2007: 106). The subfield includes, amongst others, the study of firms and commodity markets, relationships between suppliers, workers and regulatory institutions and the role of local cultures as systems of meanings insofar as they influence product preferences, and the role of moral norms in the generation of particular kinds of markets. Markets are seen as the core economic institutions of capitalist economies. While enabling an economic mechanism for the allocation of goods and services, markets are also social institutions, inseparably interwoven with the political, social, and cultural environments in which they operate (Beckert 2009). Economic sociologists have employed a number of explanatory mechanisms to explain the emergence and functioning of markets, such as markets as networks (Granovetter 1985; White 1981); markets as institutions

drug economy (Sandberg 2012) and why Norwegian cannabis growers keep a small-scale production (Hammersvik/Sandberg/Pedersen 2012) .

(DiMaggio/Powell 1983; Fligstein 2001a); markets as fields (Bourdieu [2000] 2005 (a); Bourdieu 2005 (b)); and the performativity approach which examines the role of economic theory in market structuration (MacKenzie 2003; Callon 1998). In employing one of these explanatory mechanisms or by focusing on specific aspects of markets, scholarly contributions may suffer from “theoretical separateness” (Fligstein/Dauter 2007: 2). To circumvent this shortcoming and cognizant of the lacunae noted in the literature review, the notion of markets as fields is used as the theoretical backbone of the dissertation.

This approach integrates social networks, institutions and cognitive frames, and regards them as irreducible macrostructures while also offering a nuanced explanatory mechanism that incorporates structure and agency (Beckert 2010: 611). According to this train of thought, markets are composed of “a heterogeneous group of actors that constitute a social arena by orienting their actions toward each other” (Fligstein 2001b: 108). Actors in the market field are producers, consumers and intermediary regulatory agencies ranging from the state to unions, lobbying, advocacy and social movement groups (Beckert 2010: 611). Beckert (2010: 612) posits that: “[e]ach of the three structuring forces contributes to the social organization of market exchanges by shaping opportunities and constraints of agents as well as perceptions of legitimacy and illegitimacy.” The issue of agency is dealt with through recognising the following:

“Agency in fields is structured by the influences that social forces exercise on the actors who populate the field. These forces consist of the relational topographies of networks, the institutional rules prevalent in the field, and cognitive frames structuring the perceptions of agents” (Beckert 2010: 611–612).

Although the framework was conceived for legal markets, it will be argued that the same types of actors are relevant to illegal and grey markets. With regards to the chosen product market of this dissertation – rhino horn – legal and illegal producers (poachers, hunters, thieves, wildlife professionals and agents of the state), transporters (organized crime groups, wildlife professionals and agents of the state), intermediary regulatory agencies (the international community through CITES, representatives of the state, conservation NGOs, private security companies, and businesses), as well as consumers interact and structure the market for rhino horn. Of significance is that the global market for rhino horn consists of legal,

gray and illegal flows, which raises intriguing questions as to whether the same actors are of importance in each flow and whether there are connections between the different flows (interface between legal, gray and illegal market), as opposed to understanding the connections between different segments of the supply chain only. The institutional rules are but one of the structuring forces influencing the flow of rhino horn.

1.3.2 Defining 'illegal markets' and introducing the notion of 'flows'

The global rhino horn trade is understood in terms of a sociological definition of markets, which describes markets as “arenas of regular voluntary exchange of goods or services for money, [goods or services of equitable value] ⁴⁶... under conditions of competition” (Beckert and Aspers (2008) cited in: Beckert/Wehinger 2013: 7). Markets are thus not only characterized by economic exchange but they also involve competition whereby at least three actors are pitted against one another at the supply and demand end of the market (Beckert 2007: 7). Weber (quoted in: Abercrombie, Nicholas/Hill, Stephen/Turner, Bryan S. [1984] 2006) defined competition as a peaceful conflict to attain control over scarce resources. In the context of this dissertation, Weber’s definition is particularly interesting as rhinos are not only rare, but they are also endangered. The question arising here is whether competition is likely to become less ‘peaceful’ and more violent as rhino numbers continue to dwindle. The subsection on competition will deal with this in more detail. A significant factor leading to the emergence of markets is that market actors need to show interest in the exchange of the goods or services. Conflicts may, however, arise as regards the price or specifications of the products or services to be traded. Ultimately the actors have to reach a compromise for the economic exchange to succeed (ibid). Based on the assumption of mutual respect for property rights, market exchanges ought to be voluntary and peaceful in the formal sector (Aspers/Beckert 2011: 4-5).

⁴⁶ Jens Beckert has adjusted his definition of markets to include exchanges, which are not subject to money transactions but could involve the barter or exchange of similar goods or services (Ph.D. consultation between Jens Beckert and Annette Hübschle). An obvious advantage of avoiding monetary transactions is the lack of paper or audit trail, thus rendering obsolete the “follow the money” approach of law enforcement agencies.

Markets are considered illegal if the product *per se*, its exchange or consumption violates legal stipulations. The state denies property rights in such markets, sets and enforces no quality standards and has the power to prosecute market actors (Beckert/Wehinger 2013: 7).⁴⁷ What renders a market “illegal” is, therefore, a matter of legal definition and may differ between legal jurisdictions and across time (Beckert/Wehinger 2013: 7). The fact that an element of an economic exchange is deemed illegal in a specific place at a certain point in time bears not only actionable consequences for the actors but is likely to impact the structure and functioning of the market (compare with the section on ‘contested illegality’). A distinction needs to be made with regards to economic exchanges that occur at the interface between legality and illegality; these markets are neither legal nor illegal as they hover in an undetermined gray zone. Some market actors may exploit legal or enforcement loopholes in what I term ‘gray markets’. Actors capitalize on ambiguities of the legal/illegality nexus by falsifying the provenance of a traded good as a formerly legal commodity (e.g. pre-CITES horn) or convert an illegally acquired good to a ‘legal’ commodity (e.g. poached horn is converted into trophy hunted rhino horn).

A further consideration relates to the transnational nature of the illegal market in rhino horn. Historically, market and place were closely intertwined. While markets often involved the inclusion of long distance trade and foreign merchants, markets were connected to the social and economic lives of local communities, occurring at fixed intervals and in specific places – the local marketplace (Zukin 1993: 6). With the emergence of migrant labour and hut taxes during the colonial era in the southern African context,⁴⁸ market and place started to separate. Producers, traders and consumers no longer had to be at a fixed time and location to engage in economic exchange. In the current climate of instantaneous capital flows, global transactions and virtual marketplaces, economic transactions are fluid and difficult to police or locate. In recognition of the fluid and dynamic structure of the market, the concept of transnational flows (instead of commodity or supply chains) is employed in this dissertation.

⁴⁷ Government’s ability to prosecute market actors is not only restricted to illegal markets. The state may equally prosecute market actors in legal or gray markets.

⁴⁸ A similar pattern can be observed in Western Europe during Industrialization (see for example: Polanyi/Arensberg/Pearson 1957).

The concept of flows is useful in showcasing the fluid connections and crossovers between legal, illegal and gray economic exchanges. Castells (1999: 295) introduced the concept of “spaces of flow”, suggesting, “material arrangements allow for simultaneity of social practices without territorial contiguity”. Castells (2011: 407) and others (van Sluis et al. 2012; Côté-Boucher 2015; van Sluis/Marks/Bekkers 2011) use the concept of flows with specific reference to the “network society”,⁴⁹ which is characterized by increasing fragmentation of individuals and communities, necessitating interdependent relationships between individuals, public services, the police, information communication technology (ITC) and modes of transport. According to this view, people, money, goods, and information are in circulation, traveling to and from different places, employing different infrastructures and thereby generating different “flows” which connect, collide or meet in nodes (van Sluis et al. 2012: 73). The governance of flows and nodes provides a complex conundrum to regulators while offering immediacy, connectedness and new opportunities for economic actors operating in legal, gray or illegal markets.

In the context of this dissertation, the idea of dynamic flows instead of supply, commodity or trade chains allows flexibility with regards to trajectories, influences and contingent relationships that may evolve, develop or perish between actors, flows and institutions in the market field. Taken in a literal sense, the concept of ‘flows’ may invoke different characteristics, such as bifurcation (flows split because of a blockage, disruption or intervention), directionality and interdependence (what happens upstream may have an impact downstream), the confluence of tributaries (flows that merge), dead ends (flows that dry up or disappear), deltas (a flow splits into myriad offshoots), dry riverbeds that flow again upon new rains (re-joining flows). The idea of different flows forming constitutive elements of the aggregate market in rhino horn presents a dynamic model that integrates market processes, actors, social networks, and institutions while also covering spatial-temporal considerations. It will be argued that illegal, gray and legal flows of rhino horn cannot be studied in isolation because they merge, converge and diverge, impacted by one another and by institutions, networks and cognitive frames found in the market field. Unlike the rather static concept of a singular supply chain, the concept of ‘flows’ allows for dynamic and

⁴⁹ Castells (2000: 5) suggests that the network society is a specific form of social structure emblematic of the Information Age.

interdependent relationships.

1.3.3 The notion of contested illegality and its impact on the emergence and functioning of flows

Criminologists, anthropologists and human geographers have commented on the blurred boundaries between the legal/illegal, licit/illicit and legitimate/illegitimate binaries (see for example: Heyman/Smart 1999; Heyman 2013; Hall 2013; Van Schendel/Abraham 2005; Rose-Greenland/Heatherington 2014). The blurring of the interface between legality and illegality is of particular interest in the study of transnational flows. For example: what is legal in one place may be illegal elsewhere. Legality or illegality may also change over time. Social, moral and cultural norms may diverge from legal rules, thus delegitimizing them.

Most scholars rely on the state as their analytical point of departure when studying regulatory frameworks and their impact. While the state⁵⁰ delineates what it considers as legal or illegal, there may be a disconnect between the state and society regarding such legal definitions, their interpretation, and the legitimacy of such rules. Both, agents of the state and members of society, might flout some rules. Once an economic exchange moves beyond the political boundaries of the state (the exchange may happen in several different states or none at all – in virtual marketplaces), issues of jurisdiction muddy the waters. Moreover, the constructed and fixed dichotomies of legal/illegal or state-approved/forbidden ignore how illegal, informal and gray economic practices are frequently intertwined with our daily lives (Van Schendel/Abraham 2005: 4–6).

This dissertation contributes to the debate by introducing the concept of contested illegality. While a formal political authority may have criminalized (declared as “illegal”) an act at some point in time, actors in “illegal” and gray flows may not agree with the label. It will be argued that actors’ implicit and explicit defiance or contestation of the state–sponsored label of illegality serve as a legitimizing and enabling mechanism, which facilitates participation in gray

⁵⁰ It is acknowledged that the state is not a unitary actor. For the purposes of this argument, the state and different arms of governance are presented as a homogenous unit.

or illegal flows; occasionally even leading to the creation of new gray or illegal flows (see for example: Taylor 2015). The following subsection expands on important aspects.

The stated illegality of an economic exchange may be subject to normative contestation and social acceptance. Diverse cultural frames assign moral and normative meanings to the legitimacy or illegitimacy of economic exchanges, the goods or services to be exchanged, the act of producing or exchanging the goods or services, the actor constellations involved in any of the stages/segments of the market exchange or the impact of the market (see for examples: Satz 2010: 91–114). Social legitimation of some goods and services is likely to obtain additional challenges: While the production, exchange or consumption/use of such goods or services may have been declared to be ‘illegal’, the commodification of such goods or services may also be considered morally or culturally contested, questionable or even repugnant (Beckert 2009). Important actors along the supply chain thus have to overcome moral scruples, cultural hurdles or personal inhibitions associated with transacting in such illegal or gray markets (Beckert/Wehinger 2013: 7). However, actors may find it less daunting to enter, transact in or establish markets, which are illegal but socially accepted. Levels of social acceptance of the law on the books may vary based on new information, emergent or ancient cultural preferences or trends or politico-legal developments.⁵¹ Wildlife contraband (especially rhino horn) falls into what has been called a “contested market” (Steiner/Trespuech 2013) or a “contested commodity” (Radin 1996) elsewhere.⁵² As will be shown in later chapters, there are competing claims as to whether rhino horn should or should not be a tradable good or commodity, calling into question whether the label of illegality is appropriate, sufficient, or constitutes a case of ethnocentric valuation (valuation that is based on a particular cultural outlook).

⁵¹ The smoking of cannabis derivatives as opposed to the intravenous use of opioid substances, for example, is subject to different levels of societal sanctioning. The differential ranking (progressive sectors of society are more forgiving with regards to cannabis consumption) is not only linked to the seriousness of the offence but extends to moral judgment as regards the broader impact on society, the level of social and other harms experienced by the individual (the offender) and their social environment.

⁵² Steiner and Trespuech (2013: 144) define “contested markets” as “markets in which contested commodities are bought and sold”. The authors build on Radin’s conception of contested commodities, which are goods that may be open to moral challenges.

The process of social legitimation for the economic exchange of goods and services is not only significant to the emergence of illegal markets; actors encounter similar difficulties in the legal field (for example: organs, sex work, and genetically modified organisms). The difficulty of transcending societal taboos in establishing new economic ventures has been shown in empirical studies of the life insurance industry in nineteenth-century America (Zelizer 1979; Zelizer [1978] 1992), markets for adopting children (Zelizer [1985] 1994), organs and body tissue (Healy 2006; Scheper-Hughes/Wacquant 2002; Steiner 2003/5) and whale watching (Lawrence/Phillips 2004). Moral scruples linked to religious, cultural or societal values had to be bridged before stable market exchanges could emerge. Regulatory determinations as to the legal status of a good or service may differ across jurisdictions and time distantiations, offering moral windfalls to actors.

The corollary is also true: The economic exchange for certain goods – such as wildlife products – was legal and legitimate until regulators declared otherwise. Ideally, the regulation of a formerly legal activity or product should involve a protracted process of public consultation with affected constituents, negotiation, drafting, and implementation. Illegalization per se presents a socio-political process rather than a static condition, likely to lead to social and cultural biases that tend to favour the preferences of the rule-makers (Heyman 2013: 304). It is important to note the significant role of the state, regulatory authorities and law enforcement agencies in determining legal rules and norms about the legality or illegality of economic exchange. The influence of professional knowledge, scientific insights, and disciplinary regimes is likewise not to be discounted in the process of legalization or illegalization (Heyman 2013: 306). A further dimension relates to the sponsors of legal rules and norms, who may be economic elites or corporations seeking to protect their economic interests. Moreover, the history of “overrule that either suspended legalities or deployed them to authorize predation and criminalize opposition” has led the poor and marginalized strata of postcolonial society in southern Africa to continue to distrust the state and its perceived anti-poor policies by (Comaroff/Comaroff 2006: 11). The following observation is insightful in this regard:

“As privatization and enclosure create new forms of property, they simultaneously define new forms of theft, from piracy and poaching to cloning and hacking. Such

practices are not always deemed illegitimate across social and national divides.”
(Comaroff/Comaroff 2006: 11)

Of significance to this dissertation is thus another analytical issue concerning the illegal status of an economic exchange: What happens when the economic exchange of a good is declared illegal at a specific point in time, outlawing or banning an exchange that was legal and legitimate up until the prohibition takes effect? Put differently: How does the social legitimacy or illegitimacy of a ban affect the emergence and functioning of an illegal market? Moreover, prohibition only applies to one stage or segment of the economic exchange in some economic exchanges. A changed legal status of a good further downstream or upstream may be unknown to market actors (Beckert/Wehinger 2013: 10). A further question is what happens in scenarios where international actors (such as a multi-lateral treaty organization) impose a ban that lacks legitimacy at the local level. The poaching of endangered wildlife, for example, is illegal in so-called range countries,⁵³ whereas trade hovers in a gray zone between legality and illegality, and consumption is socially legitimate in consumer countries. Noteworthy is the partial ban on the trade in rhino horn; the sale of live rhinos and trophy hunting of white rhinos is allowed in a few jurisdictions while a full trade ban applies elsewhere. Pre-Convention⁵⁴ processed ivory is traded legally in many jurisdictions whereas no commercial trade of post-Convention raw ivory is allowed in CITES member states.

The notion of *'contested illegality'* is introduced in this dissertation to capture a legitimation strategy employed by important actors to justify their participation in illegal or gray flows of rhino horn. Such actors might not accept the law on the books for a variety of reasons including the perceived unfairness of the ban, divergent social or cultural norms that clash with the ban, or they might not accept the law for politico-historical reasons. Contestation of the law on the books may be linked to issues of agency. Who are the rule-makers? Were important and affected constituencies consulted before the enactment of the ban? How is the ban implemented? Divergent views regarding the legitimacy of a prohibition-based system are likely to influence the functioning of illegal markets. It will be argued that the mechanism of

⁵³ Range counties refer to countries where specific populations of wildlife occur in the 'wild'. South Africa, Namibia, Kenya, Swaziland and Zimbabwe are key African rhino range states.

⁵⁴ CITES came into force in 1977. Any wildlife products that predated the enactment of CITES can be traded in most CITES members states provided that provenance can be shown.

contested illegality is closely linked to the valuation of the banned good or service. The coordination problem of valuation is unpacked in the next subsection; suffice to mention here that valuation of rhino horn as a sacral good or as a miracle cure is likely to override concerns regarding the legal status and provenance of rhino horn. The other coordination problems considered in this dissertation – competition, cooperation, and security – are also influenced by contested illegality. These relationships will be further unpacked in the relevant subsections.

Following the trajectory of the argument, actors may contest the illegal status of the good – rhino horn – due to different cultural meanings, political jurisdictions with conflicting or non-existent regulations about its legal status, spatial–temporal considerations and other social mechanisms. This dissertation will show that important actors refuse to accept the illegality of the rhino horn exchange based on their valuation of rhinos and rhino horn. Instead of bridging moral scruples linked to the illegality of the trade in rhino horn, these actors defy the ban and legitimize their transgressions through their valuation of rhinos and rhino horn. The legitimizing mechanism of contested illegality thus facilitates the flow of rhino horn from the source to the market. Chapter 5 on the international regulatory system highlights historical, conceptual and political issues that impact the legitimacy of the ban. Subsequent chapters explain how the trade ban is intertwined with land use and hunting rights of local communities living in or close to conservation areas.

1.3.4 Resolving coordination problems in illegal markets

To study the operation and structure of illegal markets systematically, Beckert and Wehinger (2013: 12) propose the use of the typology of coordination problems. The point of departure lies in the recognition that for markets to operate “uncertainty in market transactions must be reduced in several dimensions” (Beckert/Wehinger 2013: 12). Uncertainty in markets stems from the three coordination problems concerning value, competition, and cooperation. Actors in illegal markets are likely to be confronted with coordination problems similar to those of legal markets, subject to additional challenges due to the illegality of the market exchanges (Beckert/Wehinger 2011: 7). While Beckert and

Wehinger (ibid) argue that market actors require “stable worlds” (Fligstein cited in: Beckert 2007: 23) and calculability to reproduce legal and illegal markets, this dissertation argues against the notion of stability in illegal markets. Reuter (1983) introduced the notion of ‘disorganized crime’, suggesting the supply of illegal commodities takes place in a disorganized manner due to the constraint imposed by illegality and the lack of large-scale criminal enterprises in illegal markets (Paoli 2002: 52). Market actors may seek to reduce uncertainty in illegal markets; however, they might not be seeking ‘stable worlds’ as stability and predictability constitute operational weaknesses, which could be exploited by regulators (especially law enforcement agencies) who seek to disrupt illegal markets. The coordination problems of value, competition and cooperation are unpacked in the following sections. An additional coordination problem – the problem of security – is introduced.

a) The coordination problem of value

The problem of value refers to “the assignment of value to a certain category of goods (for instance, cars, wine, travel) and second, to the assignment of different values to heterogeneous products within the same market” (Beckert 2011b: 764). During the process of valuation, products are ranked according to functionality or status they bestow upon the consumer. While actors in legal markets may have access to marketing, advertising resources, and product reviews, the suppliers’ role in preference formation and the consumer’s access regarding product quality may be limited in illegal markets (Beckert/Wehinger 2013: 12). However, the reputation of traders, ‘word of mouth’ referrals and product reviews in online market–places like the now defunct *Silk Road*⁵⁵ may assist market actors on both ends of the supply chain in making informed choices. This dissertation will show that consumers have developed innovative strategies to ensure provenance and quality control in illegal rhino horn markets.

⁵⁵ Silk Road gained notoriety as an on–line global market–place for selling mostly drugs and related paraphernalia. Operational since 2011 and effectively shut down in 2014, users could buy drugs with the Internet–based currency *Bitcoin*. Crowdsourcing techniques were used to vet best sellers and identify scammers. Consumers avoided street-based transactions with the associated risks of violence and possibly getting “ripped off”. They also could do quality checks and price comparisons (Silk Road Drugs 2014). Similar sites have sprung up since the much-publicized arrest of the alleged mastermind of Silk Road in February 2014.

Rhino horn falls into the category of illegal wildlife products. It has both functional and investment value in that it is used in traditional medicines, and status is attributed to those able to afford it. Interestingly, Asian rhino horn is valued higher than the horn of African species, and even fake rhino horn is attributed with value. Cognitive frames play an important role in the process of valuation as they enable the mental organization of the social environment. Social norms and rules form part of socially inscribed meaning structures operating in a market field through which the various actors assess situations and define their responses (Beckert 2010: 9). This dissertation examines social, cultural and normative beliefs as they relate to the relationship between humans and nature. With its prehistoric features reminiscent of mammoths and other creatures long gone, the rhino has been compared to mystical images such as the unicorn – (for example: Unicorns are real 2009) and popular memes on social media platforms of the rhino as a “unicorn with curves”. Actors along the supply chain assign different physical (physical performance of a good) and symbolic values (consists of imaginative value that actors ascribe to an object and positional value ascribed to an object, positioning the owner in the social space) to rhino horn (Beckert 2011a). Poachers, wildlife professionals, conservators, environmental activists and consumers attach different cognitive meanings to the rhino as a wild beast and its product, the rhino horn. It will be argued that these cognitive frames and associated meanings are steeped in cultural frames about the human–nature nexus. Can the high price of rhino horn be explained in reference to cultural frames? Is the process of valuation accompanied by process of sacralization⁵⁶ of rhino horn? In other words, have cultural frames led to the valuation of rhino horn as a sacred or magical good? Zelizer distinguishes between “profane”, “magical” and “sacred” money in her research on the life insurance industry in 19th century America (Zelizer [1978] 1992: 291 - 293). In borrowing from Zelizer, profane valuation refers to the valuation of goods as worldly, while sacred valuation refers to transcendental community norms. Of importance is thus a clear delineation of the different factors that bear on the valuation of rhino horn, the instrumentality of rhino horn (what is it used for) and how different actors value rhino horn at

⁵⁶ Sacralization refers to a process during which “value shapes [the] price, investing it with social, religious or sentimental meaning” (Zelizer [1985] 1994: 21).

different stages of the value chain. Moreover, I shall investigate whether rhino horn has become a commodity of conspicuous consumption.⁵⁷

A further consideration pertains to the notion of contested illegality. As per the earlier section, it will be argued that the valuation of rhino horn is closely linked to the legitimization device of contested illegality. The valuation of rhino horn trumps its illegal status across important actor groups, facilitating its flow from source to market.

b) The coordination problem of competition

The second coordination problem relates to the issue of competition. It is in the interest of producers and suppliers to set up market structures that provide protection against competitive pricing as to ascertain viable profit margins. Producers, intermediaries and the state compete for positions in the formal economy, which may result in cartelization, monopolization, product differentiation, innovation, first-mover advantages, barriers to entry and legal regulations that determine the rules of engagement (Beckert/Wehinger 2013: 14). While the state provides some ground rules in the formal economy, illegal market actors regulate competition to varying degrees themselves.

Scholars have linked the self-regulation of competition in illegal markets to the use or threat of violent means of persuasion and corruption (corruption is discussed in more detail below). The earlier discussion of the different models of organized crime made reference to the use or threat of violence by some criminal entities in a bid to enforce contractual obligations in illegal markets. Reuter (2009: 275) argues that violence may be a feature of some illegal markets due to the following characteristics typical of illegal economic exchanges:

“The markets for illegal goods and services operate without the usual protections against fraud and violence offered by the court system. The state instead of attempting to facilitate transactions, aims to disrupt them. Contracts cannot be enforced through written documents and the legal system; agreements are made

⁵⁷ In his thesis on the “leisure class”, Veblen (1899) argued that wealthy individuals often consume highly conspicuous goods and services in order to showcase their wealth, thereby achieving greater social status.

hurriedly, sometimes in ambiguous code, and orally. Territories cannot be allocated through bidding for desirable locations, since there is no enforceable ownership of property for these purposes.”

While some of the mentioned characteristics deal with contract enforcement, the power vacuum and opportunities for violence due the absence of an “independent” arbitrator⁵⁸ in illegal markets, others (such as territorial disputes) deal implicitly with matters of competition. Drug markets are often regarded as steeped in violence, further exacerbated by the “War on Drugs” rhetoric and violent measures used to disrupt such markets. Scholarly research (Reuter 2009; Reuter/Haaga 1989) has however shown that drug markets are surprisingly peaceful. Several sources may generate violence in specific drug markets, such as intra-organizational issues (succession planning or disciplinary action), inter-organizational issues (territorial or transactional) and conflict between illegal drug market actors and the state or its representatives (Reuter 2009: 275). Reuter and Pollack (2012) show that the travel distances of sellers and buyers have implications for violence on drug markets. Import markets consisting of local buyers and foreign sellers displayed the highest levels of violence, suggesting that social ties between buyers and sellers may reduce the readiness to use violence. Gambetta (1996: 1-2) refers to the Sicilian mafia’s trade in protection services. To him, the mafia’s provision of protection entails an insurance policy during economic exchanges, which functions as “ a poor and costly substitute of trust” (Gambetta 1996: 2). According to Paoli (2002: 64-65), illegal entrepreneurs will resort to fraud and violence to get whatever they can and “resort to peaceful dickering only where they are confronted with a power equal to their own or where they regard it as shrewd to do so for the sake of future exchange opportunities”. The scholars rely on the artificial division of ‘underworld’ and ‘upperworld’ typical of the organized crime discourse, allowing limited scope for the nefarious activities of legal actors. Reuter (1983: 187), on the other hand, postulates that the “magic of the marketplace” resolves the distribution of illegal goods and services in illegal markets, with the “visible hand” of violence and corruption often getting trounced by market economics.

A first glance at the illegal rhino horn market appears to suggest that criminal actors exude a propensity for violent means of execution, which may also include fending off potential

⁵⁸ It is acknowledged that regulators may tweak regulations to suit the interests of the state and its non-state partners.

competitors. The act of harvesting rhino horn illegally⁵⁹ – the poaching of a live rhino – is a violent act per se, involving the wilful killing of a wild animal. The question arising here is whether violence is reproduced along the flow. How do poachers, kingpins, wildlife professionals and others deal with competition? Does rhino poaching lead to further acts or threats of violence between illegal market actors? A further consideration pertains to the dwindling numbers of rhinos. If competition is found to be “peaceful” (as per Weber’s definition of competition) in the current climate, what is the outlook as rhino numbers grow less? The decreasing rhino numbers may not only lead to conflict at the source (with poachers possibly fighting one another over the last rhinos) but also competitive pricing structures in consumer markets.

Market actors may also rely on corruption or collusion with representatives of the state to ‘take out’ the competition. In this instance, criminal actors may work in concert with corrupt state agencies or individual agents of the state. The state “is no longer able to implement law because state officials (the agents) make law enforcement itself a tradable commodity” (Beckert/Wehinger 2013: 15). The practice of corruption in illegal markets is not relegated to unlawful relationships between criminal actors and agents of the state only. It can also involve actors from the formal economy, such as business people, representatives of multinational corporations and from the military–industrial complex. Corrupt relationships may reduce uncertainty in illegal markets by lowering the prospects of effective law enforcement and criminal prosecution (Dewey 2012). Contested illegality in this instance may facilitate the participation of agents of the state in illegal markets. If prohibition were to lack legitimacy and hence acceptance amongst such actors, then there might be less moral scruples to participate in illegal market transactions. Corruption of state agents and collusion with industry professionals plays a significant role along the rhino horn supply chain. Such strategies are employed at several nodes from the point of origin through to the final destination of the rhino horn. As will be shown in later chapters, targeted or conditional law enforcement plays an significant role in ‘taking out the competition’.

⁵⁹ While criminal actors can employ non-lethal means of horn removal (such as the darting of rhinos), the harvesting of horn usually involves the killing of the rhino.

In looking at the career advancement of a celebrated drug smuggler 'Mr Nice', Morselli (2001: 228) found that Burt's structural hole argument⁶⁰ offered a nuanced alternative to framing competition of criminal entrepreneurs:

“Structuring one’s personal working network to include trade members who are not directly connected to each other but who may have interests in dealing with one another represents a cooperative way of being competitive. The combination of reputation, know-how, consistent and quick access to privileged information sources, and non-redundant personal networking gives a player the competitive edge needed for further advancement.”

The maintenance of social ties that stretch beyond one’s social group (heterogeneous social networks), so Morselli argues, may thus provide a competitive advantage to criminal players. The role of the intermediary and their access to privileged information is of interest here. Gambetta (1996) shows the importance of intermediaries in his analysis of the Sicilian mafia. While *mafiosi* sell guarantees, *patrons* (intermediaries) sell information. In this context, the role of the intermediary is as follows (Gambetta 1996: 18):

“They provide introductions, recommendations, advice about competition for public contracts, the names of key people to approach; they back new legislation or application for jobs and benefits; they translate client demands into appropriate language, simplify rules, and identify means of avoiding sanctions and obtaining favours.”

It will be argued that intermediaries play a facilitating role between source and market.⁶¹ They are not only important transmitters of information, but they are often people of social ranking that inspire trustworthiness to actors further downstream and upstream the supply chain.

⁶⁰ According to Burt (1992: 17-18) negotiating early access, timing and referrals to information may provide a competitive advantage to savvy actors. Such actors cultivate their business contacts prudently in order to seize “structural holes”. Burt differentiates between redundant and non-redundant contacts. The number of non-redundant contacts is crucial as these might lead to privileged information. Redundant contacts fail to provide the competitive edge as they lead to the same people and hence the same pool of information available to others. “Structural holes” refer to “the separation between non-redundant contacts” (Burt 1992: 18). By occupying a structural hole, actors are in a position to broker a deal with previously unconnected players.

⁶¹ Intermediaries are significant to resolving the other coordination problems too due to their central role in supply chains. They provide a linkage between actors further upstream and downstream the supply chain and thereby play an active role in valuation and cooperation, as well as security of illegal market structures.

Intermediaries may well have seized structural holes in negotiating their role in illegal and gray flows, and as will be argued later, in legal flows. As suggested in the literature, it would appear axiomatic that actors from the legal sector command a competitive advantage in negotiating the flow of illegal goods where a legal parallel market exists. Such actors would be apprised of regulatory loopholes and the tricks of the trade. They also have intimate knowledge of supply and distribution dynamics along legal goods flows and the available pool of trade partners. Actors with heterogeneous social networks, experience in legal flows and adaptability (the ability to react swiftly to new impulses) are significant arbitrators and facilitators of illegal flows with a coordinating role that may affect cooperation, competition, valuation, and security.

A further consideration relates to limited competition when it comes to determining or accepting the pricing of goods on illegal markets. It becomes increasingly difficult to determine “the price/quality nexus” as goods move along the value chain from producer to consumers. Suppliers and customers have imperfect information about both quality and prices of goods, which “distorts competition” (Beckert/Wehinger 2013: 16). While the demand for rhino horn has ancient cultural roots, one cannot automatically assume that the market is purely demand-driven. Due to the risk associated with the procurement and transportation of rhino horn, horn producers and intermediaries may be able to leverage the price of the horn. A further train of thought pertains to the high incidence of fakes entering at various stages of the supply chain. Do illegal market actors consider fake rhino horn producers and traders as competition? What impact has the fake rhino horn market on demand and quality control?

c) The coordination problem of cooperation

Actors also have to face the coordination problem of cooperation. The possibility of a breach of contract or non-performance constitutes a risk to any economic exchange. In illegal markets, these risks arise from “asymmetric distribution of information regarding the price, product quality and the possible opportunism of exchange partners in light of incomplete or non-enforceable contracts” (Beckert/Wehinger 2013: 17).

Portes and Haller identify the “paradox of embeddedness” in their analysis of informal economies. In the absence of state regulation in informal economies, there are opportunities “for violations of normative expectations and widespread fraud” (Portes/Haller 2005: 406). The paradox lies in the contention that the more the informal economy approaches the ideal of an unfettered market exchange, “the more it is dependent on social ties for its effective functioning” (Portes/Haller 2005: 407). The significance of social embeddedness is particularly clear in transactions “where the only recourse against malfeasance is mutual trust by virtue of common membership in some overarching social structure”. Membership of the same social network or shared social/cultural identities combined with the certainty that wrongdoers will be penalized or excluded from future transactions bolsters and sustains trust (Portes 2010: 136-137). Gambetta’s definition of trust is useful in this instance. Gambetta (1988a: 217) defines trust as “ a particular level of the subjective probability with which an agent assesses that another agent or group of agents will perform a particular action, both before he can monitor such action (or independently of his capacity ever to be able to monitor it) and in a context in which it affects his own action.”

Portes and Haller allude to significant differences between informal and illegal business practices.⁶² Illegality robs actors of legal protection of property rights usually provided by the state for legal market transactions and limits the business strategies and organizational forms available to actors (Beckert/Wehinger 2011: 1). The state does not enforce contracts in illegal markets; actors thus have to rely on different enforcement strategies, such as the use or threat of violence (Portes/Haller 2005). Despite the absence of the state, Portes and Haller argue that actors in legal and illegal markets share similar systems of enforcement and redress. The enforcement of contracts or removal of competitors can be outsourced to protection brackets (Beckert/Wehinger 2013: 15). In the African context, the trade in gems, gold, ivory and other high-value export products is often highly organized. Major exporters need to be associates or members of organizations that are either “quasi-political” or “quasi-

⁶² Beckert and Wehinger (2013: 11) argue that there are different research foci in studies of informal and illegal markets. Conceptually, studies on the informal economy focus on how poor people eke out a living beyond state regulation; meanwhile, research into illegal markets looks into market structures and coordination problems beyond the realm of lawfulness.

criminal” in nature as the exploitation of such resources requires “the exercise or threat of physical force” (Ellis/MacGaffey 1996: 36).⁶³

However, not all actors in illegal markets are prone to use violence to enforce contracts. Violent behaviour or the threat of violence is likely to obtain attention from unwanted spectators, such as law enforcement agencies or the media. Unless these actors are actively seeking out attention to propel their business interests or to gain a reputation for a propensity for violence, they are likely to forego unwanted attention. The reliance upon relationships based on trust or economic exchanges secured through corrupt transactions constitutes an alternative strategy to enforce contracts, and may also circumvent detection from law enforcement (see the previous subsection). Moreover, the legitimization device of contested illegality may sway actors to cooperate in illegal markets.

Granovetter (1985: 481-482) introduces the notion of “honour amongst thieves” in a case study of embezzlement in the business community. He argues that malfeasance not be possible without prior existing relationships of trust. Gambetta (1988a) shows however that trust may grow as a result of cooperation rather than as a precondition of cooperation (compare with the section on security). Beckert and Wehinger (2013) argue that while formal institutions, social networks, and cognitive frames are necessary for the stabilization of market exchanges in the formal sector, illegal markets are likely to rely more heavily on personal networks and trust to solve coordination problems. Personalized networks based on the right combination of arm’s length and embedded ties (compare with the notion of ‘integrated networks’ in Uzzi 1997) and reputation based on social kinship are likely to feature prominently. While some actors use violence or the threat of violence to enforce contracts in illegal markets, others employ corruption to secure illegal market transactions. The trustworthiness of new business partners might also get tested (Gambetta 2009).

A diverse assortment of actors with potentially deep cleavages – stretching from different languages, nationalities, cultural backgrounds, social strata to ethnicity – is involved in illegal and gray flows of rhino horn. Beyond bridging social, cultural and other differences locally,

⁶³ Liberian warlord Charles Taylor, former UNITA rebel commander Jonas Savimbi and brokers on behalf of the apartheid regime in South Africa, Mugabe’s regime in Zimbabwe and RENAMO negotiated import–export deals, which were protected by the might of the sword.

these actors also have to establish and maintain relationships with overseas trading partners in suboptimal conditions. How is this achieved? Moreover, what is the role of intermediaries (see the previous section)? This diverse collection of actors, their personalized networks, and mechanisms employed to evade detection from law enforcement should glean interesting insights on how illegal markets are structured and operate under precarious conditions.

(d) The coordination problem of security

The production, distribution and consumption of goods and services traded in illegal markets lead to another coordination problem, the problem of security. Security in this instance constitutes a multi-dimensional problem with implications for the personal security of market actors, security of the supply chain and the illegal goods or services traded in illegal markets and the potential addition of a security premium added to the cost of illegal goods. Security measures and protection (see subsection on competition) can be procured locally but how do actors ensure the security of the supply chain, the safe transfer of illegal goods from source to market and payment for the goods and transfer costs?

The coordination problem of security proposed here is qualitatively different from the problem of cooperation. In fact, illegal market actors have to strike a careful balance between cooperation on the one hand, and security on the other. While cooperation may entail partnerships and resource sharing, security may curtail cooperative efforts in favour of secrecy and concealment (Morselli 2008: 63). Ken Hawkeye Gross (1992: cover page) points to the dilemma that actors face by surmising, "...mistakes can cost not just dollars and market share, but years of one's life". Central to what Morselli et al. (2007: 145) describe as the "efficiency-security trade off" is whether criminal network actors can rely exclusively on trusting relationships or whether they have to engage in uncertain and potentially risky relationships. Reducing risk and thereby increasing security leads to a sacrifice in terms of time and efficiency, as "each operation and the transmission of information take longer to

process across the network” (ibid). In reference to transaction cost theory,⁶⁴ Basu (2014: 4) proposes that due to regulatory attempts to disrupt illicit trade chains, actors have to factor in “direct or indirect costs of exchange (concealment, corruption, evasion), as well as be prepared to write off a certain percentage of their profits due to circumstances involving contraband shipments being seized by customs or police”. The question arising here is whether the suggested security premium leads to an escalation of the overall price of an illegal good or whether actors can conceive of innovative mechanisms that increase both efficiency and security of the illegal supply chain. The illegal and transnational status of goods may perhaps lead to cost savings elsewhere, such as tax and tariffs avoidance or a structural adaptation of the supply chain (e.g. fewer segments or shorter more direct routes). A further consideration relates to whether all market actors are equally affected by security considerations and precautions. Are certain flows or segments of the supply chain more prone to danger than others? How do security considerations affect the flow of goods?

The issue of incomplete information is also of importance here. The notion of bounded rationality⁶⁵ is only partially useful in assessing how illegal market actors might deal with assessing security risks in light of incomplete information available to them, and whether they encounter an incomplete information/security dilemma. In following the trajectory of the bounded rationality argument, there may be a mismatch between the decision-making environment (the market exchange is deemed illegal) and the decision maker’s choice (Jones, B. D. 1999: 298). The implicit goal-oriented rational choice approach (for more details see: Beckert 2003; Dewey 2014b) provides limited insights as to how illegal market actors undertake security assessments, how cultural frames and social embeddedness may influence choices. The social embeddedness of illegal markets actors, for example, may provide operational information about their immediate environment and their social network. How is

⁶⁴ Transaction costs relate to the costs of participating in a market. Williamson (1989) argued that frequency of the exchange, specificity, uncertainty, limited rationality and opportunistic behaviour are determinants of such costs.

⁶⁵ According to the notion of bounded rationality (Simon 1972), the pool of available information, the actor’s cognitive limitations and time available to take a decision might explain an ‘irrational’ decision that does not optimize utility (profit).

information about actors and transactions upstream and downstream attained? Do the goalposts change as the product travels with the flow? How do actors ensure payments?

In sociological research on cross-border trade in Medieval Europe, Quack (2009) found that the provision of security was a prerequisite for such trade to emerge. Merchants joined in trading communities. These self-regulatory associative orders controlled exclusive trading rights in their home base and provided protection, information sharing and social bonding. The emergence of an interregional financial circuit, maritime insurance and early forms of transfer pricing, overdraft facilities and credit notes further eased transnational trade. Cross-border law and regulatory enforcement were equally important, including the extra-jurisdictional expansion of domestic law, the emergence of specific local laws in trade hubs and the signing of inter-city agreements allowing for mutual jurisdiction in conflict resolution (Quack 2009: 135–136). African migrant trading communities had crossed huge regions of Africa on horseback, donkey or camel before political borderlines drawn by colonial rulers divided tribes, communities and clans. Alliances were forged between local entrepreneurs and foreign merchants during colonial times with the explicit objective of supplying overseas markets with exotic goods such as tea, spices and ivory. The ability to engage in illicit cross-border trade continues to hinge on these historical connections and social ties to holders of political office and the quality of such political contacts (Ellis/MacGaffey 1996: 31). Ellis argues that transnational trade occupies a “crucial strategic position” in Africa due to a scarcity of foreign exchange to buy manufactured goods, which “can play a vital role in the construction of a political power-base” (ibid). The access to hard currency such as US Dollars is crucial to enter and sustain market position: “... a successful exporter from Africa requires not only the usual range of commercial skills and capital, but also political, and often also physical, protection (Ellis/MacGaffey 1996: 34).” Similar to the trade associations in Medieval Europe, Ellis also identified the formation of trade associations of Africans with fellow Africans living in the diaspora. The advantages are manifold such as restricting the profits to members of a distinct social group (usually kin), vertical integration of the trade (e.g. Nigerians marketing drugs in European or US cities on behalf of Nigerian drug trafficking networks) and secure access to source and market (Ellis/MacGaffey 1996: 37).

Of importance to this dissertation are the mechanisms employed by various actors along the supply chain to ensure their security and that of their agents, the security of the supply chain, and that of the illegal goods. Are the above-mentioned trade associations of significance in illegal flows of rhino horn? Security risks may arise from environmental, regulatory, intra- or inter-organizational factors, further exacerbated by the fact that market exchanges are both illegal and transnational. How does the end-user of an illegal good ensure that it is safe for consumption? How does the buyer ensure that another actor upstream is not cheating her? Do illegal market actors outsource security? What mechanisms are employed to ensure security? The legitimization device of contested illegality may secure the flow of rhino horn in some instances. As will be shown later, diplomats and agents of the state have smuggled rhino horn from the source to the market. It would appear axiomatic that security concerns become secondary if an illegal good is trafficked inside a diplomatic pouch. The question arising here is whether diplomats are recruited by illegal market actors, whether diplomats are instigators, or perhaps, opportunistic actors.

1.4 Structure of the dissertation

The argument of the dissertation is that the consecutive conservation regimes and protection economies have led to a historical lock-in that has allowed the illegal market in rhino horn to flourish. Scattered along the interface between legality and illegality, important actors do not accept the trade ban. They use contested illegality as a legitimizing device to justify gray or illegal economic activities.

The dissertation continues with Chapter 2, which provides background and justification for the chosen research approach, selection of research sites, methods of data collection and analysis. Many ethical issues arose during inception and in the course of the research project. The second part of the chapter looks at issues of anonymity and confidentiality, informed consent, power differentials between the researcher and respondents, reciprocity and security concerns.

Chapter 3 contributes to a nuanced understanding of the valuation of rhino horn as a sacred good for which consumers are willing to pay a high price. The question of demand and the associated coordination problem of valuation are vital to understanding why flows of rhino horn are so difficult to disrupt. This chapter deals with the demand for rhino horn by tracing the historical roots of its valuation as a sacred good with status-elevating qualities. It continues with a short overview of current uses, consumer profiles and product differentiation.

Chapter 4 points to the path dependency of conservation regulators. Wildlife protection was closely linked to colonial dispossession, subjugation, exploitation and loss of hunting rights of the local and indigenous communities during the colonial period. Problematic conservation approaches and paradigms have led to a historical lock-in, where romantic and utopian notions of 'Africa's Wild Eden' continue to undermine the support and buy-in from local communities in wildlife conservation. The chapter also shows how legal rhino horn supplies were established through the economic valuation of rhinos on private land.

Chapter 5 explores the international political protection regime that led to the illegalization of the trade in rhino horn. State actors conceived of the multi-lateral environmental treaty more than forty years ago. The trade ban itself is ambiguous as it only concerns international trade of rhino horn, leaving space for illegal market actors to manoeuvre at the domestic level. While most countries have illegalized rhino horn trade, horn consumption continues to hover in a gray zone. The chapter shines a light on why CITES is losing credibility amongst state actors and important actors in the Global South and why diffusion of trade bans may run into obstacles in the modern context.

Chapter 6 revolves around gray and sub-legal flows of rhino horn. These flows involve wildlife professionals with intimate knowledge of rhino horn, the institutional and legislative framework governing the international trade of rhino horn. These actors belong to influential and transnational social networks with links to political and economic elites in supply, transit and consumer countries. A key feature of these flows is the exploitation of legal and regulatory loopholes within the system, as actors ride on the edge of legality.

The dissertation continues with Chapter 7, which deals with illegal flows of rhino horns. It is argued that rhino poaching is not only a crime driven by greed and impoverishment but also motivated by environmental and social justice principles. This chapter demonstrates the historical lock in linked to conservation paradigms, which renders disruption of these flows a difficult if not impossible undertaking. The increasing militarization of anti-poaching operations is contributing to further alienation of local communities, which under different circumstances, could act as the first line of defence against rhino poaching. Actors in this flow have mastered the coordination problems of competition, cooperation and security.

The final chapter analyses fake and '*Ersatz*' rhino horn. The chapter begins with the differentiation of different types of fake rhino horn before looking at actors involved in the production and distribution of such horns. The research identified the role of the rhino horn assessor, who fulfils the function of quality control and risk mitigation. The chapter illustrates how actors bridge several coordination problems, namely the coordination problems of value, cooperation and security. In light of the high price of rhino horn, it is not surprising that criminal entrepreneurs as well as actors from the legal sector, have seized this thriving business opportunity.

The dissertation concludes with an assessment of why transnational flows of rhino horns have been so difficult to disrupt.

Chapter 2: Researching illegal markets

“The illegality of the drug industry precludes the use of many common research sources and techniques and imposes strong constraints on the interpretation of available information. The complexity of the subject matter and the data limitations make it impossible to draw a complete and accurate picture of the industry. Researching illegal drugs is like painting impressionistic rather than realistic pictures. The painter hopes that the picture provides an approximate and slightly distorted vision of reality, highlighting the main aspects; he or she does not pretend to paint an exact replica.” (Thoumi 2003: 2)

2.1 Introduction

Francisco Thoumi’s opening quotation to this chapter succinctly captures the difficulty of researching illegal markets. Researchers face multiple challenges ranging from access to informants to verification of data. As shown in the previous chapter, limited empirical research exists on illegal rhino markets. With the exception of a well-researched journalistic exposé (see: Rademeyer 2012), streams of scholarly and policy literatures take a ‘top-down approach’. While collecting data, researchers thus engage almost exclusively with rule-makers including conservators, government regulators and other economic and political elites. As a result of this, there are only a handful of studies that deal with the entire market exchange, from “production” (poaching, hunting or theft) of rhino horn and transnational “product” exchange through to understanding the consumer markets (Ayling 2013; Milliken/Shaw 2012). It is from this point of departure that I chose to study the illegal rhino horn market in its entirety, taking a bottom-up and sideways⁶⁶ approach to understanding economic, political and social structures, power constellations, rule-making and cultural framing. The following chapter hones in on the difficulties associated with studying illegal markets in general, and the illegal market in rhino horn in specific. My methodological choices are explained and how impasses were bridged. The final section delves into ethical concerns.⁶⁷

⁶⁶ Dubow (1995: 8) argues that the notion of bottom-up or top-down ideas oversimplify the transmission process. At any given point in time there are many fashionable thoughts; whether “they get picked up” and popularized by thought-leaders is linked to the extent “that they may resonate with wider social concerns”.

⁶⁷ As this chapter deals with personal as well as scholarly choices, I chose to write in the first person. In later chapters, I revert to the less personal third-person narrative.

2.2 Researching illegal markets

Scholars from the fields of criminology, sociology and anthropology have undertaken intriguing qualitative and mixed methods research into illegal markets and associated criminal, political and economic structures. The study of crime, criminal actors and illegal markets in situ has a long tradition in these disciplines (Jacques/Wright 2008). Several ethnographic studies, including research into crack cocaine dealing (Jacobs 1999), hustling (Pryce 1979), Venkatesh's book based on the decade he spent with the 'Black Kings' gang in Chicago (Venkatesh 2008) or Steinberg's research into South African prison gangs (Steinberg 2004; Steinberg 2005b) are recognized for their scholarly contributions on the inner workings of illegal markets and gangs at the local level. However, studying illegal markets and actors beyond the confines of the nation-state (transnationally or regionally) is laden with additional logistical and other challenges, and hence done less frequently. Exceptional transnational studies include, amongst others, research into organ trafficking (Scheper-Hughes 2000), human trafficking (Chin/Finckenauer 2011; Shelley 2010; Bales 1999), people smuggling (Zhang/Chin 2002; Zhang/Gaylord 1996), the cocaine trade (Kenney 2007; Thoumi 2003), trafficking of antiquities and cultural objects (Mackenzie/Davis 2014), cigarette 'bootlegging' in the European Union (Hornsby/Hobbs 2007), the illicit arms industry (Ruggiero 1996), and the world heroin market (Paoli/Reuter/Greenfield 2009; McCoy [1972] 2003).

With the notable exception of Rebecca Wong's doctoral research into the organization of the illegal tiger parts trade (Wong 2013) and Moyle's study on the same subject (Moyle 2009), Tanya Wyatt's research into the illegal fur and falcon trades in Russia (Wyatt 2009; Wyatt 2011), research into ivory markets (Gao/Clark 2014), caviar (Zabyelina 2014), parrots (Pires 2014), abalone (Hauck 1997) and a few others, scholars have chosen to analyse illegal wildlife markets from the comfort of their offices.⁶⁸ Desktop studies are attractive when ample empirical and secondary data including media and technical reports, exist and are easy to access (see for example: Moreto/Clarke 2014; Moreto et al. 2014). In countries where crime

⁶⁸ The literature review acknowledged existing research into illegal rhino horn trades. Rademeyer (2012) did fieldwork at the source and in markets. Ayling (2013) used secondary data while others (Büscher/Ramutsindela 2016; Lunstrum 2014; Montesh 2013; Massé/Lunstrum 2015; Fenio 2014) conducted targeted fieldwork in poaching hotspots. Technical reports relied largely on documentary and trade analysis (see for example: Milliken 2014; Milliken/Shaw 2012).

data, police reports and court materials are readily available, researchers might want to forego heading out into the field. Fieldwork, however, does provide access to “fields of action and experiences that otherwise receive scant or no academic analysis” (Goldsmith 2003: 104).

The cited scholars interviewed active or convicted criminals, and sometimes their law enforcement counterparts were included in the sample, situating the illegal market in broader social and political structures. Engaging with illegal market actors and regulators is not only important for data verification; it also provides a juxtaposition of “underworld” versus “upperworld” views. This inclusive approach stands at loggerheads with traditional top-down approaches. In choosing the conventional route researchers would typically conduct a handful of expert interviews with political or economic elites, which often results in data assimilation to suit political or economic interests (see Lombardo’s analysis of how policing narratives influenced the perpetuation of the “alien conspiracy theory” in the US: Lombardo 2013).

Many of the aforementioned studies extend beyond the political boundaries of the nation-state and involve months of painstakingly conducted fieldwork stretching over months, sometimes years, often far away from the researcher’s comfort zone. Researchers face multiple challenges in the field when undertaking multi-sited or cross-border research into illegal markets. Beyond logistical concerns (mobility, language proficiency and finances), additional problems may arise due to unfamiliar regulatory frameworks governing data collection, security of the research team, ethics and positionality. For example, the lead researchers responsible for the world heroin study outsourced individual country studies to local experts. Outsourcing data collection might provide a local foothold but the lead researcher has limited control over the quality of the data. Local experts might get exposed to associational risks such as accusations of spying on behalf of foreign interests (Glazer 1970). The remarks of the lead authors of the world heroin study (Paoli/Reuter/Greenfield 2009: 7) are instructive with regards to undertaking transnational research into illegal activities:

“It is difficult to gather this information even in democratic nations with relatively open governments and sophisticated data collection systems. It is exceptionally difficult in nations that are closed, have weak data collection systems, or have little tradition of publishing policy-relevant data. Drug-related corruption creates still further obstacles in some countries.”

Undertaking fieldwork into the social life of others comes with its challenges and even more so when entering the realm of grey or illegal activities. The targeted assassination of sociologist Ken Pryce (he was researching high murder rates in Jamaica at the time of his death) or the homicide of a “fixer” (research facilitator) involved in preparatory work for a study of the Russian shipping industry (Belousov et al. 2007) are the exception. Violations that threaten the researcher’s well-being and safety (Jacobs 2006: 157) are one facet of the danger spectrum. While conducting a study of police accountability in Colombia, Australian researcher Goldsmith (2003), for example, was thought to be a US Drug Enforcement Agency (DEA) “spy” (intelligence operative) when he walked the streets of a poor neighbourhood in Bogota in the company of two Columbian community police officers. He managed to escape the tense situation unharmed but emotionally shaken. Bruce Jacobs (1998) was less lucky. One of his trusted sources in an on-going research project into street-level crack cocaine dealing robbed him at gunpoint and telephone stalked him after that. Less dangerous but equally concerning is the researcher’s exposure to legal dangers such as being considered an accessory to a crime (Jacobs 2006: 158). Polsky (1967: 141) captured how uncalculated risks in the field might derive from unexpected sources:

“[I]f one refuses to be a sociologist of the jailhouse or court system, takes Malinowski to heart, and goes out into the field, there is risk involved . . . It is the sort of risk that writers of criminology texts, for all their eagerness to put down fieldwork, surprisingly don’t mention: most of the danger for the fieldworker comes not from the cannibals and headhunters but from the colonial officials.”

With a few exceptions (such as the earlier mentioned: Venkatesh 2008), a handful of scholars has undertaken embedded research into illegal markets or gangs. While few academic institutions would allow their staff or students to undertake overtly dangerous fieldwork, investigative journalists are likely to face fewer institutional obstacles (such as a grilling by ethics committees at universities) when embarking on study tours of the “underworld”. Investigative journalist Roberto Saviano (2007), for example, studied the Neapolitan mafia while embedded in the Camorra’s structures. After his book *Gomorra* was published, he received death threats from his former mafia colleagues and continues to live under 24-hour police guard to this day. While Saviano’s book has provided ample material for scholarly

analysis (see for example: Varese 2006), scholars have questioned the credibility of data presented elsewhere (for a critique of Glenny's "McMafia" see:Levi 2009). Although journalistic investigations are often criticized for lacking in academic rigour and verifiable data, scholars are not shielded from such critiques. Goffman's ethnography (Goffman 2013; Goffman 2009) into the lives of young black men in a low-income neighbourhood in Philadelphia has led to a public witch-hunt against the sociologist (see for example: Lubnet 2015; Parry 2015). Reviewers expressed concerns about the accuracy of her portrayal of the black experience, the soundness of her methods, the possibility that her book might harm its subjects, and she was even accused of being an accomplice in the commission of a crime (Lubnet 2015; Parry 2015). Parry (2015) surmises:

“The dust-up reveals anxieties that go beyond the censure of Ms. Goffman, opening a fresh debate over longstanding dilemmas of ethnographic research: the ethical boundaries of fieldwork, the tension between data transparency and subjects' privacy, and the reliability of one ethnographer's subjective account of a social world. Some sociologists worry that the controversy may put a chill on sensitive fieldwork. Others fear that it could damage the credibility of ethnography at a time when sociologists are being exhorted to get more involved in public debates.”

Some of Goffman's critics display a limited understanding of long-standing debates as regards “going native”⁶⁹ or not (Stoller 2015) in the discipline of anthropology. The fallout (and collegial support by some) from Goffman's ethnography demonstrates the importance of documenting and justifying methodological and ethical choices made in pursuit of research.

This short reflection acknowledges past scholarly ventures into the field while also being mindful of exposing potential dangers and shortfalls. I have purposefully focused on research that extended beyond the reach of the armchair and desktop (the proverbial ivory tower). It follows from the above that data verification, mediation of potential dangers and positionality are of particular importance when studying transnational illegal markets. Personal experience and exposure to fieldwork in the past rendered this the preferred option, especially in light of the sparse first-hand data regarding social, economic and political structures and systems of meaning underpinning illegal and gray flows of rhino horn. Much thought went into the planning and execution of the data collection phase of this project. Given critiques of

⁶⁹ 'Going native' refers to embedded research.

subjectivity (see next section) and the lack of reproducible data sets, triangulation and verification of data were vital components of the research process. The rhino field is steeped in narratives, controversies and myths. Sorting fact from fiction and situating narratives in specific political, economic or historical contexts were essential steps in the research process. The following sections will expand on the challenges, opportunities, strengths and weaknesses of the chosen approach.

2.2.1 Choosing the qualitative route

On the basis of the earlier observations, it is perhaps not surprising that large factions of the academic community consider the study of active criminals and illegal markets a challenging and potentially dangerous undertaking. Fieldwork is often shunned because of the dangers and risks associated with delving into the “underworld” (Wong 2015: 1). Scholars encounter difficulties in generating their data, as the research object or subject may not only be shrouded in secrecy, but security concerns may arise as well. These may lead to an overreliance on contested crime and interdiction statistics or secondary data, rendering many a research study methodologically unsound or repetitive. Fioramonti (2014) makes a convincing argument regarding the dangers and sometimes hidden agendas underpinning numbers and statistics, especially when such numbers are used to reinforce the logic of the market on social and political life. Statistics about the size and value of illegal wildlife markets are particularly contested (Naylor 2004: 263; Harken 2011: 11), the numbers are nonetheless co-opted into policy and scholarly literature on the subject. Available statistics in the narrow field of rhino research fail to inspire confidence and reliability. Conservation NGOs claim that rhino poaching statistics are manipulated (Schrader 2015), arrest data and convictions rates are unreliable (Interview with rhino expert, 2015; interview with police investigators and prosecutors, 2013), and the current rhino population numbers are contested (du Toit 2015). The request for what would appear to be “harmless” numbers (such as the number of anti-poaching and general staff deployed in parks), potentially explosive data (such as the size of anti-poaching budgets and basic salary information of park employees) or unequivocally controversial data (number of alleged poachers killed in South African parks or rhino horn traffickers prosecuted and convicted in Vietnam) in pursuit of this research all proved

immensely difficult to attain if forthcoming at all. While the political sensitivities and potential fallout underpinning the latter request are understandable,⁷⁰ the ‘rhino issue’ has become securitized and as a result, many probing questions or legitimate requests for quantitative data are dismissed as “for privileged access only” (I will return to this later in this chapter).

When studying illegal markets, traditional quantitative methods such as the administration of questionnaires and surveys could easily be misconstrued as police interrogations, likely to lead to limited and biased results (Sissener 2001: 6). Quantitative researchers tend to disengage from the people and the subject they are studying by focusing on statistical correlations of variables (Gray 2009: 165). The virtues of quantitative approaches are not disputed here; the literature review referred to substantial contributions. Moreover, qualitative and quantitative approaches are not mutually exclusive given the recent interest in mixed methods research (Flick [1998] 2014: 35). However, number crunching and statistical analyses of potentially biased and incomplete datasets appear ill suited in pursuit of a sociological understanding of illegal rhino horn markets.

In contrast to the implied objectivity and validity of the quantitative approach, qualitative researchers sustain their research by engaging with “people’s social and cultural constructions of their reality” (Gray, op cit) and their lived experiences. The analysis of specific cases in their temporal and spatial particularity (Flick [1998] 2014: 22) provides useful sources for analysis and theory–building. Some of the key elements of qualitative research listed by Miles and Huberman (1994: 6) illuminate why the qualitative approach is well-suited for a study of illegal and gray flows of rhino horn: It is conducted through intense or prolonged contact with the field. The researcher’s role is to gain a “holistic” overview of the context through a “process of deep attentiveness, of empathetic understanding (*Verstehen*), and of suspending or “bracketing” preconceptions about the topics under discussion”. The researcher captures data “from the inside”, which need to be reviewed and verified with respondents. In light of the insufficient quantitative data available, limited possibilities of quantitative data

⁷⁰ The rhino poaching crisis, as well as the great number of Mozambican citizens, killed inside the Kruger National Park (according to Mozambican sources, 400 Mozambicans have lost their lives inside the KNP since 2009 – see Chapter 7), have led to further complications in the already acrimonious diplomatic relations between South Africa and Mozambique. At the time of fieldwork, Vietnamese authorities were pointing to China as the major consumer market.

generation and my preference for fieldwork, a qualitative research approach was the preferred choice. The research sought an alternative to the dominant narrative, which cannot be gained from crunching numbers but from engaging with people's lived individual experiences. The following sub-section expands on the chosen research design of multi-sited ethnography.

2.2.2 Research design: A multi-sited ethnography

The discipline of anthropology is known for its frequent application of ethnographic research. Amongst the virtues of the approach are the researcher's intense interaction with actors, getting immersed in the field ("going native") and in situ exposure to systems of cultural meaning (see for example: Hart 1988; Malinowski/Young 1979). However, the ethnographer's focus on specific places or groups has been critiqued for static and atomic reproductions of social relations (Desmond 2014) and "methodological nationalism" – the reduction of lived experiences to the nation-state instead of acknowledging a variety of macro social and transnational contexts (Weiß/Nohl 2012). For the purposes of studying flows of rhino horn, an ethnographic research design appealed due to its focus on systems of cultural meaning within temporal-spatial contexts. A nuanced variant – the multi-sited ethnography – eschews the critique of methodological nationalism, in so far as the ethnographer focuses on dynamic relationships and connections that transcend the local context and the confines of the nation-state.

When applying the research design of multi-sited ethnographies, researchers replace micro-perspectives with the study of relationships or connections between sites, ideas, informants and/or things (Marcus 1999: 7). Proponents of the research design have co-opted elements of the world-systems approach as theorized by Wallerstein and others in the 1970s.⁷¹ However,

⁷¹ Wallerstein's world systems approach was novel and revolutionary in the 1970s, questioning key elements of the theory of modernization such as the state-centred approach and Eurocentric perspectives on the development discourse. The approach received a fair amount of critique (see for example: Skocpol 1977); for the purposes of the discussion here Wallerstein's notion of the world system as a set of mechanisms employed to redistribute surplus value from the 'periphery' (Global South) to the 'core' (Global North) suffices (Wallerstein 2011). With the exception of trophy hunting, theft of rhino horn and horn artefacts, the rhino horn exchange occurs largely outside what Wallerstein defined as "core" nations. However, in light of changing geopolitics and

for investigating “commodity chains” or “flows”, the theoretical orientation of employing the world-system as the unit of analysis creates practical problems as it focuses at the macro-level only (Talbot 2004: 5-6).⁷² To the cultural anthropologist Marcus (1995), the application of multi-sited ethnographies presents a complementary research design that incorporates the structural elements of the world- systems approach without relying on it for the “contextual architecture framing a set of subjects” (Marcus 1995: 96). It also provides a manageable research approach and units of analysis. He observes:

“Multi-sited research is designed around chains, paths, threads, conjunctions or juxtapositions of locations in which the ethnographer establishes some form of literal, physical presence, with an explicit, posited logic of association or connection among sites that in fact defines the argument of the ethnography (Marcus 1995: 105).”

Proponents of multi-sited research follow the trajectories of people, images, plots and ideas (Marcus 1995: 107). Latour (1993) and Haraway (1991) were pioneers in extending the realm and sites of scientific inquiry through the investigation of non-human actors and cyborgs. The “follow the thing” approach has gained recognition in recent years.⁷³ Appadurai (1994: 76-91) demonstrates in the introduction to *The Social Life of Things* how the status of things as “commodities, gifts, and resources” in circulation change across time and spatial context by drawing on different types of “scapes”(local contexts). People experience, define and interpret global processes from their particular local frame of reference; and “global forces are plotted against constellations of local circumstance, fragmentary to an outside observer but forming a coherent, fixed view – a “scape”– to a local” (Bestor 2001: 80). Kopytoff (1986:

the ascendancy of China as the world’s second largest economy, the notion of an unequal distribution of surplus value attached to rhino horn from “peripheral states” in southern Africa to Vietnam (not a core nation) and China (arguably a ‘core’ nation) is hence only partially valid.

⁷² Talbot used the commodity chain approach for his analysis of the global coffee supply chain. This approach presents “an intermediate level of analysis, bigger than the nation-state but smaller than the entire world system” (Talbot 2004: 6). While focusing on the specific commodity at hand, the flow or commodity chain is interdependent on other flows. He argues that it is impossible to analyze producers, consumers and other actors without situating the commodity flow within the broader world economy (ibid).

⁷³ The approach is not to be confused with Marx’ notion of ‘commodity fetishism’, according to which producers and suppliers perceive of one another in terms of the money and goods that they exchange (Marx [1867] 2015). Critical fetishism, on the other hand, is qualitatively closer to the “follow the thing” approach because it incorporates a “heightened appreciation for the active materiality of things in motion” (Foster 2006: 286).

66) adds that as commodities travel across time and geographies, their value and meanings change and they take on their own “cultural biography”. According to Foster (2006: 285), the renewed focus of academia on the movement of commodities shows “how such movement links geographically separate locales and connects producers and consumers stratified by class, ethnicity, and gender”. The approach is however far removed from a mechanical joining the dots between ‘a’ and ‘b’; instead scholars trace “social relations and material linkages that this movement creates and within which the value of commodities emerges” (Foster 2006: op cit). While globalization may have led to a geographic distance between producers, consumers and other market actors as far as transnational supply chains are involved, the flow of goods, information, and capital connect actors on a cultural, economic and social level that transcends time and place.⁷⁴ Mintz’ research (1985) on sugar, for example, traces the commodity’s origins backward in time from domestication through to its spread throughout the Western industrial world. Tsing (2005) shows how a complex explanation of deforestation in Indonesia is not found in the rainforests of Indonesia alone but by undertaking an “ethnography of global connection”. Bestor (2001: 92) investigates the global popularity of sushi as a “complex economic relationship” between the East and the West. With regards to illicit commodities and services, several scholars have likewise ‘followed the thing’. Nancy Scheper-Hughes (2004) explores the illegal circulation of humans and their body parts across the planet. Gordon Mathews’ (2011) depiction of migrants from across the world living in Chunking Mansions in Hong Kong reveals their close connection to the international circulation of goods, money and ideas. Carolyn Nordstrom (2007: 207) sketches the flow of “il/legal” goods and people (Nordstrom’s wordplay) beyond the reach of the state, which she depicts as “static”, “bounded” and “defined”. The static nature of the ‘state’ as a monolith stands at loggerheads with the dynamic notion of circuits and flows in which non-state actors play a significant role, which is likely to rattle long-standing conceptions of power and authority as espoused in Western theories of the state and state building.

An important element of multi-sited ethnographies relates to the careful observation of how goods circulate instead of assuming the influence of governance structures a priori. In this

⁷⁴ This trail of thought connects to one of the main theses of economic sociology, namely that markets are embedded in social networks.

research project, I sought to follow the flows (pathways) of rhino horn from the source to the market. The research design comes not without its shortfalls. Marcus (1995) provides a thought-provoking assessment of the approach, detailing methodological problems while drawing the reader's attention to its greatest advantage, the bridging of the dualistic "them–us frame of conventional ethnography" (Marcus 1995: 100). To Marcus, the loss of the subaltern, the substitution of quality and depth with quantity and superficiality, as well as the intensity and impracticality of fieldwork due to spreading the analytical lens across multiple research sites are legitimate concerns. He observes: "The inevitable connotation of multi-sited as a term is something that is profligate, impatient, unfocused, emphasizing surface rather than depth, and requiring effort beyond the capacity of the single fieldworker" (Marcus 1999: 7). Bestor (2001: 78) likewise warns of the danger of presenting "drive-by ethnography" when undertaking a whistle-stop tour of research sites without sufficient time and preparation set aside to understand the intricacies of the research site, its connections, and significance to the overall commodity chain, flow or market.

Cognizant of the dangers of superficial analysis, this multi-sited ethnography is centred on the global flows of one specific thing: rhino horn. Although the research entailed visits to several different research sites (described below), great care was taken not to dilute the research focus. The proverbial crossing of the bridge between "us and them" led to a better understanding of actors' motivations, frames and institutions. As will be shown in later sections, the designation of rhino horn as a commodity is contested amongst certain actors, who believe rhino horn should not be for sale or considered a commodity in the first place. The 'follow the thing' approach is thus seen as a neutral point of departure in lieu of using the terminology of commodity chains. Rhino horn itself is used as the integrating perspective around which diverse data are organized and analysed. The remainder of this chapter deals with methodological and ethical choices made during this project, some of which speak to critiques of (multi-sited) ethnographies and how they were resolved.

2.2.3 Single-case study and theoretical development

Case studies have been praised for the achievement of high conceptual validity, the capacity to address causal complexity and to derive new hypotheses (George/Bennett 2005: 20–22). A single–case study involves the intensive empirical inquiry of a particular case with the purpose of “shed [ding] light on a large class of cases (a population)” (Gerring 2007: 20). There are a number of limitations and possible “trade-offs”, such as case selection bias, the exchange of parsimony for thick descriptions, as well as indeterminacy and limitations to the generalizability of findings (George/Bennett 2005: 22). The choice of a single case study may be questioned on the basis of the above arguments. However, ‘following’ several ‘things’ (broadening the research scope beyond rhino horn) would have rendered the research impractical and data volumes unmanageable; notwithstanding the threat of further amplifying the pitfalls of “drive-by ethnography” (see previous section). This dissertation is organized around flows of rhino horn – the journey of rhino horn from the bush to the market. While the analysis focuses on rhino horn, different ‘cases’ are investigated and contextualized. Multiple research sites and informants from heterogeneous backgrounds in southern Africa and Southeast Asia enrich this single case study. Moreover, Yin (1994: 38–40) submits that the selection of a single case study is justified if the case constitutes a “critical case”, “an extreme or unique case” or a “revelatory case”.⁷⁵

In this instance, Yin’s three-pronged criteria apply. The charismatic rhino has garnered worldwide attention from conservation NGOs, international organizations, military and security outfits, government departments and civil society, and caused a moral panic amongst some of these actors. The rhino field is steeped in controversies, ranging from a lacking acknowledgment of the colonial legacies underpinning African wildlife conservation through to contested solutions aimed at disrupting the market. Few social scientists (see literature review) have engaged with the rhino issue, rendering this study timely. The rhino is emblematic of other endangered species of fauna and flora, and hence, certain findings regarding the structure and functioning of gray and illegal flows may be of relevance to

⁷⁵ A *revelatory case* exists when the researcher has “an opportunity to observe and analyze a phenomenon previously inaccessible to scientific investigation” (Yin 1994: 40).

analyses of other wildlife markets. For example, a cross-case analysis of shadow cases may be useful in determining which factors lead to specific market outcomes and assist in constructing an explanation as to why the rhino case may be different from other illegal wildlife markets, or why it is the same. Cross-case analysis also makes sense of unique findings and assists in articulating hypotheses and theories discovered during data collection (Khan/VanWynsberghe 2008).

In my former role as applied policy researcher at a South African research institute, I first engaged with the 'rhino poaching problem' through a regional project on organized crime trends in Southern Africa in 2009.⁷⁶ A decade-long research career prior to embarking on the journey towards the doctorate allowed me to build up a professional and social network of contacts within the broader field of crime research in the southern African region and beyond. These networks, knowledge of the research subject and fieldwork experience facilitated (sometimes privileged) access to a broad spectrum of relevant actors.

While the theoretical and explanatory approaches of this dissertation are grounded in economic sociology, the research approach was partially guided by principles of grounded theory. In essence, grounded theory involves a reiterative research process where data collection is interspersed with periods of data analysis and concept formation. The underlying expectation of grounded theory is that "theoretical preconceptions should be avoided in order to allow theory to emerge from data" (Flick [1998] 2014: 84). As data accumulate, the researcher begins to frame interpretations. It was important to check data against those interpretations because "the data themselves do not lie" (Strauss/Corbin 1998: 45). While grounded theory allows for flexibility as regards data collection as theories evolve, three techniques are essential: "making comparisons, asking questions, and sampling" (Strauss/Corbin 1998: 46).

Data collection and sampling was driven by theoretical and empirical gaps; initially, these related to the general structure and functioning of illegal markets. I added and compared data

⁷⁶ Rhino poaching was identified as a growing organized crime concern at the time. I provided research findings and policy recommendations to the regional policing organization, the Southern African Regional Police Chiefs Cooperation Organization (SARPPCO), and conservation NGOs on rhino poaching and its connections to 'organized crime'.

gleaned from respondents to explore theoretical hunches and “illustrate new variations” (Flick [1998] 2014: 86). Important conceptual and theoretical elements emerged, such as the notion of contested illegality, the structural importance of the interface between legality and illegality, and the securitization of rhino conservation. The research question evolved and the theoretical focus was sharpened during the reiterative process. Grounded theory has been criticized on many accounts. Critics doubt whether researchers can undertake research without preconceived ideas and practice an unbiased, neutral approach, not tainted by pre-existing values, assumptions, and values (Flick [1998] 2014: 94). A healthy dose of naïveté underpins the assumed neutrality of grounded theory, as it demands of researchers the capability to play what Donna Haraway called the ‘God trick’ (Haraway 1991).⁷⁷ Mindful of this limitation, I considered my positionality (the ethics section deals with this in more detail) and *Weltbild* (situated perspectives) in approaching data collection and analysis.

2.4 Methods

The following section considers the different methods of data collection employed during the course of this research project, including: (a) a literature review, (b) archival research, (c) Web 2.0 research, (d) interviews, (e) focus groups, (f) participant observation and (g) participation in meetings. Each method comes with a set of limitations and ethical considerations. I refer briefly to these ethical considerations under each heading; the final section of this chapter is dedicated to broader ethical considerations and security concerns. The literature review, archival and Web 2.0 research were undertaken in library settings. The interviews, focus groups, participant observations and participation in meetings formed part of the fieldwork component.

⁷⁷ Haraway (1991) argues convincingly against traditional notions of objectivity in science and philosophy, which assume that the investigator can remove herself from the object of inquiry. She believes that this type of objectivity is impossible to achieve; she associates the “God-trick” with scholars, who eschew argumentation and taking a clear position based on their perspectives and positionality.

2.4.1 Desktop and archival research

(a) Literature review

Literature reviews are not usually listed as methods for data collection. This research project, however, relied heavily on insights gleaned from academic contributions, technical reports, court records, parliamentary submissions and government documents throughout the research process. Not all of these materials were easily accessible; in some instances, the right 'gate-keeper' had to be found. Unless written permission was received to reference the materials, confidential documents were treated as background information. Technical reports, arrest and conviction databases, court files, CITES documentation, newspaper reports and open contributions provided useful insight as to how actors perceive and frame the 'rhino problem'. Some information was integrated into the dissertation; the remainder served as background information to prepare for the interviewing process.

(b) Archival research

Attempts were made to gain access to evidence given at the "Kumleben Commission of Inquiry into the Alleged Smuggling of and Illegal Trade in Ivory and Rhinoceros Horn in South Africa". In 1994, former South African President Nelson Mandela appointed Justice Kumleben to investigate the involvement of the South African Defence Force in the illicit trade of rhino horn and ivory during the bush wars in Angola, Namibia and Mozambique. Unfortunately, my attempts were unsuccessful. The original materials (such as eyewitness testimony) had been moved from the state archives to an undisclosed repository. Kumleben's final report has been scanned and is accessible on-line. The report was regarded a whitewash by some (Interviews, 2013 and 2014) as allegations remained unsubstantiated and important witnesses failed to appear in front of the Commission, leading to no successful prosecutions. I supplemented potential knowledge gaps by interviewing informants, who had intimate knowledge of the proceedings and findings.

I also visited the archives of the Kruger National Park in Skukuza, where I accessed reports and articles that dealt with rhinos and the history of the Park. While rhino poaching was my principal interest, I cast the net wider in order to situate the rhino issue within the broader

social and political context of the Park and its development. The world's most comprehensive on-line archive of knowledge on rhinos, the Rhino Resource Centre⁷⁸ and Julian Rademeyer's *Killing for Profit* archive⁷⁹ were useful in accessing up-to-date information on rhino issues.

(c) Web 2.0 research

Web 2.0 refers to 'big data' (boyd/Crawford 2012) or 'user-generated content' on the Internet (Snee 2008: 3). The use of Web 2.0 technologies for the purposes of social research is in its infancy. Some scholars question the usefulness (boyd/Crawford 2012; Bollier 2010; Anderson 2008); others fear that social scientists may be left behind in the brave new world of social media platforms (Savage/Burrows 2007; Snee 2008; Murthy 2008; Robinson/Schulz 2009). If history is anything to go by (the use of tape recording technologies in the 1950s provided a bone of contention in research communities), then the initial trepidation will blow over by the end of the decade.⁸⁰

Social networks such as Facebook, Twitter and LinkedIn are built upon the principle of establishing networks through friends and compound relations (Murthy 2008: 844). Murthy (2008: 845) argues that such networks would be useful to researchers because they act as "virtual gatekeepers" to chains of friends, who can act as research informants or may have connections to persons of interest. I used Facebook, LinkedIn, and blogs for the purposes of identifying research informants, research assistants, transcribers and interpreters, engaged in on-line debates and accessed documents and multi-media resources. While some

⁷⁸ Dr Kees Rookmaaker is the editor of the archive, which can be accessed at <http://www.rhinosourcecenter.com/>.

⁷⁹ The archive was started by investigative journalist and author Julian Rademeyer and can be accessed at <http://killingforprofit.com/>.

⁸⁰ Computer access and the spread of Internet technologies have led to a wider range of entities such as marketing companies, government agencies and motivated individuals to generate, analyze, organize and share data. Savage and Burrows (2007) warn of a crisis in empirical sociology due to data sets previously in the exclusive domain of social scientists "now being aggregated and made easily accessible to anyone who is curious, regardless of their training" (boyd/Crawford 2012: 664). Regardless of the type of training received by the data generator, all data sets should be equally scrutinized for possible bias and put in context (e.g. Who is behind the research? Who is funding it? What is the objective?). For the purposes of data collection on the Internet, all data was scrutinized and triangulated.

ethnographic researchers hide behind pseudonyms and avatars in on-line platforms (boyd/Crawford 2012: 672), I used my full name and disclosed my research interest while engaging on-line. I ‘met’ several informants on-line, which led to interviews in the real world. These social media portals proved particularly useful when I prepared for fieldwork in Hong Kong and Vietnam, research sites that I had not visited before. Through the on-line accommodation service AirBnB, I managed to find affordable lodging with locals across Vietnam, which gave me a local foothold and unexpected access to invaluable research informants. On-line friends and connections provided introductions to their social and professional networks in Mozambique, Hong Kong, and Vietnam, many of whom I met in face-to-face interviews and social gatherings.

Social network sites hold vast stores of multimedia-resources “regarding even the most marginal social movements or groups” (Murthy 2008: 845). The rhino has most certainly an enormous social media presence. Facebook groups like The Great Big NO Trade/PRO Trade Debate,⁸¹ Focus Africa Foundation,⁸² Outraged SA Citizens against Poaching,⁸³ Rhino News,⁸⁴ Rhino S.O.S./Wild and Free SA,⁸⁵ personal blogs⁸⁶ and the Facebook and Twitter pages of conservation NGOs, Anti-Poaching Units (APUs) and Intergovernmental Organizations (IGOs) provide useful links to documents and databases, news reports and insights as to how the rhino problem is framed in public discourse. Several hard to find policy papers and reports were ‘crowd-sourced’ from such platforms. Moreover, ‘on-line observation’ was conducted

⁸¹ Accessible at <https://www.facebook.com/groups/RhinoTradeDebate/>

⁸² Accessible at <https://www.facebook.com/pages/Focus-Africa-Foundation/640463866006417?fref=nf>

⁸³ Accessible at <https://www.facebook.com/groups/OSCAP/>

⁸⁴ Accessible at <https://www.facebook.com/groups/506340646046722/>

⁸⁵ Accessible at <https://www.facebook.com/groups/rhinosos/> and <https://www.facebook.com/groups/WILDANDFREESA/?fref=ts>. The Wild and Free SA group had replaced Rhino S.O.S., which was the operational group when I undertook scoping research for the project.

⁸⁶ The personal blog of Brian Sandberg is a great example of thought-provoking ideas being shared via social media. Brian frequently published on rhino-related matters on his personal blog (<https://vivaafrika.wordpress.com/>). I contacted him upon reading a blog about the villages on the Mozambican border of the Kruger National Park and the villagers’ links to rhino poaching. We connected over coffee a few days later. Unfortunately, Brian passed away in April 2014.

in virtual marketplaces⁸⁷, where rhino horn and other wildlife contraband were traded. I also accessed the Deepnet (also known as the Darknet or Hidden Web) through the anonymity network Tor to cast the net wider and assess opportunity structures accessible to criminal players.

These new technologies are not only generating new kinds of data and granting access to difficult to reach populations, but they carry with them ethical and methodological challenges (McKie/Ryan 2012: 5). Firstly, there are ethical concerns tied to privacy⁸⁸ – some Facebook updates, tweets or chat-room ramblings were created in “highly-context sensitive spaces”, the originators thus may not consent to their data being used elsewhere (boyd/Crawford 2012: 673).⁸⁹ Sally Hambridge, developer of the “Netiquette Guidelines” (cited in: Ess/AoIR Ethics Working Committee 2002: 5) qualifies the openness of communication by warning that not even e-mail correspondence is safe from prying eyes:

“Unless you are using an encryption device (hardware or software), you should assume that mail on the Internet is not secure. Never put in a mail message anything you would not put on a postcard.”⁹⁰

I used common sense to judge whether the interactions of social media users were intended as public and “performative” (Ess/AoIR Ethics Working Committee 2002: 7) or private and protected. Anonymity, protection of confidentiality and informed consent guided data

⁸⁷ Using a crime script analysis approach, Lavorgna (2014) argues that the Internet is not only a communication tool for wildlife traffickers but has also transformed the structure of the criminal wildlife market by lowering barriers to entry. Asian informants likewise suggested that on-line marketplaces, social network platforms and auction websites offer rhino horn in various forms (TCM, carvings, unprocessed horn). My Vietnamese research assistant introduced me to several auction websites, which ostensibly sold rhino horn products. However, criminal investigators stated that rhino horn traded on-line is mostly fake (Interview with organized crime experts, Bangkok, Hanoi and Hong Kong, 2013). Several on-line auction and marketplaces have been shut down (such as the former www.kerwawa.com), and listings on several reputable auction websites have been flagged, reported and deleted. My empirical investigation could only partially confirm Lavorgna’s thesis – the part of the Internet being used as a communication tool (see chapter 8); however, interviews with rhino horn consumers revealed that they relied on personal introductions and word-by-mouth referrals to reputable horn sellers.

⁸⁸ The on-going revelations tied to the National Security Agency (NSA) scandal have shone a light on how social media platforms are used for intelligence gathering purposes.

⁸⁹ Unbeknownst to many Internet users, deleting an update, tweet or comment may remove it from one’s computer screen while back-ups, mirror images and screenshots may remain in circulation long after.

⁹⁰ Available at http://www.pcplayer.dk/Netikette_reference.doc

collection throughout the research process. In return, some social networkers requested assistance with specific tasks, such as referrals to the relevant literature supporting their stance for or against the legalization of the trade in rhino horn, input into movie scripts and op-ed pieces, or introductions to sources of information.⁹¹ I assisted with the requests as long as they did not clash with my research ethics and time constraints.

Secondly, administrators of social media interfaces have the power of the “delete” button. In other words, on-line contents is often censored, mediated and condensed as not to upset the mainstream or catch the attention of law enforcement and intelligence bodies. In some cases, social media users practice self-censorship and delete their comments upon receiving negative sanctioning from others. I have often watched comments ‘disappear’ from my laptop screen; these include amongst others, racist remarks, personal attacks aimed at fellow users and death threats to poachers or Asian nationals. The “new digital divide” (boyd/Crawford 2012: 673) presents another limitation because of the growing rift between the mostly urban wealthy strata of society with high-speed Internet access and data volumes and the less fortunate ones (often in rural settings) who cannot afford access or use restricted wireless access to connect to the Internet. Arguably, access to social media is largely limited to the “digital haves” while “ethnic/gender digital divides strongly persist” (Murthy 2008: 845). Conscious efforts were made to contact ‘digital have-nots’ and difficult to reach populations in the ‘real’ world.

2.4.2 Fieldwork

Fieldwork refers to primary research “that transpires ‘in the field’ ... outside the controlled settings of the library or laboratory” (McCall 2006: 3). The duration of the fieldwork component stretched over 14 months and entailed two phases. During the initial exploratory phase, the case study and key experts were identified (and interviewed to inform the research approach) and the research sites were determined. I also initiated the process of obtaining research permission to undertake research in South Africa’s national parks and correctional

⁹¹ A number of journalists requested contact data of rhino criminals. For reasons of anonymity, confidentiality and safety, the contact data was not shared.

centres (prisons), as well as with officials from law enforcement agencies and government departments. The second phase involved 12-months of immersed fieldwork in southern Africa and Southeast Asia. The timing of field trips was largely flexible, contingent on the availability of informants and weather conditions,⁹² and scheduled not to coincide with elections or major holidays.

I visited several research sites more than once, which allowed time to establish trust and rapport with informants. Due to the geographic scope and the remoteness of most research sites in southern Africa, I used cars and took occasional flights to get around. In Southeast Asia, I used public transportation (trains, ferries, bus and motor bikes). My hometown of Cape Town in the Western Cape region of South Africa was the base from where I embarked on immersed field trips (see Appendix A for a detailed list of research sites and maps). I made pit stops at several private game reserves and rhino farms, informal settlements and villages in the vicinity of conservation areas, as well as formal and unofficial border crossings. Interviews and focus groups were frequently arranged away from the respondent's place of work or office to encourage an open and informal approach.

While I could visit all major rhino poaching hot-spots, critical thinking and planning were invested in the "places" of research. Beyond the physical properties such as the demarcation of boundaries, "figurative" and "metaphorical" aspects were also relevant (Stein 2006: 61). The identification of divided geographies and contested spaces became an important aspect of attributing meaning and context.

⁹² Due to the heightened risk of flooding (leading to impassable roads), malaria infection and extremely hot and humid weather conditions, it is not advisable to travel to Mozambique and the KNP during the rainy season (December to February). I was also cautioned to avoid traveling to Southeast Asia during the southern summer monsoon season. Moon cycles were also important considerations as poaching used to surge around full moon. Poachers use the natural moonlight to guide them through the bush at night. The role of lunar phases has become less important due the great number of poaching teams and incursions occurring at all times of day and night.

(a) Interviews

Research informants were interviewed in face-to-face semi-structured or unstructured interviews. Research interviews are “professional conversations” about social life, upon which “knowledge is constructed in the interaction between the interviewer and the interviewee” (Kvale/Brinkmann 2009: 4). Before discussing sampling (which is also relevant to sub-section (e), which deals with focus groups), an overview of the interviewing approach and process is given.

The approach taken was one of stepping back and “relinquish(ing) expert status” (Simpson 2006: 126), listening to respondents’ life stories, insights and ascribed meanings of illegal economic action involving rhino horn. This type of “responsive interview” is useful in eliciting responses as it underscores “the importance of building a relationship of trust between the interviewer and interviewee that leads to more give-and-take in conversation” (Rubin/Rubin 2012: 37). Great care was taken to provide an interview setting that was informal and relaxed; the questions were flexible, open-ended and “evolved in response to what the interviewees have said, and new questions were designed to tap the experience and knowledge of each interviewee” (Rubin/Rubin 2012: 37). Once the subject of illegality (for example: involvement in poaching) was broached, I erred on the side of caution when it came to asking follow-up questions or probing further (Flick [1998] 2014: 208). Due to the possibility of interviewer effects,⁹³ concerted efforts were made to avoid “prompting” respondents to produce an answer (Fielding/Thomas: 250). Attempts were made to discourage informants from anticipating the response they thought I was seeking. To minimize respondent effects (irreducible ambiguity of questions due to different backgrounds of the researcher and the researched), local interpreters were employed to help explain questions rather than the researcher ticking off questions in a predetermined questionnaire (Burawoy 1998: 12). Research into sensitive issues tends to engender resistance amongst those interviewed due to feelings of shame, fear of reprisals and other consequences linked to continuity in work-based relationships. Based on previous fieldwork experience, the use of controversial terminology or ‘loaded terms’ such as corruption was hence sidestepped by describing the

⁹³ Personal attributes of the interviewer (such as gender, ethnicity or religion) or the interview schedule (order or form of questions) – so-called interview effects – can impact the interview (issues of positionality of the researcher will be discussed in the final section of this chapter).

concept in loose terms (Hübschle/Van der Spuy 2012 : 326). The assurance of confidentiality and anonymity in and beyond the field was crucial to obtaining data that delved beyond standard one-line responses.

Attempts were made to interview respondents more than once. The first interview was used to establish rapport with the informant(s) and follow-up interviews would serve the purpose of data collection and verification. In light of the geographical scope, time and institutional constraints of the study, this was not always possible. The research permits to undertake data collection in the national parks, and correctional centres were approved and processed halfway through the research process and demanded further logistical preparations. Unfortunately, in this instance respondents could only be interviewed once. However, follow-up phone calls and emails were made to 'keep in touch' and verify information with many respondents beyond the initial interview process.

Key informants provided introductions to their professional networks, acting as gatekeepers. Through the interviews conducted in the initial exploratory phase, I established relationships, which I cultivated throughout the research. Conservators, investigators, officials and community leaders are important 'gatekeepers', who provided introductions to their professional and social networks. Moreover, purposive sampling was employed to target specific persons of interest as a means of assisting with filling gaps in the data and contributing towards theory building (Gray 2009: 152). I used snowball sampling to recruit other respondents through pre-existing social and professional networks. Typically, the sample group grows over time (like a snowball) until enough data is gathered to satisfy the research objective. This technique is particularly useful for accessing data from hidden populations – such as kingpins, smugglers or poachers – where group membership may be concealed due to the illegal nature of the activity. Moreover, snowballing can be used to access marginalized communities, like the rural dwellers interviewed in the Mozambican borderlands. The technique relies heavily on personal recommendations that “vouch for the legitimacy of the researcher” (Sturgis 2011: 180). It allows researchers to gain access and information as trust is built amongst hidden and/or marginalized populations. The process of securing entry into a given social network allows researchers to understand the inter-group relationships, hierarchies, and connections between participants. While it is acknowledged

that snowball sampling is inexact (Miller 2005: 69), it can offer useful insights into illegal or marginal sectors provided the data is verified or triangulated. 416 interviews (including focus groups) were conducted during this research. This includes 360 face-to-face interviews with respondents, some of whom were interviewed more than once. In light of confidentiality and anonymity requirements, two general tables of informants, their role within the rhino supply chain and a breakdown by region are given. Table 2 lists the field of expertise of research informants.

Table 2: Number of respondents by function

Function	Number of respondents
Prisoners⁹⁴	30
Criminal actors⁹⁵	38
Community⁹⁶	43
Conservation⁹⁷	47
Law enforcement & intelligence (public)⁹⁸	46
Private security & intelligence⁹⁹	25
Wildlife industry¹⁰⁰	29
Academia	34
Journalism	21
Social movement¹⁰¹	47
Total:	360

⁹⁴ For all intents and purposes, the ‘prisoner’ category could be subsumed under ‘criminal actors’. The purpose of separating the two serves to indicate that both, active and convicted rhino criminals, were interviewed.

⁹⁵ Poachers, kingpins, traders, corrupt officials, rogue wildlife industry actors and consumers are considered in this category.

⁹⁶ Criminal actors are embedded in community structures. It was thus important to interview community members directly affected by illegal trade. Typically, such respondents would provide the broader societal context of the study.

⁹⁷ A clear delineation was made between conservators and respondents representing social movements or special interest groups. The primary function of conservators is linked to nature conservation. Respondents in this category work in parks or carry out official duties linked to conservation.

⁹⁸ This category includes state-run police, military, customs and prosecutorial agencies.

⁹⁹ Private anti-poaching units, intelligence gatherers and private investigators are included.

¹⁰⁰ This category includes people that are professionally linked to the rhino horn exchange such as wildlife veterinarians, professional hunters, game capturers and wildlife insurance brokers.

¹⁰¹ Representatives of charities, NGOs and other civil society organizations were interviewed.

In some instances, the categorization was not straightforward. A criminal actor, for example, may also fit the community, conservation or law enforcement category. The salient categorization relevant to the research question was chosen in such cases.

Table 3 provides an overview of respondents by region. The majority of respondents hail from either Sub-Saharan Africa or Southeast Asia. The categorization relies on the knowledge base and context of the respondent. For example, some Asian respondents were interviewed in South Africa and Mozambique. As the interpretation of their data is relevant to understanding the Asian dimensions of the supply chain, they fall under the “Asia” category.

Table 3: Respondents by region

Region	Number of respondents
Sub-Saharan Africa	239
Asia	102
Australia	5
Europe	10
North America	4
	360

Qualitative studies seldom encompass a big sample; the present study is thus unusual. Critiques of case studies, snowballing and purposive sampling techniques fault the lack of adherence to standards of representativeness and thus generalizability (Miller 2005: 70). While cognizant of such critiques, the big size of this sample is attributable to the illegality of the rhino horn exchange, the related difficulty of negotiating access to ‘experts’ (rhino criminals), and most importantly, the importance assigned to data verification. In some instances, the trust of gatekeepers or the proverbial ‘foot in the door’ had to be negotiated over a series of interviews with several different respondents. In other instances, it took a few interviews until introductions to the ‘right person’ were made. Unstructured informal interviews were conducted when the opportunity arose to speak to officials “off the record” after workshops or formal meetings. Sometimes impromptu interviews developed at research sites with informants from unexpected corners, such as patients waiting to see a TCM doctor or people going about everyday business. The length of interviews varied from 10

minutes to close to 5 hours, averaging at approximately 2 hours per interview. The research project benefitted greatly from respondents' good will, time, and trust.

The need for data triangulation and verification grew as collected data started diverging from insights found in the literature or differed from official positions taken by gatekeepers or social control agents. While fact-checking constituted one research strategy, equally important was the requirement to establish the "sociological pertinence and analytical adequacy for explaining the social practices" of respondents (Waquant 2002: 1481). During the interviewing process, it proved important to reflect on who was being interviewed, their role in the community and society, and in the rhino horn supply chain. Moreover, I interrogated the process and implications of 'othering',¹⁰² leading to "alienation and social distance" between key actors and 'supporting roles' (Krumer-Nevo/Sidi 2012: 300). Early in the research phase, the fluid interface between illegality and legality was recognized. For example, the ambiguous role of social control agents and big business was duly included and researched.

(b) Focus groups

Focus groups were arranged with villagers, conservation, law enforcement and government officials. Gatekeepers and key informants initiated some focus groups; I organized the others. In some instances, focus groups constituted the follow-up interaction of one-on-one interviews actively sought out by respondents who preferred a group setting. On other occasions, focus groups and meetings provided the springboard for one-on-one exchanges later on. Barbour and Kitzinger (1999: 4–5) regard as focus group "any group discussion... as long as the researcher is actively encouraging and attentive to, the group interaction". What differentiates focus groups from plain group interviews is the "explicit use of group interaction to generate data" (Kitzinger/Barbour 1999: 4). The size of focus groups ranged

¹⁰² I use the sociological understanding of the concept of 'othering', which refers to "the process of attaching moral codes of inferiority to difference" (Krumer-Nevo/Sidi 2012: 300). Krumer-Nevo and Sidi (ibid) identify objectification, de-contextualization, de-historicization, and de-authorization as othering mechanisms employed with regards to women living in poverty.

from three to eight participants. Focus group interactions proved particularly useful in encouraging people to talk freely about the impact, drawbacks and benefits of poaching to the community, government policy and action and sensitive topics such as public sector corruption.

Michel (1999: 36) warns that while focus groups are useful for the identification of collective experiences and shared identities, they may silence the voices of participants lower in the social “pecking order” (especially when on-going social relations may be affected by public disclosure). Contrary to this warning, scholars from the feminist tradition have found that respondents were more likely to “self-disclose or share personal experiences in a group setting than in dyadic settings” due to feeling “empowered and supported in a group setting” (Faraquhar/Das) 1999: 47). The researcher’s identity and linked asymmetric power relations due to race, gender and age may, however, amplify the sensitivity of the research topic. The presence of a youngish¹⁰³ white woman influenced the process of data collection and will be further problematized in the final section. Focus groups helped to level the playing field, as some respondents expressed comfort of being surrounded by members of their peer group or support structures. Assurance of confidentiality and anonymity was particularly important for focus group settings.

(c) Participant observation

Participant observation assisted in understanding and interpreting the research context and how actors interact within a given environment. It involves “the systematic viewing of people’s actions and the recording, analysis and interpretation of their behaviour” (Gray 2009: 397). Observation is integral to most qualitative researcher’s toolbox and, like the other methods employed carries ethical and security concerns particularly where it involves illegal activities. While the researcher observes the field, she also influences what she is observing due to her participation (Flick [1998] 2014: 312). Covert observation (when people do not know that they are being observed) is favoured when the validity of the research results might

¹⁰³ I was in my mid-30s during the period of active fieldwork.

be influenced by prior knowledge of the observation. However, this form of observation is ethically questionable and falls short of spying on others.

For this project, overt and invited participant observation was the preferred method, which included, amongst others: accompanying investigators to crime scene investigations; visiting the fence line between Kruger National Park and private concessions on the Mozambican side; anti-poaching patrols; consultations with TCM doctors; rhino horn consumption and the observation of organizational and institutional processes in government departments, law enforcement agencies, anti-poaching units, conservation NGOs and IGOs. Due to security concerns, observations at some sites remained unannounced, such as visits to the medicines streets and districts of Hong Kong, Hanoi, Cat Ba and Ho Chi Minh City; TCM paraphernalia stalls and shops in Hanoi, Ho Chi Minh City and Bat Thienh; TCM wholesalers in Hanoi; and observations of village life in border towns and villages in Mozambique. These observations assisted in contextualizing the social setting and the level of embeddedness of criminal actors, the interface between legality and illegality, interactions between respondents, how they carried themselves in their daily routines, and behaved in their interactions with the state. Beyond the listed observations, observational techniques were used to determine the credibility of respondents (Becker 1958: 654), whether respondents volunteered or directed information (Becker 1958: 655) and the significance of body language of respondents in the interview, meeting or everyday social settings. It is difficult to categorize such observations and use them as evidentiary proof for theoretical conclusions (Becker 1958: 666). To compensate for this deficiency, the empirical sections of this dissertation rely on 'thick narratives' and triangulation of data and methods. The use of thick narrative conveys the richness of the data collected during this project.

(d) Participation in meetings

The opportunity to participate in meetings, workshops and roundtable discussions dealing with rhino-related matters contributed greatly to understanding and contextualizing policy matters. This also provided the opportunity to network with key stakeholders, leading to follow-up interviews or introductions to important gatekeepers. Particularly useful were

invitations to present the objectives of this research project to the South African National Biodiversity Investigators' Forum, the DPCI (Department of Priority Crime Investigations in South Africa), and stakeholders of the Great Limpopo Transfrontier Conservation Area, as well as members of the Policing Studies Forum at the University of Hong Kong. Other meetings (such as attending the annual congress of Wildlife Ranching South Africa, an awareness raising campaign undertaken by the CITES Scientific Authority at a primary school in Hanoi or meetings of private rhino owners) were less formal but equally informative and provided insights on stakeholder's perceptions of the rhino issue.

2.5 Triangulation and data analysis

The research design of multi-sited ethnography facilitated the garnering of insights and perspectives from different actors and places along rhino horn flows, allowing for juxtaposition and comparison. Qualitative data analysis has been criticized due to supposed lack of "methodological rigour", bias due to researcher subjectivity, the smallness of cases, as well as "limited evidence" to inform empirical and theoretical conclusions (Gray 2009: 493). Earlier sections of this chapter served to show that a "rigorous and logical process" (ibid) was followed in attaching meaning and subsequent analysis to the collected data. Moreover, multiple qualitative methods were adopted as a strategy to promote scientific rigour. The original idea behind the so-called method of triangulation was to institute measurement practices in social and behavioural research. Triangulation serves as a research strategy "to compare the evidence collected from different sources to better understand the biases or omissions of each and to produce a more comprehensive view of the social phenomena" (Espeland 2005). It also refers to the use of different data sources (such as studying phenomena at different times, in different places, as well as gathering data from different people), the use of different interviewers and/or the use of multiple perspectives and hypotheses to generate theories (Flick [1998] 2014: 183).¹⁰⁴ According to Flick ([1998] 2014),

¹⁰⁴ Denzin (1970) differentiates between data, investigator, theoretical and methodological triangulation. For the purposes of Ph.D. research, the use of several investigators would be construed as cheating. Nonetheless,

triangulation is not a strategy or tool to test data validity but serves as an alternative to validation. I used different types and sources of data, approximating fact-checking undertaken by investigative journalists to verify information and sources (Espeland 2005: 66),¹⁰⁵ as well as multiple methods of data collection. In addition, the considerable number of research informants, as well as snowball and purposive sampling led to heterogeneity of the overall sample and ensured that hidden populations received a voice. Thus, the blend of multiple methods, empirical materials and perspectives added “rigour, breadth complexity, richness, and depth” (Denzin 2012:82) to the study.

For the purposes of analysis, data emanating from both fieldwork and desktop research were analysed throughout the data collection phase. The process continued once the active fieldwork phase had ended. Field notes, audio recordings and documents made up the raw data. Throughout the data collection process, extensive field notes of interviews and observations were created. Interviews were recorded, dependent on the consent of the research informant.¹⁰⁶ The transcribing services of native speakers of Shangaan/Tsonga¹⁰⁷ and Vietnamese were employed for interviews that were conducted in languages not known to the researcher. Local research assistants were asked to do in situ translations in the field. It was hoped that the transcribers would catch details that may have been ‘lost in translation’ in the field. The interviews were transcribed, re-checked for accuracy, anonymized and stored in secure and encrypted folders. Relevant newspaper articles, policy documents and academic articles were collected throughout the project and inserted into a self-devised database on my laptop. I also created memos to reflect on thought-provoking aspects of the data, which provided the basis for deeper analysis (Miles/Huberman 1994: 44).

While initial data analysis and the development of the conceptual framework were done

collaborative projects using more than one researcher are useful not only for triangulation, but could also deal with issues of positionality and related biases.

¹⁰⁵ Investigative journalists usually confirm a set of information through three independent sources.

¹⁰⁶ Recording was not always possible due to the sensitivity of the subject matter and the request by respondents not to be recorded.

¹⁰⁷ Tsonga and Shangaan are local languages spoken by many people living adjacent to the KNP on both sides of the border. The two languages are similar.

manually, the NVivo data analysis software was used in the later stages. Open coding allowed for the development of codes that captured the essence of 'new' theoretical ideas and meanings of data that could not be integrated into preconceived codes such as the notion of contested illegality and the coordination problem of security. This allowed the data "to speak for themselves" (Glaser/Strauss 1967: 101). Of importance was the application of theoretical rather than descriptive codes, which I developed through primary data collection. Moreover, the views of respondents were verified, critically assessed and interpreted in the process (Gibbs 2007: 54–55). Data-driven coding was supplemented with concept-driven coding derived from previous studies in the literature, topics covered during the interview process and hunches (Gibbs 2007: 44–45). Frames and framing processes were also considered during the analysis of both primary and secondary data. Goffman (1974: 21) conceived of the notion of frames to denote "schemata of interpretation", which allows individuals "to locate, perceive, identify and label" events in their everyday lives and the wider social system. He argues that as people frame the "organization of their experience, they buttress, and perform, self-fulfillingly" which leads them to "develop a corpus of cautionary tales, games, riddles, experiments, newsy stories and other scenarios which elegantly confirm a frame-relevant view of the workings of the world" (Goffman 1974: 563). Texts were scrutinized for attribution of causality, blame and delineation between 'good' and 'evil' (adversarial framing) (Schwellnus 2012). Forms of othering, differentiation between good versus bad (such as the notion of "good hunters" versus "bad poachers") and cultural relativist frameworks were significant elements in the analysis of cognitive frames.

2.6 Gray areas of social research: Research ethics

When researching the social world and people, social scientists should consider the impact of their research on the research participants, the social environment, and the emotional and psychological impact on themselves. This research project falls into the category of what Sieber and Stanley (: 49) describe as "socially sensitive research":

“Socially sensitive research refers to studies in which there are potential social consequences or implications, either directly for the participants of the research or the class of individuals represented by the research.”

While the pursuit of greater knowledge is laudable, “respect for human dignity” should be the guiding principle of social research (Bulmer 2008: 146). In the aftermath of controversial social sciences experiments such as those undertaken by Milgram, Zimbardo and Rosenhan, the infamous Project Camelot (David/Sutton 2011: 31–32) and social research interpreted through a racial, racist or ideological lens during the apartheid regime in South Africa (Bless/Higson-Smith/Kagee 2006: 140–141),¹⁰⁸ the need for an honest engagement with ethics of any social sciences research has become axiomatic. Sieber and Stanley (1988: 50) list four aspects of scientific activity that require scrutiny, including: “the formulation of theories or research questions, the conduct of research and the treatment of participants, the institutional setting in which the research is conducted, and the interpretation and application of the research findings.”

Although the Max Planck Society¹⁰⁹ endorses freedom of research,¹¹⁰ restrictions apply concerning research that undermines “other significant constitutionally protected values”

¹⁰⁸ The Carnegie Corporation of New York funded the first major sociological study in South Africa, which delved into the poor Whites phenomenon (Welsh 1981: 28). In its 1932 report, the Commission recommended that transitional job reservation should be introduced in order to address the “poor-White problem” (Webster 1981: 90). No consideration was paid to the problems of poor black people. The research was designed to proffer ideologies of white supremacy during the colonial era (Bless/Higson-Smith/Kagee 2006: 139). Hendrik Verwoerd, the intellectual father of apartheid, started his dubious career as a sociologist at the University of Stellenbosch. He declared that black South Africans needed to “‘administered’ and ‘properly serviced’ so that they can function in their prescribed role” (Adam 1981: 119). Verwoerd’s career and the abuse of social research to firmly entrench the apartheid ideology is a matter of historical record. During the apartheid regime, many questionable research and science programmes were introduced and used to uphold the dominant Calvinist and racist apartheid ideology. Another notorious example is Project Coast, the covert chemical and biological warfare programme led by Wouter Basson, also known as ‘Doctor Death’. The programme produced and tested narcotic drugs and poisons for the use against anti-apartheid activists (Singh, J. A. 2008: 5). Scores of scientists collaborated on Project Coast, which also included a eugenic strategy to control population growth amongst the black population by developing a clandestine anti-fertility vaccine. The vaccine was going to be selectively administered to black South Africans (Singh, J. A. 2008: 6); fortunately, the end of apartheid subverted these plans. Chandre Gould (2002) argues that Project Coast offers important lessons on why scientists get involved in questionable research, such as professional ambition, the desire to do interesting science, patriotism and financial gain. Between 1960 and 1991, the South African Defence Force also implemented aversion therapy to ‘heal’ gay men and lesbians from their ‘deviant’ sexual preferences. This so-called therapy included forced sex change operations, chemical sterilization and electric shock treatments (Eybers 2000; Kaplan 2004).

¹⁰⁹ The Max Planck Institute for the Study of Societies (MPIfG) provided financial, administrative and advisory assistance for this project. The MPIfG is one of 82 research institutes that operate under the umbrella of the Max Planck Society.

(Max Planck Society 2010: 3). It also acknowledges the danger of misappropriation of “neutral or useful per se” research “for harmful purposes” by third parties (ibid).¹¹¹ All research (including this research project) conducted through institutes affiliated with the Max Planck Society are governed by strict ethical and legal limitations.¹¹² An Ethics Commission provides support on “issues of research ethics, mediates differences of opinion between researchers on relevant matters and issues recommendations on the implementation of research projects” (Max Planck Society 2010: 10). The Max Planck Society’s principles of ethically responsible research provided the institutional blueprint to navigating through ethical issues during the project. In addition, I had previous experience in undertaking fieldwork into human, drug and natural resource trafficking and broader organized crime issues amongst vulnerable, disenfranchised and criminal populations in southern Africa. Members of the Ph.D. advisory committee, fellow researchers and sociologists, as well as the relevant authorities (for example the research guide appointed by the Department of Correctional Services) advised on specific aspects such as the interviewing process in prisons.

Many ethical issues were encountered during inception and in the course of the research project. In the following subsections, issues of anonymity and confidentiality, informed consent, power differentials between the researcher and respondents, reciprocity and security concerns are discussed.

¹¹⁰ Considerations of what is ethical or unethical in broader society influence the success of research questions and proposals (David/Sutton 2011: 39). Rhino narratives are fraught with ethical concerns, such as whether to endorse legal trade of a keratin-like substance with limited proven medical effects, the use of rhino horn for medicinal purposes (cancer cure), the higher valuation of wild animals over human beings, calls for shoot-to-kill enforcement against poachers, or cultural-relativist assessments over the use of animal products in traditional medicines.

¹¹¹ The Kaiser Wilhelm Society, the Max Planck Society’s predecessor, carried out unethical experiments and research during the national socialist regime in Germany. This legacy has led to the development of comprehensive guidelines not only dealing with general research ethics but also with clearly delineated responsibilities of individual researchers and research institutes (Max Planck Society 2001).

¹¹² An excerpt from the Max Planck Society’s principles of ethically responsible research states:

“The Max Planck Society undertakes to carry out research which extends the boundaries of knowledge and enhances the welfare of mankind and the protection of the environment. Scientists must therefore prevent or minimize *direct or indirect harm to humans* and the environment as far as possible. Researchers must not satisfy themselves with adhering to legal regulations when making applicable decisions, but *must also take account of ethical principles* (Max Planck Society 2010: 6).”(Author’s emphasis)

2.6.1 Informed consent

The principle of informed consent is well-established in the medical fraternity. It became a research standard in the aftermath of atrocities committed against concentration camp inmates in the name of medical sciences at the Nuremberg trials (Gilbert 2008: 150). Since then, the principle has become a cornerstone of natural and social science research involving human subjects. According to Berg (cited in: David/Sutton 2011: 43), informed consent entails “the knowing consent of individuals to participate as and exercise of their choice, free from any element of fraud, deceit, duress, or similar unfair inducement or manipulation.” While the principle provides a “legal remedy” primarily in health research, informed consent is by no means the stopgap for ethical concerns (Malone 2003: 813). O’Neill comments that many research designs are too complex for lay-persons to make an informed decision about the impact of the research (based on a presentation by O’Neill, which is cited in: Richardson/McMullan 2007: 1116). Despite these valid concerns, the principle of informed consent was upheld in this research project.

With the exception of the covert participant observations mentioned earlier, all respondents consented to participating in the research. Usually an interview or focus group was preceded by either a telephonic, email introduction or an introductory visit. The researcher pointed out that participation in the interview was voluntary and that the informant could withdraw at any stage. It is customary to exchange business cards in some settings (e.g. Asia). I always carried institutional business cards, which provided a local contact number and email address. No physical address (other than the MPIfG’s address in Cologne) was given as a security precaution. After personal introductions, the institutional background and research were introduced. Prior to commencing any interview, I explained the objectives of the research, issues of confidentiality, anonymity and data protection. Respondents were encouraged to discuss their concerns and any issues arising.

Researchers have to apply for research permits to conduct research within public institutions in South Africa.¹¹³ The research registration process can stretch over several months. Permits

¹¹³ Although common in other countries, the strict research permit system appears to be a relic of South Africa’s apartheid past. Back then researchers were required to obtain research permits from either the central government or local authorities to conduct research in South African homelands and townships. The permit

stipulate with whom the researcher may interact, how the data is to be used and disseminated. Due to the 'sensitive nature' of rhino poaching, the relevant research and scientific committees scrutinize research proposals carefully and at length, vetting prospective researchers as they may well be 'wolves in sheepskin'. There are obvious and less obvious dangers to conducting fieldwork in national parks, where highly-armed poachers and anti-poaching personnel roam the bush. Not only is there the risk of accidental death of the researcher in the field (a publicity disaster is likely to ensue), there are justified fears that institutional weaknesses and operational procedures may be shared with third parties or exposed on public platforms. Throughout the research process, I had to confirm that I was not affiliated with intelligence bodies, law enforcement authorities or media houses. Once my academic credentials had been confirmed and fears of intelligence gathering had been dismissed, my presence was either accepted or endured – depending on the general attitude and approachability of the research participants, their workload, other institutional pressures and idiosyncrasies. The request to share datasets with the permitting authorities (SANParks and Ezemvelo KZN Wildlife) was gently declined, and graciously accepted upon explanation why it would be unethical to do so. The standard research contract is aimed at natural science researchers, who conduct ecological or biological research in the parks. Unlike most social sciences research that deals with people, society and their meanings, natural sciences datasets can be shared and checked for reproducibility.

The research permission obtained from the Department of Correctional Services (DCS) stipulates that researchers need to obtain written permission from each offender before commencing interviews. The research guide¹¹⁴ provided a departmental "indemnity form" (Appendix B), which was translated into Vietnamese and Mandarin to enable offenders to read the form in their native tongue. One out of thirty offenders refused to sign the form on grounds of allegedly having been duped by law enforcement agencies into signing an admission of guilt form. The interview could not proceed.

stipulated that permit-holders have to share their drafts with the permitting authority prior to publication (Welsh 1981: 34–35). Several draft research contracts for this project stipulated prior approval of the draft research report (the Ph.D. dissertation) prior to submission. These contracts were amended to reflect that the dissertation would be shared with the permitting authority once it had been submitted and accepted.

¹¹⁴ The DCS Research Committee appoints departmental research guides that act as research coordinators between the researcher and the Department.

Informed consent should not be a once-off engagement but an on-going process (Sieber: 38). Some respondents were visited more than once; it was hence important to re-check their willingness to engage with the researcher, whether they were content with the interview process or had any suggestions for improvement. Moreover, updates on the fieldwork and subsequent writing process were provided to some key informants and others who had requested updates on the progress of the project.

2.6.2 Anonymity and confidentiality

Since the economic exchange of rhino horn is illegal, the assurance of anonymity, confidentiality and data protection was very important in establishing trust and rapport with respondents. According to veteran scholars of informal and illegal markets in sub-Saharan Africa Ellis and MacGaffey (1996: 24), the likelihood of gaining the trust of informants “will depend in part on the degree of illegality of the commodities being exchanged, on local politics, on state policies and their implementation or lack of it and on the extent of involvement of state officials and the degree to which they enforce the law”.

The principles of anonymity, confidentiality and data protection were adhered to throughout and in the aftermath of data collection. Although some interviewees were indifferent about anonymity, for the sake of consistency all quotes from interviews and focus groups were anonymized. Where direct quotes are used, the general attributes and context of the interviewee are given (as per the break down in the sampling section). Respondents who had privileged knowledge of illegal activities connected to rhino poaching, trafficking or trade were requested not to talk about specific persons (or at least not to mention their real names), crime locations or planned criminal acts. A guiding rule was that if the researcher were to learn about a serious offence being planned, she would inform the authorities. Unlike relationships based on the principle of privileged communication found between doctors and patients or lawyers and clients, researchers and their respondents are not protected by the same principle (Sandberg/Copes 2013: 189). The researcher took a guarded and cautious approach during the interview process in South African prisons because “in dealing with

inmates, a researcher is in a position where inadvertently perhaps, he might be informed of unresolved crimes, of plans to disturb prison routine or to break jail, of corruption amongst guards, or of vice within the walls” (Newman quoted in Schlosser 2008: 8). Inmates were requested to focus on their life stories and involvement with rhinos only and to forego mentioning specific names and places. While assuring prisoners of no linkages to the police or media, they were discouraged from disclosing potentially damaging information during the interview.

During fieldwork, the National Assembly of South Africa passed the controversial Protection of State Information Act (2010); at the time of writing, the State President had not yet signed off the Act. Concerned with the regulation, classification, and dissemination of state information, the Act is already impacting data collection of researchers and newsgathering of journalists. Once enacted, obtaining classified state information “unlawfully and intentionally” is punishable with extended prison sentences.¹¹⁵ While laws governing espionage are standard around the world, there are reasonable fears that South African ministers and intelligence staff will obtain discretionary powers of classification through the new legislation. South African government representatives are aware of the new law, which made the official authorization of the research project, in the form of research permits, an absolute necessity. Many government officials took a cautious approach by providing the official position on rhino issues. South African park officials (including anti-poaching personnel) have to sign a secrecy clause in their employment contract. Disclosure of incriminating or privileged information to third parties could potentially lead to the termination of the employment contract (Interview

¹¹⁵ Section 41 of the Act deals with the possession and disclosure of classified information:

“Any person who unlawfully and intentionally discloses or is in possession of classified state information in contravention of this Act is guilty of an offence and is liable to a fine or imprisonment for a period not exceeding five years, except where such disclosure or possession—

(a) is protected or authorised under the Protected Disclosures Act, 2000 (Act No.26 of 2000), the Companies Act, 2008 (Act No. 71 of 2008), the Prevention and Combating of Corrupt Activities Act, 2004 (Act No. 12 of 2004), the National Environmental Management Act, 1998 (Act No. 107 of 1998), or the Labour Relations Act, 1995 (Act No. 66 of 1995);

(b) is authorised in terms of this Act or any other Act of Parliament; or

(c) reveals criminal activity, including any criminal activity in terms of section 45 of this Act.

with park officials, 2013). This clause seems to ensconce an atmosphere of secrecy and concealment as regards to what happens at “Ground Zero” in conservation areas.¹¹⁶

Research assistants and transcribers had to sign confidentiality agreements, and an encrypted platform was used to transmit recordings and transcriptions. Moreover, once their assignments were concluded, all data relating to the project had to be deleted. All devices used in the course of the research are password protected; data is encrypted and securely stored. At no stage was interview data shared with third parties although such requests were received on occasion from law enforcement agents and journalists (the section on reciprocity will deal with this in more detail).

2.6.3 Positionality of the researcher

There is a need to contextualize the background of the researcher and explain why this may be important in situating research methods, data limitations, and validity. I am a white young married South African woman with Namibian and German roots, who conducted the research with institutional and financial backing by a German research institute. There is no doubt that these personal and institutional attributes influenced the research process and outcome. Any explanation of social life is “filtered through the lenses of language, gender, social class, race and ethnicity” (Weiner-Levy 2009: 8). In essence, a person’s background, socialization, social capital and personal attributes impact access in the field, choice of methods and research outcomes. Within the social sciences, a long-standing rift exists between proponents of either ‘insider’ or ‘outsider’ research. In his analysis of the ‘insider doctrine’, Robert Merton (1972: 11) commented:

“Within [the] context of social change, we come upon the contemporary relevance of a long-standing problem in the sociology of knowledge: the problem of patterned differentials among social groups and strata in access to certain types of knowledge. In its strong form, the claim is put forward as a matter of epistemological principle that particular groups in each moment of history have *monopolistic access* to particular kinds of knowledge. In the weaker, more empirical form, the claim holds that some

¹¹⁶ In some instances, simple requests for uncontroversial data or follow-up interviews had to be cleared by the immediate superior despite the research authorization.

groups have *privileged access*, with other groups also being able to acquire that knowledge for themselves but at greater risk and cost.”

The ‘doctrine of insiderism’ emerged in the 1960s as a counterpoint to the dominance of white men in Western academic institutions. It holds that only insiders can truly understand and interpret the social life of the ‘underdog’, including studies on African Americans (Merton 1972: 13), women in the Global South (Narayan 1999) or indigenous people (Brayboy/Deyhle 2000; Zinn 1979). Advocates of the doctrine argue that members of the dominant or privileged strata cannot relate or understand mechanisms of domination. In fact, the ‘whiteness’ of researchers may reinforce systems of exploitation (Zinn 1979), perpetuate the superiority of ‘the self’ juxtaposed next to ‘the other’ (Cesara 1982) or normalize a ‘homogenized’ approach (Abbott 2006: 326). Edward Said (1979: 43) adds the filter of ‘orientalism’ – the ‘west is best’ – a vision that promotes “the difference between the familiar (Europe, the West, ‘us’) and the strange (the Orient, the East, ‘them’).” Followers of the positivist science paradigm, on the other hand, promote “inquiry from the outside”. The approach recommends that scholars detach from the research subject and act neutrally (Brannick/Coghlan 2007: 60). It is argued that “overfamiliarity” and “insider knowledge” compromises the research process (Lawhon/Herrick/Daya 2014: 18). Moreover, the assumption that insiders “automatically have a more sophisticated and appropriate approach to understanding social reality in ‘their’ society” is referred to ‘as falling into the fallacy of Third Worldism’ (Sidaway 1992: 406).¹¹⁷ It may be useful to avoid bifurcation of insiders and outsiders because resourceful ‘outsiders’ have shown the ability to move along the ‘outsider–insider continuum’ and achieve acceptance, even ‘insider’ status amongst the researched – “going native” – as evidenced in legendary ethnographies undertaken by Rabinow (1977) in Morocco,¹¹⁸ Malinowski (1979) in the Western Pacific region, and Geertz and his wife on Java (1976). Pragmatists are likely to recommend the middle ground; Merton’s call (1972: 44) for insiders and outsiders to unite is perhaps instructive in this instance.

¹¹⁷ The fallacy of ‘Third Worldism’ reneges on the assumption that researchers from the Global South should only research Third World topics.

¹¹⁸ Rabinow achieved notoriety or cult status (depending on who is judging) for sharing details of a sexual encounter with a Berber woman in his book reflecting on his experiences during fieldwork in Morocco – no doubt, a bold attempt to achieve ‘insider status’.

It stands to argue that this research project comprises both 'insider' and 'outsider' perspectives. While the hermeneutic tradition of "subjective interpretation" (understanding social reality "by interpreting the meanings held by social actors or members of the social group") was followed, I would step back and consider the reliability and validity of data (Brannick/Coghlan 2007: 63–64), and how my own biases might influence the interpretation of meanings (Maykut/Morehouse 1994: 123). Despite my parents' active opposition to the apartheid regime in pre-independent Namibia, there is no denying that I was born into "white privilege" or what Lawhon and colleagues (2014: 18) label "the most affluent and empowered social stratum".¹¹⁹ It is not unusual for researchers from a privileged background to take top-down, 'self versus others' approaches to sampling and interviewing without critically assessing the power differentials between the researcher and the researched (Schmid 2010: 170–172). Given the legacy of apartheid and colonialism in Southern Africa (and in Asia), I was concerned about acknowledging possible bias, dismissing stereotyped perceptions and I took note of forms of 'othering' expressed during the interviewing process. While 'othering' and situational power dynamics can happen unknowingly and subliminally in interpersonal interactions, so can feelings of empathy, understanding, comprehension of attendant life experiences and ideologies contribute to the bridging of cleavages (Weiner-Levy 2009: 3). My approach was to exude empathy and understanding without being dismissive or judgmental during the research project. Several scholars have shown that 'emotion work' can overrule the researcher's positionality and level the playing field (Weiner-Levy 2009; Dickson-Swift et al. 2009).

In practice, the winds of change blow slowly through many parts of southern Africa, where cleavages based on asymmetrical power relationships of yesteryear persist. Most of the actors involved in the illegal rhino horn trade chain are men, which may lead to a one-dimensional focus on men's lived experiences (Chambers 1983: 77). The market is embedded in society, and thus, I purposefully included women to assess how poaching, trafficking, and consumption of rhino horn impacted their daily lives and societal structures. Concerted

¹¹⁹ In its 2013 assessment of inequality across countries, the United Nations Development Programme found South Africa to be the most unequal society in the world (United Nations Development Programme 2013). The assessment was based on the controversial Gini coefficient method, which has been criticized on many accounts, including that it disregards the social grants system in South Africa (Donnelly 2013). Controversies aside, deep and growing economic and social cleavages persist more than 20 years after the end of apartheid.

efforts were made to level the playing field between the researcher and the researched. As mentioned earlier, the principles of informed consent, anonymity, confidentiality and data protection were ethical cornerstones. Moreover, respondents were encouraged to take control of the research process by having the option to withdraw from the interview at any stage, invite others to participate in the interview, direct the flow of information by withholding or only partially answering sensitive questions (Scheyvens 2014: 9). Due to the unstructured, interactive and narrative-conversational style of the interviews, research participants had considerable and implicit control over the interview process (Corbin/Morse 2003: 338). Research informants only told their story if they felt at ease with the researcher. Unless there were security concerns, respondents chose the location of the interview and determined how much time they were going to dedicate. When a suitable interpreter was available, they were given the option of getting interviewed in their preferred language.

I took account of the priorities of respondents on the ground (Raghuram/Madge 2006: 276) and reassessed the relevance of the research question, methods and approach throughout the data collection process. Academic procedures and processes usually allow little flexibility once research projects have been approved. In this instance, the MPIfG, my advisors, and the research coordinator supported unscheduled changes or additions, such as adapting the research focus, extending stays and adding additional research sites. Great care was taken to respect and comply with local customs and traditions in southern Africa and Southeast Asia. Local research assistants were employed to bridge cultural, social and language divides. Permission to visit and conduct interviews was sought from community leaders, traditional chiefs or community gatekeepers when entering village communities.¹²⁰

¹²⁰ Village communities living on the edge of the Kruger National Park have been labelled as “smuggler towns”, “poaching villages” or “criminalised communities” in public narratives. Many private and public spooks, as well as journalists and filmmakers, have visited the region, often disrespecting the most basic rules of social engagement such as respect for the dignity of community members, privacy and politeness. I learnt of outright disrespect and trespassing at the hand of such actors during focus groups with community members in 2013. Spooks and journalists would take random pictures of villagers and their dwellings without their consent, labelling them as ‘poachers’ and ‘houses built from the proceeds of poaching’ in subsequent publications. For example, a private intelligence report (in my possession) reproduced the picture of a well-known conservator going about daily chores in Massingir, fingering him as a person of interest. While many community members might be living below the breadline, they do have ready access to the media further aggravating a sense of ‘othering’, and the implicit criminalization of the whole community instead of a few. In hot pursuit of an interview with a poaching kingpin in Mozambique, a Swedish-German journalist team bore the brunt of the growing anger and fatigue of affected communities (Grill 2015). They went to seek out a poaching kingpin at his private residence without an invitation or introduction. On instruction by the kingpin, a big group of villagers accused the duo of trespassing.

Attempts were made to seek out assistants to whom the research would be beneficial not only in financial terms but also in furthering personal ambitions such as career advancement in the field of research, translation, transcription or acting as a ‘fixer’. As the research was undertaken towards a Ph.D., co-authorship or any assistance beyond research facilitation would constitute a breach of intellectual ownership and is not allowed by the doctoral degree regulations of the University of Cologne.¹²¹ To show courtesy and respect, I picked up basic language skills to be able to greet and thank research informants in their mother tongue.¹²²

The sample also included the interviewing of political and economic elites in southern Africa and Southeast Asia. The aim was to assess their role and agency in the development and implementation of wildlife conservation policies. In-depth knowledge of the rhino field, familiarity with the respondent’s background, organizational culture and cultural norms of behaviour facilitated gaining their trust and establishing rapport (Mikecz 2012: 482). Decorum, etiquette, punctuality and formal dress sense assisted in improving the researcher’s positionality. Elite interviewees recommend that the researcher should show flexibility to accommodate the busy schedules of elites (Odendahl/Shaw 2001: 312). The researcher did not differentiate between elite and other interviewees. It was assumed that each respondent had more important things to take care of than talk to a researcher. As a consequence, I displayed utmost flexibility as regards the time, length and venue of the interview. I had undertaken interviews with elites in the past decade. With increasing maturity and a growing professional reputation, elites appeared to ‘take me more seriously’. Odendahl shares this

They were arrested allegedly on instruction by two rhino poaching kingpins and held in police holding cells for a few days. The journalists acknowledged that they should have introduced themselves to the community elder in a magazine article after their release, which was brokered through high-level diplomatic intervention. Bartholomäus Grill’s side of the story can be accessed at:
<http://www.spiegel.de/international/world/investigation-into-rhino-poaching-turns-into-kidnapping-a-1022611.html>

¹²¹ I participated in the joint Ph.D. programme of the International Max Planck Research School on the Social and Political Constitution of the Economy and the Faculty of Management, Economics and Social Sciences of the University of Cologne. The “Promotionsordnung” can be found at:
http://www.wiso.uni-koeln.de/fileadmin/wiso_fak/fakultaet/dokumente/forschung/Promotion/Promotionsordnung_EN.pdf

¹²² Respondents spoke the following languages: Shangaan, Tsonga, Zulu, Xhosa, Venda, Afrikaans, English, Portuguese, Vietnamese, Cantonese and Mandarin. I am fluent in Afrikaans and English and have some very basic Xhosa and Portuguese language skills.

observation (ibid) and warns that elites are used to being in charge and researchers should read non-verbal cues (2001: 312). Although conscious of status and power differentials, I did not make special provisions (being more submissive or assertive) when dealing with elites. An egalitarian approach was pursued whereby all respondents were treated like “elites”.

While empathy and shared ideologies can bridge pre-existing cleavages of ethnicity, religion, and gender, sociologists and criminologists are often accused of bias in favour of the “underdog” (Becker 1967; Liebling 2001). Becker (1967: 241–242) describes the charge of bias as follows:

“As sociologists, we provoke the charge of bias, in ourselves and others, by refusing to give credence and deference to an established status order, in which knowledge of truth and the right to be heard are not equally distributed. “Everyone knows” that responsible professionals know more about things than laymen, that police are more respectable and their words ought to be taken more seriously than those of deviants and criminals with whom they deal. By refusing to accept the hierarchy of credibility, we express disrespect for the entire established order.”

How do researchers deal with taking sides? Becker argues that it is impossible not to take sides. However, researchers should ensure that research “meets the standards of good scientific work” by using “precautionary measures” designed to guard against the manipulation of research tools, theories, and techniques (Becker 1967: 246). The danger of presenting one’s research as “objective, scientific and precise” (Bosworth et al. 2005: 258) lies in the superficial treatment of power differentials between the researcher and the researched.

Nowhere are the power differentials between the researcher and the researched more evident than in a prison environment. The most crucial difference relates to the researcher’s ability to extract herself at liberty and leave the physical confines of the prison at her behest. Inmates “sleep, play and work” in one and the same place, in what Goffman ([1957] 1970: 314) classified as a “total institution”. Typical of total institutions are tight time schedules with no leeway for manoeuvring. Routine activities are imposed “through a system of formal rulings and a body of officials” (ibid). A visit by a complete stranger is thus an extraordinary event, which sets into motion several bureaucratic and social processes. In preparation for my

visit, social workers attached to the individual correctional centres introduced my project and research objectives in preliminary meetings. I had several contact persons at each prison with whom I interacted in the months preceding the interviews. Some of the inmates expressed initial concerns, fearing that I was attached to the police and that their sentence might increase, should they say “something wrong”. Conversely, some inmates hoped that by opening up to me, I would put in a good word to have their sentence reduced. The significance of daily routines and schedules was also apparent when it came to scheduling the interviews, which had to happen either straight after breakfast and before lunch or after lunch and before lock-down.¹²³ Adhering to institutional regulations, acknowledging and accommodating daily routines (such as lunch or physical exercise) were important aspects of showing respect to inmates.¹²⁴ Interviews took place in prison offices (such as the office of the social worker, administrators or head of prison and board rooms). In some instances, I was allowed to conduct interviews with prisoners on a one-by-one basis with no one else present. While perhaps less than ideal concerning security considerations, these interviews were the most open and fruitful. In other instances, prison wardens, DCS supervisory staff, and interpreters were present, which failed to inspire confidentiality and anonymity, and consequentially (and understandably) led to less rewarding exchanges.

In the words of Liebling (2014: 482): “ This is no ordinary research environment”. Each prison came with its own “barriers to access” (ibid), which the researcher had to negotiate with staff and prisoners. As mentioned in earlier sections, the Department of Correctional Services sanctioned the research by way of a research permit. Numerous regulations and restrictions were implemented prior, during and after the research process. Security and background checks were undertaken (criminal record disqualifies entry onto prison grounds). Goffman portrays the “mortification of self” when individuals first enter total institutions. Personal

¹²³ Lock-down refers to the time when inmates have to return to their cells for the night. In some correctional centres, the lock down process happens as early as 3 or 4 PM. The lock down procedure involves a head count, early dinner and return to the prison cells for the night.

¹²⁴ I had to re-schedule one interview at short notice due to traffic congestion, which led to the inmate’s gym routine getting uprooted. Upon my late arrival, I sensed anger and unhappiness. After some probing, I got to the core of my interview partner’s annoyance. Upon acknowledging the inmate’s anger as justified, apologizing and explaining why I arrived late, I could go ahead with the interview – which turned out to be highly insightful and interesting.

belongings are removed through “stripping processes” and inmates have to submit to the prison “staff class”, leading to the minimization of “ego–invested separateness from fellow inmates” (Goffman [1957] 1970: 317–318). Prison gangs impose another layer of mortification through their social order, system of privileges and rules within the South African prison system.¹²⁵ Upon entering the Los Angeles county jail for the first time (similar to my experience), sociologist Wacquant (2002: 373) observes:

“What grabs you immediately and before all else upon penetrating into this humongous human storehouse is the deafening and disorienting noise: doors banging, bolts opening and closing, keys jangling, feet shuffling, shrill shouts, blunt orders, and tattered shreds of conversations that rattle, ripple and resound in a high-density sonic mishmash unlike any other.”

Although my entry into prisons was temporary, I experienced a sense of “mortification” and alienation from the rest of society while on the “inside”. I had been asked to wear plain clothing, practical shoes and no jewellery. No bags or mobile phones were to be taken into prisons. I had to obey instructions from prison staff. What made the series of interviews less daunting was my frequent contact with inmates and former inmates since teenage years due to my mother’s professional career in the prison sector.

2.6.4 Reciprocity

The issue of reciprocity provides a difficult conundrum in qualitative research. Different stages of research rely on “negotiating complex social situations” (Harrison/MacGibbon/Morton 2001: 323), which rely on degrees of reciprocity between the interviewer and interviewee. This section deals less with the social aspects of proving the researcher’s trustworthiness to respondents; the focus is directed at the researcher’s ability to reciprocate for the time and effort of respondents. It could be argued that research per se serves the common good, which in itself signals reciprocity. In his analysis of the convertibility of different forms of capital,

¹²⁵ Similar to penitentiary institutions around the world, competing prison gangs are active in South African prisons. Often referred to as the number gangs, the 26s, 27s and 28s fulfil specific functions and run illicit prison economies. Steinberg’s *The number* offers a fascinating ethnographic account of the number gangs operating in Cape Town’s Pollsmoor prison (2005b).

Bourdieu (1986: 48) ponders the role of academic qualifications in reproducing social structure “by sanctioning the hereditary transmission of cultural capital”. Unlike other forms of capital, the transmission of cultural capital (an academic qualification is its institutionalized form) is “neither transmissible nor negotiable” (Bourdieu 1986: 55).¹²⁶

While the doctoral degree is obviously to the researcher’s benefit, the substantial product of the research is the written dissertation. Many of the respondents gave me several hours of their time (often after hours), which could have been spent at work or with their families or friends. Some altruistic respondents had no expectations of direct reciprocity: “Everyone is trying to save their rhino their way” (Interview with conservator, 2013). Some respondents have requested feedback or copies of the dissertation once it has been finalized. I will write up an executive summary of the research findings to be distributed amongst interested respondents, which is more accessible to laypersons than a lengthy academic dissertation.

Anthropology Southern Africa, a regional association of anthropologists, has codified the practice of reciprocity in its professional code of ethics.¹²⁷ Where possible, anthropologists are responsible “for feeding the benefits that flow from the research back into the research communities that participated in the research”(Anthropology Southern Africa 2014: 3). In its ‘Code of Ethics’, the International Sociological Association deals with issues of security, anonymity, and privacy of research subjects. Perhaps due to the ascendancy of quantitative methodologies in sociology over the past decades, the issue of reciprocity is only considered in general terms:

¹²⁶ Bourdieu (1986: 55) argues that cultural capital is transferred continuously within the family unit. It is, however, difficult to measure and control.

¹²⁷ As most of the fieldwork was carried out in southern Africa, it only seems to appropriate to consult local ethics standards and cross-comparing them with international standards. Anthropologists seem to have given ample consideration to ethical issues that might occur in fieldwork. The American Anthropological Association has developed several position papers and an ethics blog (<http://www.aaanet.org/cmtes/ethics/Ethics-Resources.cfm>), and the World Council of Anthropological Associations has established an ethics task force to review global ethics guidelines (http://www.wcaanet.org/about/task_force.shtml#et). While sociological associations also have a code of ethics (e.g. the American Sociological Association: <http://www.asanet.org/images/asa/docs/pdf/CodeofEthics.pdf> or the above mentioned International Sociological Association), the codes are aimed at both qualitative and quantitative researchers. Thus, issues that are particularly pertinent to qualitative researchers are dealt with in general terms, if at all.

“Payment of informants, though acceptable in principle, should be discouraged as far as possible and subject to explicit conditions, with special regard to the reliability of the information provided (International Sociological Association 2001).”

While I never compensated respondents for information or interviews, I paid for coffee, lunch or refreshments on occasion. In return for the time and effort of those interviewed, requests for research materials, advice on general organized crime-related issues and calls for progress reports were heeded. Any requests to share research data or findings prematurely were declined.

Once published, there is a risk that others may use research findings to further their political agendas. While it is beyond the researcher’s control how the work will be used or interpreted, great care was taken to “guard against abuses” (David/Sutton 2011: 21). The guiding principles were the protection of research respondents from personal identification and responsibility as regards any claims made in this dissertation (ibid). The International Association of Sociologists furthermore suggests that in case of “distortions, simplifications and manipulations” of research material, the researcher should “intervene to correct any kind of misinterpretation or misuse of their work” (International Sociological Association 2001). I reserve the right to do so, should the need arise.

The issue of reciprocity constitutes a serious ethical challenge in prison interviews. The DCS indemnity form stipulates (see Appendix B): “I do not want or expect any reward of any nature for partaking in the interview”. There is hence little incentive to participate in research, other than there being no punitive consequences for participation, and talking to someone “from the outside” may be beneficial to the inmate (Schlosser 2008: 9). US research on the perceptions of benefits and harms of prison interviews showed that inmates experienced “psychological satisfactions, a respite from the boredom of prison life, and monetary gain” and no one felt coerced into partaking or harmed during the interview (Copes/Hochstetler/Brown 2013: 182). I offered no money in exchange for the interviews. Several inmates requested that I should return during visiting hours reserved for family members, perhaps signalling loneliness, stigmatization and irregular visits by family members. Others requested practical items such as soap or food. I was very clear about my personal space and ethical restrictions. Due to time constraints, prisons and inmates could only be

visited once for this research project. A relationship based on honesty and trustworthiness is difficult to establish during a once-off visit. The researcher undertook to share her dissertation with social workers responsible for the inmates that were interviewed.¹²⁸

2.6.5 Security concerns

The security of respondents and research assistants was of major importance. Before entering the field, researchers should err on the side of caution and ensure that “informants are not jeopardized in any way” (Ellis/MacGaffey 1996: 29). Lengthy scoping assessments were undertaken to assess risks to respondents, research assistants, and the researcher. A further dimension relates to the trustworthiness of research assistants, as they may constitute a security risk or may be linked to intelligence services. The researcher relied on referrals from trusted sources.

Research that investigates inter-personal violence carries the risk of secondary victimization or traumatization of respondents. Interestingly, both poachers and game rangers shared personal tales of fear, loss and danger. While some narratives were disturbing (to the researcher, research assistants, and transcribers), respondents expressed gratitude (sometimes even relief) to be able to share their “version of the truth”. Social workers provided pre- and aftercare for incarcerated respondents, the researcher debriefed research assistants and transcribers. I was conscious of the risk of becoming desensitized as a consequence of what I had witnessed in the field (Dickson-Swift et al. 2007) and “war stories” shared by convicted rhino criminals and anti-poaching personnel. Talks with advisors, fellow researchers, and family members¹²⁹ assisted my own process of debriefing. Bahn and Weatherill (2013: 22) warn that desensitization could lead to researchers becoming less vigilant about their personal security. The positionality of the researcher regarding having lived the better part of her life in southern Africa and the unfortunate experience of aggravated assault in the past precluded reckless behaviour.

¹²⁸ The prospect of “teaching an old cat new tricks” by disseminating the research to convicted rhino poachers and traffickers is unlikely. In this instance, dissemination of the research will be handled at the discretion of the responsible social workers.

¹²⁹ My mother runs an NGO that deals with the reintegration of ex-prisoners into society.

Despite undertaking research in far-flung rural areas with little or no phone signal, I made sure that my husband or an assigned person knew where I was and how to get hold of me. However, accurate information on detailed itineraries and respondents was shared on a 'need-to-know' basis (Felbab-Brown 2014: 2). As a rule, meetings were scheduled in public spaces unless it would have been rude to reject an invitation to attend dinner or a social occasion in the private space of known respondents. Sensitive information including the names and telephone numbers of gatekeepers and respondents were destroyed upon leaving the research site (Felbab-Brown 2014: 3). My husband accompanied me on the second field trip to Mozambique, which added a layer of security and was useful during interviews with community members, poachers and kingpins. My positionality as the "wife" rendered the interview less threatening and even though I was doing the interviewing, respondents would often address their responses to him.

Gaining access to rhino poachers and establishing trust was surprisingly easy in Massingir and surrounding villages in Mozambique. A few days were spent walking around the village, chatting informally to people on the streets, in bars and markets.¹³⁰ For security reasons, I was initially guarded about my research subject. Upon explaining that I was writing a book that deals with the journey of rhino horn from Africa to Asia to a primary gatekeeper ('Mr Big'¹³¹ in a village), great opportunities arose and our initial meeting served as an 'icebreaker'. Respondents were keen to provide their side of the story. Perhaps most significantly, some respondents regarded their activities or those of their fellow villagers as legitimate and provided legal labels: "poacher" became "hunter", "kingpin" became "businessman" and "poaching in the Kruger National Park" became "visiting Skukuza"¹³² (this will be discussed in more detail in the empirical chapters). Once we had been in Massingir for more than one week, it became clear that we should not 'overstay our welcome'. Naturally, I had interviewed those kingpins and poachers that were willing to talk to me. Animosity and competition between different poaching gangs and kingpins made for a difficult terrain riddled with 'turf

¹³⁰ The services of a native Shangaan-speaker were employed to assist with translations.

¹³¹ Organizers of rhino hunts (kingpins) are often referred to as 'Mr Big' (there are no Mrs Big's at this level).

¹³² Skukuza is the main camp and administrative centre of the Kruger National Park.

issues'. Towards the end of our stay, rival poachers started following us, our photo was taken, and we found a screwdriver wedged into the thick tire of our vehicle. We were sent clear signals that it was time to leave.¹³³ Our next stop was in Chokwe, formerly known as the 'Wild West' of Mozambique 'where anything goes'.¹³⁴ Informants warned us to cover up our South African vehicle number plate at night despite the fact that the car was parked behind a locked gate with a security guard in attendance.

The expectation of 'tea money'¹³⁵ provided a further security and time concern. Certain popular Mozambican routes are notorious for formal and unofficial roadblocks. Public officials are underpaid and some use their official status (and uniform) to augment their income. Foreign-registered cars are easy prey. We arrived at one official border crossing one hour before it was due to close. Although we were in possession of all the required paperwork, traffic triangles, special stickers and bibs,¹³⁶ the officials were stalling the process with several security teams 'searching' our car. Despite the legitimate fear that we would not make it across the border that day and the prospect of having to drive back to the closest settlement about 2 hours from the border, we did not take the bait. Eventually, one of the officials asked for a visible T-shirt in the car, which we happily parted with and then were allowed onward passage moments before the border post was due to close for the day. Obviously, corruption is a two-sided affair of someone soliciting a bribe and the counterpart being willing to pay a bribe to forego worse scenarios such as being holed up in the middle of nowhere with

¹³³ I returned to Massingir a few weeks after the screwdriver incident, pursuant to receiving confirmation from another kingpin and his associate (an active poacher and transporter) that they were willing to talk to me. I had been in contact with the kingpin for several weeks after getting a personal introduction and referral to him. My husband had returned to Cape Town in the meantime, so I took along a friend as a security precaution on my third trip to Massingir. The kingpin did his security verification. I felt safe and welcome throughout the encounter. Basic rules of engagement had been followed on both sides. As a result, the interview was long, intensive and insightful.

¹³⁴ According to South African police sources, many vehicles stolen in South Africa are trafficked through or traded in Chokwe. Interestingly, we noticed that many poachers and kingpins were driving luxury four-wheel drive vehicles with South African number plates with no valid registration disks. Law enforcement sources confirmed the existence of barter trade of rhino horn for luxury items including cars and seaside properties in Mozambique.

¹³⁵ Law enforcement officials seldom ask straight out for a bribe; corruptibility is hidden behind modest demands for a donation towards tea/juice/lunch or visible luxury items in one's possession.

¹³⁶ The omission of any of these can lead to hefty 'fines'. We met one South African holiday-maker, who was fined R2 500 (approximately 220 Euros) for only carrying one reflective bib.

nowhere to go. In this instance, parting with a T-shirt seemed the smaller price to pay. We were spared from any further incidents despite driving through 11 roadblocks during the Mozambican field trip.

Before traveling to Vietnam, I was warned that the rhino issue was “sensitive” and that it was best not to mention my country of origin (South Africa) or research topic. The fall-back position was interest in the practice of Traditional Chinese Medicine. A judgment call was made on a case-by-case basis; I, however, found that playing open cards about the real objective of the research led to better access and data. Moreover, the interview questions were never targeted at obtaining intelligence, names of criminals or information that could put respondents, research assistants or the researcher (myself) at risk.

The need for checking security arrangements at field sites was not a one-sided affair. Once an interview had been secured and confirmed with two high-level actors in the illegal rhino horn supply chain, I was directed to a restaurant in a public square and waited for nearly four hours for the research informants to arrive. They had sent several advance parties to check out the research team. Once they were satisfied that I was a bona fide researcher, the pair arrived, and the interview could start. Several other respondents also did their ‘due diligence’, phoning up my reference or confirming with law enforcement that I was ‘trustworthy’.

Even in societies where gender equality is more or less respected, female researchers have to overcome additional hurdles when it comes to studying “hardboiled men’s topics” such as organized crime or illegal markets (Felbab-Brown 2014: 11). I had previous experience in conducting interviews with security forces, law enforcement agents, and others. Key to conducting successful interviews is to “stay [...] calm but confident” and to establish “one’s professional credibility and depth of knowledge” (ibid) throughout the interaction. I briefed local security forces and law enforcement agencies on my research, not only to receive their buy in and participation in interviews but also as a precautionary measure so that other local informants could not be blamed for collaboration in interviews (Wilson 1992: 195). While undertaking my fieldwork, I continually assessed whether my research posed a risk to those interviewed (Brooks 2014: 37).

Sexual harassment or sexual advances, frequently encountered by female researchers in the field, seldom gets problematized in research reports or methods sections. The power of wearing a wedding ring needs to be acknowledged although this may serve as even more encouragement in some circles. Unfortunately once embedded in the field, I had to forget about feminist, religious or political beliefs for the length of the interview or field visit. Several sexual advances were laughed off. It, however, proved more difficult to navigate through interactions with respondents who expressed racist attitudes or incitement to kill alleged poachers. In normal circumstances, this would have led to my, at least, leaving the conversation, if not reporting the offending person to Equality Courts¹³⁷ for the use of derogatory terms, the use of which is banned under South African law.

2.7 Concluding remarks

The aim of this chapter was to expand on the research design, methodological choices and the salient ethical issues encountered during the 14 months of fieldwork. The breadth and length of fieldwork merits engagement with methodological choices and ethical concerns, and may be useful to other researchers wanting to undertake multi-sited ethnographies with respondents from different social strata, nationalities, cultural backgrounds and gender. Verification and triangulation of data were essential elements of data collection and analysis, necessitating the huge sample and the different methods of data collection employed. While ethical considerations contribute little to the research findings and theoretical contribution of the study per se, they are nonetheless deemed significant in explaining methodological choices, potential shortcomings, merits and interpretation of the data. The legacy of social sciences experiments and research 'gone wrong' reverberates the need for critical reflection on one's own reasons and objectives for doing sensitive research. Despite the earlier mentioned 'unethical' research being labelled as 'misguided' or 'reprehensible', the scientists

¹³⁷ Created through the Promotion of Equality and Prevention of Unfair Discrimination Act of 2000, South African equality courts are specialized courts that deal with matters of unfair discrimination, hate speech and harassment (see more at http://www.justice.gov.za/EQCact/eqc_faq.html#sthash.Jg72gwSO.dpuf).

were “prominent intellectuals who occupied influential positions and generally conformed to the accepted standards of academic rigour of the day”(Dubow 1995: 3).

Chapter 3: Of unicorns and rhino horns: The demand for rhino horn

3.1 Introduction

Currently rhino horn trades as one of the world's most expensive goods (compare with Graph 1 in Chapter 1). According to standard economic principles, without demand there is no supply and hence no market. The question of demand and the associated coordination problem of valuation are vital to understanding why flows of rhino horn are so difficult to disrupt. This chapter deals with the demand for rhino horn by tracing the historical roots of its valuation as a sacred good with status-elevating qualities. Scholars have largely focused on its use in Traditional Chinese Medicine (TCM).¹³⁸ From a Western perspective, the demand is difficult to understand given scientific assessments of its perceived uselessness in medicinal preparations. However, the ancient history of the curative properties of rhino horn dates back several millennia and spans across the Occidental, African and Oriental realm, even extending to European mythologies of the unicorn. The chapter starts with an examination of the physical and chemical properties of rhino horn before delving into a global history of 'belief' and ancient forms of use. I conclude with a short overview of current uses, consumer profiles and product differentiation. While trade structures were researched during this project, they are only discussed in reference to flows of rhino horn in later chapters of this dissertation.¹³⁹ A chapter is included later in the dissertation (Chapter 8) that deals with fake rhino horn due to its impact on the structure and functioning of the overall market. The aim of this chapter is to contribute to a nuanced understanding of the valuation of rhino horn as a sacred good for which consumers are willing to pay a high price, which may ultimately lead to the unfortunate extinction of the pachyderm.

¹³⁸ The term 'traditional' medicine is used with caution in this dissertation. Stream of policy and academic literature use the term frequently without acknowledging the juxtaposition of 'modern' versus 'traditional'. When I conducted data collection in Southeast Asia and Hong Kong, I asked doctors, academics and policy-makers whether 'traditional' was indeed the correct label. The response was that the use of the term 'traditional' was legitimate as it related to a millennia-old tradition. The juxtaposition of Western versus traditional medicine was controversial, however, as the development of modern evidence-based medicine was a global achievement.

¹³⁹ My postdoctoral research will delve into trade and distribution structures, which were also researched during the course of my fieldwork in Southeast Asia. For reasons of space and brevity, these trade structures are only discussed in reference to transnational flows of rhino horn.

3.2 The physical and chemical properties of rhino horn

Many millennia ago, crashes of rhinos in many forms and sizes were roaming across most of the planet's forests, savannahs and deserts. Second in size only to elephants, rhinos are resilient and adaptable herbivores. The forebears of the African rhino species split from the Asian one-horned species at the peak of the rhino evolution about 17 million years ago (Borchert 2012). Scientists believe that most rhino lineages went extinct at the end of Miocene period about five million years ago when massive climatic changes occurred (Orenstein 2013: 25).

Of the remaining five species, the white or square-lipped rhinoceros and the black rhinoceros (*Diceros bicornis*) live in southern and east Africa. The other three species (the Indian, Javan and Sumatran Rhinos) survive in Asia; although the Asian species are ultimately one of the triggers for the demand for rhino horn in Asia, they play a limited role in current illegal flows. The two African species are neither black nor white;¹⁴⁰ they are different shades of gray. While rhinos are not as asocial and solitary as previously thought, they lack the complex social structures found in herds of elephants (Orenstein 2013: 26). Black Rhinos are known for their “ferocity, chronic bad temper and cunning” (Drummond 1875: 128); the overtly aggressive behaviour (such as charging when they feel threatened) is linked to their poor eyesight, possibly serving as a defence mechanism (Orenstein 2013: 27).

Both African rhino species carry two horns, which serve as “their chief weapons of defence and offense” (ibid). Male rhinos use their anterior horns to fight each other for domination and territorial supremacy. The longer and more slender horns of female rhinos are used to defend themselves and their calves against predators. Female rhinos guide their calves with their horn as they walk in front of them. Black rhinos also use their horns to break off branches to reach better browsing or to greet one another by way of rubbing horns together.

¹⁴⁰ There is a fair amount of confusion about the denotation of African rhino species as ‘black’ or ‘white’. One theory (which was repeated and became the accepted explanation) suggests that the Dutch word ‘wijd’ (wide) was wrongly translated to white (Feely: 111). Traveler John Barrow was believed to have appropriated the term ‘white rhino’ to recount Griqua Afrikaner’s tale of hunting seven giraffes and three white rhinoceroses in one day (Walker/Walker 2012: 18). Recent research shows that the oldest written Dutch records unequivocally referred to ‘black’ and ‘white’ rhinos (Feely: 112). Another theory suggests that the name might not refer to the appearance of the two rhino species but their different tempers (ibid). While the debate of the semiotic origin remains unresolved, the names remain and have been integrated into language traditions.

Interestingly, scientists have not found a specific explanation for the use of the smaller horn on both rhinos (Africa Geographic 2012a: 14). Unlike the tusks of elephants, rhino horns grow at a rate of 6 to 10 centimetres or 0,6 kg to 1 kg in female white rhinos and 0,8 kg to 1,5 kg in male white rhinos per annum (Interview with rhino breeders and wildlife veterinarians, 2013). Horn growth is contingent on gender, sex, age, population type (i.e. free- range versus captive-bred) and species (compare with: Pienaar/Hall–Martin/Hitchens 1991). The anterior horn is usually the bigger horn in both species: shorter and sturdy in the white rhino, and longer and narrower in the black rhino. Under exceptional circumstances, anterior horns of black rhinos in the wild can grow as long as 1,2 meters (Interview with wildlife veterinarian, 2012).

The two horns on the African rhino’s forehead have become one of the most expensive commodities in the world. What explains the high cost of rhino horn? Scientific tests show that rhino horn is made up of keratin – a constituent substance found in hair and nails. It would, however, be incorrect to suggest that rhino horn, hair and nails are identical¹⁴¹ as the chemical composition of each is different (Patton 2011: 2). Rhino horn grows in layers from specialized skin cells with no cellular functions. The cells become keratinized, inert and hardened (Nowell 2012a: 1). Unique among horned animals, the rhino horn is not an extension of the rhino’s skull. As a matter of fact, rhino horn has no bony core but consists of a fibrous composite (compare with Figure 1); it is hence “an independently derived example of a cornified papillary epidermal appendage (Hieronymus/Witmer/Ridgely 2006: 1176).”

To protect the rhino horn against physical wear and tear its core is strengthened with calcium salts while melanin offers protection against harmful UV light exposure (Nowell 2012a: 6). The horn also consists of nuclear DNA, which allows for identification of individuals and traceability by matching of rhino carcasses to confiscated horns through DNA–analysis (Harper 2011: 3). The conical shape of the horn derives from rhinos constantly rubbing their horns on the ground, and other surfaces (Africa Geographic 2012b: 16), and the denser core leads to the pointed structure of the horn (Yang 2011: 8). The entire horn can be removed

¹⁴¹ Several consumer awareness-raising campaigns suggest that ingesting rhino horn is like chewing one’s fingernails, see for example <http://envietnam.org/our-work/rhino-horn-trade-in-Vietnam.html> (accessed 18 August 2014)

surgically with a small cutting knife along the soft dermis, which separates the horn from the bony tissue of the skull (Interview with wildlife veterinarian 1, 2013)¹⁴² or in the words of an experienced poacher (Interview with poacher 17, 2013):

“The horn is not attached to the skull. It moves, but it is a bit rigid. It is like a kneecap. With a panga,¹⁴³ it can take over ten minutes, but if it is an ax, it takes less than 10 minutes, five minutes or so.”

The efficacy of rhino horn in Traditional Chinese Medicine (TCM) or Traditional Vietnamese Medicine (TVM)¹⁴⁴ has been the focus of several scientific studies; with many more being conducted in Vietnam and China at present (Interviews in Hong Kong and Vietnam, 2013). Rhino horn was traditionally used for dispelling heat, cooling blood, relieving convulsion and counteracting toxins (But/Lung/Tam 1990: 158). Recently, it has been applied to treat a host of other diseases such as cancer, stroke and impotence (Đỗ Tất Lợi 1962; Anonymous 2013) – the new uses are discussed in the final section of this chapter.¹⁴⁵ The appearance and chemical composition of rhino horn are similar (but not identical) to that of the horns of water buffalos, cattle, yak and saiga antelopes (Shengqing/Endong/Lijun 2011), all of which are used to substitute or fake rhino horn. In taking a science-based approach, the chemical composition of rhino horn may be significant in determining the pharmacological effects of rhino horn. Keratin the constituent component of rhino horn, for example, is believed to be indigestible in mammals, as there are no known digestive enzymes (so-called keratinases) with the ability to hydrolyse keratin inside the human digestive tract (written communication with pathologist, 2015).¹⁴⁶ Keratinases are present in certain microbes, insects and fungi

¹⁴² No scientific studies were found that describe the impact of removing the horn off a live rhino in this manner. Removing the horn a few centimetres above the growth point (dehorning) is practiced by some private rhino owners in South Africa, and in public parks in Namibia and Zimbabwe.

¹⁴³ A ‘panga’ is a machete. Skilled poachers use knives to loosen the horn off the base plate. Unskilled poachers tend to resort to axes and pangas.

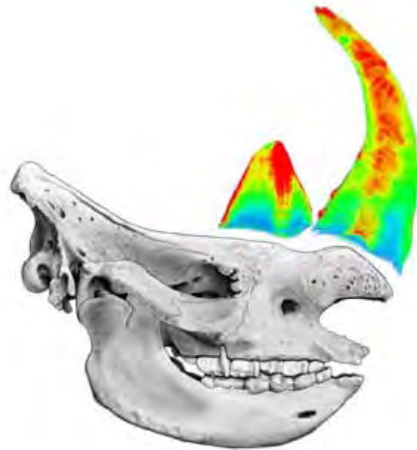
¹⁴⁴ Although there are some geographic nuances in the practice of TVM, TVM is essentially an offspring of TCM. The label of ‘TCM’ is applied in scholarly and policy literature on the matter and is used for the purposes of consistency and continuity in this dissertation.

¹⁴⁵ The use of rhino horn as an aphrodisiac was a Western myth until fairly recent. The practice of using rhino horn to curb impotence and as a sexual stimulant is a new development, specifically in Vietnam (Interviews with consumers, 2013).

¹⁴⁶ Both pepsin and trypsin, enzymes in the stomach and small intestine respectively, cannot hydrolyze keratin.

(Gupta/Ramnani 2006);¹⁴⁷ bezoars (hairballs) and trichobezoars (the Rapunzel syndrome) can lead to obstructions in the gastric tract and cause complications in humans. However, bezoars originating from the water buffalo, ox or cow are precious, expensive and rare ingredients in TCM.

Figure 1: CT scan of a white rhinoceros



Explanatory note: Red areas show denser areas of melanin and calcium content while the blue areas are the least dense. The scan also shows that the horns are not bone protrusions of the skull.

Source: Yang (2011: 6) adapted from Hieronymus/Witmer/Ridgely (2006)

Like rhino horn, so-called *niu huang* is used to clear heat and toxicity – and when used in conjunction with rhino horn or the horn of water buffalo, it treats legionnaire’s disease, meningitis and encephalitis (Borten 2014). To date, no specific experiments have been conducted to test the overall digestibility of rhino horn (Nowell 2012a: 7).¹⁴⁸ It is also not known which or whether components of rhino horn need to be digested to achieve curative effects. Rhino horn is either ground up with a bit of purified or cold boiled water in a grinding bowl (see Figure 2),¹⁴⁹ or powered rhino horn is taken in conjunction with other herbal

¹⁴⁷ The *Tinea* fungus can infect human toenails by way of keratinase, leading to athlete’s foot (Nowell 2012a: 7).

¹⁴⁸ Nowell (2012a: 8), for example, suggests that keratin might be digested in the alkaline environment of the large intestine instead of the acidic stomach environment.

¹⁴⁹ Grinding bowls are made from clay. The clay bowl has a saturated bottom (feels like sanding paper), which facilitates the grinding process. The bowls come in many forms and sizes. The researcher visited a ceramic factory north of Hanoi, where ‘organic’ grinding bowls were produced. According to the ceramicist (Interview, 2013), affluent Japanese and Vietnamese buyers were ordering these bowls. He mentioned that conventional grinding bowls were finished with chemical paints and stamps, which undermined the curative properties of

ingredients. The process of grinding the horn and the addition of supplementary ingredients is believed to facilitate absorption (Interviews with TCM doctors, 2013).

Possibly the most well-known series of scientific studies to date were conducted by Professor But and his research team at the Chinese University of Hong Kong in the 1980s, and published in 1990 and 1991 respectively. The studies found that rhinoceros horn extract demonstrated antipyretic (fever-reducing) activities in rats but so did water buffalo extract and the herbal mixture used in *Qingying Decoction*¹⁵⁰ without rhino horn as an active ingredient (But 1991).

Figure 2: Rhino horn grinding bowls



Source: Taken by the researcher during fieldwork in Vietnam¹⁵¹

Higher volumes of water buffalo and cattle horn had to be used to achieve antipyretic effects, which is consistent with claims of Chinese doctors that a dosage of water buffalo horn had to be increased tenfold to achieve the same effect as rhino horn (But/Lung/Tam 1990: 165, Interview with TCM doctors, Hong Kong and Vietnam, 2013). Interestingly, the injections of the horn of saiga antelope into febrile rats achieved stronger antipyretic effects than rhino

rhino horn. Mechanical grinding machines were sold in marketplaces in Hanoi and Ho Chi Minh City – similar in appearance to manual meat grinders.

¹⁵⁰ Rhino horn is often used in compound prescriptions such as the *Qingying Decoction*. First mentioned in Wu's 1798 classic work *Wenbing Tiaobian (Itemized Dialectic Analysis of Feverish Diseases)*, the prescription is used to treat feverish diseases and contains eight herbs and rhino horn (But 1991: 46).

¹⁵¹ The first image depicts an organic grinding bowl, which comes with a higher price tag than the conventional grinding bowl pictured in the second photo.

horn at high dosages (But/Lung/Tam 1990: 162). But and his colleagues (1990: 166) warned that further studies were necessary to differentiate between the two horns as there were differing conceptual and subjective meanings underpinning the use of each in Chinese pharmacopeia.¹⁵² In a bid to curb rhino poaching in the 1990s, conservation groups encouraged saiga hunting instead and promoted the use of its horn as a viable alternative to rhino horn (Pearce 2003; Ellis 2013: 140). Once numerous across the vast steppes of central Asia, the numbers of saiga antelope dropped due to illegal hunting from 1.250.000 in the mid-1970s to an estimated 50 000 mostly hornless females at present (The IUCN Red List of Threatened Species 2014b). The fate of the saiga antelope is discussed in more detail in the chapter dealing with fake and ersatz rhino horn (see Chapter 8).

At the request of board member Luc Hoffmann (also co-founder of the conservation organization WWF), the pharmaceutical corporation Hoffmann-LaRoche conducted a series of experiments to test the pharmacological effects of rhino horn from August 1980 to February 1981. After the results of “the special pharmacological study of rhino horn” had been released to the public, the former director of conservation at WWF (Anonymous author for *The Environmentalist* 1983) is said to have remarked:

“You would get the same effect from chewing your own finger nails.”

The negative test results were disseminated to a wide audience (Anonymous author for *The Environmentalist* 1983; Nowell 2012a; Ellis 2013: 238). However, the article was never peer-reviewed or published in a scientific journal detailing findings and methods (thus allowing for the reproducibility and scientific scrutiny of the experiments). This omission has led to some actors suggesting that the ‘study’ may have been a publicity stunt (Interviews, 2013 and 2014).¹⁵³ As it turns out, scientists at the Roche Basel and Welwyn laboratories did indeed conduct a series of experiments, testing the powdered horn of a white rhino for antipyretic and anti-bacterial effects in stress-induced rats. The results were compared with the effects of

¹⁵² Rhino horn is thus considered superior in “cooling blood and counteracting toxins” while saiga horn is better suited for “cooling liver and quenching wind” (But/Lung/Tam 1990: 166).

¹⁵³ The experiments were portrayed as “a special pharmacological study of rhino horn” (Anonymous author for *The Environmentalist* 1983). Such studies are usually subject to scientific scrutiny by peers and fellow scientists.

paracetamol, a pharmaceutical drug commonly used to reduce fever. Rhino horn tested *inactive* (negative) for antipyretic and anti-bacterial activities (Protocol of experiments provided by Roche to the author, 2014). Since there were no plans to develop pharmaceutical drugs containing rhino horn, the series of experiments were atypical of the diagnostic work usually undertaken at the pharmaceutical giant (Telephonic interview with representative of LaRoche, August 2014). As the initial screening results supported Hoffmann’s hypothesis (that rhino horn had no fever-reducing or anti-bacterial qualities), the experiments were abandoned. All that remains is a brief entry of the screening results in a laboratory journal in the company archives of Roche.¹⁵⁴

In 2012, TRAFFIC-affiliated researcher Kristin Nowell conducted a comprehensive literature review and survey of NGO information on the general pharmacological effects of rhino horn for the CITES Secretariat. In relation to the handful of scientific studies examined,¹⁵⁵ Nowell (2012a: 38) remarked “stark geographic differences in the pattern of results” with Chinese researchers documenting antipyretic and anti-inflammatory effects of rhino horn. Two tests that were performed in South Africa (Laburn/Mitchell 1997) and the United Kingdom (Bell/Simmonds 2006) found no positive results. These differences may be linked to methodological differences and perhaps to what Nowell (2012a: 38) described as “publication bias for positive results”. It is important to note that the studies were looking at substituting rhino horn with other horn or plant-based medicines, thus not actively promoting the use of rhino horn. One double-blind study undertaken at a hospital in Taiwan in 1993 examined rhino horn’s antipyretic effect in humans (Tsai quoted in: Nowell 2012a), with rhino horn

¹⁵⁴ The series of experiments would not meet the modern standards of a scientific investigation or clinical trials (which was not the intention) but they were undertaken in good faith to inform the debate with no financial benefit to Hoffmann-LaRoche. According to a senior WWF representative (Interview, 2014), any efforts to further engage with the results of the “study” and claims of the supposed effectiveness of rhino horn would only serve the purpose of “perpetuating the myth of its usefulness”.

¹⁵⁵ Of the seven studies that looked into the fever-reducing capabilities of rhino horn, six found rhino horn to lower fever in laboratory animals. Only one clinical trial involving human subjects had been conducted, which is discussed in more detail in footnote 154. Five studies tested for other pharmacological effects, including analgesic, antibacterial, sedative, anti-haemorrhagic and anti-inflammatory effects (Nowell 2012a: 16). A study sponsored by the UK Department for Environment Food and Rural Development and conservation group International Fund for Animal Welfare (IFAW) found rhino horn to be inactive as an antibacterial, antipyretic and anti-inflammatory agent (Bell/Simmonds 2006). This, however, was the only study to apply *in vitro* rather than *in vivo* methodologies (Nowell 2012a: 16).

achieving a statistically significant reduction of fever in toddlers 15 minutes after administration.¹⁵⁶

The results of the various studies are contradictory. The outcome appears to be contingent on the geographic context and the chosen methodological approach. When evidence-based scientific standards are applied to test the efficacy of Chinese medicine in specific, or traditional medicines in general, they tend to fall short of acknowledging vast epistemological and ontological differences underpinning the practices of ‘traditional’ versus evidence-based medicine (Shea 2006). In light of the paradigmatic differences, Shea warns of the dangers of oversimplification of an extensive ancient knowledge system through the application of scientific standards linked to the practice of evidence-based medicine. For example, there are enormous differences in the pathologies of fever underpinning evidence-based medicine and TCM. Febrile diseases in TCM can manifest without an increase in body temperature whereas they are linked to an increase in body temperature in evidence-based medicine (Patton 2011: 4). It stands to argue that perhaps not only chemical substances but also other factors¹⁵⁷ contribute to the putative efficacy of rhino horn medicines.

Although this sub-section has differentiated between ‘evidence-based’ medicine and TCM, it needs to be pointed out that registered TCM doctors in Vietnam undergo the same six years of basic medical training as conventional medical practitioners before specializing in the field of TCM. Elsewhere in Asia, traditional doctors also undergo rigorous professional training of seven years or more (Interviews with TCM doctors, Hong Kong and China, 2013 and 2014). Moreover, TCM equally relies on years of evidence-based trials and research for the development of TCM pharmaceutical products (Interviews with TCM and TVM practitioners,

¹⁵⁶ Nowell (2012a: 10–11) summarized the details of the study as follows: 142 children aged between 3 and 114 months, suffering from fever (average of 39.2° Celsius) were given rhino horn, water buffalo, a placebo or acetaminophen (an anti-inflammatory drug) mixed with water by means of oral administration. Acetaminophen achieved the best results while rhino horn achieved a statistically significant reduction after the first 15 minutes but the reduction stopped thereafter and ended with a 0.4° C reduction overall. 57% of the children who were given rhino horn ended up with temperatures lower than 38.5°C and no follow-up treatment was necessary. Tsai found “since the Rhino is going to extinction and antipyretic efficacy of rhino horn is less effective than acetaminophen, rhino horn is not recommended for isolated use in febrile children” (Tsai quoted in: Nowell 2012a: 11).

¹⁵⁷ The ‘placebo effect’ has been documented in scientific literature, showing that some patients’ belief in the therapeutic qualities of medicine may lead to an improvement in their condition. for an investigation of the ‘placebo effect’ in alternative medicines see: Kaptchuk (2002).

Hong Kong and Vietnam, 2013). TCM doctors are providing basic and advanced health services to a great portion of the Southeast and East Asian population. Ridiculing them as “snake oil salesmen”, “quacks” or “charlatans” (excerpts from social media) shows little understanding of the methodologies and ancient practice of TCM. It is important to note that China banned the use of rhino horn in the TCM pharmacopeia in 1993. The ban is still in place. TCM doctors and pharmacists interviewed in the course of this research project acknowledged the curative qualities of rhino horn; some were actively prescribing it to patients suffering from a number of ailments (discussed in the final section of this chapter). Several substitutes such as the horn of water buffalo, yak or saiga antelope and herbal medicines were actively promoted in lieu of using body parts of endangered animal species.

In conclusion, the physical and chemical composition of rhino horn fails to explain its valuation and the high price. As will be shown later in this chapter, the scientific proof is of little consequence to patients who trust their doctors and support the ancient practice of traditional medicine, or who are simply seeking a miracle cure to heal or stop the spread of cancer, for their loved ones or themselves. In addition, rhino horn use in Vietnam ranges from detoxifier/hangover cure to status symbol. It will be argued that the different uses are interlinked by virtue of the horn’s valuation as an extraordinary, sacral good traditionally used in medicinal preparations.

3.3 A global history into the mythology of the rhino

Of significance to understanding the valuation of rhino horn as a sacral good is the ancient history of its use as a magical potion, linking to global myths of rhinos, unicorns and alicorns. The following section highlights belief systems and cultural meanings attached to the rhino and its horn.

Rhino fossils dating back more than 60 million years have been found in North America, Europe, Africa and Asia. The earliest cave paintings depicting 53 images of the woolly rhino date back some 30 000 years ago were discovered in the Chauvet cave in the valley of Ardeche in France (Clottes October 2002). The Lascaux caves near Montignac in France host

another image of the long-extinct woolly rhino, also from the Upper Palaeolithic period, some 17 000 years ago (Kleiner 2009: 9). Human remains were laid to rest with those of now extinct species of rhino in pre-historic caves (Briggs 1931: 277). After the last Ice Age, there were no rhinos left to hunt or paint in Europe (Martin/Martin/Amin 1982: 12) and the rhino only rears its horn again in the writings of Arab traveller Ahmad ibn Fadlan (to whom I return later) in the 10th century BCE.¹⁵⁸ When rhino horn became a popular antidote to poisoning during the 16th century, European caves and ancient gravesites were searched and emptied of all remaining rhino horn (Briggs 1931: 277).

On the African continent, the San people¹⁵⁹ left unique rock-art drawings in caves strewn across southern Africa, dating back at least 14 000 years (Ouzman 2001). Compared to other imagery in rock art, the drawings and engravings of rhinos are very detailed, a greater variety of engraving techniques are used, and repeated rubbing can be observed (Ouzman 2001: 245).¹⁶⁰ The rhino and the eland antelope were of spiritual significance. The rubbing of the rock carrying the imagery is linked to the San's belief that some rocks acted as gateways between the ordinary and spirit worlds (Ouzman 2001: 244). Archaeologists attribute the spiritual significance of the rhino to its sheer body size, its aggressive nature (in the case of the black rhino) and its role in the San's immediate environment (Walker/Walker 2012: 11).

The golden foil of a one-horned rhino was found in one of three royal graves in Mapungubwe (see Figure 3), a UNESCO world heritage site in South Africa, situated on the southern banks of the Limpopo River bordering Zimbabwe in the north and Botswana to the west. The small rhino (it is 152 millimetres long) was crafted by an indigenous civilization that had developed

¹⁵⁸ A conscious choice was made to use a neutral calendar terminology in lieu of the Christian-inspired 'Anno Domini' and 'Before Christ' denotations. The CE-denotation or Common Era equates the same period as envisaged by 'Anno Domini' – "in the year of our Lord" and BCE refers to the period before the common, current or Christian era. Both calendars omit the year 0 and are numerically equivalent.

¹⁵⁹ The name 'San people' is applied collectively here to refer to the indigenous peoples of South Africa. Development workers and Western researchers used the term to move away from the derogatory label of "bushmen". Dutschke (2015) problematizes the use of labels and names denoting first nation peoples in southern Africa. For the purposes of this dissertation, it is acknowledged that indigenous peoples refer to themselves by their chosen names, which depict their ancient culture and traditions. Due to the reliance on archaeological research in this section, there was regrettably no information available as to specific group identities; the collective denotation of 'San people' was thus applied.

¹⁶⁰ It was believed that the rubbing of the images would allow access to the potency of the animal in the spirit world (Ouzman 2001: 245).

sophisticated political, social structures and trade relations by the 13th century,¹⁶¹ more than 400 years before the arrival of European colonizers (York 2012).¹⁶² Archaeologist Huffman believes that the foil represents a black rhino.

Figure 3: The golden rhinoceros of Mapungubwe



Source: Tim Hauf/Corbis¹⁶³

Known for its unpredictability, pugnaciousness and power, the association between royal Zimbabwean leadership and the rhino appears apt.¹⁶⁴ There were, at least, another two rhino in the royal graveyard (Huffman 2007: 58). It is noteworthy that the black rhino had symbolic

¹⁶¹ Mapungubwe was abandoned after 400 years of settlement in 1290 CE due to the onset of the 'Little Ice Age', possibly a severe bout of drought and the centre of regional power had shifted to Great Zimbabwe (Carruther 2006: 2).

¹⁶² Although the hill of Mapungubwe and its treasures were "discovered" by a group of five white Afrikaners in 1932 (black people had long revered the site), there was no room in colonial or apartheid discourse for a black civilization that created sophisticated and complex walled sites such as Mapungubwe or Great Zimbabwe. The land around the site was given to white farmers and the military during the apartheid period. Characteristic of the Mapungubwe civilization, the golden rhino became celebrated once apartheid had been abolished in 1994 and the Order of Mapungubwe has become South Africa's highest national decoration, honouring excellence in science and creativity (York 2012).

¹⁶³ Image available at <http://www.theguardian.com/world/2015/aug/17/british-museum-may-seek-loan-of-the-golden-rhinoceros-of-mapungubwe> (accessed 18 August 2015)

¹⁶⁴ Although there were white rhinos in the region surrounding Mapungubwe, the extraordinarily one-horned golden rhino might have been inspired by tales of merchants from China, India or the Middle East, who were trading gold, copper, ivory, hides and rhino horn along the Indian Ocean coastline of southern and East Africa (Walker/Walker 2012: 11–13).

value among Venda and Shona-speaking tribes living in the early Shona state. Boeyens and van der Ryst (2014: 25), for example, describe the significance of the ceremonial *pembera* dance (mimicking the movement of the black rhino known as *chipembere* in Shona). The king of the Matupa state and his warriors would act out the ritual dance to determine who was the most accomplished and courageous warrior. The juxtaposition of the behavioural attributes of the black rhino (such as dangerous, unpredictable and powerful) with the leadership style of the ancient leaders of Mapungubwe and Great Zimbabwe has been asserted (Huffman 2007: 58). The sacred *pembela* ritual or rhinoceros dance in Venda culture is equally linked to chieftainship (Boeyens/van der Ryst 2014: 26). The rhinos captured in San rock art, and the golden rhino of Mapungubwe signify the deep connection, reverence and cultural significance of the rhino in those days.

Returning to the earlier mentioned Ahmad ibn Fadlan, who appears to have captured the first written record of the rhino based on his journey from Baghdad to the Volga region in 922 CE. He observed rhinos in the wilderness and found three large bowls made out of horn (ostensibly rhino horn) at the king's palace (Walker/Walker 2012: 8). Ctesias, the Greek private physician to Kings Darius II and Artaxerxes I of Persia, gives the earliest Western account of the rhino in the fifth century BCE.¹⁶⁵ His description of the one-horned creatures is widely interpreted to represent an inspired combination of the Indian rhino and Indian ass (Martin/Martin/Amin 1982: 13). In the words of Ctesias (quoted in: Shepard 1930):

"There are in India certain wild asses which are as large as horses, and larger. Their bodies are white, their heads dark red, and their eyes dark blue. They have a horn on the forehead which is about a foot and a half in length. The dust filed from this horn is administered in a potion as a protection against deadly drugs. The base of this horn, for some two hands'-breadth above the brow, is pure white; the upper part is sharp and of a vivid crimson; and the remainder, or middle portion, is black. Those who drink out of these horns, made into drinking vessels, are not subject, they say, to convulsions or to the holy disease [epilepsy]. Indeed, they are immune even to poisons if, either before or after swallowing such, they drink wine, water, or anything else from these beakers. Other asses, both the tame and the wild, and in fact all animals with solid hoofs, are without the ankle-bone and have no gall in the liver, but these have both the ankle-bone and the gall. This ankle-bone, the most beautiful I have ever seen, is like that of an ox in general appearance and in size, but it is as heavy as lead and its

¹⁶⁵ Some scholars suggest that Ctesias gave the first Western account of the unicorn, which influenced many artists' renditions of the mystical figment of their imagination. It is, however, accepted that the Indian rhinoceros (*rhinoceros unicornis*) inspired the Greek doctor's vivid description (Nichols 2011: 128–129).

colour is that of cinnabar through and through. The animal is exceedingly swift and powerful, so that no creature, neither the horse nor any other, can overtake it."

While the account is embellished and mythical, it is significant in showing that rhino horn has been attributed with special healing properties over many centuries (Martin/Martin/Amin 1982: 13). No animal has been shrouded in as many myths and myth creation as the rhino has. A diverse assortment of one-horned beasts was sprinkled across ancient Chinese, Egyptian, Babylonian, Indian and Assyrian mythology, the Bible, and Greek and Roman fables (Prothero/Schoch 2002: 277). Across the ages, the rhino has often been compared and confused with the mythical unicorn. Even scholars like Aristotle, Pliny and Leonardo da Vinci firmly believed in the existence of the unicorn. For a long time, Romans and Greeks upheld the belief that the unicorn (*monoceros* to the Greek and *unicornis* to the Romans) was different to the rhino since there was a huge market for the horns of the unicorn from China due to its medicinal properties. By the times of the late Antiquity, the use of rhino horn derived from the one-horned Asian varieties had been firmly established in the East (Prothero/Schoch 2002: 277), so the Europeans most certainly were not consuming unicorn.

Before Europeans had seen actual rhinos, tales of the beast fed their phantasy and led to bizarre myths such as rhinos being impartial to music and perfume.¹⁶⁶ In the 6th century CE, Saint Isidore of Seville declared the *monoceros*, unicorn and rhinoceros to be the same creature:

"The rhinoceros (*rhinoceron*) is named with a Greek word; in Latin it means 'horn of the nose'. This is also the *monoceron*, that is, the unicorn (*unicornus*), because it has a single four-foot horn in the middle of its forehead, so sharp and strong that it tosses in the air or impales whatever it attacks. It often fights with the elephant and throws it to the ground after wounding it in the belly. It has such strength that it can be captured by no hunter's ability, but, as those who have written about the natures of animals claim, if a virgin girl is set before a unicorn, as the beast approaches, she may open her lap and it will lay its head there with all ferocity put aside, and thus lulled and disarmed it may be captured (Bishop Isidore of Seville [6th Century AD]: 252)."

As there was little contact between Europe, Africa and China during the medieval period, the

¹⁶⁶ According to the myth, if a man were to dress up like "a highly perfumed virgin girl" he would be irresistible to the rhino. Should the disguise fail, he then should climb onto the closest tree and urinate in the rhino's ear to avert further charges. Such myths may have been based on tales by fellow travellers passing through colonial entrepôts (Martin/Martin/Amin 1982: 13).

classical knowledge of the rhino converged with the unicorn legend. It was commonly held that the unicorn was endowed with mammoth strength, which was concentrated in its horn (ibid). Contaminated water could be clarified if stirred with the horn of a unicorn – a method that was called “water conning” (Mould 1996: 130). Many fables, fairy tales, paintings and tapestries (the Metropolitan Museum of Art in New York is host to a series of seven tapestries entitled *The hunt of the unicorn*) attest to the popularity of the unicorn, which became a symbol of purity and chastity during the medieval period and Renaissance. It is perhaps not surprising that the horn of the unicorn became known as a powerful aphrodisiac and was used for virginity testing. None of the classical medical authors in the Occidental tradition mentioned the unicorn and its curative properties until Hildegard of Bingen in the 12th century. According to the medieval medic and nun, an ointment made of powdered unicorn liver mixed with egg yolks cured leprosy, a belt made of unicorn hide worn around the waist protected its owner against the Plague, fevers and sore feet, and its hoof could detect poisons (Throop 1998).¹⁶⁷ All along “unicorn” pieces, fragments and horns were used to test food and beverages of the wealthy and royals for poisoning, and abbeys, churches and principalities were stockpiling horns, which were treasured possessions, signifying status and opulence (Mould 1996: 130–131). As no European had seen lions, elephants, panthers or unicorns at this time in history, they were equally content and unquestioning in their acceptance of the existence of all these creatures (Shepard 1930: 29).

According to Prothero and Schoch (2002: 278), the mysticism surrounding horns may be linked to the curative properties associated with the imported tusks of the narwhal, a small arctic whale. These tusks can reach a length of up to 3 meters¹⁶⁸ and were first introduced by Scandinavian fishermen upon returning from expeditions to the Arctic. While Arctic whalers harpooned some narwhals, most of the precious resource derived from bartering trade with Inuit hunters (Ellis 2013: 83). Apothecaries across Europe proceeded to market narwhal horn

¹⁶⁷ Hildegard of Bingen wrote extensively about the unicorn fable, elaborating her version of the virgin-capture legend and suggesting the unicorn was symbolic of Jesus Christ.

¹⁶⁸ Unicorn whales (as they are also known) prefer the deep waters of the Atlantic Arctic Ocean. While the impact of global warming and hunting is not known, the IUCN regards their populations as stable. Narwhals are hunted, and their tusks are traded in Greenland and Canada. Greenland has however banned the export of the narwhal’s ivory (The IUCN Red List of Threatened Species 2014a).

as unicorn horn and sold it for its supposed medicinal properties. As narwhals were rarely seen south of Greenland, their existence remained the Scandinavian seafarer's best-kept secret for nearly 500 years while they were selling 'unicorn' worth several times its weight in gold (Winick 2014). The horn of the unicorn, or *alicorn* as it came to be known, was likewise imputed with magical powers such as counteracting toxins and curing melancholia.

Apothecaries chained down the valuable tusks and sold shavings to affluent customers.¹⁶⁹

Alicorn was also converted into cups that were thought to neutralize any poisons slipped into beverages consumed out of the cups. Other types of 'unicorns' used in European apothecaries were probably Indian rhino horn in powdered form, prehistoric mammoth ivory and fossils (Mould 1996: 131). The value of alicorn depended on available supplies. At the peak of the market, pieces and powder of alicorn could sell for up to ten times their weight in gold while entire horns (which were rare) could be worth double (*ibid*). As was to be expected, shrewd entrepreneurs forged the expensive commodity by substituting alicorn with the horn of domesticated animals and walrus, whale bones, stalactites and limestone. To protect prospective buyers, several tests were devised, to check the authenticity of the alicorn (*ibid*).¹⁷⁰ Chapter 8 discusses the high incidence of fake horn in modern markets and novel ways of testing its authenticity.

Unicorn remained officially recognized as a drug to be stored in registered pharmacies in England until in 1741 (Mould 1996: 131–132),¹⁷¹ the French court used alicorn to test whether the royals' food and drinks had been poisoned up until the French Revolution, Queen Victoria I had an alicorn mounted in her bedroom at Windsor and even Pope Gregory XIV was offered powdered horn on his deathbed in 1591 (he died nonetheless) (Prothero/Schoch 2002: 278).

The belief in the curative properties of alicorn was such that the symbol of the unicorn

¹⁶⁹ A prince of Saxony is said to have paid the sum of one hundred thousand thalers for a single alicorn while the English King Charles V paid his outstanding debt to the Margrave of Bayreuth with two narwhal horns (Prothero/Schoch 2002: 278).

¹⁷⁰ One such test involved the soaking of the suspicious horn in water and then drawing a circle around a scorpion with the same waters. If the scorpion remained inside the circle, then the alicorn was considered to be the real deal (Mould 1996: 131–132).

¹⁷¹ The official drugs list of items to be kept in stock by registered pharmacies in England included unicorn from 1651 to 1741. It was deleted from the list in 1746 (Mould 1996: 132).

became associated with pharmacopoeias and apothecaries in the Western world (ibid).¹⁷² Despite the alicorn's widespread popularity, doubt and scepticism about its efficacy became widespread when evidence-based medicine became the order of the day during the Age of Reason. While the Japanese were using alicorn for the treatment of impotence until the late 18th century, demand had tapered off by the 18th century elsewhere in the world (Mould 1996: 133). As the price dropped significantly, the wealthy moved on, but the poor continued to buy alicorn for some time after that (Shepard 1930: 84).

The rhino was 'rediscovered' in Europe after the Dark Ages. In 1292, Venetian explorer Marco Polo saw Indian rhinos during his expeditions to Asia and related them to the fabled unicorn, sincerely doubting whether rhinos and virgin maidens would enjoy propinquity (Mould 1996: 130). Finally in 1593, Europeans got to see their first live rhino gifted to King Manuel the Great of Lisbon, who upon tiring of it sent it to Pope Leo X. The ship sank en route, drowning everyone on board, and the pope eventually received the stuffed and skinned carcass (an early trophy of sorts) some time later (Prothero/Schoch 2002: 279). German painter Albrecht Dürer (see Figure 4) was crucial in disentangling the rhino from the unicorn through his famous woodcut, which was based on a drawing of a rhino by a Portuguese artist (Dürer never saw a live rhino) (Edwards 2008: 291). The mystical element remained, however, as Dürer's rhino had a unicorn with a spiral twist protruding from its shoulders.

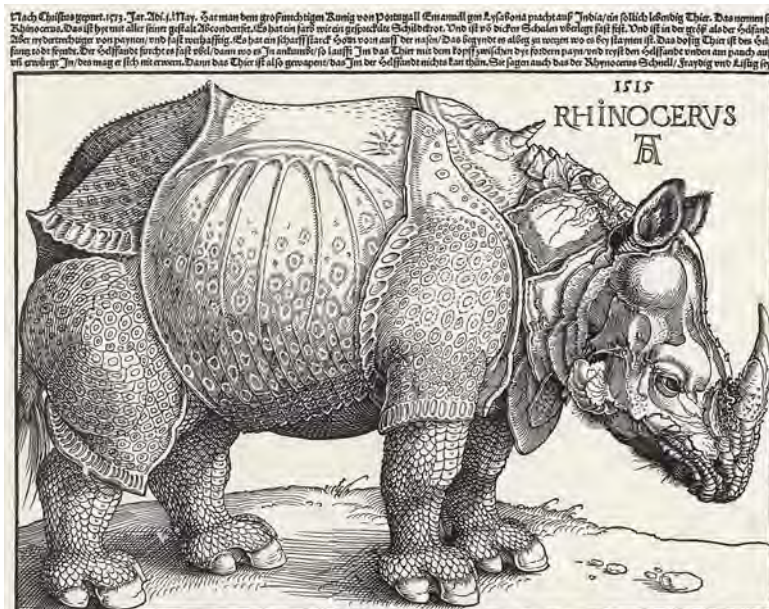
The reliance upon hearsay and oral traditions is perhaps best demonstrated in Edward Topsell's *'The history of four-footed beasts and serpents'*, an authoritative natural history book first published in the Renaissance and reproduced in its original form over several centuries (Prothero/Schoch 2002: 279). Amongst the colourful descriptions of serpents, sea monsters, unicorns and dragons, Topsell regards the rhino as "the second wonder in nature" (after the elephant).¹⁷³ Topsell (1658) explains at length why the unicorn and rhino were two distinct creatures, also refuting the longstanding myth of the missing female rhino. Early writers and philosophers were of the wrongful belief that only male rhinos were roaming the planet (Keller 1909: 384).

¹⁷² The British pharmaceutical company Burroughs Wellcome, for example, used the unicorn as its logo between 1908 and 1995 (Dorman 2014).

¹⁷³ The profile is sprinkled with curious descriptions, such as: "On his forehead there grow hairs which seem a little red"; or: "His back is distinguished with certain purple spots upon a yellow ground (Topsell 1658)."

The use and trade of rhino horn in Europe appears to coincide with Portuguese seafarers returning from India. Caspar Bartholinus observed the sale of rhino horn in several Italian cities in 1620, where it was prescribed for the treatment of poisoning, fevers, small-pox, epilepsy, vertigo, worms, impotence and stomachache. Initially rhino horn was not as popular as alicorn as the horn was too short and the imagery of the rhino failed to inspire in comparison to the mythical unicorn. This attitude changed over the next decades. By 1699, Pierre Pomot recounts that rhino horn was used in the belief that it would be as effective as alicorn (Shepard 1930: 176).

Figure 4: Albrecht Dürer's 'Rhinoceros'



Source: The British Museum ¹⁷⁴

Not surprising, the first few generations of colonial settlers at the Cape of Good Hope in South Africa shared those beliefs. Botanist and avid traveller Charles Thunberg (1793) observes that rhino horns were kept as rare ornaments and as a means to detect poison. He wrote:

“The fine shavings of the horns, taken internally, were supposed to cure convulsions and spasms in children, and it was firmly believed that goblets made of these horns in a turner’s lathe would discover a poisonous draught by making the liquor ferment.”

¹⁷⁴ Available at http://www.britishmuseum.org/explore/highlights/highlight_objects/pd/a/albrecht_d%C3%BCrers_rhinoceros.spx (accessed 18 August 2015)

The difficulties associated with translocating rhinos in those days precluded a scientific investigation into the mythical rhino and its horn until the 19th century (Prothero/Schoch 2002: 280). It bears mentioning that many of the traits of the unicorns would have been derived or embellished from stories told by rhinoceros hunters. Rhinos have bad eyesight, but they have an augmented sense of smell, which tallies with elements of the virgin-capture legend (Shepard 1930: 175). As will be shown in the following, rhino horn had a long history of medicinal and alexipharmic use in the East. Scholars of the unicorn legend tend to object to the notions that the unicorn, “an animal of such delicacy and refinement” would be the same as “the gross, grunting, slime-wallowing rhinoceros” (Shepard 1930: 177). The rather harsh assessment intimates cognitive frames of yesteryear, some of which may have affected modern day perceptions of the ancient creature.

Much of the unicorn and rhino mythology in the Occident seems to have been inspired by tales from the Far East, with the earlier-mentioned Ctesias being the first of many travellers to bring back stories and observations, which were either assimilated, adopted or appropriated into Western cultural traditions. Supernatural events associated with the unicorn date back to 2600 BCE in Chinese mythology (Briggs 1931: 278). The earliest representations of the unicorn were found on seals in the northern Indus region dating back to the same era around 2600 BCE (Abraham et al. 2013: 107).¹⁷⁵ The unicorn or similar apparitions also featured in Hindu and Buddhist written and oral traditions. The *Mahābhārata* introduced the legend of Rishyasringa, a deer-horned anthropomorphic creature while Buddhist literature refers to the same creature as Ekashringa (which translates to unicorn) (Nichols 2011: 130). The archaeologist responsible for excavations that led to the unearthing of vast areas of the Indus Valley Civilization in the early 20th century, Sir John Marshall believed that the unicorn and other mythical creatures derived from it were inspired by the rhino (cited in: Abraham et al. 2013: 122). Indus merchants were frequent and long-distance travellers, who may have spread the idea of the unicorn to Mesopotamia and the Middle East. The oldest unicorn bronze statue found in that region dates back to the days of the proto-Iranian culture of Amlash around the 9th to 8th century BC (Tagliatesta 2007: 176). From there the idea of the mythical unicorn may have gradually diffused through the Mediterranean region finally

¹⁷⁵ Scholars have long debated whether the animals depicted on the seals are unicorn or bicorn creatures. The debates are of little relevance here (Tagliatesta 2007: 175). The significant aspect is that Sir John Marshall and other archaeologists thought that rhinos inspired the depiction of these creatures.

reaching continental Europe and beyond (Abraham et al. 2013: 122). Medieval Muslim scriptures also describe a winged antelope-like creature with a horn on its forehead called *karkadan*, the Arab term for rhinoceros (Ettinghausen 1950: 6). According to the *Shahnama* (the Book of Kings), Alexander the Great slayed a unicorn-like creature from the land of Habash (Ethiopia). There are many accounts of heroes triumphing over what is often described as a monstrous apparition, perhaps indicative of how hunters were in awe of the rhino (Ettinghausen 1950: 36) – compare with the next section of this chapter. The earliest accounts of rhino hunts date back to the earlier mentioned Arab traveller Ibn Fadlan in 922 AD, who was told that bowmen would climb on top of trees and kill rhinos with poisoned arrows while they were asleep (Ettinghausen 1950: 45).

Arab writers mention different uses of rhino horn during the early medieval period. Chinese royalty, for example, adorned themselves with girdles made out of rhino horn (Ettinghausen 1950: 54)¹⁷⁶ or wore necklaces made of rhino horn to fend off evil spirits (Ettinghausen 1950: 55). Japanese ornaments and containers were carved out of rhino horn; thrones were covered with rhino horn (not attached to a specific geography but most likely in reference to China), and the handles of medieval Muslim knives and swords were made out of rhino horn (Ettinghausen 1950: 56). The demand for horn seems to have been met by suppliers from India and Africa (ibid) with Arab merchants being the principal exporters to China (Ettinghausen 1950: 101). There seems little doubt that the rhino and unicorn were one and the same creature in Arab writings. As of the 1500s, the so-called *karkadan* is often compared to buffalo's and the domestic ox.¹⁷⁷ Interestingly, the earliest reference in Arab texts of the antidotal effect of rhino horn appeared to have coincided with the European discovery of the curative properties of alicorn (Ettinghausen 1950: 111). Before that, the horn of *khutu* was reputed with alexipharmic qualities (Lavers 2009). Al-Qazwini makes the first explicit suggestion of the usefulness of rhino horn in detecting toxins while also noting its suitability

¹⁷⁶ During the 10th century, a royal decree abolished the custom of wearing girdles made of rhino horn and required girdles to be made of gold and other valuable materials instead (Ettinghausen 1950: 55). It is unclear what precipitated the royal decree; however, it led to a massive drop in the price of rhino horn (ibid).

¹⁷⁷ Even Sindbad the Seafarer provides an inspired description of the *karkadan*, which he encountered during his second voyage. Successive translators of *'Thousand and One Nights'* appear to have embellished the length of its horn tenfold (Compilation of folk tales of Middle Eastern and Indian descent 1850): "It is a remarkable animal with a great and thick horn, ten cubits long, a middleward its head, wherein, when cleft in twain, is the likeness of a man."

for knife handles. Later texts confirm that if the handles of royal knives were pleated with rhino horn, then they would “become moist and agitated” when poisoned food was placed on the dining table (Ettinghausen 1950: 131). It seems somewhat plausible that this may have led to the use of the ceremonial daggers in the Arab peninsula. The hilts of the earlier mentioned *jambiya* are made with rhino horn (compare with the subsection on jambiyas in this chapter). To this day, they are indispensable to the traditional attire of men of Northern Yemen and equally coveted in Oman and Saudi Arabia (Parker 2013: Chapter 19: 6).

In greater India, home to the one-horned Indian rhino, there are many references to the rhino as a sacred animal including Asoka declaring it as such in his *Pillar Edicts*, its perceived similarity to Ganesha (an Indian deity) or the famous chorus “Let him wander alone like a rhinoceros” from the *Sutta Nipata* (a Buddhist scripture) (Briggs 1931: 280). The rhino became associated with virtue and wisdom (Keller 1909: 388), and it remained highly valued as a sacred animal amongst yogis into the 20th century. During the practice of sun salutations, yogis would wear a ring made out of rhino horn on the right index finger while others adorned their ears with huge rings made out of rhino horn pulled through the cartilage. Yogis also used powdered rhino hide for dusting open wounds (Briggs 1938: 131–132).

Unlike the earlier mentioned communities or nations, the Chinese did not conflate the rhino with the mystical unicorn. It is commonly held that the unicorn or *ki-lin* originates from a distant place, possibly heaven, at irregular intervals. According to the legend, the unicorn’s appearance coincided with the reign or the birth of a great man (Shepard 1930: 66). The rhino, on the other hand, is accurately described as a separate species, and suppliers and traders of its horn never attempted to sell rhino horn as *ki-lin*, rendering the unicorn a mystical creature uncontaminated by trade (Shepard 1930: 69). However, rhinos were rarely seen in China by the times of the Western Han dynasty, and perhaps their rarity would explain why they acquired mythic status in Chinese society. Rhinoceros bones were found at fossil sites dating back to the Neolithic era (about six thousand years ago). Various Asian species are believed to have flourished in ancient China (Parker 2013: Chapter 16). No rhinos survived north of the Yangtze River by the time the Han dynasty (206 BCE – 220 CE). When the Tang dynasty ruled from 618 CE to 907 CE, rhinos lived in an area south of the Yangtze River and in

the regions that are known as modern-day Guangdong and Guangxi (Laufer 1914: 137), and may have survived in Sichuan until the medieval period (Laufer 1914: 118).

In ancient times, the primary interest in the rhino seems to have been linked to its hide (Jenyns 1954: 39). The *Guoyu* ('Discourse of the States') recorded that 103,000 troops of the State of Wu were equipped with armour made of rhino hides and fish-scales around 400 BCE (cited in: Parker 2013). While this account appears ever so slightly embellished, Parker (2013: Chapter 16: 5) interprets this as an indication of the existence of significant numbers of rhino in the southern regions during the Warring period. In those days, rhinos were killed for their hide. Once the hide had dried out, it hardened and provided protection against the weapons of the day. Deer antlers and rhino horn were also used to produce bows in ancient times (Parker 2013: Chapter 16: 5). Parker (2013: Chapter 6: 6) argues that rhino numbers were greatly reduced during the Warring period due to increasing demand for rhino hide armour. Moreover, gradual cooling of the climate affected the rhino's habitat and led to a southward migration in the direction of Laos and Vietnam. The relentless slaughter during the Eastern Zhou dynasty led to the demise of the rhino in China, and it entered the realm of legends and myths (Parker 2013: Chapter 16: 6).

The oldest Chinese art piece depicting a rhino is an ancient bronze wine vessel in the form of a two-horned rhino. The vessel is believed to date back to the reign of the last emperor of Shang during the first half of the 11th century BCE (Sickman/Soper 1971: 30). According to Bretschneider (1875: 19), Chinese classics frequently refer to goblets made out of rhino horn and the rhino in general.¹⁷⁸ Art historian Jan Chapman¹⁷⁹ argues that the ritual libation cups used during ceremonies honouring ancestors may have been made of Asian rhino horn before bronze came into use in ancient China around 2000 BCE. Curiously, Bronze Age drinking vessels (made out of bronze) were shaped in the form of their rhino horn precursors (Chapman 1999: 17). From the days of the Eastern Zhou dynasty (770 – 221 BCE), carvers created intricate bowls, libation cups and other decorations out of rhino horn (Parker 2013:

¹⁷⁸ The sinologist believed that the Indian and Chinese use of rhino horn in the detection of poisons was a separate development albeit both nations started the usage at approximately the same time (Bretschneider 1875: 19).

¹⁷⁹ Chapman has published a seminal book on the art of rhino horn carvings in China '*The Art of Rhinoceros Horn Carving in China*', which documents the history and beauty of ancient carvings made out of rhino horn.

Chapter 17: 2). Unlike other horns (antlers of antelopes, cow or sheep horns), rhino horn was not hollow on the inside and thus could be carved into cups and bowls (Laufer 1914: 168).¹⁸⁰ Libation cups were used for the consumption of rice wine (see Figure 5). The belief was that the curative elements of the rhino horn (analgesic and life lengthening) would dissolve from the cups into the wine. The two ancient uses of rhino horn (decoration and medicine) thus were intertwined (Parker 2013: Chapter 17: 2).

Figure 5: Rhino horn libation cup originating in the Qing dynasty



Source: Sotheby's¹⁸¹

As mentioned earlier, the official girdles of royal mandarins were studded with pieces of rhino horn during the Tang dynasty, which lasted from 618 CE to 905 CE. Official attires were ranked in the order of jade, gold, rhino horn and ivory during the Kin dynasty (1115–1234 CE). The emperor wore a hat–pin made of rhino horn and a girdle of black horn while the imperial saddles were pleated with gold, silver, rhino horn and ivory (Laufer 1914: 143). There is also a religious element associated with rhino horn in ancient China, as Wang Ming (33 BCE to 23 CE)

¹⁸⁰ Bovine and other horns have been transformed into drinking vessels across different cultures. However, usually the entire horn is used.

¹⁸¹ The libation cup depicted in the image originates from the times of the Qing dynasty (17/18th century). A dragon is the main feature of this cup. The cup was sold for 8 420 000 HKD at a Sotheby's auction in Hong Kong. The image and more information are available at <http://www.sothebys.com/en/auctions/ecatalogue/2011/rhinoceros-horn-carvings-from-the-edward-and-franklin-chow-collection-hk0370/lot.2714.html> (accessed 18 August 2015).

offered bones of storks, tortoise shell and rhino horn to the Gods (Jenyns 1954: 45). Jenyns (1954: 45) also found references to rhino horn beads, which appeared to be linked to holding an important office in ancient China. The manufacture of rhino horn prayer beads (Buddha beads) and bangles was observed in Hanoi in 2013 (Amman 2013b), suggesting that rhino horn is still imbued with transcendental and religious value.

The origin of rhino horn's prophylactic valuation in traditional medicine is a matter of debate. *Huang-ti Nei Ching* ('The Yellow Emperor's Classic of Internal Medicine'), the generational knowledge of traditional medicines is said to have been compiled by Huang-ti around 2 600 BCE. The ancient art of healing was passed on orally until it was finally captured in written form around the 3rd century CE. 'Prevention is more important than cure' was the underlying philosophy of the *Nei Ching*. Any health issues had to be addressed by looking at the body as an interdependent organic system. It advocated the consumption of certain foods to adjust imbalances; however, no animal substances or herbs were included in the early versions (Ellis 2013: 35–39). The *Chen Nung Ben Cao Chien* or 'The Herbal Classic of the Divine Ploughman' was published around 100 BCE, recommending the use of 365 different herbs and animal substances for each day of the year (Huang 1998: 3). Its origin is traced back to the mythical emperor Chen Nung, who was believed to have lived around 2700 BCE. The classic work classifies powdered rhino horn as a cold drug, which is suitable for cooling blood from hot diseases (Parker 2013: Chapter 17: 1) and it "cures the hundred poisons" (Bretschneider 1910: 153). It is accepted that the Chinese use of rhino horn for medicinal purposes dates back to the times of Chen Nung. Medicinal use of rhino horn thus dates back to approximately 2700 BCE, rendering it an ancient practise of more than 4 800 years. Jeanie Parker, the author of '*The mythic Chinese unicorn*', found many written references about the antidotal properties of rhino horn during the Bronze Age in China. For example, she noted that the *zhen* bird (the 'poison–feather bird') and the rhino lived in the same southern regions during the Spring and Autumn Period. Poison could be extracted by pouring rice wine over the feathers of the *zhen* bird.¹⁸² The link between the rhino and the *zhen* bird was confirmed in the *Pi Ya* during the Song dynasty (960 – 1279 CE), which stated under the entry of the poison–feather bird: "The

¹⁸² An ornithologist consulted by Parker believes that the *zhen* may be the crested serpent eagle, a species that is spread across huge parts of tropical continental Asia (Parker 2013: Chapter 18: 2).

only thing that can counteract this poison is rhinoceros horn (quoted in: Parker 2013: Chapter 18: 1).”¹⁸³

Taoist philosopher Ge Hong (quoted in: Laufer 1914: 137–138) provides an intriguing account of rhino horn in the 4th century CE, suggesting that the horn could communicate with the sky. Ko Hung asserts in *Baopuzi* (‘The Master who embraces simplicity’) under the section dealing with “Method to be used in order to walk on water or stay long under water”:

“The (rhino) horn is made into a hairpin. When poisonous medicines of liquid form are stirred with the horn hairpin, a white foam will bubble up. After the foam has bubbled up, the harmful effect of the poison is gone. When non–poisonous substances are stirred with the horn hairpin, no foam will rise. In this manner the presence of poison can be ascertained (translated by: Parker 2013: Chapter 18: 4).”

What is of particular interest is his explanation as to why rhino horn is capable of neutralizing poison. He establishes a link of the “horn communicating with the sky” and its alexipharmic properties due to the rhino’s diet consisting of poisonous plants and trees (Jenyns 1954: 41).¹⁸⁴ The symbolism attached to the rhino horn’s celestial connection¹⁸⁵ may have

¹⁸³ The entry in the *Pi Ya* describes the poison–feather bird as follows:

“If there is a *zhen* bird with poisoned feathers (because it eats poisonous snakes), and you dip them in wine, you will produce poison. The *zhen* bird looks like a goose but its colour is dark purple. Its beak is 7–8 cun (Chinese inch) long and copper–coloured. It eats snakes which dissolve it its mouth. If the droppings of the *zhen* bird touch stone, then the stone will dissolve. The feathers have poison. If they are mixed in wine then poison is produced. The only thing that can counteract this poison is rhinoceros horn. Therefore in the place where the *zhen* bird lives, there are also rhinos (Parker 2013: Chapter 18: 1).”

¹⁸⁴ Several TCM doctors consulted during data collection in Asia likewise explained the rhino horn’s alexipharmic and detoxing properties in reference to the Asian rhino’s diet. According to the interviewed doctors (Interviews, Vietnam and Hong Kong, 2013), Asian rhinos were feeding on poisonous leaves, shrubs and fruits in tropical rainforests. Unlike cattle, deer or buffalo, the rhino can digest these poisonous substances; its horn is hence regarded as an excellent antidote to poisons. Doctors prefer Asian rhino horn as the Asian species’ diet consists largely of medicinal plants and herbs, rendering the horn more potent and superior in terms of healing properties. The diets of African species were checked for the purposes of verification. The white rhino is a pure grazer, surviving on grass while the black rhino’s hooked upper lip allows it to pull off twigs, branches and fruit from more than 200 different varieties of trees and shrubs (Gibson 2015). Many of these plants are used in African medicines (Interviews, 2013). Scientists also found that desert-adapted black rhinos in Namibia were living on a diet rich in the poisonous succulent *Euphorbia damaran*, also known as milk bush (Lehmann et al. 2013; Luske et al. 2009). While the black rhino may have a multi-faceted diet that includes medicinal and poisonous plants, the traditional doctors’ preferences were based on generational knowledge and traditions, as well as their environmental milieu. Other preferences included fresh versus old horn (but it needs to be processed as soon as possible); the horn of the Indian rhino species versus horn from the other two Asian species (which are tinkering on the brink of extinction); ideally the horn should be harvested at the peak of a rhino’s life (at mid-age when the rhino is about 20 years old) – preferably from a live animal as the efficacy of the medicine

contributed to the unicorn's sanctity in Europe, where the healing powers of alicorn were venerated in churches and monasteries more than one thousand years later (Parker 2013: Chapter 26: 1).

Dating back from the 11th to the 7th century BCE, the *Chijing* (the ancient 'Book of Songs') provides poetic evidence that the rhino was indeed hunted in ancient times.¹⁸⁶ Laufer (1914: 160) quotes a metaphor employed by soldiers complaining about their own cruel treatment: "We are not rhinoceroses, we are not tigers, to be kept in these desolate wilds." Once the local reserves of rhino had been depleted during the Han dynasty (206 BCE– 220 CE), Roman and Arab traders started supplying the Chinese markets with rhino horn (Jenyns 1954: 41). Rhino horn cups had become precious artefacts during the Western Han dynasty and were buried with their owners. Those less fortunate were buried with imitation rhino horn cups made from clay or wood (Parker 2013: Chapter 19: 1). Chapman (1999: 15) found evidence that Chinese entrepreneurs created forgeries of horn carvings, cups and girdles as early as the 14th century, often substituting rhino horn with the much cheaper horn of the water buffalo.¹⁸⁷ With the depletion of rhino numbers came the sacralisation or mythical transformation of the rhino. Artistic representations became replete with images of the mythic rhinoceros–unicorns and rhino horn was attributed with supernatural curative capabilities (Parker 2013: Chapter 22).

The decimation of indigenous rhino populations, as well as the southward expansion of the empire increased demand for rhino horn during the Western Han dynasty. Ancient Chinese writings suggest that Chinese emperor Qin Shihuang (who reigned from 221 BCE to 209 BCE)

decreases when horn is harvested from a dead carcass –; and the top part of the horn was the most coveted and expensive part of the horn when used for medicinal purposes.

¹⁸⁵ Parker (2013: Chapter 26: 1–9) also identifies the concept of the "spirit rhinoceros unicorn", conceived by Li Shangyin, a poet during the Tang dynasty. The notion that the mythic rhinoceros unicorn was using its horn to communicate with the sky was repeated in many texts until the 18th century. From about that time, the mythic creatures no longer resemble the rhino but continue to gaze up at the moon.

¹⁸⁶ A hunting expedition of King Suan is described in the following words: "We have bent our bows: we have our arrows on the string. Here is a small boar transfixed; there is a large rhinoceros killed (quoted by: Laufer 1914: 160)."

¹⁸⁷ In their quest to assemble curiosities from distant lands, European collectors often fell victim to fake horn sellers. German Emperor Rudolf II (1522–1612) was believed to have paid high prices for his collection of rhino horn trinkets, which was found to include several water buffalo imitations (Chapman 1999: 15).

sent out his army to open south-east trades to acquire rhino horn and elephant ivory (An Liu cited in: Chapman 1999: 26). Due to the tropical climate in the southern regions, demand increased for fever-reducing medicines that could lower life-threatening tropical fevers. While the Chinese under the Western Han dynasty were colonizing the south, seafarers and merchants from the Arab peninsula and Europe learnt to use the southwest monsoon winds to sail to southern India, resulting in increased communication and trade between Asia and Europe along the Asian sea routes (Parker 2013: Chapter 19: 2–3). Tributes to Chinese emperors often included rhino horn, ivory and tortoise shell during those early days of Sino–Arab trade (Hirth 1885: 70–71, 79, 154, 222).

The routes did not only serve the purpose of exchanging spices, silk, ivory and rhino horn but stories and information were also passed on, and hence the myth of the unicorn moved westward along the silk route, filtering through Indian culture and reviving the ancient Indian story of Ekashringa (Parker 2013: Chapter 19: 5). Inspired rhino horn traders from southern Asia are believed to have come up with the myth that rhino horn had aphrodisiac qualities in order to market their product to Western markets. The aphrodisiac or virile qualities are not mentioned in any of the ancient Chinese scriptures (Parker 2013: Chapter 19: 6).

The objective of this section was to show the millennia-long quasi-global appreciation of the rhino as a mythical creature with transcendental and supernatural qualities. Interwoven with tales of the unicorn and other mythical apparitions, rhino horn was imbued with alexipharmic, curative and status-elevating properties. It is noteworthy that in certain cultures the horn was seen as a separate entity from the animal (Europe and the Arab world) whereas others (such as the Chinese and Indians) acknowledged the rhino as a powerful even sacred animal. Historically, the use of rhino horn (alicorn) appears to have been a privileged affair. The ruling political and military elites were able to afford the high price of rhino horn whereas the poor relied on cheap knock-offs.

3.4. Hunting tales and myths

The valuation of rhino horn as a precious and sacral good had no impact on the valuation of the rhino as the original owner of the horn during the colonial period. Wild animals

commanded no extraordinary or intrinsic value at the time. The sacralisation of rhino horn due to its ascribed health benefits, as well as links to European royals and Asian emperors, led to growth in global demand. Initially, the demand could be met with horn gathered from natural mortalities and through (mostly) sustainable hunting expeditions. Whatever mystical links were sustained between humans and animals in medieval Europe, with the onset of the Age of Reason wild animals were seen as beasts incapable of sentience and the capacity to experience pain (Martin/Martin/Amin 1982: 29). As the mythology of the unicorn and other animal mythologies waned into obscurity, open hunting season was declared on big game animals, including the various species of rhino. Although Eastern beliefs held that humans “should do no harm to beast nor bug” (Martin/Martin/Amin 1982: op cit), the rhino also escaped immunity from hunting in Asia and was hunted to extinction in most of its original Asian range.

Aside from the extinction of all rhino species in China by the late Middle Ages, there were vast numbers of rhinos left elsewhere in Asia. Conquerors and bandits started targeted hunting of Indian rhinos in the 16th century. The great conqueror Babur, who laid the foundation of the Mughal dynasty in the Indian subcontinent, was known for his brutal rhino hunts (Kisling 2000: 255). As human populations started increasing, the Indian rhino was pushed out of fertile flood plains and grasslands. The government of Bengal is said to have paid a bounty of 20 rupees for every rhino killed until 1896. Sports hunting greatly reduced Indian rhinos numbers during the 19th century. By the late 20th-century British colonial forces had been introduced to modern firearms and sports hunting became a deadly pastime of bored colonial troops. Shooting rhinos and other wild animals became associated with masculinity, status and prestige (Martin/Martin/Amin 1982: 29). Indigenous royals such as the Maharajah of Cooch Behar (he shot dead 207 rhinos between 1871 and 1907) matched the colonial pastime with equal vigour (Martin/Martin/Amin 1982: 30). At the last count in 2012, about 3500 Asian rhinos (Emslie/Milliken/Talukdar 2013: 12) survived the deadly impact of sports hunting, poaching and human encroachment. As the Asian species are not the focus of this dissertation, suffice to mention that their decimation (amongst other factors) had a deadly domino effect on the African rhino.

A fair amount of rhino and elephant hunting happened during the early modern period in Africa. Indigenous populations were nomadic hunter–gatherers during the Stone Age. Their frequent migration ensured that natural resources were used sustainably. The San rock paintings (described earlier) attest to the respect, even reverence nomadic tribes had for wildlife and hunting (Carruthers 1995: 7). As the Iron Age approached, many African tribes settled and led an agricultural or pastoralist life-style. Conservation strategies similar to those in Medieval Europe were employed to deal with the demands of trade and crop protection. Wealth accumulation led to social stratification, and hunting became a politicized matter (Carruthers 1995: 7). Historian Jane Carruthers (1995: 7–8) argues that the impact of pre-colonial hunting was small in relation to the abundant wildlife:

“Desirable wildlife species came to be controlled by the elite who alone could initiate a hunt, control trade in wildlife products, and enjoy the spoil of certain species. There were even royal hunting preserves, out of bounds to commoners, the best known of which was Shaka’s reserve in the Umfolozi district of Zululand, set aside in the 1820s. Strict protection proscription extended to clan totems, such as crocodile or lion, which could not be destroyed.”

This state of affairs changed with the arrival of colonial settlers, who introduced firearms and a strong market economy. Ultimately the increasing commodification of wildlife led to its overexploitation (Carruthers 1995: 8). The first superintendent of the South African Museum of Natural History Sir Andrew Smith commented on the relationship between rhinos and humans in 1838:

“The present species, under the name of *Rhinoster*, has been familiarly known to the colonialists of the Cape of Good Hope ever since 1652. In that year, when the Dutch first formed their settlement on the shores of Table Bay, this animal was a regular inhabitant of the thickets which clothed the lower slopes of Table Mountain. The abandonment by this animal as a measure of safety, probably constituted the commencement of a forced migration, which has continued to extend ever since, and which has led not only to the disappearance of the species from the districts within the present colonial limits, but also in a great measure to its removal from countries beyond those limits, as far as hunters efficiently armed are accustomed to resort. If a system, such as has hitherto prevailed, continues to exist, and the larger animals persevere in flying to avoid the effects of firearm, the time may arrive when the various species which formerly may have been scattered, each, in a peculiar locality of a large continent, will be huddled together; and indeed an advance towards that period is in progress, as may be inferred from the concentration which is present taking place in the interior of South Africa (Smith 1838: 56).”

As European colonizers and explorers were penetrating more remote parts of Africa, they were commenting on the abundant numbers of rhinos across the continent (Martin/Martin/Amin 1982: 35). It is estimated (Martin/Martin/Amin 1982: 35; Kisting 2000) that there were between 400 000 to one million black rhinos (they were more numerous than the white species) in the early 1800s. The 'Scramble for Africa' was accompanied by the colonial arrivals engaging in 'leisurely' past-times such as sports and trophy hunting. MacKenzie argues that the colonial frontier "was also a hunting frontier and the animal resource contributed to the expansionist urge." Hunting became a "ritualized and occasionally a spectacular display of white dominance (Mackenzie 1988: 7)."

It is difficult to establish where the hunting fraternity's enthrallment with the collection of hunting trophies originates. There appears to be a confluence of several factors such as hunters wanting to show off a collection of wildlife specimens back home, showmanship and keeping mementos of specific hunting expeditions. Trophies also served more practical purposes such as interior decoration, collecting specimens of species for scientific purposes and as proof of breeding success in later years (Mackenzie 1988: 28–29; Damm 2008: 6). The opportunity of being intricately involved in the writing of natural history offered hunters, explorers and colonial governors their chance at fame. Many hunters collected species and trophies for museums and collections; a few lucky ones had species named after them (Mackenzie 1988: 38–39).

Interestingly in the early years of the colonial empire, the rhino inspired yet another myth – a hunting myth. Like fireside tales, hunters are known to embellish or romanticise their hunts. In the case of the rhino, colonial hunters wrote about the attacks of rhinos on caravans and hunting parties, imputing the rhino with a pugnacious nature. Sir Andrew Smith, the first superintendent of the South African Museum of Natural History, related a supposed Kenyan tale of a rhino charge:

"Its disposition is extremely fierce and it universally attacks man if it sees him. The usual method of escape adopted by the natives is to climb up a high dense tress, so as to avoid, if possible, being seen. If the animal misses his sight of the fugitive, he immediately gallops off to his haunt; from whence it may be inferred that he is not empowered with the power of keen scent. Should he, however, espy his object in the tree, woe to the unfortunate native, – he begins to butt with his horns, – strikes and penetrates the tree, and continues piercing it till it falls when his victim seldom

escapes being gored to death. Unless the tree is of a large girth, he never fails in breaking it down. Having killed his victim, he leaves him without devouring the *carcase* [spelling of original author]. The male is only provided with the horn. The female has not anything of the kind (Smith 1838: 42).”

The “charge of the rhino” became notorious until big game hunters laid the myth to rest. A passionate hunter, former US President Theodore Roosevelt declared that the supposed charge was little more than the curious wild animal moving closer to the strange human apparition on account of its poor eyesight (Hornaday [1922] 1979: 358). The black rhino is known for its aggressive nature, but there is certainly no evidence to suggest that rhinos regularly attacked caravans or hunting parties. Hunters such as Roosevelt¹⁸⁸ and the author Ernest Hemingway were nonetheless in awe of the rhino (Enright 2008: 72). In describing a chat with his son Kermit during a hunting safari, Roosevelt (1910: 206–208) may have unwittingly prophesized what lay ahead for the rhino:

“Look at him, “ said Kermit, “standing there in the middle of the African plain, deep in prehistoric thought.” Indeed the rhinoceros does seem like a survival from the elder world that has vanished; he was in place in the Pliocene; he would not have been out of place in the Miocene; but nowadays he can only exist at all in regions that have lagged behind, while the rest of the world, for good or for evil, has gone forward.”

Roosevelt’s remark points to the fascination of Western hunters with the rhino. The rhino assumes a symbolic value of an era long gone where the pre–historic creature had the upper hand and was not easily overcome. On a political level, Roosevelt’s association of the rhino with “regions that have lagged behind” is perhaps ironic and inadvertently points to the divergence between the conservation and development paradigms (which are often at loggerheads and will be discussed in more detail in the next chapter).

There were many similarities between the demise of Asian and African species of rhino during the 19th century.¹⁸⁹ As was the case on the Asian subcontinent, colonial hunters, settlers and

¹⁸⁸ In 1909, Roosevelt and his son Kermit embarked on a one-year expedition to collect specimens for the Smithsonian Institute. The glorified hunting safari started in British East Africa (modern Kenya) through to Belgian Congo (modern DRC Congo and Republic of Congo) and ended in Khartoum (Sudan). Roosevelt ‘collected’ more than 1,100 specimens (after shooting and killing them) including 20 rhino trophies (Anonymous writer for EyeWitness to History 1997).

¹⁸⁹ Details about rhino hunts undertaken by the Hamran Arabs of Sudan are not explored. Suffice to mention here that they perfected the art of hunting rhinos on horseback, killing them with swords. Hundreds of rhino horns were shipped out annually from Somali ports until the end of the 19th century when rhinos became rare and eventually extinct in those parts of Africa (Martin/Martin/Amin 1982: 36–41).

their indigenous collaborators had decimated rhinos across Africa by the 20th century. The notorious British colonial big-game hunter and military official Frederick Selous surmised:

“There can be no doubt that the black rhinoceros has become very scarce or even ceased to exist in many parts of British East Africa, where only ten years ago it was very plentiful, and the returns of those shot on sportsmen's or settlers' licenses do not altogether account for their disappearance (quoted in: Casada 1998: 179).”

Like in colonial India, the improved firepower and accuracy of hunting rifles allowed even amateurs to engage in sports-hunting and big-game hunting. The horns were sold to both European and Asian markets while both Africans and Europeans ate the meat (Martin/Martin/Amin 1982: 35). Table 4 (below) provides a bird's eye view of exports of several wildlife products from the port town of Durban in colonial Natal during the 19th century, including high volumes of rhino horn.

Table 4: Wildlife exports from the port of Durban, 1844-1904

Date	Rhino horns (numbers)	Buffalo hides (numbers)	Ivory (kg)	Date	Rhino horns (numbers)	Buffalo hides (numbers)	Ivory (kg)
1844		717	3 947	1875	(8 kg)	4 444	10 856
1845		995	8 895	1876	15	1 289	13 158
1846		1 615	9 543	1877	116		19 576
1847		669	8 402	1878	9		16 860
1848		18	13 311	1879	42		15 504
1849			14 972	1880	13		13 107
1850			22 464	1881	11		6 340
1851			16 578	1882	376		6 669
1852			14 320	1883	303		5 341
1853			11 655	1884	679		5 528
1854	636	163	29 151	1885	402		5 353
1855	712	134	26 490	1886	619		3 562
1856	623	250	26 446	1887	395		1 752
1857	544	616	31 466	1888	133		2 521
1858	982	671	53 419	1889			50
1859	642	91	30 534	1890			114
1860	1 267	n/a	33 457	1891			61
1861	1 263	70	34 297	1892			14
1862	1 161	27	45 861	1893			43
1863	1 019	73	83 058	1894			1 075
1864	201	n/a	57 147	1895			
1865	735	671	36 045	1896			
1866	282	172	13 047	1897			(£ 79)
1867	433	468	9 816	1898			
1868	348	584	13 479	1899			
1869	727	935	16 330	1900			0.5
1870	1 289	1 098	18 980	1901			
1871	2 470	1 206	21 280	1902			
1872	371	760	15 721	1903			
1873	310	1 154	22 184	1904			
1874	317	3 253	11 693	TOTAL	19 245	22 154	883 491

Source: extracted from: McCracken (2008: 27–28)

Durban was one of the several African harbours¹⁹⁰ that acted as nodal points connecting wildlife suppliers to northern markets. The major markets for rhino horn were India (which also served as a transshipment point for China and Southeast Asia) and Europe, specifically Germany and Great Britain (Martin/Martin/Amin 1982: 91). The massacre of African rhinos during colonial times was so dire that they became extinct in many of their traditional range states. In East Africa, black rhinos were considered vermin under game control acts, and open hunting season was declared in pursuit of land clearance (Msimang 2012: 19). There were limited conservation measures in place, the valuation of wildlife as a natural heritage worthwhile protecting was in its infancy and no common sense prevailed when it came to limiting hunting (Chapter 4 explains how excessive hunting eventually led to early conservation initiatives).

The aim of this sub-section was to show that hunting met much of the global demand for rhino horn in the colonial period. Rhino hunting constituted however not only a method of attaining rhino horn, hunters also started to value the act of rhino hunting, trophies and horn collectables. Rhino hunts and the resultant trophies were economically lucrative and denoted symbolic value, such as masculinity,¹⁹¹ triumph over nature and colonial empire building. Rhino trophy or sports hunting represented the high-end spectrum of the consumer market at the time.

3.5 The cultural legacy of the *jambiya* and its symbolic value in Yemen

The 1970s oil boom in the Middle East led to an enormous increase in per capita income in North Yemen, affording upward social mobility and disposable income to a new generation of Yemeni citizens. Leading up to the boom years, only a few Yemeni men of high social status could afford the elaboratively-carved *jambiya*, a traditional ceremonial dagger of which the

¹⁹⁰ Zanzibar, Mombasa, Mafia, Bagamoyo, Pemba and Dar es Salaam were major Indian Ocean harbours servicing both European and Asian markets throughout the colonial period. While undertaking research in the Zanzibar archives, Esmond Martin found that Zanzibari merchants imported several tons of rhino horn from the Tanzanian mainland annually during the 1800s (Martin/Martin/Amin 1982: 91).

¹⁹¹ While the huntress plays an important role in ancient myths, the rise of the female trophy hunter is a recent phenomenon.

hilt is carved out of rhino horn (see Figure 6). With its origins dating back several thousand years, the jambiya plays a crucial role in Yemeni culture. While there are no rhinos in North Yemen, rhino horn has been used in the Middle Eastern country for more than one thousand years (Varisco 1989a: 215). Historically, particular types of jambiyas and the way it was worn signalled a man's status in society. Those who could not claim tribal origins or were of low social status were not allowed to wear jambiyas (Martin/Vigne/Allan 1997: 2). After the revolution in 1962, jambiyas became less intertwined with declaring one's status. However, they remained a symbol of Yemeni identity, an expression of self-identification with the dominant tribal culture and the new emerging nationalism (Varisco 1989a: 216). Most adult men were wearing jambiyas for symbolic rather than functional purposes during the oil boom. The dagger signifies that a man is capable of defending himself and his tribe (which happens seldom), and plays a central role of the *bar'a* dance performed at important tribal and national events. It is also a symbol of honour and a man's word, which is surrendered during mediation of tribal disputes as a bond to signal acceptance of the mediator's decision (Varisco 1989a: 216).

The Yemeni port of Aden was a significant port of call for Arab traders involved in the trade of ivory and rhino horn from Africa to China and India. Rhino horn may have entered local Yemeni markets even before the Islamic period (Varisco 1989a: op cit). What is fascinating about the use of rhino horn in North Yemen is the observation that its high valuation is directly linked to the cultural significance of the jambiya and not to the animal it derives from (Varisco 1989a: 215). While the rhino has no significance to Yemenis, rhino horn was highly valued for its functional value as a superior hilt. Hilts made of rhino horn are more resistant to wear and tear than those made from other materials, such as cow or buffalo horn (Varisco 1989b: 46). Varisco (1989a: 216) explains the preference for rhino horn over other materials as follows:

“Rhino horn is the preferred material because it is said to improve with age and handling. There is also an aesthetic interest. After a few decades a rhino horn hilt becomes translucent, a transformation that takes not place with the other materials available to dagger makers. As it ages the hilt may also take on a yellowish hue resembling the highly prized amber used in Yemeni jewellery. In a mature hilt, after 60 – 100 years, individual hair lines may be discerned more distinctly.”

Unlike jambiyas made of other materials, the value of rhino horn daggers increases with age. Jambiyas that belonged to kings, tribal elders and political leaders are the most highly valued and famous daggers. Moreover, while all Yemeni men could afford to wear jambiyas after the oil boom, the best daggers were ornate and overlaid with gold and silver, signalling a man's high social status and wealth (Varisco 1989b: 46).

Figure 6: A traditional jambiya with hilt carved out of rhino horn



Source: Oriental Arms¹⁹²

Market exchanges involving rhino horn were legal until the late 1970s. Martin (1982: 92–93) found that rhino horn sold for 32 US \$ per kg at auctions in East Africa in 1969. By 1978, the world market price for rhino horn had increased to US \$ 300 per kg. The rhino horn trade expert argues convincingly that the price inflation was not only linked to the increased demand in Yemen but also to changes in the structure and composition of the world market (Martin/Martin/Amin 1982: 93). At the source (predominantly in Kenya at the time), Africans entered the trophies market and broke the monopoly of the Gujarati dealers, thereby introducing competition. Moreover, national authorities in several African range states sold their stockpiles of ivory and rhino horn at auctions. Protectionist policies were implemented,

¹⁹² The photo depicts a late 19th-century jambiya from Oman. The grip is carved out of rhino horn, mounted with filigree gold and silver mounts and adorned with silver nails on the front and pommel side. Image available at <http://oriental-arms.com/item.php?id=5248> (accessed 20 August 2015).

which disadvantaged Indian traders and displaced the monopolistic market structures. As the prices began to increase at the source in East Africa, buyers from Singapore, Macau, Hong Kong, Japan, Taiwan, South Korea and later North Yemen had to raise their offering, too (Martin/Martin/Amin 1982: 93).

According to official statistics, North Yemen imported an average of 2 878 kg of rhino horn each year between 1969 and 1977, amounting to an average production of approximately 8 750 rhino horn daggers per annum (Martin/Vigne/Allan 1997: 9). The wholesale price of rhino horn surged during the 1970s and 1980s in Yemen, reaching \$ 680 per kg in 1987. The Yemeni currency was declining at the time, rendering jambiya more expensive in real terms. Rhino horn imports started to drop due to the dual effects of decreasing rhino numbers in Africa and the expansion of East Asian interests in the horn trade. East Asians were able to offer double the price due to the strength of Asian currencies at the time (Martin/Vigne/Allan 1997: 17). As a result, a new rhino horn dagger cost at least \$ 1 500 whereas several high-end specimens were valued at several hundreds of thousands of Dollars in the 1980s (Varisco 1989a: op cit). Many daggers were locked away and safeguarded due to their growing investment value. The price of jambiyas continued to surge after the government banned the import, export and use of rhino horn in 1987. Up to this point, jambiya artisans collected and sold rhino horn shavings to the Chinese market (Varisco 1989b). After the Marxist government had been ousted in South Yemen in 1990, North and South Yemen became one country. The Marxist government in the South had previously banned its citizens from carrying weapons, including the jambiya. While the unification of the two nations did not lead to an increase in the demand for rhino horn daggers in the southern regions, the culture of wearing jambiyas in the northern parts of Yemen remains (Vigne/Martin 2008: 45). Rhino horn is still smuggled into the country but at much-reduced levels (Interviews, 2013 and 2014) as Yemeni buyers are unable to compete with the high prices offered on Asian markets. Varisco (1989a: 217) warned in the late 1980s that while the demand might be waning, a rhino horn dagger presented an investment opportunity in an economy with high inflation and few safe investments. Jambiyas have become generational heirlooms, passed on from father to son. The son of a sheikh, for example, inherited a jambiya which was valued at more than two million Dollars in 2009.¹⁹³

¹⁹³ Daniel Martin Varisco referred me to this press clipping, which was translated from Arab into English. Available at: <http://marebpress.net/mobile/articles.php?id=5305&lng=arabic> (accessed 12 July 2015)

Irrespective of whether rhino horn is processed into daggers or not, the investment value of rhino horn is a serious matter in light of dwindling rhino numbers and will be further discussed in the next and final section of this chapter.

3.7 Current rhino horn use, consumer profiles and product differentiation

A lengthy process of sacralisation has led to the valuation of rhino horn as a “sacred object with powerful detoxifying qualities” (Focus group with consumers, 2013). The valuation of rhino horn is thus closely intertwined with cultural beliefs that confer a range of functional and symbolic properties upon the coveted animal part. Its transcendental value has been transferred and reiterated via a global history of belief. While a minority of current consumers impute rhino horn with supernatural or mythical properties, key consumer groups have accepted and assimilated the sacred value of rhino horn. While the scarcity of rhinos has contributed to the high price of rhino horn, its historical use was associated with political, economic and military elites, as well as royals across the globe who could afford to pay the high price. In times of limited supply (see early sections), the price of rhino horn would surge to new heights, never recovering to its more affordable previous price. Similar to the market for ivory (see for example: Gao/Clark 2014; Lemieux/Clarke 2009; Harvey 2015), rhino horn is a differentiated product with a heterogeneous consumer profile. The following section provides an overview of findings gathered during fieldwork in southern Africa and southeastern Asia, as well as insights synthesized from scholarly and policy literatures. A functional typology is presented with the proviso that some consumers may use rhino horn for several purposes at the same time, or horn use may change over time, for example: rhino horn may be gifted to a person who then uses ground up rhino horn for health reasons.

3.7.1 Rhino horn as an investment and money laundering tool

Both legal and criminal actors are using rhino horn as an investment tool. The earlier section on the use of rhino horn in Yemeni jambiyas referred to the investment value of rhino horn daggers. Investment ventures into rhino horn daggers or *objets d’art* made from rhino horn

(such as libation cups) present one end of the investment scale of rhino horn. Rhino horn daggers are often family heirlooms, passed on from father to son. This processed form of rhino horn only re-enters circulation once the dagger is either stolen or legally sold. Similar to Arab investors buying jambiyas as growing assets, Asian business entrepreneurs are likewise picking up *objets d'art* such as the often-ornately carved libation cups (see Figure 5), vases or other artistic creations. Karl Amman and his team (2015b) identified factories in Hanoi that were producing religious artefacts and symbols such as prayer bangles, bracelets and Buddha beads. Sales of these religious objects were targeted at visiting Chinese tourists.

While some buyers are legitimate art collectors and lovers, others are driven by less cultural and more economic principles. The mathematics is simple: As the live rhino numbers grow fewer, the investment value of rhino horn and horn products grows markedly. Since the 2008 global financial meltdown, stock market or conventional financial investments have become a less desirable investment option. Rhino horn is deemed a safe investment option in times of financial uncertainty: Whereas share prices may drop, the value of rhino horn is believed to be increasing and foolproof from financial market crashes. According to an Asian wildlife trafficking intermediary (Interview, 2013): "It's like paying with a credit card." Says a smuggler (Interview with intermediary 2, 2013):

"The auctions are only in Asia and at these auctions, some of them buy the horns and take them into the house and put them on a mantelpiece and then they make it very very secure and then leave it there. And then he knows that's the money that I have got here."

Some of these transactions occur in the legal realm at world-renowned auction houses with the correct paperwork and required CITES permits. However, other transactions involve fraudulent activities such as the processing of freshly harvested rhino horn into "pre-Convention" libation cups using innovative aging techniques (the section on fake rhino horn provides more detail). A police investigator explains (Interview, 2013):

"If you look at the economics of Vietnam, they were very poor. So when the Vietnamese came to South Africa, and you can see how it started escalating in 2002, 2003, they were buying up rhino horn cheaply. So similar to what was happening in the USA and Australia and within Europe, rhino horn started to sell on auctions as pre-

convention rhino horn, as libation cups or they change it into libation cups. With that you also have seen the Big 5 hunters in the USA, they started to sell off their trophies. And who's the buyers of the trophies? In Operation Crash, that they did this last year, you started seeing them buying up the trophies and they went to Vietnam. But only the horn. In South Africa, a similar process started happening. The people that had started trading in rhino horn approached these markets and said: 'I want to make more money.' So all these guys that had access to the Vietnamese started to buy all these rhino horns from the private stockpiles.”¹⁹⁴

The police investigator also touches on the diversion of legal rhino hunting trophies into the illegal market. Essentially, the legitimate owners channel their legally acquired and certified rhino horns – the horns minus the rest of the trophy – into illegal market flows. This form of laundering involves a conversion from a symbolic valuation of rhino horn to an economic valuation, driven by profit-seeking behaviour. Whereas the rhino trophy may have been valued as a memento of a hunting safari in the past (see earlier section on hunting tales), rhino horns are transformed into investment tools, of which the re-sell value is likely to exceed the cost of the original trophy hunt.

In other instances, rhino horn remains undifferentiated (unprocessed) in bank vaults, strong rooms or safe locations at the source in rhino range states or the horn is transferred to similar 'safe' locations elsewhere (predominantly in Asia). While current streams of literature refer to the “Asian market” as the main consumer group of rhino horn, rhino horn investors come from different cultural and national backgrounds. South African law enforcers believe that rogue wildlife professionals (rhino horn “producers”) present a portion of this consumer group (Interviews, 2013). Upon “harvesting” rhino horn (dehorning) rhinos, wildlife professionals (including private rhino owners) and their local buyers store the unprocessed horn in a safe location.¹⁹⁵ While private rhino owners are allowed to retain rhino horn when in possession of the required paperwork – the so-called Threatened or Protected Species (TOPS)

¹⁹⁴ The U.S. Fish and Wildlife Service is leading an on-going investigation entitled “Operation Crash”, which tackles illegal trafficking of rhino horn in the United States. Several antique dealers and illegal horn buyers have been arrested (U.S. Fish and Wildlife Service 2014). The South African investigator refers to hunting trophies getting exported to Vietnam; however, many horns also went to China.

¹⁹⁵ Because rhino horn is a natural material, weevils, mites and decomposition may affect stockpiles. Zimbabwe's 5-tonne stockpile of rhino horn has reportedly been affected by weevil damage (Eyewitness News 2014). Arsenic, diesel and other chemicals are used to preserve rhino horn (Interviews with park authorities and private rhino owners, 2013).

regulations, which are discussed later – they are not allowed to sell or trade in rhino horn and they are required to register their stockpiles.¹⁹⁶ As will be shown in later chapters of this dissertation, wildlife actors have devised innovative strategies to bypass regulations and prohibitions. A wildlife veterinarian confirmed the practice (Interview, 2013): “If you have rhino horn, you put it somewhere safe, it’s a growing asset.” These private-owned unregistered rhino horns are either kept in a safe location (which comes with a high risk)¹⁹⁷ or laundered into illegal market flows at intervals. Noteworthy of this type of use is that it is non-consumptive; in other words, rhino horn can be repurposed for other uses further down the line and re-enter flows (circulation).

Criminal networks are using rhino horn and other wildlife contraband as a form of criminal currency or an instrument to launder ill-gotten fortunes. The dwindling live rhino numbers and the possible extinction of the species form part of the economic valuation of rhino horn for such criminal networks whom themselves are actively contributing to the demise of the rhino. Such actors are speculating on the possible extinction of rhinos.¹⁹⁸ An Asian intermediary explains the investment horizon as follows:

“When you buy rhino horn, you put it in the safe. After ten years, you take out the same horn, you going to have a big investment. It is different from money. If you buy R 500 000 of rhino horn, then after ten years it is worth R1 million. You put the same money into the bank and maybe it’s going to be worth R600 000 after ten years.”

Rhino horn is also used as a currency in criminal business transactions: illegal hunters, for example, use rhino horn to buy hunting rifles and weapons.

¹⁹⁶ National governments of rhino range states, as well as zoo and safari parks across the world, are also stockpiling rhino horn albeit legally. These actors have multiple reasons for maintaining national stockpiles, ranging from maintaining a genetic database to keeping their options open for the possibility of a regulated legal trade in rhino horn in the future.

¹⁹⁷ Thefts and armed robberies have occurred at several private and public stockpiles in South Africa. In one incident, 66 rhino horns were stolen a few days before nature conservation officials were due to register the horns.

¹⁹⁸ Two independent informants in South Africa claimed that Asian nationals had approached them to find out whether they would be in a position to locate and kill all remaining rhinos in South Africa. While the supposed hit appears far-fetched, interviews with criminal actors reiterated the investment value of rhino horn.

3.7.2 Rhino horn as a status symbol

The earlier section on jambiyas made reference to the largely symbolic use of rhino horn daggers to denote social strata and wealth in Yemeni society. Milliken and Shaw (2012) note a similar pattern in Vietnam and China, where economic affluence and upward social mobility have led to an increased demand for rhino horn products over the past decade. Rhino horn is used in the treatment of cancer (discussed below), as a general health tonic, as a hangover cure and status symbol. The latter three uses are frequently intertwined as wealthy individuals show off their status and wealth by consuming rhino horn as a health tonic and hangover cure. Consumption of rhino horn in this instance is linked to ‘face consumption’.¹⁹⁹ This type of consumption holds significant cultural value to certain strata of Asian society, which engage in acts of conspicuous consumption in order “to enhance, maintain or save face” (Milliken/Shaw 2012: 135). According to a study on the consumption of wild animal products in Vietnam (Drury 2011: 247), the popularity of such products is linked to their function as a medium “to communicate prestige and obtain social leverage.” Drury (2011: 254) alludes to the challenge community members of collective societies may face in not conforming to social norms. The fear of losing face holds sway in Asian societies, where personal preferences may fall second to those of the group. This observation is important with regards to the notion of contested illegality, the earlier mentioned strategy employed to legitimize illegal economic activities. Enforcing new rules or regulations that contradict well-established social norms and practices are likely to achieve limited success (this is discussed in more detail in the concluding section of this chapter).

Consumers interviewed during fieldwork in Vietnam and Hong Kong confirmed these observations and the status-elevating properties of rhino horn. Several informants (Interviews, 2013) related how rhino horn featured at exclusive private parties and in executive clubs. The rhino horn owner (existing research suggests that wealthy old men are the main consumers, women feature however in the party context, too) supplies shots of “rhino wine”, “rhino alcohol” or “drink of the millionaires”—a cocktail of ground up rhino horn

¹⁹⁹ The “loss of face” refers to getting embarrassed in front of one’s friends and peers. According to a research informant in Hong Kong (Interview 1, 2013): “If you lose face once, it is difficult to get it back unless someone grants you face - a chance to regain your honour.” In keeping up with the Joneses, people have to “fight for face”.

and rice wine or distilled spirits (see Figure 7). While several newspaper articles suggest that hedonistic consumers snort rhino horn up their noses (much like cocaine), data collection at the source and interviews with law enforcement agents failed to verify these claims. However, rhino horn is used in conjunction with alcohol and other illicit drugs.

Figure 7: Rhino alcohol



Source: Photo taken by researcher in Hanoi, Vietnam

The mixing of rhino horn with alcohol goes against the basic instructions of TCM doctors who warn patients never to mix rhino horn with alcohol or saline solutions as it undermines the efficacy of the medicine (Interviews with TCM doctors, Hanoi and Ho Chi Minh City, 2013). Despite the warning, the unorthodox application of rhino horn as a detoxification tonic and after-party cleanser appears to be the most popular use of rhino horn in Vietnam (Interview with TRAFFIC officer, Hanoi, 2015). This echoes partially with findings of the TRAFFIC study (Milliken/Shaw 2012), which identified habitual middle-aged users who frequently drink 'rhino wine' to counter the effects of excessive drinking. In the aftermath of the initial TRAFFIC study, WWF engaged the services of a Vietnam-based marketing company to assess

consumer preferences in rhino horn consumption in the two major cities of Hanoi and Ho Chi Minh City in Vietnam. Based on a sample of 600 people, the study found that highly-educated wealthy people were the main buyers and users of rhino horn for health and status reasons. The study also identified 'intenders', who currently lacked the financial means to afford rhino horn but who were intending to buy it once they had disposable income (Ipsos Marketing 2013). A subsequent study found (PSI/Vietnam 2015: 7):

“Perceived health benefits, including body detoxification and/or hangover management, were the most common reason for recent rhino horn use. High-income urban men are more likely to use rhino horn if they believe it can achieve short-term health improvements, increase socioeconomic status, or strengthen professional relationships.”

An interesting sidebar is the use of rhino horn as a gift, which may be offered to political and economic elites, or business associates. Due to its sacred value within Asian communities, a gift of rhino horn reflects that the gift-giver holds the recipient in high esteem. The gift thus fulfils the function of 'showing face', and is interpreted as a token of respect and admiration. While no direct reciprocity is expected, a gift of horn “may open many doors.” As economic and political elites tend to fall into the age category of middle-aged to old, the gifting of rhino horn signals the giver's wish for the recipient to enjoy a long, healthy and prosperous life (Interviews, 2013). Rhino horn also serves as a catalyst to facilitate deals between African and Asian business people. The rare body part is used to leverage discounts or maintain preferential business relationships. Its function is qualitatively different from providing an altruistic gift in that it plays a facilitative role in economic exchanges based on an expectation of reciprocity. Says an intermediary (Interview, 2013):

“The Chinese are business – minded people, so to attract you they always come with gifts. So, me, when I used to go there, they used to tell me they are going to give me a huge discount, but I must give them rhino horn. I must bring them zebra skins, also tiger skins. 'If you have it, tell me and I will tell my agent in Africa to bring it this side'. So they are using it as a gift. In their country, it is something that they value. Each and every one has his own purpose in taking the rhino horn because they giving it a second value.”

This section focused on the use of rhino horn as a status symbol. While the status-elevating

qualities constitute the ‘primary’ use, secondary uses may entail health, entertainment, detoxification/hangover cure and gifting. A final observation relates to another consumer group in a different cultural and geographical context: When a rhino trophy is mounted on a wall or displayed in showrooms at hunting conventions, it arguably also serves the purpose of a status symbol. A hunting trophy signals that the owner is an accomplished trophy hunter who has managed to bag one of Africa’s Big Five.

3.7.3 Rhino horn as medicine

The use of rhino horn in Traditional Chinese Medicine has been described at length in the earlier sections of this chapter. The imputed alexipharmic and antipyretic properties of rhino horn by way of a global history of cultural belief have contributed to its sacred value in Asian communities. The use of rhino horn as medicine is frequently linked to other types of use. For example, producers of rhino artefacts sell shavings of rhino horn to the TCM market. The issue of fake rhino horn is particularly widespread in this segment of the rhino horn value chain as processed (ground up) powder is usually sold to TCM consumers, who have little recourse to quality control when presented with an unidentifiable powdered substance (discussed in detail in Chapter 8 on fake horn).

Whereas TCM doctors used to prescribe rhino horn for the purposes of lowering fever and inflammation (it is a “body cooler”), detoxification and stabilization of the central nervous system (Đỗ Tất Lợi 1962), the healing repertoire has been extended to include treatment of cancer, stroke and impotence. The application of rhino horn to treat this host of ‘new’ diseases stands at loggerheads with medical masterworks such as Professor Đỗ Tất Lợi’s *The medicinal plants and herbs of Vietnam*’ or the Li Shizhen’s *Compendium of Materia Medica*. In a written statement to the CITES Standing Committee, the president of the American College of Traditional Chinese Medicine (ACTCM) and President of the Council of Colleges of Acupuncture and Oriental Medicine (CCAOM), Lixin Huang (2011: 2) declared:

“According to TCM theories, rhino horns were used to treat typhoid fever, convulsions, macula, carbuncle and other disorders, which was the traditional use over thousands

of years. However, some individuals and organizations with little understanding of the essence and modern development of TCM misinterpret and exaggerate the medicinal properties of rhino horns. Such misinterpretation shows little respect for the TCM profession and medical practices, and is harmful to rhino conservation efforts...[...]... While this increase [of rhino poaching] may be in part attributable to traditional medicine, the overwhelming demand derives from a non-traditional and unproven use – as a cure for cancer. There is no evidence that rhino horn is an effective cure for cancer and this is not documented in TCM nor is it approved by the clinical research in traditional Chinese medicine.”

Curiously, the use of rhino horn as an aphrodisiac was a Western myth until fairly recent, and there had been no empirical or medical basis in the ancient scriptures for such claims. Since the late 2000s, the claim that rhino horn “renders men virile” has however been used as a marketing tool aimed at the high-end segment of the consumer market (Interview with enforcement official, 2013). The aphrodisiac use is closely linked to middle-aged and older men’s appreciation of rhino horn as a status symbol. A consumer in Hanoi (Interview, 2013) explained that the ascribed aphrodisiac qualities derived from the animal’s lengthy period of copulation and the phallic features of rhino horn.

Several rhino horn consumers were interviewed who were using rhino horn for the treatment of various forms of cancer. These cancer patients consumed rhino horn preparations (mixed with other TCM ingredients) in conjunction with evidence-based cancer treatments. The daughter of a Stage 3 cancer patient, for example, bought rhino horn regularly (from a wildlife crimes police investigator) to counteract the debilitating effects of chemotherapy her dad was experiencing (Interview with consumer 5, 2013). Research reports (such as the much-cited TRAFFIC report: Milliken/Shaw 2012) refer to the ‘cancer cure myth’, which is seen as the catalyst for the surge in the demand for rhino horn in Vietnam. It is difficult to assess whether a high-level politician’s recovery from cancer after using rhino horn is a sufficient explanation for the increased demand for rhino horn in Vietnam during the 2000s. Structural explanations such as the massive growth of wealthy entrepreneurs with disposable income, the sacral valuation, the high price and linked investment value of rhino horn seem to be the main drivers of demand in Asia. However, dissecting the ‘cancer cure myth’ sheds a light regarding the implicit disconnect between legal rules, social norms and cultural practices when it comes to the consumption of endangered wildlife products.

Several TCM doctors and cancer patients (Interviews, 2013) made reference to the miraculous recovery from prostate cancer of a former Vietnamese president after consuming rhino horn. When the former president fell ill, he sought medical attention in Singapore in 2004 (Winnick 2007; Aggler 2008).²⁰⁰ He reportedly used rhino horn in conjunction with modern cancer treatments (Interview with an oncologist, 2013). It remains unclear whether state-of-the-art cancer treatments or rhino horn led to remission at the time.²⁰¹ Without the president's confirmation or denial, it is also uncertain whether he indeed used rhino horn. Irrespective of the president's circumstances, many cancer patients use a combination of modern and traditional methods. According to one doctor (Interview, Hanoi, 2013):

“For those with cancer, or even for the patient with very advanced stage of the cancer, besides western method, they want to get some traditional medicine to treat themselves and in fact this one is very common in Vietnam. In my experiences there are many, many cancer patients that is on western medicines and they use herbal medicine, they use traditional medicine to treat themselves. We understand, we know this. But at the moment there are no evidence to confirm that traditional or something like this in Vietnam can cure the cancer and can cure the patients. For example, after chemotherapy or after radiation therapy, they go to the traditional medicine hospital and they get medication over there, traditional medicine over there. In principle, you know, traditional medicine is ok, because according to our traditional medicine and some medication like this can help. For example, improving the immune system or make the patient eat better or fuel appetite, but actually at the moment we do not have any study to analyse the benefit of traditional medicine to the cancer patient who have got western medicine. At the moment, we don't have any evaluation about this. But very common after treatment here the patient go to the traditional medicine hospital for further treatment, for supplementary treatment over there. I know this.”

The reliance on alternative strategies regarding the treatment of cancer is not something exceptional or specific to the Vietnamese case. Cancer patients from around the world use traditional and alternative treatments against cancer. One doctor provided an insightful assessment of how the cancer cure 'myth' may have spread (Interview with oncologist, Ho Chi Minh City, 2013):

²⁰⁰ A confidential cable leaked via Wikileaks (Aggler 2008) suggested that President Nguyen Minh Triet's prostate cancer reappeared in 2008, leading to US concerns that the economic reformer and anti-corruption leader would step down. The disease had gone into remission by the time he was initially selected as the country's president in 2006. He served a full five-year term, only stepping down in 2011.

²⁰¹ See also Ham Hoai Nhan (2013)

“You know, many patients for example here, after radiation treatment and even after chemotherapy, the tumour or the melanoma will disappear, thirty percent, eighty percent, but at the time of discharge there will still remain a small tumour here, very small, smaller than before. But the tumour remains on site, something like this. And then the patient goes to the traditional medicine hospital for their supplementary treatment from the traditional medicine and after a couple of months, three months later, the tumour disappears completely, and many patients believe that in this case western medicine does not work very well, because at the end of the treatment the tumour is still on site. But when they get traditional medicine the tumour disappears completely. They strongly believe that traditional medicine could make healthy, could kill the tumour, you know, in the thinking, in the mind of many, many cancer patients think like this. But actually, basically, and we understand, in this case the benefit comes from western medicine because you know, after radiation and chemotherapy the tumour cell will be cured but not immediately at the same time.”

Political elites are revered and respected in Vietnam. The suggestion that the president was healed through the consumption of rhino horn may well have led to the dissemination of the ‘cancer cure myth’. The same oncologist related how the majority of his patients were seeking rhino horn TCM as a secondary treatment, often falling victim to fraudsters (see the chapter on fake rhino horn). Beyond the narrative about the former president’s recovery from cancer, research informants spoke about the link between rhino horn and political elites. One informant provided interesting insight into those links (Interview, Vietnam, 2013):

“You know, buying or selling rhino is illegal in Vietnam, but actually there are some very VIP who got cancer and they also want to buy rhino, or even for the Communist Party. I think they have rhino. These rhinos will be used for VIP, when they got a disease or something like this. Yeah, they have live rhinos. And if somebody gets a disease for example, diabetics or cancer, they want to use rhino horn and they will get approval from the Communist Party and they can use rhino. But it’s not official. In principle according to Vietnamese law, rhino is illegal.”

The link of rhino horn consumption to political elites has direct implications regarding legality and legitimacy, and the proffered notion of ‘contested illegality’. If political elites who are responsible for the enactment and enforcement of illegality are complicit themselves in the trade and consumption of rhino horn, then the ban overtly loses social and political legitimacy. If political leaders fail to lead by example, can we expect others to follow the

rules? A researcher for a Hanoi-based NGO explains (Interview, 2013): “For people in Vietnam, illegality is of little relevance as there is little control. Everything in Vietnam is a negotiating process.” The heterogeneous composition of rhino horn TCM users and the massive amount of fake rhino horn medicines in circulation render it difficult to assess the size of the market. Consumers come from different socio-economic strata. Especially when it comes to the dreaded disease of cancer, family members are willing to spend their last Vietnamese Dong in order to lengthen the lives of their loved ones. Interestingly, TCM consumers pay between \$25 000 to \$45 000 per kilogram of rhino horn (Interviews with consumers and traders, 2013) whereas other consumer groups pay a higher price ranging from \$ 65 000 to \$ 100 000 per kg (Interviews with consumers and traders, 2013; feedback from Karl Amman, 2015).

3.8 Concluding remarks: Sacred value and contested illegality

Cultural beliefs led to the sacralization of rhino horn in Asian communities; however, the rhino itself is not imbued with sacred value. The valuation of rhino horn in consumer markets tends to trump conservation and anti-poaching initiatives in places geographically far removed from the market. The sanctity of ancient beliefs and socially accepted norms not only supersedes rhino conservation initiatives but also international trade bans and domestic rules. The history of the cultural use of rhino horn was discussed in this chapter with the objective of highlighting the difficulties associated with attempts to reverse social norms that are supported by cultural beliefs. While few consumers uphold the quasi-mythical valuation of rhino horn as a miracle cure for a bouquet of ailments, its transcendental and sacred value remains, and explains, in addition to the increasing rarity of the species, the high price of rhino horn. The valuation of rhino horn as an investment tool and status symbol by actors outside Asia also reifies its high price. Moreover, the complicity of the elite (e.g. political elites and the police) in the illegal trade, distribution and consumption undermine the credibility of the comparably new trade ban. In collective societies where the elite holds considerable sway, members of society are likely to emulate the behaviour of heroes, business elites and respected leaders. With regards to resolving the coordination problem of value (an essential condition for markets to emerge), it is evident that rhino horn is highly valued and coveted in consumer markets. The valuation of rhino horn as a sacred good provides consumers with an

exit from possible societal sanctions that usually obtain from breaking the law. Not only is the consumption of rhino horn socially legitimate and culturally accepted but important role-models supply and consume rhino horn too. Consumers are crucial actors needed to guarantee the continuity of illegal rhino horn flows. In this instance, consumers do not accept the trade ban and legitimize illegal economic activities in reference to ancient cultural beliefs and socially accepted practices thus reiterating the notion of contested illegality. This chapter also shows the interface between legality and illegality where legal and illegal uses are hard to distinguish, and both criminal actors and upstanding citizens of society partake in illegal market processes. Critical to the analysis is the recognition that trophy hunters and art collectors likewise constitute important consumer groups. The current uses of rhino horn are not 'new uses' but lean on ancient practices including the use of rhino horn as status symbols, *objets d'art* and gifting, as well as for health and medicinal purposes. The inclusion of rhino horn as a cancer cure and aphrodisiac is a clever marketing ploy intended to grow the market.

Chapter 4: Rhino protection: Parks, private land and conservation paradigms

“In the African version of wildlife conservation history, the experience has been that game reserves are white inventions which elevate wildlife above humanity and which have served as instruments of dispossession and subjugation. No Africans became partners in the conservationist enterprise: either their presence was suffered as squatters or ‘courageous and loyal native rangers’, or they were cast in the role of ‘evil, cruel poachers’ who were able to stave off wage labour by living off the land (Carruthers 1995: 101).”

4.1 Introduction

The aim of the previous chapter was to provide a history of the demand for rhino horn, its valuation as a sacred good in Asian markets and current consumption patterns. While climate change and human expansion impact the chances of rhino survival in the wild, the rapacious demand for rhino horn may lead to the pachyderm’s extinction in the near future. Although non-lethal methods of dehorning exist, illegal hunters kill and dehorn rhinos in order to get to the highly-coveted rhino horn. Conservators and regulators have devised conservation measures to protect the rhino and disrupt illegal flows of rhino horn. This chapter starts with reasons why the millennial generation may want to continue with rhino protection in spite of myriad challenges affecting conservation objectives. It then continues with an assessment of protective and conservation regimes, including colonial conservation regulations, the proclamation of game reserves and national parks, the conservation of rhinos on private land, as well as the creation of transfrontier parks. Arguably, the establishment and expansion of conservation areas have led to structural conditions that facilitate rather than fight rhino poaching. It will be argued that the underpinning conservation paradigms have led to a situation of historical lock-in, which impedes harmonious relationships between communities living in or close to conservation areas and wildlife. In fact, relationships tend to be conceptualized in terms of human-wildlife conflict – a largely antagonistic relationship. The privatization and commodification of rhinos have further entrenched conflict-laden social relations between regulators, local African people and the predominantly white landowners.

4.2 Why should rhinos be protected?

A variety of actors attributes rhinos with intrinsic and/or instrumental value. The former relates to the contention that the wild animal has a value in its own right (an end in itself) while the latter relates to the functional use of rhinos (means to an end). While a discussion of animal ethics is beyond the remit of this dissertation, it suffices to mention that the instrumental value of rhinos is likely to be of greater interest to regulators. The instrumental value appeals to regulators, who tend to respond to the vagaries of cost and benefit calculations when considering new regulations aimed at disrupting illegal markets. Justus and colleagues (2009: 187) define entities as instrumentally valuable “to the extent they are or will be considered valuable by valuers, such as humans and perhaps other cognitive complex organisms”. One of the instrumental values of rhinos is that within its immediate environment the rhino has some important functions: The white rhino provides “grazing lawns” for smaller herbivores (its wide mouth and lips have lawnmower-like qualities) and all rhino species (including the 3 Asian sub-species) assist in spreading the seeds and seedlings of many plants (Africa Geographic 2012a). A recent academic paper suggests that the rhino, like the elephant or wolf, might be a keystone species (Cromsigt/te Beest 2014). A South African conservator explains the significance of keystone species as follows (Interview with Conservator 5, 2013):

“The rhino is a keystone species, and we are custodians of our biodiversity. We are inextricably linked. If the honeybee goes, we are gone as a species. So we use the rhino as a symbol of the bigger picture.”

In the context of the Kruger National Park, the rhino may have an impact on the structure and composition of the savannah grasslands (Cromsigt/te Beest 2014). Its demise may thus affect the chances for survival of other species of fauna and flora. Cromsigt and te Beest (2014: 566) found:

“[O]ur results highlight that the current rhino poaching crisis may not only affect the species, but also threaten the potential key role of this mega herbivore as a driver of savannah functioning.”

If the rhino were to go extinct in its home range, its disappearance would not only have an emotional impact on rhino admirers but is also likely to affect the local ecosystem and

biodiversity.

The previous chapter gave an overview of the global system of belief leading to the sacral valuation of rhinos and rhino horns. While the animal rights movement focuses on the intrinsic value of animals, cultural beliefs in southern Africa likewise appreciate the animal per se as a cultural and spiritual sentient being, worthy of reverence and protection (see section on the San and Shona tribes in southern Africa in Chapter 3). Jones (1999: 298) provides an example:

“Like many Westerners from developed countries, many rural Africans value wildlife for its existence and wish their children and grandchildren to be able to enjoy seeing wild animals.”

The rhino belongs to a group of animal species identified as charismatic megafauna. Animals like the elephant or rhino invoke empathy, personification and anthropomorphism amongst people. Such sentiments may lead to material assistance and donations for conservation initiatives. Moreover, the rhino is one of the main tourist attractions in game parks. While trophy hunting is the subject of normative and moral contestation in modern narratives, for the sake of completeness, the role of the rhino in Big Five trophy hunting safaris is also acknowledged. In fact, one objective of early protection regimes was the conservation of wildlife for the purposes of sports hunting, a past time reserved for the upper strata of colonial society in southern Africa. The remainder of the chapter touches on the specific motivations of why actors choose to protect the rhino.

4.3 Colonial conservation measures in South Africa

After Jan van Riebeeck and the Dutch East India Company arrived at the Cape of Good Hope in 1652, the lives and fortunes of indigenous²⁰² and local people and wild animals changed forever. In the process of colonization, Africans lost property and hunting rights, and systemic exploitation was instituted first by colonial rulers, and subsequently reinforced during the

²⁰² The term “indigenous” people is used to depict First Nations people in southern Africa (the San people – compare with Chapter 3) whereas “local” people refer to other African communities, who settled in southern Africa.

apartheid regime. The scales tipped towards overexploitation of the still abundant wildlife shortly after the European colonizers arrived. The first colonial administrator Jan van Riebeeck decreed the first poaching law a mere five years after landing at the Cape. He declared wild animals as *res nullius*. According to this legal principle, whoever captured or killed a wild animal, owned it (Couzens 2003: 4). The early colonial settlers survived through hunting, which served the purpose of land clearance, income generation and provision of meat to avoid slaughtering the settlers' livestock. Settlers often employed the services of local people on whose hunting skills they came to rely (Beinart 2003: 31; Carruthers 1993: 6).

In 1822, Lord Charles Somerset passed the first piece of British colonial legislation that dealt with the protection of wildlife.²⁰³ Of particular significance was the delineation of who was allowed to hunt and who was proscribed from doing so. One of the proclamations declared specifically: “[I]t is found that many idle and disorderly persons, of inferior classes of life, who ought to be dependent upon their industry, waste and misspend their time destroying game (quoted in: Couzens 2003: 66).” Mimicking British anti-poaching laws, the colonial rulers asserted hunting rights for the British ruling classes. These rights affected not only the African communities but also the Afrikaners who commenced the *Great Trek* to escape British rule and founded the Boer republics during the 19th century. Upon settling in the Transvaal,²⁰⁴ the *Voortrekker* community depended on “indiscriminate hunting”. Local Africans and the Afrikaners collaborated in killing, trading and clearing of wildlife until it became a rare resource (Carruthers 1993: 12).

In 1846, the first piece of conservation legislation was passed in the Transvaal. The law was ostensibly designed to prevent wastage; in other words, hunters were asked to “kill only what they needed” – the amount remained undefined – (Couzens 2003: 66). Towards the end of the 19th century, as the herds of wildlife had been severely diminished, the Afrikaners excluded indigenous populations from the hunting of free-ranging wildlife by way of

²⁰³ Somerset proclaimed, amongst others, a “close season” of 5 months (no hunting was allowed during those five months; the hippopotamus, elephant and bontebok were declared royal game (a special hunting permit was required); a license was required for hunting and slaves were not permitted to hunt (Couzens 2003: 66).

²⁰⁴ The Transvaal was one of the two Boer republics (the other was the Orange Free State), which were both integrated into the Union of South Africa in 1910. In post-apartheid South Africa, vast swathes of the Transvaal province form part of the Gauteng province.

conservation regulations. As the white Afrikaners started to assert land and farming rights, hunting and land rights became intertwined.²⁰⁵ Wildlife had the legal status of *res nullius*; hence, private landowners strictly enforced trespassing regulations to halt Africans and poor whites from hunting on their land (Carruthers 1993: 13). Enclosure and boundary demarcation of land further disowned local people. The Fencing Acts of 1883 and 1910 afforded landowners another layer of protection and control over the land and its productive capacity. These laws led to the further disempowerment of African people, forever changing the social relations of rural dwellers. In particular, the 1887 Squatters Law and the Native Land Act of 1913²⁰⁶ laid the foundations of apartheid segregation and birthed new legal designations of trespass, poaching and squatting (Meskell 2012: 16–17). While one might think that these conservation regulations sought to protect wildlife, in reality, they can only be understood in the context of colonial exploitation of African people.

Despite the restricted access to firearms, hunting dogs, as well as the withdrawal of hunting and landownership rights, African people received the blame for the annihilation of wildlife in the Transvaal. With historical hindsight, a confluence of destructive forces such as agricultural transformation, modernization and industrialization seem to have played their role while the hunting by the landowners was equally devastating on wildlife numbers (Carruthers 1993: 13). Another significant aim of the early hunting laws was the creation of an indigenous workforce that was reliant on income from wages for their livelihoods. Many Africans had maintained their economic independence from European settlers by hunting and trading wildlife and carrying on with their pastoralist and agricultural life-styles. Through the hunting ban and

²⁰⁵ Land ownership and hunting rights became contested issues with the arrival of the colonial settlers. Local communities such as the Tsongas living in the northeastern parts of the country (in the modern Kruger National Park and Limpopo Province) had a different perception of private ownership of property. Chiefs allocated land to any person wanting to live in the chiefdom, subject to that person abiding by the rules of the tribe. People were free to choose where to reside, but they had to ask for permission from the chief when they wanted to move to another chiefdom. According to this understanding, the land was never private property; however, membership of the tribe ensured access to land and land use rights (Nefale 2002: 19). People could not be evicted from their place of residence unless they had committed a serious offence or violated a rule set by the Chief or his headmen (Nefale 2002: 12). This notion of communal landownership stood in stark contrast to the colonial approach that promoted land appropriation and private ownership rights. In some cases, chiefs had made land 'voluntarily' available to the white settlers; they had, of course, their conception of land ownership in mind. Meanwhile, the new colonial landowners were at liberty to evict people of their land with the full backing of the law (Nefale 2002: 12).

²⁰⁶ Africans were prohibited from buying or leasing property outside areas demarcated as African reserves.

other colonial measures, the colonial ‘masters’ had created a workforce consisting of individuals who were no longer self-sufficient and depended on income from working in mines and other industrial endeavours (Carruthers 1993: 13).

While the early wildlife protection measures served the colonial objectives, later measures were driven by the desire to preserve wildlife for sports hunting. At the turn of the 19th century, game reserves were designed to provide “free from all human interference, a sanctuary in which certain species of wildlife could prosper” (Carruthers 1993: 13). The early game reserves of Transvaal, for example, were to be located on land considered barren, disease-ridden and worthless to mining interests. Eventually these “state game farming enterprises” were to be opened to sportsmen, who would pay the state for hunting privileges (Carruthers 1993: 14). While the land devoted to game reserves was uninteresting to other industries, national and provincial parks were established on sought-after real estate. These parks entail “the utilization of an area through active management for the benefit of the ecosystem and visitors”. Thus, game reserves and national parks had different aims and legal foundations. While game reserves could be established and abolished by proclamation, national parks were legally secure and economically viable (Carruthers 1993: 13). Indigenous and local African property and hunting rights, and ancestral burial grounds (which are significant cultural sites) were not considered when reserves and parks were proclaimed.²⁰⁷

A well-known example relates to the Kruger National Park, which was a game reserve before it became the signature national park of South Africa. The first Warden of the Sabi Game Reserve was of the belief that people and game reserves were a lethal combination. Influenced by his European heritage, James Stevenson-Hamilton had Africans evicted from the land located in the modern KNP. His actions earned him the name Skukuza (he who sweeps clean)²⁰⁸ among the local Shangaan community (Carruthers 1995: 92). In official narratives, the first warden was lauded for “saving” the African “wilderness”. African historical narratives were silenced in the process of creating these parks and reserves (Meskell 2012:

²⁰⁷ More than half of the area of the Kruger National Park is subject to land claims by local claimants in post-apartheid South Africa.

²⁰⁸ Skukuza is the name of the main administrative rest-camp in the present-day Kruger National Park.

63). Oral histories of the Shangaan people and archaeological sites document that several thousand indigenous people were living in the area of the modern KNP more than 2000 years before the European settlers arrived. These tribes were scattered in numerous settlements. There were no boundaries with Mozambique, Swaziland or Zimbabwe and people moved freely amongst chiefdoms unless there was strife (Meskell 2012; Nefale 2002).

As the reserves were extended in size, the colonial authorities soon realized that the vast game reserves could not be run like “a medieval European deer preserve” (Carruthers 1993: 14). They required African labour and funding to run the reserves. Consequently, the policy was reversed, and so-called black ‘tenants’ had to pay rent through labour or cash (Carruthers 1993: 14). In exchange for an obligatory period of three months of labour, tenants were allowed to conduct agricultural and pastoralist activities provided these did not contravene conservation regulations. White game rangers had the task of overseeing the labourers, thereby asserting another layer of control (Carruthers 1993: 15). After the establishment of the Union of South Africa,²⁰⁹ the policy on game reserves was revisited. The land was needed for African and white agricultural expansion, and to satisfy the growing demands for mining explorations and industrial development. Before the proclamation of the KNP in 1926, a large area along the modern western boundary of the KNP was excised from the Sabi Game Reserve and declared an ‘African reserve’.²¹⁰ The last forceful removal from the KNP involved the Makuleke people who had been living between the Levhubu and Limpopo rivers in the Pafuri area. Their communal land was incorporated into the KNP in 1969 (Carruthers 1995: 99) and became subject to a successful land claim in post-apartheid South Africa.

Whether banished from the reserves and parks or living on its peripheries, Africans contested the creation of these conservation entities and associated measures. Poaching of wildlife became a means of expressing their unhappiness as much as it became a necessity to prevent death from starvation after severe droughts and bouts of *Rinderpest* (Carruthers 1995: 93). Interestingly, the history of cross-border poaching expeditions launched from Mozambique can be traced back to the early days of the 20th century:

²⁰⁹ In 1910, the four colonies were amalgamated into the Union of South Africa under British dominion.

²¹⁰ Due to their proximity to the western boundary of the Kruger National Park, Acornhoek, and many other villages and townships have become the springboard from where modern poaching expeditions are launched.

“Poaching parties from Mozambique were large, well organized and accompanied by many dogs. They also had firearms, unlike Transvaal Africans who were not permitted to bear arms, and the African staff of the game reserve, carrying only assegais, was powerless against them (Carruthers 1995: 93).”

From the 1930s onwards the dominant policy of national parks and reserves was to preserve the “wilderness” without human habitation. Underpinning this endeavour was the mythical ideal of untamed wild Africa based on fictions of *terra nullius* (empty lands) prior to the European colonial arrivals. Essentially the combined notions of *terra nullius* and *res nullius* (wildlife could not be owned) created an oppositional binary of nature versus (African) culture. Colonial regulators stamped local people and their cultural heritage as intrusive and destructive and opted to preserve what was left of ‘wild Africa’ without indigenous influences (Meskell 2012: 117). To suit the ideal of an untouched, pristine wilderness, millennia of African history were wiped clear (Meskell 2012: 18). A case in point is the neglect of archaeological records (especially in Kruger National Park) that show that these so-called ‘wilderness’ areas had been inhabited by African mining and trading communities (Cock/Fig 2000: 133; Meskell 2012). In the process of fencing in “fortress reserves”, an irreconcilable distance was created between nature and (African) culture. As Meskell (2012: 18–19) observes:

“The monolithic desire to save wildlife, regardless of the harm that effort might cause living communities, has led conservationists to idealize national parks as the ultimate moral good while eschewing the immorality of destroying human lifeways (...) Connections to historic or ancestral sites and ongoing traditions are attenuated and cultural and natural heritages remain oppositional.”

Africans were moved to rural areas on the periphery of parks, which were overcrowded and devoid of opportunities for social mobility. With the advent of the formalized system of apartheid in 1948, African people experienced “double exclusion” from national parks. They were denied visitor’s access to the parks and systematically excluded from the governance of parks (Cock/Fig 2000: 132).²¹¹ Parks such as the KNP came to represent another mechanism of

²¹¹ Until the 1980s black visitors to the Kruger National Park could only overnight at the rudimentarily equipped Balule tented camp. Economic deprivation through apartheid restricted access further as few Africans had access to cars and dispensable income to afford vacations (Cock/Fig 2000: 132).

apartheid rule. The apartheid regime actively promoted the view that Afrikaners had set up national parks and the black population came to perceive parks as “manifestations of apartheid”. The terrible irony between Africans having to move to so-called homelands while animals were protected on their former land is striking. The governing board of the KNP did little to elevate the situation, instead minutes of meetings reflect that Africans were labelled as “cannibals”, “bloodthirsty barbarians” and “poachers undoubtedly the most bloodthirsty, cruellest and most ruthless of the earth’s inhabitants” (cited by: Carruthers 1995: 100). In addition, the KNP also served as a springboard for military operations of the apartheid regime, including the training of South African Defence Force (SADF) soldiers, the covert supply of military support and supplies to Resistência Nacional Moçambicana (RENAMO) in Mozambique and the launch of a chemical weapons attack against Frente de Libertação de Moçambique (FRELIMO), also in Mozambique (Cock/Fig 2000: 132). Moreover, both the KNP and Ndumo Game Reserve were considered strategic buffer zones preventing the entry of undocumented migrants and guerrilla fighters. Two military units were based in the KNP: One dealt with the protection of wildlife, the other with the detection and arrest of undocumented migrants from Mozambique (MacKenzie 1998). The apartheid regime used so-called conservation areas thus not only for conservation but also for military purposes. Perhaps not surprising, many of the former apartheid military counter-insurgency operatives have found a new home in anti-poaching units in the new South Africa, creating further distance between local black communities and conservation.

The early history of nature conservation in South Africa is thus deeply intertwined with the colonial project and the systematic exploitation of African people, leading to land expropriation, the loss of hunting rights and forced local people into exploitative labour relationships with colonial settlers. The connection of conservation, parks and wild animals with structural violence experienced by local people renders wildlife conservation a highly contentious issue, which requires more than a tacit acknowledgment that wrongs were committed. The following sections highlight how consecutive and parallel conservation regimes followed a similar pathway, further alienating and side-lining local people.

4.4 Private rhinos: The commodification and privatization of the rhino

This section provides a brief background to the emergence of private ownership of rhinos and the wildlife ranching industry in South Africa, Zimbabwe and Namibia²¹² in the 1960s. Wildlife numbers had been greatly decimated outside designated conservation areas in South Africa by the 1950s. Farmers perceived wild animals²¹³ as vermin, and they appeared to pose a significant threat to domestic livestock by competing for water and grazing while supposedly carrying deadly diseases. The underlying mantra of “you can’t farm in a zoo” led to the conversion of large tracts of semi-arid savannah into agricultural land during the 1800s and early 1900s. Individual as well as public land use decisions were largely motivated by short-term economic planning and led to a preference for land use practices that yielded tradable, consumable and profitable commodities (Krug 2001: 5). The apparent advantages of these conventional forms of agricultural production were further reinforced by generous state subsidies provided to white landowners in South Africa and Namibia (which was administered

²¹² Namibia is the second largest rhino range state in Africa. As of 31 December 2012, the African Rhino Specialist Group recorded 2 274 rhinos, of which 524 were southern white rhinos and 1 750 were black rhinos (CITES Secretariat 2013). While I was conducting fieldwork in 2012 and 2013, only isolated poaching incidents had occurred in Namibia since the late 1980s. A total of 6 (known) rhinos were poached between 2006 and 2012. In light of the poaching crisis happening in neighbouring South Africa, the question arose why Namibia was being spared from rhino poaching. Experts surmised that this was linked to rhinos being scattered across dry, arid and far-flung regions of Namibia, the existence of a successful community conservancy programme and lack of support infrastructure for criminal networks. Unfortunately, the status quo has changed: In 2014, 24 black rhinos were poached, and a consignment of 14 rhino horns was intercepted. A further 81 rhinos were poached in the arid country in 2015. Namibia gained its independence from South Africa in 1990. Since gaining independence, the Namibian government developed new conservation institutions and laws. These new initiatives include the famous programme of community conservancies, for which reformed poachers are recruited as rhino guardians. The community conservancy programme incorporates community beneficiation and close cooperation with chiefs, headmen/women and neighbouring farmers. Namibian conservators developed the novel and somewhat contested method of dehorning rhinos as a conservation method in the 1980s. In light of the poaching incidents during 2014, the Namibian government announced its plan to dehorn all rhinos in national parks and private conservancies during 2015 (Njini 13 October 2014). Interviews with rogue wildlife professionals and convicted poachers in South Africa indicated that illegal hunting and dehorning was also taking place in Namibia, involving both Namibian and South African wildlife professionals (Interviews, 2013).

²¹³ A legal and semantic difference applies to the terms ‘wild animals’, ‘wildlife’ and ‘game’. The terms are often used interchangeably without regard to the nuanced meanings. The term ‘wildlife’ is used for indigenous animals while ‘game’ is used for animals that are hunted for amusement or in a ‘fair chase’ (Carruthers 2008: 162). According to South African common law, wild animals (*ferae bestiae*) are: “[T]hose animals that exist in a wild state anywhere in the world. These animals are wild by nature and include not only those animals that are savage by nature but also those of a more wild and timid nature and cannot be classified as domestic animals” (LAWSA 2014b). ‘Ordinary game’ and ‘protected wild animals’ are sub-categories of ‘wild animals’, which affects property rights and liability for their behaviour (LAWSA 2014a).

by South Africa) after the ascendancy of the National Party to power and the rise of the apartheid regime in the late 1940s (compare with Table 5).

Table 5: The changing political ecology of wildlife

Phase	Economic and political events	Wildlife conservation and utilization
Pre-industrial economy	Low human populations	<ul style="list-style-type: none"> • Use limited by ability or costs of harvesting • Institutions aimed at sharing spoils of the hunt
Frontier economy	Industrial revolution European colonial expansion	<ul style="list-style-type: none"> • Costs of harvesting greatly reduced by technology • Technology and globalization increase market access • Few rules or norms to control use
Wildlife is nationalized	Agricultural expansion after World War II Urbanization of Western society	<ul style="list-style-type: none"> • Control of wildlife centralized in the state • Commercial use greatly restricted
Sustainable use approach	Land reform in postcolonial societies Emergence of transfrontier conservation areas	<ul style="list-style-type: none"> • Use of wildlife devolved to landholders (and later, communities) • Commercial uses encouraged

Source: adapted from Child (2012: 2)

Commencing in the 1960s, a number of parallel processes resulted in what some have termed “a conservation revolution in South Africa” (Bothma/Rooyen/Rooyen 2004: 840). The development of wildlife ranching contributed to the commodification and privatization of wildlife in general, and the rhino in specific; further entrenching property rights of the white elite while depriving black communities of the same. The parallel processes include scientific, environmental, institutional, legal and broader socio-political and structural processes, which led to public officials, corporations and private individuals recognizing the economic value of wild animals through consumptive and non-consumptive forms of wildlife ranching. Essentially these processes created a formal and legal market for live rhinos and rhino products on the supply side while also producing a growing pool of disenfranchised black rural communities with limited means to generate income. Rhinos (and other wild animals) did not only assist in filling depleted state coffers through the sale of live animals to conservation organizations and private investors, but they also presented a lucrative return on investments as immediate profit-generating assets to economic elites (Interview with wildlife professional, 2013). In pre-Convention times, the legal market in rhino horn involved the trade of live rhinos, rhino horns and the hunting of rhinos for sports trophies. As will be shown in later sections, the early years provided the foundations for certain criminal activities to flourish and for gray channels to develop into fully-fledged illegal supply chains.

The institutional recognition of wildlife ranching as a legitimate agricultural activity required both the national government and provincial public servants to overcome bureaucratic inertia and path dependency, which also affected the apartheid bureaucracy. Bureaucrats in the national Ministry of Agriculture had rigid ideas as to what constituted “agriculture” and as a result, there was limited support for the inclusion of wildlife ranching as a viable land use option in the 1960s. Moreover, the Department of Veterinary Affairs considered wild animals as a threat to domestic animals due to the potential for transmission of diseases. Scientific interest in game ranching had emerged in the former Rhodesia (Zimbabwe) and elsewhere in Africa in the late 1950s and early 1960s. Possibly inspired through the diffusion of regional and international trends, the then Transvaal Directorate of Nature Conservation²¹⁴ took the lead and commissioned several scientific studies to research the viability and sustainability of game ranching on private land in the early 1960s. Without going into the finer details of the various studies,²¹⁵ scientists commented on the unsuitability of high-intensity farming practices on marginal farmland. While game ranching was neither touted as the silver bullet to future food production in Africa, the sustainability of the agricultural sector nor as a wildlife conservation approach, it was perceived to offer viable alternatives to failing farming enterprises (Carruthers 2008: 168). There was mounting scientific agreement that “killing wildlife commercially was ecologically acceptable (even desirable)” (ibid). The practice of culling and selling wildlife was already being implemented in South African national parks such as the KNP, where wildlife managers assessed and determined the “carrying capacity” of the ecosystem, and “excess” numbers were cropped to achieve “acceptable” numbers of wildlife (Carruthers 2008: 168). On a regional level, many conservators were moving from the preservationist conservation paradigm to the sustainable use paradigm, which proffered the new mantra of ‘use it or lose it’ (Child 2012: 2) or in modern South African parlance ‘if it pays it stays’ (Interviews, 2013). Technological innovations such as aerial censuses to count wildlife

²¹⁴ From 1910 to 1994, the South African province of Transvaal was located north of the Vaal River and its capital was Pretoria. After the first democratic elections in 1994, the country was divided into nine 9 provinces, and the Transvaal province ceased to exist.

²¹⁵ Scientists, for example, pointed to the suitability of wild animals (especially ungulates) to grow in great numbers on arid and semi-arid land, which otherwise lay barren or had become ecologically and financially unprofitable, or where livestock had been affected by deadly diseases such as the highly contagious herbivore disease *Rinderpest* or by the Tsetse fly (carrier of the sleeping sickness). Wild animals were immune to many diseases afflicting domestic livestock while also well-suited for providing animal protein for the growing population numbers in South Africa (Carruthers 2008: 167–168).

by fixed-wing aircraft or helicopters and the development of sedative darting technologies and opioid tranquilizers, as well as game capture and translocations methods further assisted the advancement of wildlife management, which evolved in conjunction with biological and ecological studies into a fully-fledged field of scientific inquiry, conservation approach and industry (Carruthers 2008: 168). Central to understanding what the privatization and commodification of wildlife meant to local communities is an appreciation of the resultant marginalization and criminalization of these communities, which the following sections highlight.

4.4.1 Private ownership rights

The institutional turn eventually happened in the 1970s when both the agricultural and nature conservation bureaucracies began to appreciate the profitability of the sector. However, the issue of propriety had to be resolved first. It was already mentioned above that wild animals are considered *res nullius* under South African common law, meaning that nobody owns them.²¹⁶ Until the 1960s, two conditions had to be met for ownership of a *res nullius* to be recognized: “[T]he occupier must take control of the object (*occupatio*), with the intention of becoming the owner (*animus possidendi*).” (Glazewski 2000: op cit).²¹⁷ The principle of *res nullius* had provided the backbone of expropriation of indigenously owned land and wildlife during colonial times. As an indirect beneficiary²¹⁸ of the sale of licenses for the hunting of wild animals (van Hoven 2015: 272), the state had little incentive to convert wild animals into private property at first.

²¹⁶ Wild animals fall into the category of *res intra commercium* (objects that can be owned) as opposed to things incapable of private ownership, which is connected to the principle of *res extra commercium* (such as the sea and seashore) (Glazewski 2000: 426).

²¹⁷ Because wild animals tend to roam or migrate freely across the land, it proved difficult to determine the extent of physical control necessary to establish legal ownership of wild animals. Another question related to the specific point at which an established owner of a wild animal loses ownership should it escape or stray (Glazewski 2000: 427).

²¹⁸ Provincial authorities handle hunting permits.

However, while the principle of *res nullius* applied to wild animals, private landowners showed limited interest in preserving wildlife with no tangible economic benefits accruing other than the intrinsic, aesthetic and symbolic value of wildlife. Ironically, the legal principle that had served indigenous expropriation and white appropriation of land and wildlife during the colonial period failed to protect sufficiently the interests of the emerging game ranching industry. As a result, there were about ten privately-owned game ranches in South Africa by the 1960s (Bothma/Suich/Spenceley 2012: 147) while wildlife was almost exclusively conserved on state-owned land. It is particularly noteworthy that it was the state that provided the impetus to stimulate privatization of conservation. At the time conservation agencies pursued the ambitious conservation objective of reinstating species that had gone locally extinct, to their historical range by way of newly developed translocation methods. The range expansion project extended beyond public parks and conservation areas. Especially the former Natal Parks Board (now Ezemvelo KZN Wildlife) subsidized the procurement of wild animals by providing them free of charge or below market value to private individuals in the 1960s and 1970s (discussed in more detail later in this chapter). This would not only provide species teetering on the brink of extinction with a fighting chance at survival and recovery, but it would also increase the total area available to conservation and create buffer zones adjacent to state-owned conservation land (Interviews with conservators 10 & 11, 2013). The Transvaal Directorate of Nature Conservation again took up a leadership role by introducing the 'certificate of adequate enclosure' in 1968, which was subsequently rolled out to the other provinces. This certificate exempted landowners from regulations applicable to hunting seasons and bag limits, meaning that wild animals thus could be hunted all year round. Landowners were invited to apply for the certificate if they could demonstrate adequate game-proof fencing (Reilly 2014).²¹⁹ Upon provision of proof of adequate enclosure, game ranchers could also apply for government subsidies in times of drought or other natural disasters (van Hoven 2015: 106). In essence, game farmers were granted ownership of wildlife and the right to derive income from consumptive utilization, such as the killing of wild animals for profit (Lindsey/Roulet/Romañach 2007: 463). Beyond fencing in wild animals and claiming ownership rights both over land and wild animals, this move further cemented the

²¹⁹ A multi-strand nine-foot fence designed to keep wild animals inside the game ranch constituted the minimum standard of adequate enclosure (Reilly 2014).

alienation and deprivation of rural, local communities from access to land and resources. Once these property and ownership rights had been asserted, subsistence hunting on game farms was inevitably branded as poaching and accessing private land for the purposes of seeking grazing, water or medicinal plants was deemed as the criminal offence of 'trespassing'. The apartheid regime employed this category of crime to prevent black South Africans from moving around freely in demarcated "whites-only" areas, which included parks, private land and towns. Moreover, the physical demarcation between land for wild animals and human beings entrenched notions of fortress conservation (seemingly at loggerheads with sustainable use approach professed by game farmers), which stress the incompatibility of humans and wild animals living in harmony. According to this paradigm, wild animals and humans should be kept apart as to minimize human-wildlife conflict. Dangerous wild animals were to be contained within game fences, which effectively demarcated 'no-go areas' for local communities. If a farmer were to find an unknown black person 'trespassing' on the land, there was the danger of getting shot on sight (Interviews, 2013). The waiver of the *res nullius* principle entrenched by the new regulation also strengthened the relationship between the apartheid state and the white farming community, one of its main powerbases and further contributed to social re-ordering and engineering of rural apartheid South Africa.

Game ranching derives income from consumptive (hunting and meat production) and non-consumptive use of wildlife (eco-tourism and sale of live animals at auctions). In the aftermath of severe droughts, the outbreak of *Rinderpest* and the linked decline of the price of meat in the 1960s, as well as the changing property rights, livestock farmers started to migrate to game ranching or 'mixed' farming. The cultural significance of hunting amongst Afrikaners²²⁰ further assisted the conversion from traditional farming methods to game ranching. The commercial trophy hunting industry took off in the 1960s as hunters started to pay to stalk wild animals (Scriven/Eloff 2003: 246). The new brand of game ranchers soon realized the economic value of carrying trophy animals on their land. High-value species such as elephants, lions, buffalos and leopards (together with the rhino, these five species are

²²⁰ Du Toit (2011: 11) explains the cultural significance of hunting as follows: "The culture of the Boer is to hunt and from there are the well-known words, "Die Boer en sy Roer" (The farmer and his rifle (*sic*)). Hunting for food can never be classified as a sport since this constitutes a cultural action rather than a sport."

known by the hunting marketing brand 'Big Five') can be hunted across southern Africa.²²¹ Hunting of black and white rhinos is, however, only permitted with the required paperwork in Namibia and South Africa (Lindsey/Roulet/Romañach 2007: 457). Since then trophy hunting has become a major income generator on game ranches (see Table 6).²²² After the end of the apartheid regime, the industry experienced a major growth spurt,²²³ which is partially linked to the lifting of the economic sanctions by the international community and the depreciating value of the South African currency over the past decade. Moreover, white farmers regarded game reserves as secure investments that might be spared from land claims²²⁴ and labour unrest (Interviews with journalist 1, 2013; rhino owner 3, 2013). In 2013, hunting tourists spent an estimated 1.072 billion South African Rand (approximately 80 million €) on 7 638 hunts (Professional Hunters' Association of South Africa 9 December 2014). Trophy hunting proponents assert that the profit margins of trophy hunting outperform other types of wildlife use (Bothma/Suich/Spenceley 2012: 154); however, such claims have been questioned (see for example: Joubert 2015). While the hunting fraternity makes claims to beneficiation of rural communities living near hunting reserves through the provision of jobs and meat (Interview with professional hunting representative, 2013), there is little evidence of equitable income distribution. In addition, as will be discussed in Chapter 6, some of the (mostly illegal) hunting profits never reach South African shores. This lack of equitable income distribution is linked, amongst others, to the lack of wildlife legislation enforcing community involvement, communal ownership of wildlife or skills transfer allowing communities to run their own hunting operations or negotiate fair terms with operators and hunting outfits (Lindsey 2008: 45).

²²¹ Trophy hunting is banned in Botswana and Swaziland.

²²² Despite the growth and influence of the animal rights movement and the anti-hunting lobby in the northern hemisphere, there was little debate about the ethics of hunting in South Africa in the early years of the game ranching industry. This shortcoming may be linked to the country's pariah status and isolation from the international community while the apartheid regime was in power, as well as the cultural importance attached to hunting (which is not specific to the Afrikaner people only).

²²³ Many international trophy hunters were unperturbed by the politics of the apartheid regime and had already moved their business south once Kenya, the former top hunting safari destination banned all hunting to save its wildlife from extinction in 1977.

²²⁴ The issue of land restitution to its former owners (who had been disowned during colonial and apartheid times) is a contested issue and provides for on-going conflicts in post-apartheid South Africa. According to interviews with white farmers, investing in game reserves was deemed preferable over traditional agricultural ventures because local people "would not want to farm or live amongst wild animals". Moreover, wild animals (the main assets beyond the land itself) could be moved or sold (Interview with rhino owner 7, 2013).

Moreover, where community beneficiation is affected, conflicts have arisen over who is in charge of equitable income distribution to members or who negotiates on behalf of the community (see also: Kahler/Gore 2012). The local political elite in the form of traditional leaders or chiefs tends to act as negotiators between outside parties and the community in rural southern Africa, and “if you are on the wrong side of the chief, then you will see no money or benefits” (Focus group with community members, 2013).

Table 6: Annual income of the South African wildlife industry in 2011

Sector	Value (ZAR)	Value (€)	Percentage
Recreational hunting industry	3,100,000,000	283,300,000	66
Translocation (capture)	750,000,000	68,542,600	16
Trophy hunting industry	510,000,000	46,609,000	11
Taxidermy	200,000,000	18,278,000	4
Live animal sales (auctions)	94,000,000	8,590,670	2
Meat production	42,000,000	3,838,390	1
Total	4,696,000,000	429,168,000	100

Source: adapted from du Toit/van Schalkwyk (2011: 11)

Wildlife had been imbued with monetary value or commodified in Marxian terms, and by 1987, the Department of Agricultural Development recognized game ranching as a fully-fledged agricultural activity. So-called ‘shareblocking’ legislation (the 1988 amendment to the Share Block Control Act of 1980) allowed for the joint acquisition of agricultural land for the purposes of converting it into private conservation areas. A group of people could buy blocks of shares in a company that effectively owned all movable and immovable assets on a piece of agricultural land (Hearne/McKenzie 2000: 427). This led to new opportunities for city dwellers to own their own piece of land ‘out in the bush’ and more business people became ‘weekend farmers’. So-called ‘cheque booking farming’ involved wealthy executives “shielding taxable income from bonuses and share options by investing in farms” (Lester 2014). This move also strengthened the conservation-business nexus in as far as game farms became increasingly managed as businesses. As will be shown in later chapters of this dissertation, the smart partnership between some rogue wildlife professionals and business entrepreneurs led to the establishment of front companies and legitimate companies, through which trophies could be

exported abroad. While conservation objectives were a drawing card for many game farmers, the business of game farming had to be profitable to be sustainable and to interest potential investors.

The limits of the common law position that wild animals could not be owned remained unsatisfactory to investors, especially since the wildlife and hunting industries had grown tremendously since the 1970s. White rhinos, for example, were selling for an average price of R 34 713 (about 7000 German Mark at the time) at game auctions in 1989. Unless game (rhino) ownership became legally protected, wild animals in general and rhinos in specific posed a financial liability to owners (South African Law Commission 1990: 5) and thus the state intervened again. The South African Law Commission tackled the issue in 1989. Its recommendations led to the Game Theft Act 105 of 1991 (Glazewski 2000: 428), which still applies today. The objective of the Act is to protect the landowner's rights of ownership of game when the game escapes or is lured away from the landowner's "sufficiently enclosed" land (Glazewski 2000: *ibid*). It is rather curious that the corollary does not apply to wild animals that cross from national parks to private, communal or provincial reserves in South Africa. Upon leaving the confines of national parks, wild animals revert to the status of *res nullius*, and not *res publicae* (resources owned by the state) or *res communis* (resources owned in common). The categories of *res publicae* (wild animals in US national parks are categorized as *res publicae*) and *res communis* place restrictions on the rule of capture and reserve certain proprietary rights to the state or community rather than to individuals (Wodarski 2014). While South African biodiversity and conservation legislation protects ownership rights of the private commercial game ranching industry, it fails to deal with the acquisition, retention and loss of wild animals that occur or escape from public wildlife conservation areas and national parks (Hopkinson/van Staden/Ridl 2008: 484). This omission has led to heated debates amongst opposing camps in the trophy hunting debate,²²⁵ especially since some national parks have dropped their boundary fences with privately-owned game reserves that allow trophy hunting. Wild animals deriving from public parks

²²⁵ The morality of sports or trophy hunting is subject to many normative, moral and ethical debates, ranging from contested issues pertaining to the killing of animals for pleasure, trophies or sport, and extending through to broader existential discussions on whether animals as sentient beings should enjoy the same inalienable rights as human beings.

might thus be hunted for profit on private land (see Box 1). Some conservators consider the state's dropping of fences as an incentive for private operators to carry on with their private conservation endeavours²²⁶ while also increasing the total surface area available to conservation (Interviews 2013). There have been instances where hunting operators have "removed" game fences between national parks and adjacent game reserves by throwing battery acid on boundary fences (Interview with conservator 13, 2013; investigative journalist 1, 2012; investigative journalist 3, 2013; own observation at boundary fences). The acid speeds up corrosion allowing big animals such as rhinos or elephants to break through the fence and migrate to the other side of the game fence. There have also been occasions where hunting operators lured wild animals (e.g. lions) from national parks by hanging bait on boundary fences. While private ownership rights of wild animals are protected on private land, the same ownership privileges do not accrue to the public (state). Trespassing and hunting are forbidden in national parks; however, the state has no recourse to claiming ownership over wild animals that have escaped from its conservation areas. The strange disconnect between the hunting ban in national parks and commercial trophy hunting on adjacent private land is discussed in Box 1 below. Suffice to mention here that these muddled hunting and property rights have led to confusion and unhappiness amongst local communities. Whereas members of their communities are branded as "poachers" when hunting on private or public land, wealthy hunters are allowed to hunt wild animals against a price tag on private land where the provenance of such wild animals is not clear.

²²⁶ Wild animals are thus considered a 'gift' or incentive to carry on conserving the same.

Box 1: White hunter versus black poacher?

The Associated Private Nature Reserves (APNR) is an association of privately owned game reserves bordering on the Kruger National Park. South Africa's national parks authority SANParks agreed to drop Kruger's western boundary fences with adjacent private game reserves in 1993, which adds approximately 200 000 hectares of conservation area to the so-called Greater Kruger National Park. The dropped fences allow for the free movement of wild animals in the enlarged conservation area while also creating a buffer zone between the national park, private conservancies and surrounding land. The hunting of wild animals is not allowed in national parks such as the KNP whereas the internal constitutions of individual private game reserves determine what forms of sustainable use are permissible in their conservation areas. The APNR allows commercial hunting within its protected area. Hunting permits are allocated through a consultative process, which involves the KNP and the Limpopo Department of Economic Development, Environment and Tourism (LEDET) (AfricaHunting.com 2010). David Mabunda, the former chief executive of SANParks, declared that the parks authority was not opposed to hunting in buffer areas provided "it is done transparently and according to the management plan and protocols agreed to between adjoining landowners and SANParks" (Kruger National Park 2009). According to animal rights activists (Interviews, 2013), the incompatible animal use philosophies of national parks and game reserves constitute a potential conflict of interest as "natural heritage is sold for profit to trophy hunters with limited benefit to the state or community". According to Animal Rights Africa (2009: 22), "[r]hinoceroses living in the Kruger National Park are moving across unfenced boundaries on the Park's western border into the Associated Private Nature Reserves (APNR) and on the Park's [E]astern border into Mozambique where they can be privately sold to foreign trophy hunters for exorbitant sums." Two APNR members were amongst the first private operators to obtain white rhinos from the Natal Parks Board in the 1960s and 1970s (Buijs 1987: 1–2). Unlike many other private recipients of white rhinos (see later in this chapter), these two operators could account for the fate of their white rhinos, which included trophy hunting of rhino bulls (Buijs 1987: 29). While there is only anecdotal evidence that 'Kruger' rhinos may have been hunted in game reserves adjacent to the KNP (their provenance is difficult to establish as white rhinos across South Africa are descended from the same genetic pool in KwaZulu–Natal), trophy hunting of rhinos continues to constitute a form of revenue to some APNR reserves (see for example: Borchert 27 February 2013). This muddled state of affairs raises questions of why trophy hunters should be allowed to (potentially) hunt Kruger rhinos legally with limited direct benefits accruing to state coffers while rhino poaching is an on-going concern in the KNP. Moreover, this points to a very fine line between 'legal' trophy hunting and 'illegal' poaching and the polar dichotomy of 'black poacher' versus 'white hunter' (for an excellent analysis of this dichotomy and the associated master narrative see also: Steinhart 2006). Essentially, the law sanctions the former in exchange for money while the latter commits a criminal act and hence is penalized by the law. According to a professional hunter (Interview with professional hunter 1, 2013), hunting and poaching differ in three significant points. A hunter is highly skilled, strives to achieve a one-shot kill (a so-called heart-lung shot) and the motivation for the hunt is different to that of a poacher. As will be shown in Chapter 7, this distinction may be academic; in practice, the significant difference (as per those noted by the professional hunter) relates to the motivation of the hunter versus that of the poacher. Many so-called poachers are equally highly-skilled aiming for a one-shot kill as not attract the attention of rangers and other security personnel. The distinction thus relates to how the two are legally defined.

4.4.2 Large-scale conversion to game ranching in the 1990s

Some structural changes further influenced the conversion of agricultural land into game ranches in the 1990s. Commercial farmers had been one of the social bases of the National Party's rise to power in 1948. The apartheid government ran the agricultural sector through control boards and cooperatives; commercial farmers were supported through subsidies, grants, transport concessions, favourable credit facilities, marketing boards and cheap labour (South African History Online 2014).²²⁷ Over the course of the 1980s, there was a gradual weakening of the political and economic power of commercial farmers within the political economy of South Africa, climaxing with the removal of the National Party from power after the first democratic elections held in 1994 (Greenberg 2013: 1).

In the post-apartheid era, commercial farmers were faced with multi-layered challenges, including amongst others, the continued deregulation of the agricultural sector (in line with the World Trade Organization's (WTO) policy on trade liberalization); the loss of political leverage (the farming lobby held about one-third of the parliamentary seats during the height of the apartheid regime); the introduction of new labour legislation in post-apartheid South Africa (introducing minimum wages for farm workers); the impact of HIV/Aids and malaria on the productivity of farm labourers; stock theft, livestock diseases, bush encroachment and climate change, as well as land claims for illegal land appropriation during the colonial and apartheid regimes (Absa 2003: 1–8; Carruthers 2008). The conversion to game ranching was appealing: not only had the monetary value of wild animals increased dramatically but game ranching is less dependent on unskilled labour (Smith/Wilson 2002: 11) and favourable weather conditions while ostensibly pursuing the lofty goal of achieving a 'sustainable living planet' through growing wildlife numbers (Absa 2003: 8). Moreover, game ranches were seen as an investment safe from land claims after 1994. The government had undertaken to preserve public and private conservation areas as to ensure that the total area available for conservation would not decrease (Interview with game farmers 8 & 9, 2015).

²²⁷ The apartheid regime introduced a dual farming system in rural areas, commercial farming by white farmers and communal farming in African reserves. Agricultural production was supposedly based on "pre-colonial forms" of farming in the reserves, "meant to perpetuate the myth of the continuity of rural life while in reality denying African the means to sustain themselves off the land" (South African History Online 2014).

The confluence of these processes has led to healthy growth of game farms and reserves: In the early 1960s, there were approximately 500,000 wild animals in the whole of South Africa (van Hoven 2015: 104), including an estimated 840 white rhinos (Collins, Alan/Fraser, Gavin/Snowball, Jen 2013: 2).²²⁸ By 2015, there were 11 600 registered game farms in South Africa holding some 21 million hectares of land (van Hoven 2015: 101) and between 16 to 20 million wild animals (Reilly 2014). Meanwhile, the total size of private rhino reserves in South Africa stretches over an area of about two million hectares incorporating about 380 separate properties, similar in size to the Kruger National Park (KNP). By December 2014, 27 % (or about 5000 animals) of the national population of white rhinos and 20 % (or 450 animals) of black rhinos were protected on private land in South Africa.

Beyond the need for the provision of support services and goods (such as game-proof fencing, off-street vehicles and ranching infrastructure), wildlife ranching led to the creation of new semi-skilled and skilled job categories such as wildlife veterinarians, game managers and consultants, and to the growth of the taxidermy, game capture and translocation industries, as well as supplementary feed manufacturers and suppliers (du Toit/van Schalkwyk 2011; van Hoven 2015: 102). The claim that the wildlife ranching employs three times more staff than livestock farms (Dry 2011; Langholz/Kerley 2006) deserves critical examination. While some game reserves and farms continued to employ farm workers and their extended families (who had been living, working and farming on the land), the services of trackers, guides, drivers, cleaning and catering staff were needed on game farms (Hearne/McKenzie 2000: 426). Instead of re-skilling or providing training courses to resident farm workers, labour was often sought in nearby cities and town (Helliker 2013: 17). The conversion of farmland to game ranches thus affected hundreds of black farm workers and dwellers,²²⁹ whose services were no longer required on game ranches. Similar to what played out upon the promulgation of national parks and game reserves, many black farmworkers were either paid off, retrenched

²²⁸ There are conflicting number estimates. Wildlife counts were less reliable in the absence of modern census technologies now available to wildlife professionals. The choice was made to go with the numbers supplied by the Natal Parks Board and Dr Ian Player, who were working intimately with rhinos at the time.

²²⁹ The displacement of black farmers was part of the colonial project in South Africa. As white settlers appropriated land, hut taxes were imposed, and economic pressure increased, many people living on farms became farm workers, or they entered into contractual arrangements with white farmers to retain access to land (Hall 2003: 2).

and/or (and continue to be) evicted from privately owned game ranches and reserves.²³⁰

These practices were particularly pronounced before the end of apartheid when farm workers enjoyed no legal protection from their employers. With the advent of democracy and the end of white minority rule, the fortunes of farm workers have changed on paper but few know their rights and continue to be vulnerable to eviction and exploitative labour conditions (Berger 2011; Human Rights Watch 2011). Beyond the setting up phase, game ranches are less 'hard' labour-intensive (Smith/Wilson 2002: 11) and farm workers and dwellers, and their livestock were expelled or denied access under the guise of "people, livestock and wildlife are a lethal combination" (Interviews with game ranchers and convicted poachers, 2013). Lester (2014) puts this further into perspective by referring to the large percentage of foreign ownership of game reserves:

"Game farming used to be largely confined to the Lowveld and northern parts of RSA. Then we got to the new South Africa and we came up with the wonderful idea that game farms bring tourists, foreign currency, jobs and a whole lot more to the new RSA. And, yes, some operators have made a huge contribution. But let's be honest, many game farms are paying lip service to the true meaning of sustainable development. Any old dunny with foreign currency can swan into RSA and buy up what was a farming concern, sell off the livestock, pay off the workers and turn the land into a personal private zoo. Then find a nice African name and call it a 'conservatory'."

The tolerance of the South African state for absentee and foreign landownership further exacerbates the 'land question',²³¹ and the racially skewed landownership patterns. There

²³⁰ In a study undertaken on behalf of the Wilderness Foundation (a private foundation started by the late Dr Ian Player), the authors found "no evidence of farm workers being laid off in the establishment of the PGRs" (Langholz/Kerley 2006: 10). The workers either found employment with the private game reserve (PGR) or moved with their original employers. Approximately 52% of the original farm workers had remained in the employment of the PGR. Langholz and Kerley's survey data derived from completed questionnaires provided by ten of thirteen Indalo (Eastern Cape Association of Private Game Reserves) members in 2006. The study also found that the average annual salary of fulltime employees had increased 4.8 fold, which is attributed to the high salaries paid to senior staff. Interestingly, a report by a local NGO provides data that contradicts the study, documenting evictions and cases where the farm workers' socioeconomic rights were eroded by not allowing them to keep livestock, grow vegetables, or denied them access to the land (Naidoo 2005: 28–30). There is scant empirical evidence on the fortunes of farm workers in private game reserves from other sources. Advocacy campaigns and reports by unions and others have also been less positive in their appraisal (Lester 2014; Wisborg et al. 2013; Parliamentary Monitoring Group 2011). Sentiments of dissent and unhappiness were also echoed in interviews and focus groups undertaken with rural communities and convicted poachers (some of whom had been farm workers or their next-of-kin were).

²³¹ The 'land issue' of resolving the dispossession and expropriation of black-owned land during the colonial and apartheid regimes remains one of the most important issues within the public and political discourse in South Africa.

has been substantial foreign investment in some reserves – such as Richard Branson’s private lodge in the western Sabi Sands game reserve (he is one of many international investors of the game reserve adjacent to the KNP) or ‘Dubai World’, the investment arm of the United Arab Emirates’ government that acquired majority shares in the Shamwari Game Reserve in the Eastern Cape (Helliker 2013: 16). Moreover, the creation of amalgamated and corporate-owned game reserves has changed the land structure towards larger tracts of land, which contradicts the South African government’s land reform policy of promoting smaller farming units (Wisborg et al. 2013: 59–60).

There is a growing rift between the state (who effectively allowed private ownership of wildlife for the purposes of wildlife conservation) and members of the game ranching fraternity who have branched out into ‘less conservation-orientated endeavours’. This new school of game ranchers has introduced exotic (non-indigenous) species, such as fallow deer from western Eurasia, Russian wild boar, roan antelope from West Africa and sable antelope from Zambia. There also has been a focus on breeding trophy specimens and the birth of an entire industry based on phenotypic colour variations within a species. These practices concern conservators as the selection of certain traits departs from the notion of natural selection and free-ranging wild populations (Reilly 2014). The objective of phenotypic breeding is the diversification and expansion of available trophy animals (Interview with wildlife vet 2 and farm manager 1, 2013). The promulgation of the earlier mentioned Threatened or Protected Species (TOPS) regulations (discussed in Chapter 5 and below) were partially triggered by the injudicious movement and introduction of non-indigenous wild animals – which is also relevant to the rhino issue as the TOPS regulations stipulate that the rhino should not be moved to areas that fall outside its historical range.

Essentially, the processes described above led to the social re-ordering of rural South Africa, imbued wildlife with economic value, encouraged the privatization of and the buy-in of corporations into ‘conservation’ initiatives, further alienating local communities from land and wildlife and providing the ideal conditions for poaching to flourish (such as impoverishment; loss of agency, land and hunting rights; unhappiness with the rules). It also led to the interdependence of state and private conservation initiatives and laid the groundwork for the lucrative wildlife industry. The privileged position of obtaining highly subsidized wildlife from

the state, assurance of private ownership of the same and the political leverage of the farming community during apartheid led to some wildlife ranchers feeling underappreciated in the new dispensation (Interviews, 2013). The increased regulation of the private sector (such as the TOPS regulations) and the perceived threat of dispossession of land and wildlife have led to growing resentment amongst wildlife farmers and landowners. In some instances, these feelings of resentment and the perceived unfairness of the rules have provided fodder to bend the rules, exploit legal loopholes or engage in illegal activities (which will be discussed in Chapter 6). In post-apartheid South Africa, the hunting and wildlife industries are almost exclusively made up of a homogenous group of white economic elites. Attempts to obtain statistics on the level of transformation within the wildlife and hunting sectors were unsuccessful from important gatekeepers (e.g. how many black professional hunters are there? How many black-owned rhino farms and reserves are there?). A well-known exception is South Africa's current deputy-president Cyril Ramaphosa who is a famous wildlife breeder and who came in for critique after he bid on a \$2 million buffalo during a wildlife auction (Findlay [SAPA-AP] 2014).

4.4.3 Privatization of the rhino

While the privatization of rhinos has been portrayed as an unqualified conservation success story ('t Sas-Rolfes 2012; Bothma/Suich/Spenceley 2012), the darker side is often disregarded. By virtue of the apartheid race laws, black people were legally excluded from owning land and wild animals until the end of the colonial apartheid regime in 1994. The privatization of wildlife inclusive of rhinos contributed to an even greater distance between local people, wild animals and conservation endeavours. Beyond the systematic exclusion of black people, rhino conservation on private land was fraught with notions of privilege and entitlement by rhino breeders and conservators. The private landowners' need to generate profits to run game farms and reserves provided the point of entry for illegal economic action, the exploitation of legislative and regulatory loopholes. This critical assessment constitutes a departure from the grand narrative of the uncritical rhino conservation success story in South Africa and is further unpacked in the following section.

The rhino indeed takes centre stage in the privatization and commodification of wildlife in South Africa, enriching landowners and farmers with little benefit to local, rural communities. The number of white rhinos in the Hluhluwe-iMfolozi Park in KwaZulu-Natal had been reduced to about 50 to 70 animals in the early 20th century (Interview with Ian Player by Jeff Barbee, 2013) and had gone locally extinct elsewhere in South Africa. Through successful breeding and conservation programmes within the park, white rhino numbers had increased by the 1960s. In fact, rhino numbers started exceeding the carrying capacity of the park, and there were fears that an outbreak of disease could revoke the recovery of the white rhino. It was at this point that the Natal Parks Board²³² commenced “Operation Rhino”, which over the course of the 1960s and early 1970s saw more than 1,200 white rhinos relocated from the iMfolozi Game Reserve to the KNP, private game reserves, as well as zoos and safari parks abroad. New immobilization and translocation methods greatly assisted this project (Emslie et al. 2009: 22). The Natal Parks Board had envisaged that the provision of white rhinos at low cost to private landowners would render them effective custodians of rhinos. The first white rhinos were thus sold to private landowners at highly subsidized prices and possibly below market value in 1963. The market value was unknown at this point as the rhino had not been economically valued in South Africa (unlike in consumer markets in the Arab peninsula and Asia). A former official of the then Natal Parks Board pointed out that the state had to persuade some game farmers to take on rhinos as they were by no means coveted wild animals in the late 1960s and 1970s (Interview with conservator 10, 2013). The former parks official recounted the story of trying to sell rhinos to an unwilling buyer (Interview with conservator 10, 2013):

“I said to him: ‘Look we’ve got a surplus of white rhino and it’s quite embarrassing because they are exceeding the carrying capacity and we’ve been warned that certain impoverishment of the ecology would take place unless we moved them.’ So the thought of culling the rhinos so soon after we’d saved them wasn’t very palatable. He said: ‘Well, look there’s nothing I can do with the rhino. If you ask me, I’m not interested in one.’ Then I said: ‘Look we take over R200 each to deliver it.’ And he said: ‘I’m sorry I’ll have to put up fences.’ And we said: ‘You know they are so big and wildy.’ To that he says: ‘Once they break through the fence, they can cause enormous trouble for my neighbors.’...”

²³² The former province of Natal is known as KwaZulu-Natal since the end of apartheid, and its parks authority is Ezemvelo KZN Wildlife, the former Natal Parks Board.

According to rhino owners (Interviews, 2013), the start-up costs of establishing a game reserve with big animals like rhinos, elephants, hippos or buffaloes were higher than standard game reserves due to the higher cost attached to procurement, translocation and management of big animals. The reluctance of law-abiding game farmers to keep rhinos in the 1970s was also linked to the blanket ban on the trade of live rhinos and their products imposed by CITES in 1977, showcasing how the treaty was counterproductive to conservation initiatives in the early years. As a consequence of the trade ban, rhino trophies could not be exported to international destinations. While there was a growing local hunting industry (e.g. cultural hunting of the Afrikaners), local hunters preferred to hunt for food or as an expression of cultural values (du Toit/van Schalkwyk 2011). South Africa allowed the export of hunting trophies of white rhinos from 1979 onwards again. As a result of the high cost attached to keeping rhinos and low returns on investments (initially), rhino ranching became largely an economic activity for the wealthy elite or for ranchers who could gain the confidence of foreign and local investors or trophy hunters. Once the profitability of the rhino as a trophy animal became known, the Natal Parks Board struggled to meet the demand for rhinos (Interview with conservator 10, 2013) and a waiting list had to be instituted. Despite tripling the list price for rhinos, the demand for rhinos outstripped the supply. Following in the footsteps of a private individual who auctioned off his rhinos, the Natal Parks Board held its first auction in 1986. The six rhinos on auction achieved more than double the list price. In light of the success and in response to the Buijs report (discussed below), parks authorities started to back the auction system (’t Sas–Rolfes 2011: 4).

By the mid–1980s, the Natal Parks Board grew concerned over the lack of growth of rhino numbers on private land, and this eventually led to an investigation by Daan Buijs in 1987. The so-called Buijs report traced and recorded the histories of all translocations of white rhinos from Natal Game Reserves, Bophuthatswana Parks²³³ and private sales. Of the 1,291 white rhinos translocated to private land between 1961 and 1987, there was an unexplained loss of 510 white rhinos on private land. While there were deaths during and after translocation, the annual growth rate should have been around 6%. Buijs (1987: 2) remarked:

²³³ Bophuthatswana was a homeland in the northwestern region of South Africa during the apartheid regime.

“This data shows an unexpected decrease of 510 rhinos and the loss of all rhino on 45 ranches (includes unknown destinies) to which rhino have been delivered. The fate of the rhino of 21 of the ranches could not be established and of the other 24 all the rhinos were shot, lost or sold (not always known to whom).”

While some founder populations were deemed too small for breeding purposes, the habitat unsuitable for rhino survival or single adult male populations leading to no or little procreation, Buijs’ report points to the economic valuation of the rhino as a trophy animal as a cause for concern (Buijs 1987: 10–11). As ‘t Sas–Rolfes (2011: 3) explains:

“In 1982, the Natal Parks Board list price for a live white rhino was 1,000 South African Rand (R). That same year, the average trophy price was R 6,000. Any private landowner receiving a live rhino had a very strong incentive to sell it as a trophy as quickly as possible to pocket a 600 percent profit. The alternative was allowing it to roam on his property where there was a risk of losing it to a poacher or neighbour.”

The value of a white rhino trophy had surged to R 35, 000 (about 17 000 German Mark) while the state carried on selling live rhinos at highly subsidized prices when Buijs was conducting his research in 1987. Due to the steady decline of the South African Rand and the advantages of obtaining foreign currency, the value of the rhino trophy was further enhanced (Buijs 1987: 11). Moreover, trophy hunting of rhinos elsewhere in southern Africa was affected by intra- and interstate conflicts and diminished numbers of rhinos available for trophy hunting due to widespread illegal hunting. Foreign trophy hunters were increasingly drawn to South Africa. A drawing card appears to have been the well-known hospitality of South Africans, which seems to have extended to obliging trophy hunters by allowing ‘unconventional’ hunting safaris to take place.²³⁴ In some instances, rhino owners flouted basic principles of ethical hunting, such as the tacit ‘gentlemen’s agreement’ of not hunting breeding rhino cows, rhino cows and their calves or young bulls (Buijs 1987: 8–12). Others simply bought the rhino from the state and had trophy hunters shoot it soon thereafter. This practice continues into the present and is known as ‘put and take’: “...buy rhino, kill it, replace it, kill it...” (Interview with provincial government official 1, 2013), discussed further in Chapter 6.

²³⁴ Buijs (1987: 8) describes one such incident where an American trophy hunter shot a rhino cow, and his son shot her calf.

Buijs (1987: 14–31) provides a detailed breakdown of recipients of public rhinos by name, the location of the reserves or farms and the reasons given for the lack of growth of rhino populations. It is curious that some of the same family names and game reserves are linked to irregular or illegal hunting operations close to thirty years later. What also stands out in the Buijs report is the sense of entitlement expressed by some rhino owners, a sentiment that came up during interviews conducted with wildlife professionals in 2013. Says Buijs (Buijs 1987: 11):

“Many landowners have allowed all their adult males to be shot by trophy hunters, and in many instances have also provided breeding females for hunting. This has been in many cases justified by the view that they would be allocated more rhino by the Natal Parks Board. In some instances, safari operators in Natal maintained it was the Province’s obligation that they should be provided with more rhino for hunting.”

As a result of the Buijs report, the Natal Parks Board revised its allocation policies and started selling its rhinos at market-related prices from 1989 onwards (Emslie/Brooks 1999: 18). Conservation economist ‘t Sas–Rolfes (2011: 4) argues that with the introduction of the auction system, the pricing for live rhinos approached realistic market values. The Board’s auction achieved an average price of ZAR 49, 000 per rhino in 1989, a tenfold increase of the list price of 1986. Meanwhile, trophy hunters were willing to part with between ZAR 80, 000 to more than ZAR 90, 000 per rhino trophy in the late 80s and early 90s (‘t Sas–Rolfes 2011: 4). While there were incentives to breed rhinos in light of the massive price increase of live rhinos, the return on investments to avail rhinos for trophy hunting remained equally appealing.

Animal rights group picked up on the issue of the “missing rhinos” to campaign for a hunting and trade ban to be imposed upon South Africa at CITES CoP meetings in the 1990s (Buijs 1998: 4). However, subsequent surveys and assessments (Adcock/Emslie 1994; Emslie/Brooks 1999; Buijs/Anderson 1989; Buijs 1987; Buijs 1998; Buijs/Papenfus 1996; Buijs 2002; Castley/Hall–Martin 2003; Hall–Martin et al. 2008; Emslie 2008) revealed realistic growth patterns of rhino populations and further regulatory restrictions were thwarted; in fact, the white rhino was down-listed to Appendix II of CITES in 1994, which allowed trophy hunting and the sale of live animals (Leader-Williams et al. 2005: 4). The 1994 decision served conservation initiatives on private land, allowing wealthy landowners and hunters to derive

benefit from rhinos. Meanwhile, local communities remained marginalized and excluded from direct beneficiation.

Scientists have calculated an annual rhino population growth rate of 6,9 % for private and state-owned rhinos in South Africa between 1991 and 2010 (Emslie/Milliken/Talukdar 2013: 4). The average population growth rate of rhinos in captive breeding or intensive farming operations is lower than that of rhinos kept in the 'wild'; and hence, a growth rate of 5 % to 6 % was deemed as realistic on private land (Interviews with conservators and rhino scientist 9, 2013). Moreover, the annual hunting rates of approximately 10,5% on private land before 1988 decreased rapidly. By 1994, the rate had dropped to 3% (Adcock/Emslie 1994: 1).

4.4.4 The sale of live rhinos as a fundraising strategy for national parks

The surveys conducted by Buijs and others are useful tools to highlight some of the strengths and weaknesses of rhino conservation on private land. After the unsubsidized valuation of rhinos at public auctions, the rhino (and other wild animals) became major sources of income for parks authorities. National and provincial parks authorities have been dealing with decreasing budget allocations from the national government (Interviews with parks officials 2013), diminished or insufficient revenue streams from other sources of income including tourism revenues, subscriptions and foreign donations (James et al, 2000 quoted in: Krug 2001: 10), as well as other forms of sustainable use (Interviews with government officials and conservators, 2013).²³⁵

From the mid-90s, rhino breeding intensified and rhino populations grew both on private and public land. Park managers had introduced 351 white rhinos to the Kruger National Park (KNP), South Africa's largest conservation area between 1960 and 1972. The KNP rapidly became the world's leading conservator of white rhinos and from the mid-1980s onwards, Kruger rhinos were donated to other conservation areas and zoological gardens. As of the late

²³⁵ The management authority of the KNP had 'surplus' wild animals including elephants, buffaloes and hippos culled, slaughtered and processed into tinned food at an abattoir near Skukuza between the 1960s and 1990s. The abattoir was later closed down due to successful campaigning by animal welfare organizations.

1990s, “a large fraction” of white rhinos were sold to generate conservation revenue (Ferreira/Botha/Emmet 2012: 5). Scientists determine the “take off” or “management removals” of rhinos per annum (Ferreira 2013b: 3). The figure is linked to a number of variables such as gender, age, social behaviour and breeding success of individual animals (Interview with KNP official, 2013). The sale of live animals to private operators and overseas destinations is but one of the strategies employed to make state-run parks profitable, and is justified in terms of the pursuit of “purist biodiversity conservation objectives”, whereby the rhino is reintroduced to its historical ranges on private land (Ferreira 2013b: 3). Following the advent of democracy in 1994, the former national parks board morphed into the para-statal South African National Parks (SANParks) and actively sought private-public partnerships²³⁶ in light of the augmented financing requirements for the growing numbers of national parks, state-run game and nature reserves and associated cost considerations such as community resettlement and beneficiation. While the privatization programme was aimed at generating supplementary financing and filling the gaps of shortfalls in public conservation spending, the parks authority nonetheless continued to sell wild animals as a fundraising strategy – initially, these funds were used to fund land acquisition to extend parks (Ramutsindela 2006: 86).²³⁷ According to the official narrative, the sale of live rhinos has been used to fund anti-poaching operations since rhino poaching escalated in public parks (Interview with KNP official, 2013). However, these funds are not ring-fenced for rhino protection only. In response to a parliamentary question, the Minister of Environmental Affairs, Edna Molewa explained that the income generated from the sale of animals accumulates in a special fund called the ‘Park Development Fund’. SANParks uses the fund for “acquisition of land for inclusion into national

²³⁶ The privatization drive of conservation areas in South Africa falls under the ambit of the post-apartheid neoliberal macroeconomic policy entitled Growth, Employment and Redistribution (GEAR), which is geared towards the privatization of state assets (Ramutsindela 2006: 90). Banks, telecommunications companies, American foundations and international and national charitable organizations, for example, are involved in public-private partnerships with SANParks. The SANParks restructuring and privatization programme in Kruger National Park is known as ‘Operation Prevail’ – a rather interesting choice of name considering the history of the park. Private operators have been granted 20-year concession contracts to upgrade existing lodges or develop new ones (Meskell 2012: 180).

²³⁷ Several interview partners shared that the revenue of rhino sales was used to balance SANParks’ overdraft facilities and to finance bonuses of senior staff. SANParks officials were not at liberty to comment on this; however, the national parks authority attempted to use a gagging order to plug a possible leak about bonuses awarded to its fundraising manager. Investigative journalists found that the SANParks employee tasked with raising money against rhino poaching had received hefty bonus payments in addition to his basic monthly salary (Legal Brief 2014).

parks, research projects in the biophysical and social sciences relevant to national parks, scientific reports and community beneficiation projects” (Molewa 2014). Parliamentary representatives of the main opposition party in the South African National Assembly, the Democratic Alliance (DA) also requested information regarding the number of white and black rhinos sold and the respective buyers since 2007. While the former Minister of Water and Environmental Affairs (Sonjica 2010) provided a detailed list of rhino buyers (many of whom were implicated in illegal hunting) in 2010, the response in 2014 was thin on the details stating “names cannot be published due to exposure and security risks” (Molewa 2014).

No gender differentiation is made in the average prices cited in Table 7; however, rhino cows are more expensive than rhino bulls. Two characteristics specific to rhino cows explain the price differentials: the horns of female rhinos tend to be longer than those of males (they fight less), and the buyer may “buy two for the price of one” – so-called cow-calf combinations – should the rhino cow be pregnant or have a young calf (Interview with SANParks official, 2013).

Table 7: SANParks' rhino sales, 2007–2014²³⁸

	2007	2008	2009	2010	2011–2014
White rhinos	87	91	252	138	
Black rhinos	0	0	0	0	
Species undisclosed					354 ²³⁹
Average price per rhino/ ZAR	176 969	252 341	207 660	207 080	228 984
Average price per rhino / €	18 355	20 978	17 816	21 369	19 172
Total income in ZAR ²⁴⁰	15 396 280	22 963 000	52 330 300	28 577 071	81 060 538
Total income in € ²⁴¹	1 597 124	1 908 305	4 489 578	2 948 948	6 787 009

Source: Extracted from responses to parliamentary questions (Sonjica 2010; Molewa 2014)

²³⁸ The pricing excludes Value Added Tax (VAT).

²³⁹ In response to a parliamentary question by DA representative Gareth Morgan, Minister Molewa stated that 108 rhinos were allocated for potential sales in 2011 (Molewa 2011). SANParks’ annual reports for 2011 to 2014 provide no further details on rhino sales; however, the overall income from wildlife sales is listed (compare with Table 8).

²⁴⁰ Numbers have been rounded up or down to the next decimal.

²⁴¹ The average annual Rand/Euro exchange was used.

While verifying the data, it was noted that the rhino sales numbers for 2007 and 2008 did not synchronize with data collected from the 2008 survey of white rhinos on private land in South Africa.²⁴² While the number differentials appear cosmetic and could be attributed to either party attaching a number of rhinos to the wrong year, it points to the larger problem of accessing credible data. Conflicting data on rhino sales, poaching incidents and rhino census numbers have become a contentious issue in current debates on rhino conservation and scupper attempts to derive credible rhino contingency plans.²⁴³

The table also fails to disclose the total number of buyers (the number and names of buyers were only supplied in 2010),²⁴⁴ which is relevant if conservation objectives were to reign supreme in making sales decisions. While some interview partners claimed that the private sector was no longer interested in buying rhinos due to the rising costs of securing them, and the risk of poaching, the data suggests otherwise. Moreover, the average price per rhino has remained at constant levels at government auctions (there is a considerable price variance at private auctions, discussed below). According to economist Flippie Cloete (cited by Stoddard 6 October 2014), the average price of rhinos sold on auction increased by a mere 54 % between 1991 and 2013, whereas Cape buffalo prices leapt nearly five-fold over the same period. It

²⁴² The authors of the report stated that 81 instead of 87 white rhinos were sold in 2007, and 96 instead of the 91 sold in 2008 (Hall–Martin et al. 2008: 12).

²⁴³ Throughout the process of data collection, I was presented with conflicting datasets, cherry-picked data and one-sided narratives. I chose to point out the conflicting data in this instance, as it demonstrates the difficult task of sorting through verifiable and credible data. In this case, it is the statement of the Minister backed by protected data – usually only available to selected state bureaucrats – against data provided to scientists who undertook the survey for the WWF-African Rhino Programme.

²⁴⁴ The 2010 sale of 98 white rhinos to John Hume, the owner of the biggest privately owned herd of rhinos, led to concerns amongst some conservators whether it was perhaps safer to spread the risk of poaching and disease amongst a greater number of private individuals than a select few (Sonjica 2010, Interviews, 2013). In 2008, SANParks suspended the sale of 200 rhinos to the rhino farmer after ten of 72 rhinos translocated to his farming operation in the Northwest Province had died (Momborg 2009). The SANParks' habitat assessment deemed the farm in the Northwestern Province as unsuitable habitat, and the translocation had happened "the wrong time of year". The deal was amended after Hume agreed to translocate the rhinos to his former reserve near the KNP. The game reserve Mauricedale had been put on the market at the time of fieldwork in 2013. By then, Hume had translocated the majority of his herd of rhinos to his captive breeding facility in the Northwest Province. In 2014, Hume's herd of more than 1000 rhinos was affected by an outbreak of the bacterial disease Histotoxic Clostridial toxemia at the Northwest farm. About 30 rhinos died during the outbreak, which was attributed to above-average rainfall following a period of drought. Several other rhino fatalities linked to the bacterial disease were later reported from other regions of South Africa. The rhino breeder financed research and development of a Clostridial vaccine for rhinos (Game Warden 2014), which has been made available to fellow rhino breeders in South Africa and abroad (personal communication with Dr Michelle Otto, 2016).

appears bizarre that the sale trends of live rhinos would not follow the same trajectory as those of the Cape buffalo and other wild animals. A rhino owner's return on investment pales in comparison unless she offers trophy hunts in lieu of the sale of live animals. Thus, the breeding of wild rhinos and their sale remains largely a function of the state; however, the supply of new animals to the private sector is under threat because the illegal hunting of rhinos on public land has reduced the total number of rhino available for donations and sale (Interviews, 2013 and 2014). The interdependent relationship between trophy hunting (legal sector) and poaching (illegal flows) is noticeable in this instance.

Despite the threat, the sale of rhinos remains a major source of income for SANParks. More than half of the park authority's revenue from the sale of wild animals (see Table 8) emanated from the sale of rhinos in spite of the "escalating rhino poaching crisis" (Interview with parks official, 2013). Ezemvelo KZN Wildlife, the parks authority responsible for managing protected areas in the province of KwaZulu-Natal, also lists the sale of white rhino as its biggest contributor at live and catalogue game auctions, accounting for 74.9% of total turnover from 2008 to July 2011 (Friedmann et al. 2011: 2). In 2013, forty white rhinos were sold for close to 10 million Rand at Ezemvelo's annual game auction in Durban (Mngoma 16 May 2013). One year later, 26 white rhinos were sold for 11 million Rand at the 2014 game auction in KwaZulu-Natal. One buyer parted with a record sum of 850 000 Rand (approximately 60 660 €) for a cow-calf combination (Bentley 29 September 2014).

In 2013, SANParks officials noted "a spike in the market of guys buying big". Such private operators either have immense farming operations or are backed by corporate interests (Interviews, 2013). While Pelham Jones of the Private Rhino Owners Association (PROA) estimated a potential loss of 400 000 hectares of rhino habitat due to an estimated 40 reserves selling their rhinos (Jones 2014), big rhino farmers and corporate conservation ventures are filling the gap. Although the continued sale of rhinos to private operators is touted as an insurance policy for the survival of the rhino (Interview with SANParks official, 2013), inadequate attention is paid to the buyer's profile and the viability of their rhino breeding and farming operations. Despite Buijs' call on parks authorities to institute these due diligence and background checks on rhino buyers more than three decades ago, rhinos continued to be sold to the highest bidder up until recently. The former Minister of Water and

Environmental Affairs acknowledged in response to a parliamentary question that SANParks put no restrictions on the sale contracts relating to “hunting and for any activity beyond the sale” (Sonjica 2010).

Table 8: SANParks' revenue from the total sale of wildlife versus live rhino sales (2011-2014)

	Revenue in ZAR	Revenue in € ²⁴⁵
2011 ²⁴⁶	30 000 000	3 140 516
2012	43 310 139	4 248 299
2013	22 701 052.49	2 105 694
2014	38 236 982	2 881 620
Total wildlife sales (2011–2014)	134 248 173.49	12 376 129
Total rhino sales (2011–2014)	81 060 538	6 787 009
Sale of other wild animals (2011–2014)	53 187 635	5 589 120

Source: South African National Parks (2010/ 2011: 12); South African National Parks (2011/2012: 12); South African National Parks (2012/2013: 10); South African National Parks (2013/2014: 17)

Once the rhino leaves the national parks, it becomes the responsibility of provincial authorities. In fact, unless a potential rhino buyer has been formally charged with a criminal offence, rhinos could be (and were) sold to known rogue wildlife professionals and rhino owners implicated in illegal hunting and pseudo-hunting – a number of the rhino buyers on Sonjica’s list have been charged with illegal hunting, racketeering and related offences in the interim (Sonjica 2010).²⁴⁷ A KNP official explains the dilemma (Interview with KNP official 6, 2013):

²⁴⁵ The annual average exchange rate of South African Rand to Euro provided by oanda (www.oanda.com) was employed to convert the sales numbers into Euro. Amounts are rounded up to the next decimal.

²⁴⁶ The authors of the SANParks annual report for 2010/2011 (South African National Parks 2011/2012: 13) provide an approximate amount for the sale of wild animals, stating “the total income generated for the 2010/11 financial year exceeded R30 million exclusive of VAT.”

²⁴⁷ While security concerns might be a legitimate reason not to disclose names of rhino buyers, the 2010 disclosure revealed ‘creative’ practices, such as wildlife veterinarians and game capturers buying rhinos on behalf of others (e.g. Dr Karel Toet bought rhinos for Dawie Groenewald, who has been charged with more than 1,800 crimes involving the illegal trade in rhino horn).

“We decided to do pre-tender qualifications because at our auctions we have very little control over who you sell it [*the rhino*] to. So when you put it out on an advert and people bid, and then you look at the best prices, and we allocate accordingly. And then we have a habitat form that we send out and a questionnaire. So we do try and act responsibly with whom we sell to; but obviously it’s a little bit more complex than that, because whoever buys it from us doesn’t necessarily keep it, he might sell it on. You know. So we’re actually dependent on the provincial permits systems to be functional and I don’t think that’s the case. So that’s why we put extra steps in place to try and mitigate that. Like that questionnaire and if somebody wants to buy more than 20 rhinos he needs to indicate what he wants to do with them and where they will be held and you know if it’s free range or intensive and all of those types of things...[...]... Well, at one stage, we had a sort of approach that if the person hasn’t been formerly charged we can’t really not supply to them, if they’ve got a legal permit and they’ve actually got everything. But we’ve actually tightened that up now. If people are being investigated, we will try and not to sell to them directly. Unfortunately people are clever and they know ways of getting around things.”

The disconnect between rhino conservation objectives, transparent administrative procedures and due diligence checks came under the spotlight in August 2014. At the time, the Minister of Environmental Affairs made an announcement that up to 500 rhinos would be translocated to other national parks, private game reserves and foreign locations as part of the integrated rhino conservation strategy. In an exposé and a complaint to South Africa’s public protector shortly after the announcement, wildlife activists revealed that 260 rhinos had already been sold to three hunting outfits in the Northern Cape (Thomson 16 August 2014; MacLeod 9 September 2014). At least one of the three outfits had links to pseudo- and illegal hunting syndicates (Thomson 16 August 2014, independently confirmed by an organized crime investigator, 2015) and a possible conflict of interest was noted as one SANParks board member had interests in one of the hunting farms in the past (Thomson 16 August 2014). Subsequent to the exposé, SANParks cancelled the sales contracts; the deposits were returned to the outfitters, and an official was suspended pending the outcome of arbitration proceedings. It was alleged that the official had signed off on the deals without the board’s approval, which he, in turn, denied (Reinstein 21 August 2014). While the Public Finance Management Act 1 of 1999 permits the disposal of moveable state assets “at market related value or by tender or auction” (quoted by: Thomson 16 August 2014) and security considerations might legitimize the move away from auctions; however, private direct sales and cached tender procedures impede public and media scrutiny of the sale of valuable species of South Africa’s natural heritage to private and public entities in South Africa and

abroad. Beyond withdrawing rhino sales from the public realm and scrutiny, the sales prices are open to price fixing, manipulation and corrupt activities. The 260 rhinos allegedly were to be sold for 60 million Rand (approximately 4 213 900 €), equating to an average price of 230 700 Rand per rhino (approximately 16 200 €) (Thomson 16 August 2014). Rhino sales have been achieving higher prices at private game auctions (compare with Table 9) and the average price of white rhinos at the Ezemvelo KZN Wildlife public auction was approximately 423 100 Rand per animal (approximately 29 600 €) in 2014 (Bentley 29 September 2014). The private sales of rhinos, the swapping of rhinos for other wild animals or far more nefarious activities including the swapping of rhino horn for live rhinos will be discussed in the next chapter. After the botched rhino sales, a SANParks spokesperson released a set of criteria²⁴⁸ that SANParks employed to determine whether rhinos would be translocated to potential buyers. It remains unclear whether these criteria are considered when sales contracts are initially signed.

What is particularly interesting about most public and private auctions of rhinos is that the animals are described in terms of “length of horn in inches” (Interviews, 2013). In that vein, it is curious that the Vleissentraal auctioneers describe one of the rhino cows on auction as “pregnant of a 33 “ [inch] bull” (see Table 9), which, in this case, refers to the length of the bull’s horn. The peculiar description supports the notion that the price of a rhino is determined in terms of the length of its horns (or potential length of the progeny’s horn) rather than gender, fecundity or age. Interviews with wildlife professionals, park officials and rhino farmers (Interviews, 2013) confirmed the rather precarious relationship that emerged between the state and private operators. Says one wildlife professional (Interview, 2013):

“So what a lot of people miss is not only the entitlement that the farmer feels and that he is truly entitled to. He just bought this [rhino]. Most of them come from the parks. And they bought them, either by inch or horn but they bought them – not one but hundreds. The last auction it was 100 inches out of Hluhluwe.²⁴⁹ So you are talking about 200 rhinos per year at least. They were coming out in numbers, as fast as our trucks could move them. We were driving rhino, you know. Before the ban, I was

²⁴⁸ The translocation criteria include the historical range of habitats, suitable habitat present, welfare considerations such as sufficient space for social interactions, safety and security of rhinos, the management experience of managers and/or rhinos, the legal histories of managers and owners and logistical challenges (Reinstein 21 August 2014).

²⁴⁹ Hluhluwe iMfolozi Park is a public nature reserve in South Africa. The Park was mentioned earlier in connection with “Operation Rhino”, the successful rhino expansion programme of the former Natal Parks Board.

probably doing about 300 per year. We were really moving rhino around. There was a very healthy industry associated with it. They used to be a market, now it's only in Namibia.”

Table 9: Price of rhinos at Vleissentraal private auctions in South Africa in 2014

	Price per rhino in Rand (March '14)	Price in € ²⁵⁰	Price per rhino in Rand (May 2014)	Price in €
White rhino bull	225 000	15 454	310 000	21 721
White rhino cow and calf	530 000	36 404	750 000	52 550
White rhino heifer (pregnant of 33" bull)	600 000	41 212	/	/
White rhino cow	540 000	37 091	450 000	31 530
White rhino heifer	380 000	26 101	/	/

Source: extracted from Vleissentraal (2014); Thomson (16 August 2014); MacLeod (9 September 2014)

Beyond the sale of rhinos to local operators, rhinos are also sold to safari parks and zoological gardens elsewhere in the world. The sale of live animals and their translocation to foreign destinations constitutes a legal flow of rhinos and their horn, permitted by the CITES regulatory framework. This legal flow came under the spotlight after live rhinos were sold to rhino horn consumer countries, including Vietnam and China. According to the Department of Water and Environmental Affairs, a total of 101 rhinos were exported from South Africa between 1 January 2007 and 20 April 2012. 30 rhinos of the 101 rhinos obtained permit endorsements at O R Tambo International Airport, South Africa's major international airport.

²⁵⁰ The price in € was determined via the historical exchange converter on www.oanda.com. The amounts are rounded off to the next decimal.

The Northwest Provincial Authority²⁵¹ had initially approved the permit applications of the rhinos; however, none of the permit applications stated the name of the rhino exporter (originator) or the final recipient in the importing countries in Asia. In some cases, the address of the importer was given (Molewa 2012b). Private operators including game capture and translocation companies were involved in the sale of rhinos to Asian countries. A SANParks official (Interview with Conservator 12, 2013) said:

“From ourselves, there was not directly any export to China. It was taken to Australia, to America, and that was through the International Rhino Foundation, which was a major zoo. You had to go and inspect the zoos in the whole International Rhino Foundation so those were above board. Animals that were bought from us, we won’t be able to say what went where because like I say if they’ve got destinations that we’ve got on our permit system, from there they could have gone anywhere they could have been loaded straight onto the plane or maybe hunted, we won’t know.”

In response to a parliamentary question regarding the export of a further seven white rhinos to Vietnam in 2012 (Vietnam had been identified as a major consumer country by then), the DEA advised that the CITES management and scientific authority in Vietnam had confirmed that the animals would be used for zoological purposes only. Moreover, the recipient was “suitably equipped to house and care for the animals” (Molewa 2012a).²⁵² At the time of the parliamentary question, the DEA was in the process of formalizing an additional requirement, which has since then been implemented. In line with the CITES Conference Resolution 11.20 (Milliken/Shaw 2012: 44), the recipient captive facility is required to be an institutional member of the World Association of Zoos and Aquaria (WAZA) and the receiving country should possess adequate legislation to ensure that the live animals are only used for the purposes indicated on the CITES export and import permits to prevent unauthorized use (Interview with government official 3, 2013). While it is a matter of conjecture what happened to the rhinos that went to China, Vietnam, Turkmenistan, Japan and Myanmar – there is anecdotal evidence that some rhinos were sent to state-run captive breeding facilities in China, where the horn was harvested for scientific purposes (Interviews, 2013).

²⁵¹ Officials in the employ of the permitting authority of the Northwest Province have been linked to permit fraud and attending ‘pseudo’ hunts involving Vietnamese hunters without investigating why so-called professional hunters were unable to shoot the target of their trophy hunts themselves (see Chapter 6).

²⁵² Attempts were made to establish details of the fate of those seven rhinos while on fieldwork in Vietnam. Apparently five of the original rhinos had survived and were living in a safari park near Ho Chi Minh City (Interviews, 2013).

The privatization of wildlife put further distance between local communities, landowners and wildlife, creating community perceptions that wildlife conservation trumped concerns over social and economic development. The colonial and apartheid land grabs contributed to a growing pool of potential would-be poachers and sympathy on the part of the community who see poaching as a form of defiance and rebellion against unfair and systemic exclusion. The nature conservation bureaucracy followed the path laid out by the colonial rulers in separating local people from wildlife. Like the colonial poaching regulations, apartheid conservation measures can only be understood in the context of broader political, economic and social macro-structures aimed systemic oppression of black people. Conservation measures and regulations served to entrench white minority rule. This section also touched on conservation in the post-colonial context, pointing to the growing nexus between conservation and private business interests. The following section examines the rise of neoliberal conservation initiatives.

4.5 The ascendancy of neoliberal conservation?

The first section of this chapter touched on the loss of land and hunting rights in South Africa during the colonial period, which was replicated across geographies in southern Africa including South Africa's neighbour Mozambique. 'Fortress conservation' served the political elite during the colonial period, as it brought large areas of land into direct control of the state and led to the eviction of African people. The myth of wild Africa, endless 'empty land' and an African 'Garden of Eden' informed this anachronistic *Weltbild*. This conservation paradigm prevailed into the 1960s and 1970s with the next generation of political elites in southern Africa (most of southern Africa was still under colonial leadership) continuing to uphold the principles of segregation and protectionism. This involved further demarcation of "designated wild places and species" protected from "human predation at a time when human activity was becoming more extensive and pervasive" (Murphree 2013: XV). The 1980s and 1990s saw the ascendancy of the sustainable use paradigm. Conservation organizations and NGOs started to develop programmes that promoted local participation in and beneficiation from

conservation, such as the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) programme.²⁵³

Couched in the discourse of social development and sustainable use, the tide has turned in favour of ‘fortress conservation’, as transfrontier conservation follows the trajectory of colonial conservation policy making. The significant ‘innovation’ of the old paradigm is the increasing privatization of conservation management and areas, as well as the weighty role of non–state actors, such as conservation NGOs and corporations. The underlying conservation philosophy straddles the nature and culture dichotomy. The discourse of ‘othering’ of indigenous and local communities is still employed. Such communities are either perceived as “traditional, living in harmony with nature and displaying conserving behaviour” or as “modernized and destroying it”(Duffy 2001: 7). Turned on its head, the proclamation of huge tracts of land as transnational conservation areas has serious economic, social and cultural consequences for people living inside or on the edge of these new megaparks. Although claiming to the contrary, such parks encroach upon the livelihoods and cultural goods of local people. These transnational megaparks are designated as a “global environmental good”, which has led to prescriptions of what is deemed “appropriate and inappropriate resource use”(Duffy 2001: 7). Communities living in areas designated or proclaimed as conservation areas are increasingly ‘asked’ to relocate because of inappropriate resource use, sometimes on a voluntary basis, and sometimes on a less voluntary basis.

²⁵³ The quoted author Marshall Murphree was one of the initiators of CAMPFIRE, a Zimbabwean community-based natural resource management programme. CAMPFIRE has been used as a blueprint for similar projects in southern Africa such as the community conservancies in Namibia and Mozambique. Community–Based Natural Resource Management (CBNRM) was popular with donors in the 1990s due to its supposed benefits of combining ecological sensitivity with rural poverty alleviation, achieved through economic expansion and institutional growth. Perhaps the most damning critique of communal common property proprietorship sees CBNRM programmes as “creatures of a common colonial heritage of land and resource expropriation”, where “the postcolonial state finds itself perpetuating a legal defence of illicitly obtained private rights of the landed elite (Wilson 2005: 150).”

4.5.1 Case study: The creation of the Great Limpopo Transfrontier Park

Chapter 7 deals with rhino poaching in the Kruger National Park, a phenomenon closely associated with the history of the park and the creation of a new transfrontier park.

The formation of the Great Limpopo Transfrontier Park (GLTP) serves as a case study to demonstrate the problematic assumptions of the 'new' neoliberal conservation approach. The Kruger National Park, together with the Limpopo National Park (hereafter LNP) and the Gonarezhou National Park in Zimbabwe form part of a transnational conservation area or peace park²⁵⁴ called the Great Limpopo Transfrontier Park (hereafter GLTP), which was formally launched in November 2001.²⁵⁵ The wealthy South African cigarette tycoon Anton Rupert²⁵⁶ drove the initiative, supported by Prince Bernhard from the Netherlands and former South African president Nelson Mandela. Rupert created the NGO Peace Parks Foundation (PPF), which has become the lobbying vehicle for developing peace parks initiatives across southern Africa. The PPF was instrumental in coordinating the institutional and administrative structures of the GLTP with South African government stakeholders such as the Department of Environmental Affairs and Tourism (DEAT) and the South African National Parks authority (SANParks),²⁵⁷ and obtaining financial support from the World Bank and international donor

²⁵⁴ The concept of peace parks derives from the perception that the amalgamation of national parks in separate states but adjacent to one another was symbolic of peace. The contention is that 'artificial' political borders are replaced with 'natural' borders. The origin of the concept is traced back to the first "peace park" along the Canadian and US border, the Waterton/Glacier International Peace Park, which was established in 1932 (Ramutsindela 2007: 29–30).

²⁵⁵ The conservation area spans a territory of 37 572 km² across the three countries. The NGO Peace Parks Foundation (PPF), the main driving force behind transfrontier conservation in southern Africa is planning the expansion of the conservation area into "the world's greatest animal kingdom", spanning an area of almost 100 000 km². This undertaking would see Banhine and Zinave National Parks, the Massingir and Corumana areas and interlinking regions in Mozambique, as well as several privately- and state-owned conservation areas in South Africa and Zimbabwe, integrated into the transfrontier peace park (Peace Parks Foundation 2014a).

²⁵⁶ Spierenburg and Wels (2010) shine a light on the darker side of the business and nature conservation nexus in southern Africa in a paper entitled "Conservative Philanthropists, Royalty and Business Elites in Nature Conservation in Southern Africa". The main argument is that Rupert and his associate Prince Bernhard from the Netherlands saw in transfrontier conservation an opportunity to fix their tarnished reputations. Rupert, who had been a member of the Afrikaner secret grouping "Broederbond", had actively supported the apartheid regime while Prince Bernhard had been embroiled in a bribery scandal.

²⁵⁷ Wolmer (2003: 269) argues that the South African National Parks Board went with the idea of establishing the GLTP for a number of reasons. These included legitimizing its existence by adopting "a potential cause celebré" (the apartheid era National Parks Board had been an all-white ensemble of conservators, some of whom had links to the apartheid security apparatus). Conservators were apparently also worried about increasing numbers of war-displaced people moving into the border areas, so the creation of a transfrontier park would create a buffer zone. At the time, the KNP was also dealing with elephant population numbers that exceeded its carrying

agencies. The GLTP has been portrayed as an “unequal partnership” between South Africa as the regional economic and political powerhouse, and Mozambique and Zimbabwe, which were both dealing with domestic issues (Lunstrum 2013; Ramutsindela 2007; Wolmer 2005).²⁵⁸ The South African government, its private partners and international financiers took the lead in developing the peace parks initiative, which gained traction in Mozambican government circles in the late 1990s. The implementation appeared to require minimal investment by the Mozambican state,²⁵⁹ while supposedly beneficial to the country as a whole. International donors were going to shoulder the cost of setting up institutional and regulatory frameworks, the controversial resettlement of communities, as well as the start-up costs of the Park.

There was also the promise of economic and social development of rural communities living within and on the peripheries of the Park. During the initial negotiations, an inclusive approach to nature conservation was professed. Project partners were tasked with seeking social legitimacy of the Park by offering benefits to residents inside and on the edge of the Park (Spierenburg 2011: 83). The transfrontier conservation area was going to ‘pay for itself’ through international donor monies, opportunities for private investments, eco-tourism initiatives and community-based natural resource management. A pivotal aspect of the LNP was the re-introduction of wildlife from the KNP, which was going to be protected and conserved through the creation of a ranger force and by investing the community in the good fortunes of the Park. The PPF had mobilized a great deal of international and national (South African) funding. Donor funding seldom comes without strings attached and in the case of the

capacity. Conservators had instituted elephant culling which had led to vociferous international campaigning by animal rights groups. It was hoped that dropping the fences would encourage elephant migration, and more than 1 100 Kruger elephants were earmarked for the new conservation area (Magome/Murombedzi 2012: 124).

²⁵⁸ One school of thought has referred to the process that led to the creation of the GLTP as “Krugerization” whereby “political and economic interests that are historically embedded in the Kruger National Park are being extended beyond the borders of South Africa, still serving a privileged group at the expense of mostly black people” (Ramutsindela 2007: 2–3). Ramutsindela (2007: 2) acknowledges the prominent role of Afrikaners in the creation of the GLTP but points to the heterogeneity of the Afrikaners in South Africa, as well as the international origins of the notion of peace parks. He provides a nuanced analysis of transfrontier conservation areas in Africa in his book “Conservation in Africa: At the Confluence of Capital, Politics and Nature”. Ramutsindela and other scholars (Büscher 2010; Büscher/Davidov 2013; Büscher/Dressler 2012; Büscher/Dressler/Fletcher 2014; McFee 1999) explore the role of capital and privatization in conservation.

²⁵⁹ Consultation with the communities affected by the creation of the Park was one of the key responsibilities of the Mozambican government.

GTFP, both the donors and the PPF determined important aspects of the final physical contours and operational aspects of the conservation area. South Africa through its DEAT and the PPF negotiated the terms and conditions leading to the establishment of the Limpopo National Park and the Great Limpopo Transfrontier Park. These differed vastly from the initially agreed to establishment of a multi-use conservation area “that would allow human habitation and sustainable use of resources” (Lunstrum 2013: 4). SANParks was not willing to consider the relocation of wild animals into a hunting area, which was the official status of the Coutada 16²⁶⁰ at the time. The parks authority was only going to sign off the deal if the new conservation area guaranteed maximum protection (Milgroom/Spiereburg 2008: 438).

When the LPN was proclaimed as a total protection zone in 2001, there was no wildlife in the area of the former Coutada 16; however, 27 000 people were residing in the area. These village communities²⁶¹ had been affected by displacement during the colonial period and the civil war. They had returned, rebuilt and reconstructed their lives and livelihoods after the end of the civil war (Lunstrum 2010: 139). In a perhaps ironic twist of fate, some 7,000 villagers have to relocate ‘to make space for wild animals’ that were no longer living in the area whereas the villagers were (Interviews, 2012 and 2013). In preparation for the proclamation of the Park, the land use rights of the former hunting reserve Coutada 16 were changed. In Mozambique, the state has the prerogative to change unilaterally land use rights if it serves the public interest (Spiereburg/Steenkamp/Wels 2006: 94). In this instance, Coutada 16 was changed from a multi-use conservation area to a “total protection zone”. According to the Mozambican Land Act of 1997, no economic activity, resource use or occupation is allowed in “total protection zones” (Tanner 2002: 36–37). The legal drafters behind the Land Act had not considered tenure rights of communities living in areas that were subsequently declared total protection zones (Norfolk 2004: 13) and as a result residents of the LNP found themselves in a state of legal ambiguity as their tenure rights remained undefined (Witter 2013: 407). Experts on behalf of the United States Agency for International Development (USAID) and the Peace

²⁶⁰ The Coutada 16 had been a hunting reserve during the colonial period and became a hideout for Renamo fighters during the civil war. Weapon caches remained concealed in the area long after the war had ended. Some of these weapons have found their way back into circulation as hunting rifles of poachers. The reserve had been depleted of wildlife, serving as one of the few available food sources during and after the civil war.

²⁶¹ While the term “communities” is used throughout this dissertation, the term is used with caution, as communities are by no means a homogenous group of people.

Parks Foundation (PPF) drew up a land use plan and a study on tourism development, which earmarked the areas adjacent to the Shingwedzi River as offering the best opportunities for developing viable populations of wildlife while equally attractive to the international tourist market (Milgroom/Spiereburg 2008: 3). The experts also declared that the area would be more appealing to private tourist operators if the villages were removed (Spiereburg 2011: 94). As a consequence, people living in eight villages along the Shingwedzi River inside the park were told that they had to move to areas outside the park. A dispute ensued between the Mozambican Ministry of Tourism and the concerned villagers over whether they 'belonged' to the Park and what their rights were (Spiereburg/Steenkamp/Wels 2006: 94). The state won the dispute and as a consequence of the changed conservation status of the area, some 7,000 villagers would have to relocate "to make space for wild animals" that were to be reintroduced from the KNP. The oddity of moving people to accommodate wild animals led affected communities to believe that the state's priorities were skewed in favour of wild animals and their benefactors (SANParks) from South Africa (Interviews, 2012 and 2013). Negative sentiments towards Kruger and its abundant populations of wild animals started to arise then, providing ample motivations to poach wild animals in years to come. As will be shown in Chapter 7, these motivations are not only based on economic needs and impoverishment but also on environmental justice principles (poaching as an act of defiance).

The German Development Bank²⁶² stipulated that all relocations would have to happen on a voluntary basis (Milgroom/Spiereburg 2008: 3). Unlike in colonial times where relocation was forced from the barrel of a gun, communities were incentivized, and the narrative of 'voluntary' resettlement or 'choice' was employed (Witter 2013: 407). In other words, villagers were supposedly given agency to decide whether to stay or go. It is a matter of conjecture whether choosing to move out of the park to mitigate the effects of human-wildlife conflict²⁶³ and economic marginalization (Lunstrum 2013; Witter 2013, Focus group with villagers resettled from LPN in 2013), constitutes 'voluntary resettlement' or a last resort

²⁶² As one of the main funders behind the establishment of the peace park, the German Bank also carried the cost of resettling the villagers.

²⁶³ Witter (2013) provides a detailed account of how the re-introduction of elephants in particular, and other dangerous wildlife including rhinos and lions, to the LNP has caused major disruptions and damage to communities remaining inside the park, and affected their livelihoods.

to escape the “diminished access to cultural and environmental sources” (Witter 2013: 407). A focus group with recently resettled villagers (from the Park to Massingir) suggested the heterogeneous composition of villages and varying levels of acceptance of the relocation. While the objective of the focus group was to collect data on rhino poaching and its impact at the community level, the conversation ended up returning to the issue of relocation several times. One villager explains (Focus group in Massingir, 2013):

“We were happy where we came from. There’s no peace here. They can give you a house and the next day they can remove you and give it to someone else, maybe they will sort that problem out now. The young ones go to school, but it is far. We don’t have a school here, and the youth are struggling to get jobs in this village. We have not talked about what we want as a community.”

Schmidt-Soltau and Brockington (2007: 2196) make a convincing argument that voluntary resettlements are unlikely in the poorer parts of the world, given the lack of international (and often of national) policies guiding so-called voluntary resettlement and divergent understandings of determining volition. The World Bank (2001) published a policy for involuntary resettlements in 2001 entitled ‘Operational Manual OP 4.12’, which has become the international standard to adjudicate the suitability of resettlement schemes. In light of being recognized as an international standard, this policy on *involuntary* resettlements²⁶⁴ was employed to guide voluntary resettlements from the LNP (Milgroom/Spiereburg 2008: 437). The Project Implementation Unit (PIU) in charge of establishing the LNP set up a Consultation Committee on Resettlement (CCR), which included representatives of all the villages that were to be resettled, and development NGOs operating in the Park. Initially, elected community authorities within each village were hoping to codetermine the land use rights and contours of the final Park. However, once the Park had been declared, their role had been reduced to negotiating compensation for the anticipated resettlement of village residents (Spiereburg/Steenkamp/Wels 2006: 94)

Community beneficiation and projects were important elements to be considered in the creation of the conservation area. Communities receive a 20% share in the revenue

²⁶⁴ The policy stipulates that involuntary resettlement should be avoided, and if unavoidable, then it should uplift the affected people’s lives.

generation of the Park.²⁶⁵ Such revenues are supposed to benefit the community as a whole; however, the distribution and investment of such funds is not without its own complications.²⁶⁶ Mangome and Murombedzi (2012: 124) point out that a critical mass of ‘bodies in beds’ is required to achieve “significant job opportunities and viable multiplier effects”. Suffice to mention here that there has been no tourist boom in the LNP as yet, and rhino poaching and the stigmatization of local communities as rhino poachers is unlikely to alleviate the situation. Milgroom and Spierenburg (2008: 437), for example, found that most residents of the LNP “began to feel the effects of economic displacement soon after the park was established in 2001, through the application of new park regulations prohibiting hunting and restricting extraction of forest products for commercial purposes”. Food security was greatly diminished as cultivation inside the Park is forbidden unless the area was used for farming prior to the declaration of the Park.²⁶⁷ Access to emergency pastures for cattle in the Park was forbidden during times of drought. Moreover, the reintroduction of predators affected both crops and cattle, aggravating human-wildlife conflict (Spierenburg quoted by: Arets et al. 2011: 58).

While many community members were no longer able to eke out a living and had to find alternate forms of income, the majority of villagers chose to remain within the Limpopo National Park after its initial inception. This choice signals the preference of village communities to stay in the Park and continue with their lives and livelihoods uninterrupted. Due to the diminished income opportunities and increasing pressure (‘carrot and stick’), villagers have started to accept the relocation packages. Although couched in the narrative of ‘voluntary resettlement’ and ‘improved livelihoods’, many villagers feel forced to move (Interview with academic 2 and 3, 2012; focus group with resettled villagers, 2013). The resettlement of communities, as well as those who chose to stay inside the Park, has led to

²⁶⁵ Since 2006, the LNP has handed an amount of € 174 410 to communities, which they have invested in the construction of a craft centre, the rehabilitation of classrooms, the creation of potable water supply systems and a livestock association (Peace Parks Foundation 2014d).

²⁶⁶ A body of literature speaks to this issue but it is beyond the focus of this dissertation (for example: Fall 2002; Singh, S. 2008).

²⁶⁷ Soil fertility and harvest yields decrease through continued use of the same piece of land. It also leads to land degeneration and massive erosion, which carries severe environmental impacts. Essentially, this restricted form of land use is not only contributing to less food security but also to the environmental degradation of the land.

diminished income streams and changing social relations. While the resettlement policy was supposed to enable community empowerment and social development, the transition process has been less than smooth, and the resettlement from acceptance to relocation has been slow. Instead of being in charge of their livelihoods, the new status quo has deprived communities of agency as regards to choosing where to live²⁶⁸ and how to provide for their livelihoods.

Possibly the single most problematic aspect of the creation of both the LNP and GLTP lies in the approach taken to people who were living within the boundaries of the designated park in Mozambique. The chosen route is not dissimilar to the colonial approaches described in the earlier section. Instead of building harmonious and beneficial relationships between local village communities and wildlife (as suggested by the oxymoron 'peace park'), the creation of the LNP has led to human-wildlife conflict, impoverishment, as well as widespread contempt for conservation initiatives and the 'Big Brother' next door – the management, rangers and environmental crime investigators of the KNP (Interviews with convicted poachers, 2013). A significant oversight was the inadequate consultation with communities directly affected by the creation of the new park. In essence, further marginalization of *in situ* communities (which are not homogeneous entities) and individuals could have been mitigated. The establishment of the park has led to a growing pool of unhappy village communities. In light of the above, it is not surprising that many rhino poachers originate from displaced and marginalized village and/or rural communities (Interviews with organized crime, environmental crime investigators and poachers, 2013 and 2014).

An important element linked to the establishment of the GLTP was the removal of the physical boundaries between the participating countries. The abolishment of artificially drawn borders of the colonial period (which were physically reinforced when the postcolonial

²⁶⁸ At the time of writing, 120 families had been relocated to Banga village near the Massingir dam. While there are kinship ties to people already living south of the Massingir dam, not all residents were happy with the new arrivals. More people lead to more competition on already scarce resources and jobs in the area. Moreover, the resettled villagers are perceived to receive an unfair advantage as they receive housing, services and compensation from the Park (Focus group with villagers; Interviews; 2013). It needs to be noted that benefits are supposed to accrue to communities living inside and on the periphery of the Park (Peace Parks Foundation 2014c), signalling incongruence between community perceptions and negotiated outcomes. By March 2016, the remaining families of the former 300-family strong Massingir Velho – a village about 10 km from the Kruger boundary – were moved about 75 km from the border (enca reporter 2016).

Mozambican government supported South African liberation movements during the final years of the apartheid regime) rendered the concept of transfrontier parks appealing to many. It was hoped that the so-called 'peace park' would reconcile the former apartheid pariah state with its southern African neighbours, open up historical animal migration routes and realize conservation and social development objectives. While border fences between the KNP and LNP were partially taken down (see Figure 8), other fences went up to demarcate the boundaries of the conservation area with surrounding communal land (Dzingirai et al. 2013: 107).

From 2001 to 2008, close to 5000 wild animals (including 12 white rhinos) were translocated from the KNP to the LNP to develop the new conservation area (Peace Parks Foundation 2014b). One-third (57 km) of the old boundary fence has been dropped since the inception of the TFCA. The remainder of the fence was left intact due to safety and security concerns.²⁶⁹ The sections of dropped fence are mostly located in the far north of the KNP (with a corresponding low density of villagers and rhinos) and 12 km of fence were dropped in the middle section between the parks. According to the PPF, the fence²⁷⁰ was left in tact "for the peace of mind of communities resident in the LNP, especially the ones with cattle" (Wray 2014). The dropping of the fence affected the communities living in the Park as they had to deal with unwanted visits from wild animals that did not only constitute a danger to their lives but also destroyed their crops and attacked their cattle. There was also the danger of the communication of zoonotic diseases such as anthrax, which afflicts buffalo in the KNP at regular intervals (Interview with wildlife veterinarian 3, 2013).

According to the official narrative, the partial removal of the fence did not only serve a symbolic function of creating a peace park but also the purpose of encouraging the natural migration of wild animals to the new conservation area. In light of rhino poaching, the

²⁶⁹ Several smuggling corridors are located along the 350 km long border between the KNP and Mozambique. Cross-border crime includes the smuggling of undocumented migrants, stolen motor vehicles, drugs, cigarettes and counterfeit goods, as well as the trafficking of endangered species (which goes beyond rhino horn).

²⁷⁰ In his doctoral dissertation, Kloppers (2005) provides a fascinating analysis of social structures within the borderlands between Mozambique and South Africa. The fence (physical boundary) plays an important role in his analysis of whether physical boundaries become entrenched in formerly homogenous societies living in the borderlands.

dropping of the boundary fence has become a controversial talking point amongst conservators, law enforcers and animal activists, some of whom moot the renewed erection of a high-security fence as a strategy to fight rhino poaching (Interviews, 2013).

Figure 8: The border fence between the Kruger National Park, South Africa & Mozambique



Source: Author's own photo taken in a southern section of Kruger National Park

The re-erection of the boundary fence may not only signal a physical but also symbolic defeat of the “borderless” peace parks project, which had been envisaged as the panacea to post-war reconciliation, wildlife conservation and community development in southern Africa. Büscher and Ramutsindela (2016: 1) observe that key actors within transfrontier conservation have been responding to the poaching crisis “with increasing desperation” to safeguard the peace parks project and, of course, the rhinos.

The privatization and acquisition of former communal land along the eastern boundary by multinational corporations and South African companies in partnership with influential and often high-ranking government officials from Maputo is not unproblematic. Rhino poachers use some concessions as a springboard for poaching expeditions into the KNP. This has led to

joint anti-poaching partnerships between Kruger and the foreign-owned concessions. While not the immediate focus of this dissertation, it needs to be pointed out that the establishment of these concessions from the late 1990s onwards has led to yet another round of displacements, evictions of locals either living or utilizing the land for commercial purposes in these areas. Some locals are (more or less) gainfully employed on the concessions in job categories other than anti-poaching (for example as construction, plantation or as farm labourers). There are several hunting concessions that offer 'Big Five' hunts along the eastern boundary,²⁷¹ which has led to outcries from environmental activists and media that "wild animals belonging to the KNP (and the South African people) are appropriated by greedy concessionaires in Mozambique" (Interview with animal rights activist 1, 2012). The reputation of the concessionaires suffered a further blow after a safari outfit was caught luring lions with bait mounted on the boundary fence (which had been cut) out of the KNP for "canned hunting" (Interview with conservators, 2013).²⁷² More recently, the multinational sugar corporation Tongaat Hulett has come under fire after four Kruger elephants were killed and slaughtered near its Xinavane sugar processing mill in November 2014 (Bloch 13 November 2014).²⁷³ According to anti-poaching and intelligence officers operating in the area (Interviews, 2013), the sugar plantation and two other concessions were insufficiently guarded.²⁷⁴ Due to their strategic position adjacent to the southern sections of the KNP (which are high rhino-density areas) and the lacking security detail, these concessions had become ideal launching pads for rhino poaching and smuggling between the KNP and Mozambique.²⁷⁵

²⁷¹ There are several privately owned reserves along the western boundary of the KNP in South Africa, which also offer trophy hunting including Big Five hunts. Like their Mozambican counterparts, these reserves have been on the receiving end of massive criticism.

²⁷² Canned hunting refers to a trophy hunt where the animal is kept in a confined space. This practice minimizes the chances of a 'fair chase' while increasing the success rate of the hunter bagging a kill.

²⁷³ Tongaat Hulett acquired the 14,000 hectares Massitonto concession in 1998. The concession borders the KNP and Magude village, where several notorious gangs of poachers originate. The corporation owns close to 90 % of the company operating the mill while the remaining shares accrue to the Mozambican government (MacLeod 7 November 2014).

²⁷⁴ Investigative journalist Fiona MacLeod reported that there had been a rapprochement between KNP officials and the sugar corporation in 2014. While KNP field rangers had provided training to staff members on the plantation, "their suggestions on how to improve anti-poaching interventions at Massitonto were not implemented with the necessary sense of urgency" (MacLeod 7 November 2014).

²⁷⁵ In the past, anti-poaching trackers discovered spoor of Kruger rhinos that had crossed into the sugar plantations. Unsuccessful attempts were made to get the rhinos repatriated to the KNP, the dehorned carcasses were later found in neighbouring concessions (Interviews, 2013)

The commercial interests of Mozambican government officials in these concessions not only suggests a conflict of interest as regards the transfer of communal land into state and private ownership but already scarce state resources have been promised to protect and secure these concessions.²⁷⁶

The central role of the PPF during the inception period of the GLTP has carried through to the present. The conservation NGO has taken on a leading role in the day-to-day management of the Park. According to its website (Peace Parks Foundation 2014e), Mozambique “requested Peace Parks Foundation’s assistance in overseeing its development as a Southern African Development Community approved project”. The ‘request for assistance’ includes two technical advisors, one in charge of wildlife conservation and anti-poaching operations; the other is responsible for project management of community initiatives and development of park infrastructures (Interviews with PPF, 2012, 2013 and 2014). The Mozambican government appoints the park warden. The funding for the development of park infrastructures, community upliftment projects, and conservation and anti-poaching initiatives is channelled through and disbursed by the PPF, indicating the powerful role of the NGO.

4.6 Concluding remarks

The objective of this chapter was to demonstrate the path dependency displayed by consecutive conservation regulators and the effect this has had on conservation-orientated initiatives. Wildlife protection was closely linked to colonial dispossession, subjugation, exploitation and loss of hunting rights of local communities. The privatization of farmland and wildlife further exacerbated the alienation and marginalization of local communities. Underpinning these conservation regimes are archaic and elitist preservation and conservation paradigms that discount the potential for harmonious relationships between

²⁷⁶ Fiona MacLeod (7 November 2014) reported that Tongaat Hulett had requested assistance from the Mozambican government, who in turn had undertaken to assign 20 anti-poaching professionals to the concession.

local communities and wildlife. Instead of including local communities in parks and conservation, wildlife conservation continues as a state and private sector-driven enterprise. Parks and game reserves continue to present manifestations of colonial dispossession and apartheid segregation. More than twenty years after the end of apartheid, conservation areas are still seen as symbols of white elite interests and wealth, inaccessible to the poor majority. These problematic conservation approaches and paradigms have led to a historical lock-in, where romantic and utopian notions of 'Africa's Wild Eden' continue to undermine support and buy-in of local communities in wildlife conservation. The question arising here is: What are we trying to protect? Without the broad-based support of local communities, illegal wildlife markets will continue to flourish. As long as communities are excluded from the benefits of wildlife and parks, a dead rhino will be valued higher than a live one. In light of the systemic exploitation of local communities during the colonial and apartheid periods, as well as economic deprivation brought on through neoliberal conservation regimes nowadays, it is not surprising that many poachers originate from these communities. While a typical narrative portrays rhino poachers as seeking to fill cooking pots and pocket books (Kahler/Gore 2012), this chapter showed why poaching could also be construed as an expression of dissent and unhappiness with the system, the rule-makers and the rules.

This chapter also described how rhino horn supplies were established through the economic valuation of rhinos. Two waves of economic valuation occurred in South Africa. The first valuation involved the hunting of rhinos during the colonial period while the second valuation relates to the valuation of the rhino as a trophy animal and a tradable live animal from the 1960s and 1970s onwards. To parks authorities in South Africa, the sale of live rhinos constitutes a much-needed cash injection. The economic valuation has created a muddled relationship between the public and private sector, where economic necessity and bottom-lines are pitted against ethical considerations, due diligence, and conservation objectives. The section also began to sketch the outlines of the gray area between legality and illegality on the one hand; and legitimacy and illegitimacy of the market exchange and rules governing it, on the other.

Chapter 5: The international political protection regime: The road to extinction is paved with good intentions

“And I dream of the vast deserts, the forests, and all of the wilderness on our continent; wild places that we should protect as a precious heritage for our children and for our children’s children. We must never forget that it is our duty to protect this environment (Mandela 2013).”

5.1 Introduction

Taken at face value, the protective and conservation measures employed to safeguard the rhino would suggest that the animal should be one of the best-protected and cared for creatures in South Africa. The South African military, a multitude of private security companies, public and private intelligence operatives, law enforcement agencies and hundreds of NGOs have stepped up protective measures to ‘save’ the rhino. In spite of all the ‘do-gooders’, financial donations and the securitization of what used to be seen as a conservation issue, rhino deaths have escalated over the past decade. The rhino protection and poaching economies have become the daily bread and butter of many actors, with the boundaries becoming somewhat blurred. This chapter provides an overview of key political actors, their agendas, and measures associated with rhino protection and conservation.

The notion of contested illegality is of pivotal importance to this chapter, as it constitutes the primary legitimation device employed by various actors along the illegal supply chain in defence of their illegal economic activities. Contestation of the illegality is intricately linked to acceptance and social legitimacy of the law. Chapter 4 sketched the historic alienation of rural people living in and adjacent to parks and showed why they do not regard the rules as legitimate or applicable to them. The trade ban of rhino horn originates in a multinational environmental treaty, which offers interesting insights as to how international bans are implemented at the local level and why it might be difficult to garner buy-in of such bans when they are imposed “from the outside world”. While the focus is on actors and relationships linked to the illegalization of the trade in rhino horn and protection of rhinos, many of the same actors are relevant to the structure and functioning of the illegal supply chain and will also be of importance in the final two chapters of the dissertation. Chapter 4

highlighted problematic conservation paradigms and their conversion into policy approaches and how this affected local communities. Similar to the failings of the conservation paradigms and approaches discussed in Chapter 4, this chapter argues that the international political protection regime undermines rather than facilitates rhino protection. CITES proceeds on the assumption that trade bans are appropriate measures to deal with transnational wildlife trafficking.

5.2 The international regulatory backdrop: CITES

The United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) provides the international regulatory framework for international trade in endangered plant and animal species. Its stated aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species in the wild, and it accords degrees of protection to more than 35 000 species of animals and plants (CITES 2014c). In short, the illegalization of the trade in rhinos and rhino products is intricately linked to this multilateral environmental treaty, conversion of its determinations into domestic legislation and implementation thereof. Seen as the ‘Magna Carta’ of wildlife by some (Layne 1973: 99), others regard the CITES approach to conservation as fundamentally flawed (for alternative perspectives see: Hutton/Dickson 2000a). As most of the planet’s remaining biodiversity is located in the Global South and northern countries are seen as particularly concerned about the potential loss of biodiversity, the Convention has become a platform for North-South conflict (Hutton/Dickson 2000b: XV), and its legitimacy has suffered as a consequence. As shown in the previous chapter, different paradigms, and conceptions of nature, preservation and conservation²⁷⁷ determine the trajectory and path dependency of regulatory frameworks. Powerful alliances between state and non-state actors have had a lasting influence on the cornerstones of this convention.

²⁷⁷ The preservationist paradigm refers to a fortress-like approach to nature, which minimizes human influence in order to maintain “pristine wilderness”. The approach stands in stark contrast to the conservation paradigm, which allows for humans and nature to share a common space and coexist (Freitag 2012).

The CITES was originally signed in Washington in 1973 and entered force in 1975. Earlier regulatory attempts to deal with the international problem of unsustainable exploitation of wildlife were unsuccessful because the former colonial powers struggled to reach consensus and broad ratification of various instruments (Sand 1997: 19). According to an academic specializing in environmental law (Interview with Academic 1, 2013), the early attempts at regulating different species of fauna and flora laid the foundations for individual species protection and the system of negative listing:

“In the 1880s, 1890s, you started to get the first protection and conservation laws. This wasn’t the same as it is today. Shooting was for the elite, and they wanted to be the only ones to shoot. I suppose that view still exists today. The poacher’s philosophy being used today came from that period. If you look at the 1900 London Convention for Birds Useful for Agriculture and the 1902 Paris Convention, they both take the approach of categorizing species, and so when we look at the final Convention, it has two lists. It creates lists of birds that are useful and birds that are noxious, poisonous, toxic – to be disposed of on sight. The birds that were considered useful were the ones that ate insects. The ones considered noxious, where those that ate seeds. So for example, the bearded vulture is on the noxious list, and today they are rare. These Conventions were taking the approach of saying these species will be protected and those not. In many ways, that is still with us. It went through a few incarnations but when you look at it today, we are still categorizing certain species deserving of protection. Most of the conventions do. You are dividing animals and plants instead of taking the broad approach of protecting habitats, the ecosystems.”

The above-mentioned system of negative lists (CITES calls them ‘Appendices’) provided the first bone of contention during the drafting process of CITES. The IUCN had suggested that wildlife trade should be controlled or banned on the basis of global lists of threatened species to be drawn and updated upon advice by an international committee of experts. A coalition of countries from the Global South was in favour of range states determining their lists of tradable species. The US supported the bid thereby paving the way for the Washington Conference, which led to the creation of CITES (Sand 1997: 20). The core approach of CITES is to subject all wildlife imports to mandatory licensing with permits issued by the exporting countries on the basis of an agreed negative listing (Sand 1997: 20). Twenty-one states signed the Convention initially, which had placed 1100 species on the appendices (see below). The underlying philosophy was that international cooperation would prevent international trade causing species extinction, as stated in the preamble of the Convention (CITES 1973):

“International cooperation is essential for the protection of certain species of wild fauna and flora against over-exploitation through international trade”.

In essence, CITES accords protection to about 35 000 animal and plant species, which are included in the three Appendices. Species are considered for inclusion in or deletion from the Appendices at the Conference of Parties (CoP), held every three years. Appendix I provides a list of species threatened with extinction and thus commercial trade in wild-caught specimens of these species is illegal (CITES 2002).²⁷⁸ The Scientific Authority (a further requirement of CITES)²⁷⁹ of the exporting country must issue a non-detriment finding, assuring that such export would not adversely affect the wild population. Any form of trade in these species requires export and import permits. The Management Authority of the exporting state is expected to check that an import permit has been secured and that the importing state is capable of providing adequate care for the specimen (CITES 1973).

Species listed under Appendix II are not necessarily threatened with extinction but may become threatened unless trade is subject to strict regulation to prevent extinction in the wild. International trade may be authorized by the presentation and granting of an export permit or re-export certificate. No import permit is necessary although some countries may require import permits in terms of their own stricter domestic measures. The exporting state has to issue a non-detriment finding and export permit. Appendix III relates to species, which were listed after one state party asked other state parties for assistance in controlling trade in a specific species. These species are not necessarily threatened with extinction globally. Trade is only authorized by way of an appropriate export permit and a certificate of origin (CITES 1973). Table 10 summarizes the conditions of trade in relation to the different CITES categories of protection. CITES allows for some room to manoeuvre when it comes to the listing of cases where the conservation status of a species differs across its range. So-called ‘split listing’ refers to cases “where different populations or sub-species are in different

²⁷⁸ The trade of captive-bred animals or cultivated plants of Appendix I species are considered Appendix II specimens with the concomitant requirements (CITES 2002). In other words, so-called Appendix I species can be traded if they do not derive from wild populations.

²⁷⁹ According to Article IX, signatories have to designate one of or more Management Authorities in charge of administering the licensing system, and one or more Scientific Authorities to advise CITES on the effects of international trade on CITES-listed species (CITES 1973).

Appendices and where a population (or sub-species) may be listed and another may not” (Willock 2004: 15). Rhinos are an example of such a split-listing, as white rhinos in South Africa and Swaziland were moved to Appendix II (more details will be provided later in this chapter).

Table 10: Conditions of trade under the Appendices I, II and III of CITES

Appendix	Permit conditions	Export Permit required?	Re-export certificate required?	Import permit required?	Non-detriment finding required?
I	Not for commercial trade; trade not detrimental to the species; trade is legal; avoids cruel or injurious shipping of live specimens	Yes (granted only if import permit already in hand)	Yes (granted only if in accordance with CITES and there is a valid import permit)	Yes	Yes
II	Trade not detrimental to the species; Trade is legal; avoids cruel or injurious shipping of live specimens	Yes	Yes (granted only in accordance with CITES)	No (unless required under national law)	Yes
III (if trade originates with listing party)	Trade is legal and avoids cruel or injurious shipping of live specimens	Yes	Not applicable	No (unless required under national law)	No
III (if trade does not originate with listing party)	Trade is legal and avoids cruel or injurious shipping of live specimens	No (certificate of origin only)	No (certificate of origin only)	No (unless required under national law)	No

Source: adapted from: Clarke (2004: 11)

Despite the noble intentions, the initial signatories of the Convention had little information on the scale of the problem and how to operate trade controls (Huxley 2000: 8). Oryx (cited by: Huxley 2000:) observed, “...when CITES was originally set up and signed, few administrators realized that more than a handful of species were involved”. In addition, few countries had experience in handling trade controls of the type set out in the CITES. The lack of understanding of how to operate the system of trade regulations has persisted over the years, and continues to pose problems at the Conferences of Parties (CoPs). During the early years, it

was realized that the treaty needed a great deal of interpretation and fine-tuning if it were to work effectively. Moreover, a central issue was the criteria to be used for including species in the Appendices. The Washington Conference had neglected to establish such criteria. It was only at the first Conference of the Parties in 1976 that explicit criteria were formulated. However, many states were not happy with the criteria, and they remain a contested issue in the present context (Huxley, 2000: 8).

Although CITES is supposed to be legally binding, it is the prerogative of individual states to domesticate and implement wildlife trade regulations at the local level. As is the case with most other international conventions, there is little recourse to dealing with infractions or non-compliance by way of international enforcement. Infractions may include negligence with regards to the issuing of permits, excessive trade, lax enforcement or failure to produce annual reports. When informed of an infraction, the Secretariat is required to notify all other State Parties. The offending party is given time to respond to the allegations and may be provided with technical assistance to prevent further infractions (CITES 1973).²⁸⁰ There are 180 parties to CITES as of November 2014, including all the rhino range, transfer and consumer countries.²⁸¹ South Africa ratified the Convention on 15 July 1975, rendering it one of the Convention's earliest signatories. As the Convention enters its forty-first year of coming into force, the political, social, economic and environmental dimensions of the modern world have changed since its inception. It is noteworthy that the apartheid regime gave CITES the stamp of approval. Moreover, some consumer countries such as Cambodia, Laos, Myanmar, Taiwan, Vietnam and Yemen only joined CITES more than 20 years after the Convention entered into force, allowing a massive window for uncontrolled international trade in wildlife in the interim period (see Table 11). As of 2015, the remaining African rhino range states are Botswana, Kenya, Malawi, Namibia, South Africa, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe. The following sections will discuss the Convention's limited success in curbing

²⁸⁰ The Secretariat may also rule that all permits are to be confirmed by the Secretariat, it may suspend cooperation, issue a formal warning, visit the country to verify capacity or recommend the suspension of CITES-related trade, which will only be resumed once corrective measures have been implemented by the offending Party (CITES 1973).

²⁸¹ Southern Sudan, the newest state is the only country in Africa not to have joined CITES. Angola acceded on 31 December 2013 (CITES 2014b).

exploitative wildlife trade, lack of acceptance and legitimacy and how this may have affected illegal market flows.

While civil society organizations might lobby government regarding the ratification and implementation of specific international conventions (such as the Rome Statute), governments do not usually consult affected constituents on the virtues and failings of becoming a party to an international treaty. As a consequence, local constituents may regard international conventions as ‘alien implants’ which lack legitimacy and acceptance at the local level. According to a former government official, international instruments are routinely signed off in southern Africa, often contingent on whether there are perceived benefits to the signatory, or because other states or institutions apply some form of the ‘carrot and stick’ principle to garner broad-based ascension or ratification. In some instances, such international instruments travel no further than the initial signature (Interview with government official 6, 2013). In light of the many conventions and initiatives in circulation, it is perhaps not surprising that politicians have to prioritize amongst a vast pool of options. Domestication of CITES has been riddled with problems and shortcomings, which relate to the contents and objectives of the Convention, enforcement mechanisms and its legitimacy at the local level, particularly in the Global South.

Table 11: When did rhino range, transit and consumer states join CITES?

Name of country	Relevance to rhinos	Date 1	Date 2
Angola	FR & T	02/10/2013 (A)	31/12/2013
Botswana	R & T	14/11/1977 (A)	12/02/1978
Cambodia	FR & T & C	04/07/1997 (R)	02/10/1997
China	FR & T & C	08/01/1981 (A)	08/04/1981
Czech Republic	T & C	14/04/1993 (S)	01/01/1993
DR Congo	FR & T	20/07/1976 (A)	18/10/1976
Ethiopia	FR & T	05/04/1989 (A)	04/07/1989
Germany	T	22/03/1976 (R)	20/06/1976
India	R & T	20/07/1976 (R)	18/10/1976
Indonesia	R & T	28/12/1976 (A)	28/03/1979
Ireland	T	08/01/2002 (R)	08/04/2002
Japan	C	06/08/1980 (Ac)	04/11/1980
Kenya	R & T	13/12/1978 (R)	13/03/1979
Laos	T & C	01/03/2004 (A)	30/05/2004

Lesotho	T	01/10/2003 (R)	30/12/2003
Malawi	R	05/02/1982 (A)	06/05/1982
Malaysia	R & T	20/10/1977 (A)	18/01/1978
Mozambique	FR & T	25/03/1981 (A)	23/06/1981
Myanmar	R & T & C	13/06/1997 (A)	11/09/1997
Namibia	R & T	18/12/1990 (A)	18/03/1991
Nepal	R & T	18/06/1975 (A)	16/09/1975
Netherlands	T	19/04/1984 (R)	18/07/1984
Nigeria	T	09/05/1974 (R)	01/07/1975
Pakistan	R	20/04/1976 (A)	19/07/1976
Poland	T	12/12/1989 (R)	12/03/1990
Qatar	T & C	08/05/2001 (A)	12/03/1990
Singapore	T	30/11/1986 (A)	28/02/1987
South Africa	R	15/07/1975 (R)	13/10/1975
Swaziland	R & T	26/02/1997 (A)	27/05/1997
Tanzania	R & T	29/11/1979 (R)	27/02/1980
Thailand	T & C	21/01/1983 (R)	21/04/1983
Uganda	R	18/07/1991 (A)	16/10/1991
United Arab Emirates	T & C	08/02/1990 (A)	09/05/1990
United Kingdom	T	02/08/1976 (R)	31/10/1976
United States	T	14/01/1974 (R)	01/07/1975
Vietnam	FR & T & C	20/01/1994 (A)	20/04/1994
Yemen	C	05/05/1997 (A)	03/08/1997
Zambia	R & T	24/11/1980 (A)	22/02/1981
Zimbabwe	R & T	19/05/1981 (A)	17/08/1981

Source: extracted from CITES (2014b)²⁸²

Date 1: (A) Accession
(Ap) Approval
(C) Continuation
(R) Ratification
(S) Succession

Date 2: Date of entry into force

Relevance to rhinos:
(R) Range State
(FR) Former Range State
(T) Transit State
(C) Consumer State

Chapter 3 dealt with the long history of rhino horn demand. The total number of rhinos in the 1970s and 1980s best demonstrates the gravity of the situation in Africa at the time. The IUCN estimated that 8,458 white and black rhinos survived by 1990 (Cumming/du Toit/Stuart 1990:

²⁸² Rhino horns originating from thefts out of museums and private collections in countries outside the traditional range states were not included in this table. The categorization of countries is based on current data collected by the author.

10). It is thus not surprising that CITES has engaged with the rhino issue since its early days. When CITES entered into force in 1975, rhinos and their products were among the first species to be placed in Appendices I and II. All rhino species were placed in Appendix I in 1977, effectively banning international trade except under exceptional circumstances (Milliken/Shaw 2012: 44). Despite the trade ban, the number of black rhinos continued to plummet, and rhinos became locally extinct in at least 18 range states in Africa over the next two decades (Leader-Williams 2003: 92). The failure of the Appendix I listing prompted further action. Resolution 3.11 of 1981 called on states that were not parties to CITES (Taiwan and Yemen were major consumer nations and not parties to CITES at the time) to take preventative measures to curb illegal trade. Moreover, the Resolution called for a moratorium on the sale of all government and para-statal stocks of rhino horn as well as the mandatory annual reporting of horn assets to the Convention (IUCN 2000: 47). The passive opposition of consumer countries (by initially not joining CITES) constitutes a significant hurdle to legitimizing and implementing the trade ban. Essentially, the trade and consumption of rhino horn were legal until consumer countries ascended to or ratified CITES, and domesticated local prohibition.

At the 6th Conference of Parties in Ottawa, Canada, it was noted that the black rhino continued to “decline catastrophically” (Wijnsteker 2003: 198) and thus Resolution 6.10 of 1987 called for immediate, drastic and even stricter measures to be taken to stop the illegal cross-border trade in rhino horn. All domestic and international trade was prohibited with the exception of the movement of non-commercial hunting trophies that needed requisite CITES documentation. Moreover, governments were again urged to destroy all government and para-statal stocks of rhino horn (in return they would be compensated with external aid to assist in rhino conservation – ostensibly these funds would be made available by member states from the Global North). Law enforcement agencies were instructed to be particularly alert to the trafficking of rhino horn. Parties were asked to increase penalties for individual and corporate offenders involved in cross-border poaching and trafficking of horn. Those countries that ignored the earlier resolution were supposed to be pressurized by way of economic, political and diplomatic sanctions (Leader-Williams 2003: 92–94). Although the resolution chartered new territory by going beyond the remit of trade regulations, the success was again limited. Many states did not destroy their rhino horn stockpiles nor was the

promised compensation to promote the destruction of stockpiles forthcoming (IUCN 2000: 47). In addition, several key consumer nations²⁸³ failed to implement domestic laws to curb the illegal trade (Leader-Williams 2003: 94). It bears mentioning that South Africa allowed the export of white rhino trophies since 1979 (Milliken/Shaw 2012: 44). South Africa was subject to international sanctions due to her racist apartheid regime during the first 20 years of CITES. Since the advent of democracy in 1994, the South African wildlife hunting industry has experienced a massive boom and became a top destination for 'Big Five' hunting (Interview with Journalist 1),²⁸⁴ including the rhino (see also Chapter 4).

Over the course of the next five years, the governments of South Africa, Namibia and Zimbabwe began to express their disenchantment with the international ban on the trade in rhino products, and proposals for a controlled legal trade were made. All three countries held considerable stocks of horn attained through the collection of horn from natural mortalities and confiscations, and in the case of Namibia and Zimbabwe through dehorning of animals, undertaken as a protective measure (Leader-Williams 2003: 94). For all intents and purposes, this constitutes the first contestation of illegality (against the CITES trade ban) with regards to the trade in rhino horn. In other words, the disillusionment of the three southern African countries constitutes a form of contested illegality at the macro level, which was going to influence future policy directions on the matter. Proposals to down-list rhinos from Appendix I to Appendix II were rejected at the CoPs in 1992 and 1994.²⁸⁵ The 9th CoP in Fort Lauderdale had taken place only six months after the election of the first democratic government in South Africa in 1994. South Africa's quest for a controlled trade continued and in recognition of the country's success in rhino conservation and management, the populations of white rhino were moved to Appendix II in 1994. An annotation confined the permissible trade to live rhinos to "acceptable and appropriate destinations and hunting trophies only" (CITES 1994).

²⁸³ China, South Korea, Taiwan and Yemen

²⁸⁴ Originally the term 'Big Five' was a hunting term, which has been adopted into common parlance. The 'Big Five' refer to five of Africa's great wild animals: the African lion, African elephant, Cape buffalo, African leopard and the white or black rhino.

²⁸⁵ Outside the confines of CITES, the US threatened China, South Korea, Taiwan and Yemen with the suspension of any wildlife and fisheries trade under the Pelly Amendment (US domestic legislation governing wildlife and fisheries trade). The countries leapt into action by passing some domestic laws and intensifying efforts to curb illicit trade (Leader-Williams 2003: 94).

Swaziland's white rhino population was also granted Appendix II status in 2004, tied to a partial annotation for live sales and hunting trophies only and subject to quotas set as percentages of the total rhino numbers (Milliken/Shaw 2012: 44). At the same Conference of Parties, Resolution 9.14 was passed, which repealed the earlier two resolutions. The resolution urged, amongst others, those parties with legal stocks to identify, mark, register and secure all such stock and to implement adequate legislation including domestic trade restrictions.²⁸⁶ South Africa again pushed for a controlled trade of both white and black rhino species at the next Conference of Parties in 1997. By that stage, South Africa was conserving some 70 % to 80 % of the world's rhinos (Leader-Williams 2003: 96). The country also proposed to change the Appendix II annotation to allow for trade in rhino parts and derivatives (as opposed to the 1994 listing which only allowed trade in live rhinos and hunting trophies). State officials expressed concern about the incentives for rhino conservation, especially for private rhino owners, who conserved some 15 % of South Africa's rhinos at the time. The proposal was rejected, as the European Union (EU) and the United States (US) did not support the proposal (the EU holds considerable sway at CITES as its member countries tend to vote as a block). While the EU deemed the proposal premature as no adequate trade control mechanisms had been put in place, the US indicated that the amendment would undermine progress to curb the demand for rhino horn in consumer nations (Department of Environmental Affairs 2012).

After the 1997 rejection at CITES and in light of its acceptance into regional bodies, South Africa got increasingly involved with relevant Southern African Development Community (SADC) initiatives.²⁸⁷ A SADC CoP preparatory meeting ahead of the Conference of Parties in 2000 recommended that a comprehensive trade system be developed before a proposal was submitted at the CoP (Department of Environmental Affairs 2012). Namibia and South Africa were granted an annual export quota of five hunting trophies of adult male black rhinos at the 13th Conference of Parties in 2004 (CITES 2004). Says a South African expert (Interview with Conservator 7):

²⁸⁶ Reeves (2002: 189–200) provides a fascinating account of the political manoeuvring behind the scenes at CITES in the run up to the CoPs in 1992 and 1994.

²⁸⁷ South Africa joined SADC after the apartheid system was abolished in 1994.

“In '97 we asked again for trade and lost with one or two votes, then we left it and concentrated on our elephants. From 2000, elephants were key at CoP 12 and 13, and after CoP 14 we could trade in ivory, and then at CoP 15 we didn't take any proposals because Tanzania and Zambia took their ivory proposals, so it's not that South Africa never asked for trade in rhino horn before.”

The frequency of rhino poaching increased during the 2000s (later chapters will argue that the actual number of illegal rhino horns entering the market increased marginally as horn supplies derived from other sources) and South Africa put the trade proposal on the backburner until CoP 16 held in Bangkok, Thailand in 2013. At the occasion, Edna Molewa, the South African Minister of Environmental Affairs announced that South Africa was considering proposals to seek legalization of trade in rhino horn at the CoP 17 to be held in South Africa in 2016.

Molewa (quoted in: Smith 2013) explained the position:

"Our rhinos are killed every day and the numbers are going up. The reality is that we have done all in our power and doing the same thing every day isn't working. We do think that we need to address this issue of trade in a controlled manner so that we can at least begin to push down this pressure."

The rhino issue at CITES cannot be separated from parallel processes and debates happening at CITES because they illustrate the polarization at CITES. The north-south divide²⁸⁸ and the perceived politicization of CITES became increasingly evident when the African elephant was 'uplisted' (moved from Appendix II to Appendix I) and the trade ban of ivory products entered into force in 1989. The proposal for the complete ban was based on recommendations from the CITES Elephant Working Group and a study undertaken by the specially convened Ivory Trade Review Group. The group found that neither the quota management system nor any of the earlier CITES resolutions had stemmed the tide against illegal poaching of elephants and trade in ivory (t Sas-Rolfes 2000: 75). In the run-up to the ban, Western conservation NGOs had campaigned in favour of prohibition. The CITES proposal was adopted despite objections from 9 southern African elephant range states, and Japan and China. Back then the population of elephants was considered stable or rising in Botswana and Zimbabwe. In some range

²⁸⁸ The term is used with reservation as some states in the Global South (notably Kenya) have aligned themselves with the anti-sustainable use faction, which is largely linked to countries and conservation NGOs in the Global North.

states, notably Kenya and Zimbabwe, expanding elephant populations were destroying the farming operations of rural farmers ('t Sas-Rolfes 2000: 77). Zimbabwe became particularly vocal after several attempts to down-list elephants were rejected at subsequent CoPs despite the growth of its herds and competent conservation management principles being applied. Matters climaxed when a group of southern African countries threatened to withdraw from CITES at the 8th Conference of Parties held in Kyoto. The southern African faction felt that CITES listings were increasingly used for political purposes, and listing decisions were not based on sound scientific data.²⁸⁹

The disputed elephant listing triggered a larger debate over which conservation paradigms the CITES regime should employ: the sustainable use paradigm was pitted against the preservation paradigm (Mofson 2000: 111). The southern African faction advocated the sustainable use of wildlife as a conservation tool. By way of background: It is important to note that CITES tends to focus on the global level of imperilment of a species when determining its listing. In essence: regardless of its status in individual range states, if a species is deemed as endangered at the global level, then its trade may be banned. Through this approach, CITES treats natural resources within individual countries as part of the global commons (Castley/Hall–Martin 2003: 129). When it comes to shouldering the costs of conservation of listed species in individual countries, no state carries the financial responsibility for the costs (financial, administrative and human resources) it may be placing on another state (Martin 2000: 131). In other words, the range states themselves have to carry the costs attached to the listing and attempts at de-listing of a species.²⁹⁰ The listing process has been subject to scathing criticism by countries affected by listing decisions. Western experts, scientists and lobbyists are seen as the main catalysts behind the listing of threatened species. Broad consultation with communities that are affected by such listings is perceived to be lacking (Interviews with Conservator 3 & 4, 2013). With every additional

²⁸⁹ In response to the contested elephant issue, Zimbabwe and its partners from the Southern African Centre for Ivory Marketing (SACIM) submitted a proposal to list the northern Atlantic herring in Appendix I. The herring was chosen because it was an important commercial commodity for many European countries, just as the elephant was for many African range states. The proposal was withdrawn due to weak supporting data (Mofson 2000: 110).

²⁹⁰ Mozambique's experience with attempts at getting crocodiles delisted is instructive. The southern African nation was required to spend a great deal of money to prove that a species locally considered a pest was not endangered in order to trade crocodile skins from abundant populations (Huxley 2000: 9).

listing or annotation, the Convention becomes more complex, difficult and expensive to operate – and not only to countries located in the Global South (Huxley 2000: 9). Moreover, while an objective scientific assessment might treat all species threatened by exploitative trade with equal seriousness, in practice not all species are treated the same. Due to cultural, political, economic and aesthetic reasons, some species have been afforded greater importance. CITES appears to privilege animals over plants, and certain species that have been dubbed “charismatic megafauna” (Dickson 2003: 24). The rhino falls into this category (elephants and tigers are other dominant representatives of this type of animal). While the appropriation of charismatic megafauna may be legitimate for the attainment of conservationist objectives, conservation NGOs have been using the convention as fund-raising tool. The typical trajectory would incorporate the declaration of a crisis, the mounting of a campaign coupled with fund raising to “save” the species. The process culminates with the species getting listed on Appendix I, and the NGOs’ coffers filled with donor monies (Huxley 2000: 10).

In addition, the conservation ideology underpinning the CITES regime in its early days excluded the possibility that trade may hold benefits for species, ecosystems or people (Martin 2000: 129). While trade might be the principal threat to the survival of species, trade regulations may be inappropriate in dealing with threats such as human encroachment, climate change or organized crime. It was assumed that trade regulation constituted the most effective way of achieving conservationist goals (Dickson 2003: 26). Moreover, listings do not only affect the wild fauna and flora that CITES seeks to protect but also the people that live in close proximity to them. These rural people often eke out a living from harvesting or trading in wild animals or plants. From one day to the next, a former harvester may be labelled a poacher or criminal. As a consequence, there were calls that CITES should consider the plight of rural people when passing measures that affect their livelihood (Dickson 2003: 23).

In 1992, CITES recognized with Resolution 8.3 that the majority of species it sought to protect were located in the Global South. It also acknowledged that the sustainable use of wild fauna and flora, irrespective of being consumptive or non-consumptive, provided an economically viable option (CITES 1992). Moreover, it was accepted that unless conservation programmes took into account the needs of local people, and provided incentives for sustainable use of

wild fauna and flora, conversion to alternate forms of land use might occur (Wijnsteker 2003: 59). To this day, the issue of sustainable use constitutes a highly contentious issue at CITES CoPs. There is a significant lobby within the environmental movement (predominantly located in the Global North with strategic partners and offices located around the globe) that is vehemently opposed to any trade in animal species, particularly when it is premised on the killing of these animals (Dickson 2003: 24). This lobby holds considerable sway at CITES, directly and indirectly affecting regulations that lead to restrictions on trade in wildlife. Some southern countries object to the strong influence of animal rights and conservation NGOs at CITES, portraying the anti-use stance as “an illegitimate imposition of specific moral values on the wider conservation community” especially since the sustainable use of wildlife is seen as a means to uplift rural communities (Dickson 2003: 24–25). Despite the apparent conflict between conservation principles as envisaged in the original convention and notions of sustainable use and development, CITES has acknowledged developmental concerns of the custodians of most of the remaining biodiversity in the Global South in its strategic plan of 2000:

“The Strategic Plan confirms the recognition by the parties that sustainable trade in wild fauna and flora can make a major contribution to securing the broader and not incompatible objectives of sustainable development and biodiversity conservation (CITES Secretariat quoted in: Dickson 2003: 25).”

What has been deemed a “somewhat opaque endorsement of the relevance of sustainable development” (Dickson 2003: 25) cleared the path for countries of the Global South to insist that developmental concerns should be considered in future formulations of wildlife policies. At the 16th CoP, CITES extended the validity of the Strategic Vision and Action Plan to 2020. In a significant move to broaden its repertoire, appeal and impact, CITES approved a new framework for future policy development. The framework incorporates new goals and objectives. The international body aspires to contribute to the attainment of the UN Millennium Development Goals relevant to CITES, the ‘Strategic Plan for Biodiversity 2011–2020’, the Aichi Biodiversity Targets and to the implementation of relevant outcomes of the United Nations Conference on Sustainable Development of 2012. And most significantly, the new framework proclaims to consider “cultural, social and economic factors at play in producer and consumer countries”, promote “transparency and wider involvement of civil

society in the development of conservation policies and practices” and ensure “that a coherent and internationally agreed approach based on scientific evidence is taken to address any species of wild fauna and flora subject to unsustainable international trade” (CITES 2013a: 2). The suggested institutional change is reflected in the new CITES vision statement:

“Conserve biodiversity and contribute to its sustainable use by ensuring that no species of wild fauna or flora becomes or remains subject to unsustainable exploitation through international trade, thereby contributing to the significant reduction of the rate of biodiversity loss and making a significant contribution towards achieving the relevant Aichi Biodiversity Targets.” (CITES 2013a: 2)

Whether the chosen path will cause more division amongst parties at CITES or assist CITES in regaining credibility and legitimacy amongst disgruntled parties is a matter of future analysis. However, data collected prior and during the course of this project revealed sentiments that reflected negatively on CITES, the Appendices and the perceived influence of Western conservation NGOs and the animal rights movement whereas local (African) environmental justice movements had no or little representation at CoPs. Falling short of calling CITES a neo-colonial institution, government officials from the SADC region interviewed for a project on organized crime trends in southern Africa portrayed CITES as an instrument that was developed and sponsored by countries of the Global North. It is seen to reflect Western conservation philosophies and animal rights ethics while paying “little concern to the plight of African rural people and their developmental concerns” (Institute for Security Studies 2009–2010). Officials also pointed to the uncontrolled “slaughter of wild animals” during the colonial period, questioning why the northern relatives of those colonial hunters should have any say in African conservation matters. The question arose of why Africans should preserve Western-style safari parks filled with wild animals when European countries had failed so dismally in conserving their own wilderness areas. While the northern lobby was quick to criticize and determine the way forward, they failed to “put their money where their mouth is” in terms of paying compensation and implementation of rules (Interviews, 2013). The perception that northern countries hold sway at CITES is supported by voting patterns at CoPs (EU member states usually vote as a block). During interviews for the current project, conservators and private rhino owners shared these sentiments. A South African law enforcement official said (Interview with law enforcer 3):

“It is crazy that these old colonial institutions are still in place. CITES decides how much and what we can sell. We stock about 90% of the world’s rhinos. So who are they to prescribe to us? I mean we are in a controlled area, where we manage stock. We know what we are doing and we are trying to protect them for our children.”

The significance of perceptions like the one expressed in the citation above, is how they affect the diffusion and acceptance of CITES at the local level. As will be shown in subsequent sections and chapters, local regulations such as the Threatened of Protected Species (TOPS) regulations and the moratorium on the domestic trade in rhino horn lack support and legitimacy amongst key constituencies in South Africa. In essence, the perceived unfairness of CITES as an international instrument that impacts national trade aspirations also affects the legitimacy of domestic laws, ordinances and regulations in South Africa and other range, transfer and consumer countries. The politicization and influence of northern countries at CITES explains in part why representatives of countries in the Global South muster limited political will to implement CITES decisions and regulations. Moreover, the normative agenda of CITES emulates the earlier discussed conservation paradigms, which tend to emphasize the irreconcilability between local people, conservation and wild animals. In light of the controversy surrounding CITES, it is not surprising that the international political protection regime has had limited success in disrupting transnational flows of rhino horn.

5.3 The international response

The previous section alluded to the perception of unfairness when it comes to listing decisions (illegalization) and shouldering the cost implications of such listings. This section provides a brief overview of the role of the international community in rhino protection in the form of political responses and their impact. An important aspect of the international response relates to the legislative and enforcement efforts in transit and consumer countries. Reprimands and the threat of sanctions on part of CITES, as well as pressure by the US (the Pelly Amendment), led to limited action by the major rhino horn consumer countries of the 1970s and 1980s.

China²⁹¹, South Korea²⁹², Taiwan²⁹³ and Yemen²⁹⁴ joined CITES (see Table 11) and passed sufficient domestic legislation (at the time) to avert sanctions and a fall out with the CITES Standing Committee.

South Africa is currently the principal supplier of illegal rhino horn through poaching and pseudo-hunting; however, organized crime networks have engaged in frauds, burglaries and robberies across the world. As will be shown in later chapters, the illicit supply chain of rhino horn involves nationalities from across the globe.²⁹⁵ Sellar (2014a) argues that while South Africa has been pulling its weight in curbing poaching and illegal trade, transit and consumer countries have been lagging far behind. Interviews with law enforcer and conservators echo Sellar's sentiments on the disconnect between the international ban as envisaged by CITES, and practical support for its implementation in transit and consumer countries. Sellar who headed the CITES law enforcement arm comments on the lacklustre follow up to CITES

²⁹¹ China joined CITES in 1981. The country was the world's largest exporter of patent medicines containing rhino horn and agreed to ban all exports in 1992. Chinese officials were not in favour of banning domestic trade at the time, claiming that rhino horn stock had been bought prior to China joining CITES. As pressure was mounting, the Chinese State Council banned with immediate effect the manufacture of all medicines containing rhino horn and tiger bones, and all domestic and international trade in rhino horn, tiger parts and derivatives. Moreover, it became mandatory to register all rhino and tiger stocks, and rhino horn was taken off the official pharmacopeia in 1993 (Reeve 2006: 191).

²⁹² The Republic of Korea avoided certification by the US upon passing domestic legislation and implementing effective measures to curb the sale of rhino horn. The Korean government passed a decree in 1993 that rendered the sale or display of rhino horn a punishable offence of up to 6-month imprisonment and a fine of US \$ 1250 (which translated to 1 million US \$ in 2006) (Reeve 2006: 190–191).

²⁹³ Taiwan became the largest importer of African and Asian rhino horn in the mid-1980s. A ban on the import of rhino horn was instituted in 1985, but it lacked implementation and enforcement. Despite the adoption of the Wildlife Conservation Act in 1989, which had banned the sale and display of rhino horn without a special permit in 1989, rhino horn remained openly on sale. Due to increasing international pressure and NGO campaigns, the government announced a full ban, the imposition of fines, and enforcement of the Wildlife Conservation Act in 1992. The US nonetheless imposed sanctions, which were only lifted in 1997, once the Wildlife Conservation Act complied with CITES guidelines and a special investigative unit had been set up (Reeve 2006: 194–196).

²⁹⁴ Yemen only joined CITES in 1997, but the Ministry of Supply and Trade issued a decree prohibiting trade in rhino horn that had not been processed into jambiya handles by 1992. Traders had two months to register stock of raw rhino horn and another month to have it marked before all unmarked stock was to be confiscated (Reeve 2006: 191).

²⁹⁵ Beyond the South African rhino harvesting and smuggling networks, Mozambicans, Zimbabwean, Congolese, Namibian and Swaziland nationals have been linked to rhino poaching while Vietnamese, Laotian, Thai, Chinese, Mozambicans and others are smuggling and trafficking rhino horn. Thai, Vietnamese, Polish, Czech and US nationals were involved in fraudulent hunting expeditions, and international organized crime networks such as the infamous Irish Rover gang have ransacked private collections, museums and galleries.

Rhinoceros Enforcement Task Force meetings. The CITES Secretariat convenes such meetings at regular intervals with the objective of bringing together law enforcement officials from rhino range, transit and consumer countries for the purpose of sharing intelligence and designing response strategies. Pursuant to CoP 16, the Secretariat arranged a CITES Rhinoceros Enforcement Task Force meeting in the Kenyan capital of Nairobi in October 2013. Representatives of wildlife enforcement networks and law enforcement personnel from 21 countries²⁹⁶ attended the meeting (CITES 2013b). Such meetings help to highlight complex diversity as to “experience, authority, skills and resources” of law enforcement officials across the world (Sellar 2014b). One of the outcomes of the meeting in Kenya was the decision to create a directory of national focal points. The resultant list would provide the contact details of individuals tasked with coordinating the investigation of rhino crimes in countries across the world (Sellar 2014a). Countries were given four months (until 28 February 2014) to provide the contact details of their national focal points to the CITES Secretariat for dissemination to relevant law enforcement bodies and wildlife enforcement networks (WENs). By August 2014, reminders had to be sent as only China and Greece had heeded the request. Nine states had designated and communicated their national focal points upon publication of the national focal points in October 2014. Two of the nine states that complied were not members of the task force (Greece and Japan). Essentially, 14 states deemed as rhino supply, transit or consumer countries failed to comply with a simple directive, including Vietnam which is a major transit and consumer country of rhino horn (CITES 2014a). Sellar’s comments (2014a) on this state of affairs are poignant:

“There must have been times, probably many times in recent years, when enforcement officers in South Africa have felt they are engaged in a lone battle. At least they can now take comfort from the fact that there are 8 countries out there ready to back them up. Only eight? Yes, South Africa’s focal point’s details are in the directory so it has to be subtracted. In the race to catch up with criminals, our feet are not even on the starting blocks yet.”

Not surprising, members of the international law enforcement community have expressed their disenchantment with the ‘soft’ approach of the CITES regulatory framework. Sellar

²⁹⁶ In addition to several regional wildlife and law enforcement networks, Botswana, Cambodia, China, the Czech Republic, Indonesia, Kenya, the Lao's People Democratic Republic, Malawi, Malaysia, Mozambique, Namibia, Nepal, the Philippines, Poland, South Africa, Thailand, Uganda, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Vietnam and Zambia were represented at the meeting (CITES 2013b).

(2014c: 7) argues, this time on behalf of the Global Initiative against Transnational Organized Crime:

“Although Parties are legally bound to penalize violations of CITES, the Convention was drafted in 1973 and, hence, its wording does not reflect the existing significant and serious levels of sophisticated and organized trafficking. It is acceptable, for instance, for Parties to respond to violations by way of administrative, as opposed to criminal, penalties.”

According to the law enforcement professional, the international community should deal with “environmental organized crime” in terms of the United Nations Convention against Transnational Organized Crime and requisite domestic laws that deal with organized crime, racketeering or conspiracy. The international law enforcement community has put measures into place to deal with wildlife trafficking (such as the International Consortium on Combating Wildlife Crime (ICWC)²⁹⁷ and the INTERPOL Wildlife Crime Working Group);²⁹⁸ wildlife crime is nonetheless considered the “Cinderella of crimes” (Interview with law enforcer 8).²⁹⁹ And in spite of being branded a “priority crime” by regional organizations such as the Southern African Regional Police Chiefs Cooperating Organisation (SARPCCO)³⁰⁰ and dedicated wildlife crime law enforcement regional networks such as the Association of Southeast Asian Nations Wildlife Enforcement Network (ASEAN-WEN)³⁰¹ and the Lusaka Agreement Task Force

²⁹⁷ The International Consortium on Combating Wildlife Crime is an initiative started by the CITES Secretariat, INTERPOL, the United Nations Office on Drugs and Crime (UNODC), the World Bank and the World Customs Organization (WCO) to bolster international cooperation regarding the combating of wildlife and forest crime.

²⁹⁸ There are numerous other international, regional and sub-regional initiatives with the objective of tackling illegal wildlife trade. It is beyond the remit of the dissertation to mention them all. A few initiatives were chosen to illustrate my argument. This choice should not detract from the significance and impact of other initiatives.

²⁹⁹ Wildlife crime is perceived as a ‘soft’ crime amongst many actors in the law enforcement community and beyond. Interviews with law enforcement officials working in the field of wildlife crime investigations revealed that they had to deal with the perception that wildlife crimes were less serious crimes.

³⁰⁰ Formally established in 1996, the Southern African Police Chiefs Cooperating Organization (SARPCCO) is a regional organization of Chiefs of Police for SADC member states. The 15 SADC member states are also SARPCCO member states (SARPCCO 2014).

³⁰¹ The Association of Southeast Asian Nations’ Wildlife Enforcement Network (ASEAN-WEN) is a regional intergovernmental law enforcement network designed to combat wildlife trafficking in Southeast Asia. Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Vietnam and Thailand are member countries (ASEAN-WEN 2014).

(LATF)³⁰², investigation of wildlife crime carries less prestige and status, and is even perceived as a ‘career sideliner’ in the southern African context (Interviews with regional law enforcement officials, 2012 and 2013). While ranked as the 4th most lucrative illegal market in the world,³⁰³ law enforcement officers seconded to wildlife investigations are perceived to draw the shorter straw in comparison to getting called up to international, regional desks or units that deal with drug markets, human and gun trafficking, or other “hard crimes” that have “human” victims (forgetting that there have been dozens of human victims – poaching suspects and rangers who have been killed in the wildlife ‘wars’ in southern Africa). According to this cognitive framing, wildlife crime is perceived as a victimless (and hence lesser) crime because it does not cause direct harm to humans. The framing omits that poaching and illegal harvesting of wildlife harms a public good.³⁰⁴ Due to the involvement of transnational organized crime networks in wildlife trafficking with links to “other hard crimes” this perception is starting to change, as well as the high death rate of poaching suspects and rangers killed in conservation areas (Interview with law enforcers 2, 8, 10; 2013).

It is beyond the focus of this dissertation to provide an overview of all the initiatives and campaigns occurring at the international level. Suffice to point out that the international community is going through the motions of setting up institutional, regulatory and law enforcement initiatives to deal with wildlife crimes in general, and some initiatives that are directed towards disrupting the market. Whether these measures accrue to noticeable

³⁰² The Lusaka Agreement Task Force is the enforcement arm of the ‘Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora’. The agreement followed working group meetings between eight southern and eastern African countries, CITES, Interpol, the US Fish & Wildlife Service and lawyers of the Foundation for International Environment Law Development and formal inter-governmental negotiations under the auspices of the United Nations Environment Programme (UNEP). The agreement has been categorized as a UN treaty (Environment) and entered force in 1996. There are currently seven parties to the agreement: the Republic of Congo (Brazzaville), Kenya, Lesotho, Liberia, Tanzania, Uganda and Zambia. Ethiopia, South Africa and Swaziland are signatories (Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora 2014).

³⁰³ Research reports often cite an annual turnover of 8 to 10 billion US \$ in illegal wildlife markets, a figure extrapolated from a 2003 media report (Colombo 6 September 2003) and interviews with the US conservation NGO Coalition against Wildlife Trafficking (CAWT) by Jeremy Harken for a report commissioned by the US research and advocacy organization Global Financial Integrity (Harken 2011: 11). While the figure appears to have no scientific base – and admittedly, illegal markets are notoriously difficult to quantify and the annual turnover is more than likely much higher than the cited figure. Harken’s estimation has been used widely to underline the importance and serious ‘threat level’ of wildlife crime.

³⁰⁴ Based on discussions and comments made at a workshop of the ‘illegal markets’ research group at the MPIfG.

changes to actors on the ground – such as rangers and anti-poaching personnel – is subject of Chapter 7. The following sections examine the domestic responses in Vietnam and South Africa. The two countries were chosen due to their important roles in illegal market structures. Other state responses such as those of China and Mozambique are considered in context-specific sections of the dissertation.

5.3.1 The Vietnamese response

Vietnam flew under the radar despite being a transit and consumer country in the early years of CITES (Interviews in Vietnam, 2013) and lacked adequate legislation until TRAFFIC, conservation NGOs and the CITES Secretariat identified the southeastern Asian nation as a major consumer country (see for example: Milliken/Shaw 2012; CITES Secretariat 2013; Nowell 2012b). In January 2013, the Prime Minister of Vietnam issued Decision 11 on the prohibition of the export, import, selling and buying of specimens of some wild animal species listed under the Appendices of CITES. This decision effectively bans all domestic sales of African rhino horn in Vietnam. An exception excludes “imports for the purpose of diplomacy, scientific research, biodiversity conservation, display at zoos, exhibitions, non-profit circus performances, law enforcement and exchange of specimens amongst CITES management authorities of member countries are still allowed” (Vietnam 2013). The exceptions relating to the imports of rhino horn for the purposes of diplomacy and law enforcement are rather curious (some research informants believed this to be a deliberate loophole), as data collected for this project implicates both diplomats and law enforcement officials in the smuggling and trading of rhino horn. While Hong Kong has returned confiscated rhino horn to South Africa for the purpose of criminal prosecutions (Interview with law enforcement officer 1, Hong Kong; Interview with government official 3, South Africa), a reverse routing of ‘confiscated’ rhino horn in the opposite direction of the chain of evidence (to Vietnam) seems odd. Taken at face value, this decision appears to legitimize the illegal activities of state-sanctioned actors who have been associated with the illegal supply chain. Despite these specified exemptions, Vietnam confirmed to the CITES rhinoceroses working group in July 2014 that no permit had been issued for ivory or rhino horn since the effective date of the Decision on 24 January 2013 (CITES Rhinoceros Working Group 2014: 5).

Vietnam also banned “non-commercial import of hunting trophies” unless cooperation agreements had been signed between the Vietnam CITES management authority and the CITES management authority in the exporting country (Vietnam 2013: 1). At the time of writing, Vietnamese hunters were still banned from hunting in South Africa as the Vietnamese authorities had made no further progress in ensuring that the hunting trophies stayed with the original trophy hunter (Interview with government official 3, South Africa). This loophole relates to the lack of regulations and enforcement pertaining to what happens to hunting trophies once they have reached Vietnamese shores. While rhino trophy hunters are not allowed to sell their trophies, there are no regulations preventing the owners from donating or gifting them. In fact, Vietnam’s national civil law permits the trophy owner to decide how to use their trophies. Because hunting trophies are categorized as personal effects in the Southeast Asian country, authorities said they found it difficult to control and monitor them. In addition, there are no punitive measures or permit regulations should the trophy owner decide to cut up the horn(s) or dispose of the trophy without prior authorization (CITES Secretariat 2013: 7–8).³⁰⁵ Vietnam was on the receiving end of a great deal of criticism at CoP 16. Vietnamese government officials denied the huge role their country played in the illegal supply chain of rhino horn and pointed their fingers at their neighbour, suggesting that Vietnam served as a transit and processing hub for rhino horn en route to China (CITES Secretariat 2013, Interview with government official 6, Vietnam).

The tide seems to have turned: A progress report made to the CITES Secretariat (Vietnam CITES Management Authority 31 January 2014) on Vietnam’s compliance with decisions taken at CoP 16 at the end of January 2014 states that the country’s CITES management authority had developed additional enforcement mechanisms to protect “precious, rare and endangered species” with a specific focus on rhino, elephant and pangolin products from Africa. The management authority is also in the process of developing a circular on the management of hunting trophies. The circular is aimed at monitoring the alteration of imported hunting trophies. At the time of writing, the circular had not been published. In

³⁰⁵ In its September 2012 report to the CITES Secretariat, Vietnam indicated that many hunters cut up their hunting trophies (the horns) and gifted pieces of rhino horn to friends and family. When the Management Authority in Vietnam undertook “random checks” of hunting trophies, only 7 out of 40 trophies were found in an unadulterated form while 11 hunters could not be contacted (CITES Secretariat 2013: 23).

February 2014, the prime minister of Vietnam issued an additional directive “On strengthening the direction and implementation of measures for controlling and protecting endangered, rare and precious wild animals”. The directive provides a mandate to relevant ministries to tackle wildlife crime. The CITES rhinoceros working group interpreted Vietnam’s recent actions as a demonstration of political will to tackle the illegal wildlife trade (CITES Rhinoceros Working Group 2014: 5).

5.3.2 The South African response

The previous chapter dealt with historical aspects of nature and rhino conservation in South Africa, this section examines the status quo. The apartheid regime’s endorsement of CITES did not impact the legitimacy of the multilateral treaty amongst the first generation of nature conservation bureaucrats in the new South Africa.³⁰⁶ Upon election of the first democratic government in 1994, a new Constitution cleared the way for transformation of laws, policies and the apartheid bureaucracy. Environmental rights, sustainable development and use of natural resources became enshrined in the new Constitution. Thus, Section 24 of the Constitution (Republic of South Africa 1996: 6) reads:

“24. Everyone has the right -
(a) to an environment that is not harmful to their health or well-being; and
(b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that -
(i) prevent pollution and ecological degradation;
(ii) promote conservation; and
(iii) *secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development* (author’s emphasis).”³⁰⁷

The protection of the environment – and by the extension, the rhino – is thus considered and guaranteed by the highest law of the land. In the immediate period following the end of apartheid, several significant events impacted the state of nature conservation, known as environmental affairs under the new dispensation. On the eve of the first democratic

³⁰⁶ Some bureaucrats of the ‘old apartheid’ regime’s Department of Nature Conservation survived the regime change, and were co-opted by the new government. This step assisted the post-apartheid government in utilizing institutional memory while also moving forward with new policy directives (Interview with government official 3, 2013).

³⁰⁷ It is important to note that constitutional interpretation must take cognizance of international law.

elections, the former four provinces and homelands (known as Bantustans in apartheid lingo) were subdivided into nine provinces. Says a government official (Interview with government official 3, 2013):

“Although the Department was the focal point for CITES and because there were only four provinces in the old days, the four directors were at the forefront. But then from 1994, the role of the Department started increasing. Now there were suddenly nine and not four provinces, there was a lot more coordination to get uniform systems and training of the new officials.”

The new Constitution opened the floor for the clearing of an arsenal of draconian apartheid laws and institutions relating to all sectors of public and private life. Concurrently, the wildlife ranching, safari and game industries experienced massive growth as the end of apartheid had opened up previously untapped international markets of hunters and tourists, who had boycotted the country previously. The 1990s also saw some ‘dirty tricks’ of the apartheid regime exposed. The “Kumleben Commission of Inquiry into the Alleged Smuggling and Trade in Ivory and Rhinoceros Horn in South Africa” (Kumleben 1996) in 1996 and the Truth and Reconciliation Commission (Truth and Reconciliation Commission 1998) culminating in the publication of its final report in 1998, revealed an underground network of corrupt apartheid politicians and military intelligence personnel running sanction–busting trade of natural resources including ivory and rhino horn in Angola, Namibia (formerly known as Southwest Africa) and Mozambique. The new environmental affairs bureaucracy transformed with many former public servants from the old regime opting out by accepting retrenchment packages, early retirement or job opportunities in the private sector. Beyond the institutional and staffing changes in the Department of Environmental Affairs (its name and scope of work went through several changes in the new South Africa), the criminal justice, security, law enforcement and defence sectors equally were transformed. Of importance here is the movement of apartheid control agents (soldiers, police officers, intelligence and the upper echelons of the relevant bureaucracies) into the private sector. It is perhaps not surprising that many of the ‘apartheid dogs of war’ would have ended up in the private security industry, specifically in the anti–poaching and wildlife protection sectors. A few of these former control agents have joined poaching groups. One of the most notorious poachers in KwaZulu–Natal

(KZN), for example, was trained by the apartheid regime to fight in the bush war in southern Angola and against MK operatives in KZN (Interview with anti-poaching official 1, 2013).³⁰⁸

While the apartheid regime endorsed the notion of sustainable use, the new democratic dispensation has put a greater emphasis on sustainable use linked to community empowerment and social development as envisaged by the Constitution. The basic tenet of the sustainable use approach is “if it pays it stays” and in its pure form every part of the animal is used “from tip to toe” (Interview with law enforcer 2, 2013). South Africa is a member of the Group of Like-Minded Megadiverse Countries (LMMC),³⁰⁹ a group of 18 countries that harbour close to 70% of the world’s biodiversity and share common interests in conservation and sustainable use of biological diversity. After Brazil and Indonesia, South Africa ranks third in biological diversity worldwide (Department of Environmental Affairs 2014c). Beyond the rhino, there are many other plant and animal species teetering on the brink of extinction lacking celebrity status or public support,³¹⁰ also in need of material assistance from government, the private sector and conservation NGOs (Baillie/Butcher 2012). The South African government finds itself in a quandary, when it comes to assessing which species are worthy of protection. Currently all disposable conservation funds are channelled into rhino and to a lesser degree, elephant protection, security and conservation. The single species focus and devotion of administrative, law enforcement and financial resources come at a loss to other animal and plant species equally or more threatened with extinction (Interview with government official 1, 2013).³¹¹

³⁰⁸ Umkhonto we Sizwe (MK) – Zulu for ‘Spear of the Nation’ – was the armed wing of the African National Congress (ANC) during the liberation struggle in South Africa.

³⁰⁹ The following countries are members of LMMC: Bolivia, Brazil, China, Colombia, Costa Rica, Democratic Republic of Congo, Ecuador, Guatemala, India, Indonesia, Kenya, Madagascar, Malaysia, Mexico, Peru, Philippines, South Africa, and Venezuela. Together they hold 10% of the global surface (Department of Environmental Affairs 2014c).

³¹⁰ Many of the species on the IUCN Red List of critically endangered species, as well as thousands of other species of varying levels of imperilment, provide no direct economic benefit to people, and little is known whether or how their demise would affect society. These often less charismatic plants and animals appear to have little value to society other than representing “cultural or existence value”; in other words, “their value to humanity is unknown or tangential at best” (Baillie/Butcher 2012: 16).

³¹¹ This approach stands at loggerheads with the Convention on Biological Diversity, which professes a conservation of habitat approach.

In August 2014, the South African cabinet adopted a new integrated strategic management plan for rhinos. This plan demonstrates the paradigm shift from a pure conservation ethos to an essentially multi-layered approach that attempts to subsume rhino conservation, rhino management, rhino security and sustainable use under one banner. The immediacy of curbing illegal poaching of rhinos in protected areas through security measures is given prominence, signalling the increasing securitization of rhino conservation. According to the plan (Department of Environmental Affairs 2014a), the following “integrated interventions” will be adopted:

“Compulsory interventions include pro-active anti-poaching initiatives, the implementation and improvement of actionable intelligence as well as the introduction of responsive legislation and policy amendments to address rhino poaching. Other interventions include continued efforts to increase rhino numbers through, for example, translocation to low risk areas, range- and population expansion. New interventions include steps to disrupt crime syndicates. These will be implemented by our Security Cluster. Long-term sustainable solutions, to ensure the future survival of this key species, include the creation of economic alternatives for communities taking into account the government’s sustainable utilisation policy.”

In pursuit of the stated long-term objective of sustainable use, South Africa continues to campaign for the legalization of trade in rhino horn at the international level. Key to garnering international support is “putting South Africa’s house in order” (Interview with government official 3, 2013). Although perceptions and the legitimacy of CITES range from tacit acceptance to silent rebellion on the ground, the relevant South African government institution, the Department of Environmental Affairs (hereafter DEA) has put measures into place to comply with international standards as envisaged by CITES, and to respond to calls from civil society to address the rhino issue.³¹² Upon receipt of a written caution from the 57th Standing Committee meeting of CITES about the lack of compliance with the National Legislation Project,³¹³ the Department changed gears and the CITES regulations were published in March

³¹² A South African civil society group called Afriforum has threatened to take the South African government to court for its failure to roll out appropriate measures to protect the rhino (personal communication, 2014).

³¹³ CITES initiated the so-called National Legislation Project in 1992, with the objective of reviewing and evaluating national legislations of CITES member states, and bringing them into line with CITES requirements. Countries were listed in three categories dependent on their level of compliance. Category 1 signified full compliance, Category 2 partial compliance and countries listed in Category 3 failed to meet the requirements for implementation of CITES (Vasquez 2003: 64–65). South Africa had been placed in Category 2 until the promulgation of the CITES regulations in 2010. The country is now fully compliant (Interview with Government Official 3).

2010 (Department of Environmental Affairs 2010). Domesticating the CITES requirements had been put on the backburner in lieu of the need to draft new comprehensive legislation, culminating with the enactment of the National Environmental Management Biodiversity Act (NEMBA) in 2004, and the promulgation of the Threatened of Protected Species regulations (TOPS) in 2008. The TOPS regulations list prohibited activities involving listed species and they regulate hunting and compulsory registration requirements. While these regulations comply with the legislative requirements set out by the CITES, implementation and diffusion have been slow at the provincial level. There is also limited congruence of the nine sets of provincial environmental legislation. Although the then Department of Environmental Affairs and Tourism (the department's name at the time) had consulted various stakeholders and local communities before drafting the regulations, the final version and list of protected species were not communicated ahead of publication and implementation (Institute for Security Studies 2009–2010, Interview with conservator 2, 2013). Similar to John Sellar's critique regarding the adequacy of CITES as an instrument in the fight against transnational organized crime (compare with the subsection on "The international response"), law enforcement officials in South Africa have expressed contemptuous sentiments about the TOPS regulations. Says one law enforcement official (interview with law enforcer 8, 2013):

"They make regulations. Who makes the regulations regarding environmental affairs...the rhino regulations? People in environmental affairs, ok. But they have no experience or knowledge of transnational organized crime. They are completely out of their depth. And that's not being arrogant, it's just not their experience."

Moreover, the enforcers of the regulations – provincial government officials – had neither been sufficiently informed of the new regulations nor were they provided with adequate training prior to the promulgation (Interview with provincial government official, 2013).

Interviews held with private rhino owners, conservators and other wildlife professionals revealed widespread contempt for the TOPS regulations but the brunt of critique was directed at the national moratorium. Mr Marthinus van Schalkwyk, the former Minister of Environmental Affairs and Tourism declared a national moratorium on the sale of individual rhino horns in 2009 (Department of Environmental Affairs and Tourism 2009) – domestic trade of rhino horn had never been banned and presented a loophole, which criminal actors were readily abusing. As will be shown in Chapter 6, a few private rhino owners and wildlife

professionals procured rhino horn under the guise of domestic trade and sold it illegally to Asian organized crime networks. Beyond income generation through the sale of live rhinos, tourism and trophy hunting, the domestic trade in rhino horn provided an additional income stream to private rhino owners. There is however no domestic market for rhino horn in South Africa, suggesting that sellers and buyers were either stockpiling, or laundering horn into illegal supply chains. In response to the growing discontent among private rhino owners, the DEA agreed to conduct a feasibility study to probe whether national trade in rhino horn should be reopened in 2010. While acknowledging that the moratorium failed to reduce rhino poaching, the study recommends that the trade ban should not be lifted as yet. The authors (Taylor, Andrew et al. 2014: 10–11) suggests the following plan of action:

“South Africa should not lift the national moratorium at the present time. However, it should immediately start developing a secure national electronic permitting system to bring non-compliance issues under control. This must be linked to a rhino database that includes horn stockpile and DNA profile information. Private rhino owners must be incentivised to continue protecting rhinos during this period. South Africa must continue to show that it is complying with CITES Resolution Conference 9.14 (Rev. CoP15) to avoid potential punitive measures from Parties and, if a proposal for legalising international trade is to be submitted, South Africa should be prepared before the deadline for submissions for CoP17 in 2016.”

In 2012, a Limpopo rhino breeder started to litigate against the South African government to have the moratorium lifted. John Hume, the world’s biggest private rhino owner joined Johan Krüger in 2015. The pair argues that the government is infringing on their constitutional rights, as the right to sustainable utilization is entrenched within the Constitution of South Africa (Krüger/Hume 2015). The legal challenge to the domestic trade ban represents a lawful expression of ‘contested illegality’ against the moratorium. In this instance, the rhino breeders are not using their discontent with the moratorium to legitimize illegal trade practices but they contest the legality of the trade ban on the basis of the highest law of the land. However, it remains unclear who their domestic trade partners would be, should they win the court case.³¹⁴

³¹⁴ High Court Judge Legodi set aside the moratorium due to insufficient public consultation in September 2015 (Legodi 2015). The Minister lodged a notice of leave to appeal soon after the court’s decision, effectively suspending the judgment until the appeal is heard in 2016.

Because the TOPS regulations apply to South Africa's national jurisdiction only, CITES processes are used to deal with 'import' countries and trade that transcends her national borders. The marriage between the TOPS regulations and CITES processes has been difficult, as the channels of communication were patchy at first. For example, provincial government officials deal with national and international hunting and trophy applications and permits within their province, whereas national government officials communicate with the CITES Secretariat and its various enforcement bodies regarding international trade and export. In light of the pseudo-hunting phenomenon (which is discussed in Chapter 6), involving rhino 'hunters' from Vietnam and other atypical countries of origin for trophy hunters (such as the Czech Republic and Poland), all rhino hunting applications have to be forwarded to the national department for a recommendation. This new procedure derives from the practice of illegitimate hunters "province-hopping" in order to shoot more than one rhino per year without detection by provincial permit officials, who have only oversight of what happens on their own doorstep (the permissible hunting quota is one rhino per hunter within a calendar year). Previously, provincial permit officers had no recourse to determining whether a hunter had shot rhinos in any of the other eight provinces. Once the national department has made a recommendation, the provincial permit officer may then issue or refuse a hunting permit. Although the national department has a centralized database in place, it is not connected to other crime or biodiversity management databases as yet. At the time of the interview in mid-2013, senior management had approved the terms and conditions for the procurement of a comprehensive electronic database. However, the proper supply management procedures and the tender process had to be followed and it was unclear as of when the database would be ready for use (Interview with government official 4, 2013).³¹⁵

The TOPS regulations and the moratorium lack legitimacy and buy-in from wildlife professionals as well as private landowners, who feel that they were not sufficiently consulted ahead of the promulgation while being the ones most affected by the new status quo. In addition, many provincial governments lack the staffing, funding and expertise to implement the complex new regulations (Interview with private rhino owners; private security actors and

³¹⁵ By 2016, there had been no progress regarding the centralized database. However, law enforcement officials were in the process of streamlining permitting procedures, which are likely to be centralized and controlled exclusively by the national department.

wildlife professionals). The permitting system differs across the nine provinces with varying degrees of efficiency, responsiveness and accountability.

The perceived lack of follow-up consultation with relevant stakeholders changed with the appointment of the Rhino Issue Manager (RIM), Mavuso Msimang who was assigned the task of conducting a series of stakeholder engagements to address the protection and sustainable conservation of the South African rhino populations during 2012. The so-called RIM process entailed 16 workshops held in the South African provinces of Gauteng, KwaZulu-Natal and the Western Cape. Ultimately the RIM talks assisted the DEA in developing the South African position in preparation for the CITES CoP 16 held in 2013 (Msimang 2012: 7). Msimang (2012: 9) points to the discrepancy between scientific data collected over years, and positions that were based on “sentimental or aesthetic considerations”. The distance between hard sciences and emotion is one of the key elements causing a rift among different actors within the rhino management, conservation and associated protection economies. The final RIM report proposes a number of measures to save the rhino, most importantly the opening of international trade in its horn:

“The absence of a single strategy to quell and annul rhino poaching calls for the judicious employment of several carefully thought-out interventions in a portfolio approach. In the immediate term, there can be no substitute for heightened security using the tried and tested ranger bolstered by the best available technologies. Simultaneously, biological conservation measures, including range expansion, should be investigated and implemented. Finally, as long as there is demand for rhino horn, effective means of supplying it, must be worked out that would have the effect of saving the life of the rhino. These strategies must be finalized with urgency and an application made to the Conference of Parties to legalize trade in rhino horn (Msimang 2012: 10).”

In the aftermath of the RIM talks an Inter-Ministerial Committee³¹⁶ was set up to deliberate the possibility of a legal trade in rhino horn, supported by a Committee of Experts (CoE). The CoE commenced its work in April 2014 (Department of Environmental Affairs 30 June 2014) and provided its final report to the Minister in 2015. The South African government is

³¹⁶ The Ministers of Environmental Affairs, International Relations and Cooperation, Trade and Industry, Finance, Science and Technology, Agriculture, Forestry and Fisheries, Rural Development and Land Reform, Economic Development and Tourism, Safety and Security, Justice and Correctional Services are represented in the Inter-Ministerial Committee.

acknowledging that protective measures are failing. Whether a reversal of the trade ban is going to save the rhino is a highly contested issue in South Africa and beyond. Suffice to mention here that champions of the so-called 'anti-trade' faction (which is by no means a homogenous group) are of the opinion that the South African government lacks the political will to save the rhino, and is in the process of signing off the rhino's death warrant by even entertaining thoughts of reopening the trade (Interviews with representatives of conservation NGOs, 2013, 2014 and 2015). Other than suggesting supplementary, somewhat draconian security, military and anti-poaching measures, the anti-trade faction offers no alternative approaches. Later chapters touch on military and security measures employed to protect the rhinos. Suffice to mention here that these rhino protection economies have become multi-million enterprises with the involvement of many actors from the private military and security sectors in South Africa and beyond, the military-industrial complex, wildlife professionals, as well as a multitude of intelligence operatives.

The international regulatory stipulations have been domesticated; like the international convention they lack broad-based legitimacy and support by those most affected. In conclusion, it should be noted that illegal flows of rhino horn have not been disrupted despite the South African government's multi-level and multi-departmental approach to protecting the rhino.

5.4 Concluding remarks

This chapter explored the international political protection regime that led to the illegalization of the trade in rhino horn. State actors conceived of the multilateral environmental treaty more than forty years ago. In other words, the illegalization of the trade in rhino horn commenced in 1977. Prior to that, market exchanges involving rhino horn were either legal or undetermined. In this instance, a community of states, the CITES CoP, determined the trade ban. The ban itself is ambiguous as it only concerns international trade of rhino horn, leaving space for illegal market actors to manoeuvre at the domestic level. The power dynamics and influence of northern countries and conservation NGOs at CITES have led to growing disgruntlement amongst the custodians of most of the world's remaining biodiversity.

Regulators and opinion-makers on the supply side have stamped CITES as a 'neo-colonial' institution while important consumer states joined CITES only years after its inception. Irrespective of power politics and the north-south divide, the diffusion of the trade ban was going to take time in light of the transnational dimensions of rhino horn flows. Ideally, illegalization at the national level would encompass a protracted process of consultation with affected constituencies. Law enforcement officials have expressed concerns of whether trade bans appropriate are measures to disrupt transnational organized crime networks.

The chapter examined how South Africa and Vietnam domesticated CITES obligations, demonstrating the difficulties of implementing international commitments that are out of touch with the reality on the ground. While most countries have illegalized rhino horn trade, horn consumption continues to hover in a gray zone. Chapter 3 pointed to the social legitimacy and cultural significance of rhino horn in key consumer nations. The sacred valuation of rhino horn in such countries undermines the legitimacy of the trade ban. This state of affairs is accentuated by the fact that public officials are implicated in trafficking and distribution networks, suggesting that the trade ban has been ineffective in curbing supply and demand.

Chapter 6: Riding on the edge of legality: Interfaces between legal, gray and illegal markets

“It is one guy using it as a doorstopper; the next guy puts it into his safe with a gold chain around it. They want the moratorium to have started the poaching; it makes sense for their argument. They want to blame something for the right that has been taken away to make money. They try and say the trade was going to make us rich. Which South African is going to pay 25,000 Rand for one kg of rhino horn? So that argument doesn't stick for me (Interview with law enforcement official, 2013).”

6.1 Introduction

Chapter 4 provides an introduction to the privatization and commodification of the rhino on the supply side of the market. This chapter continues with an examination of rhino horn ‘production’³¹⁷ on private land. This mode of ‘production’ constituted the principal source of supply of South African rhino horn between the late 1960s and late 2000s. Actors capitalize on the liberal interface between legality and illegality. Bolstered by sentiments of contested illegality and legality, these actors have no qualms to exploit regulatory loopholes. Involved are wildlife professionals³¹⁸ with intimate knowledge of the product (rhino horn) and of the institutional and legislative framework governing the international trade of rhino horn. These actors belong to influential and transnational social networks with links to political and economic elites in supply, transit and consumer countries. Rhino owners, professional hunters, wildlife veterinarians, corrupt government officials, diplomats (their role is discussed in Chapter 7 and 8) and other categories of wildlife professionals are the principal actors in this market segment.

Wildlife professionals are also involved in the illegal hunting of rhinos on private and public hunting (such as chemical poaching);³¹⁹ organized illegal hunting (poaching) is discussed in

³¹⁷ The term “production” refers to the supply stage of the market and is used in reference to market structures and processes here, and not as a normative claim regarding conditions on rhino farms.

³¹⁸ The term “wildlife professional” refers to any individual who is involved in the transporting, translocation, well-being, management, farming, breeding, hunting and securing of wildlife on private or public land (my definition).

³¹⁹ Wildlife professionals use a veterinary anaesthetic drug called M-99 (or its generic formulation) during ‘chemical poaching’ incidents. Poachers dart rhinos and dehorn them while they are anesthetized (Hübschle

Chapter 7. This chapter draws on data from several court cases, as well as primary data collected during fieldwork. The focus is on illegal hunting while also touching on the practice of unregistered stockpiling and horn laundering.

6. 1 'Put and take' and other hunting transgressions

The Buijs report (1987) referred to a practice known colloquially as 'put and take' (introduced in Chapter 4). The term refers to the hunting of a rhino shortly after delivery to a private game reserve or game farm. In other words, the rhino is literally "put" into a hunting reserve, only to be "taken" out by way of hunting shortly after its translocation to the hunting reserve. The practice commenced in the 1970s and carries on in various permutations to this day. For the purposes of clarity: trophy hunting of white rhinos³²⁰ bought from the state is not illegal per se; in fact, the state acknowledges the need for economic incentives for "the continued growth and expansion of the rhino populations and range through the introduction of herds in new areas" which are "reliant on the private sector and communities making their land available for the introduction of rhinos sourced from protected areas and privately owned herds" (Republic of South Africa 2013: 6). However, trophy hunting that leads to limited or no population growth and range expansion contradicts and undermines the specified conservation objectives of the state. According to wildlife professionals (Interviews, 2013), some hunting outfitters would keep the same number of rhinos in their reserves and "new stock" would be brought in for trophy hunts. In essence, this form of 'put and take' involves a deadly game of musical chairs. One wildlife professional recounted how he and his colleagues delivered more rhinos to a specific hunting outfit in one week than an alleged kingpin "did in his whole time of doing pseudo-hunting" (Interview, 2013). While this form of 'put and take' was legal on paper at the time, the rhino trophies emanating from many 'legal hunts' were

2014: 47). Wildlife veterinarians are usually complicit in such poaching incidents, which may also require the services of helicopter pilots. Wildlife investigators have dubbed the act as "chemical poaching" due to the use of pharmaceutical drugs ("chemicals").

³²⁰ "Operation Rhino", the Natal Parks Board's rhino range expansion programme coincided with the economization of trophy hunting; in other words, trophy hunters were willing to pay for the stalking of animals as of the late 1960s. White rhinos became sought-after trophy animals in South Africa. Black rhino numbers, meanwhile, were too few to offer trophy hunting.

sold directly to Asian buyers or laundered into illegal flows. Says the same wildlife professional (Interview, 2013):

“We were shooting the shit out of them, probably 100 a month but everything was legal. You know – that's the thing if it's legal, you get permits for it and you bought it, why not? ... [...]...The minute, they made it illegal – I'm not willing to touch it if can't get a permit. I don't mind making a buck, but I don't do illegal shit and go to jail.”

Interviews with organized crime investigators, former and active conservators confirmed the high prevalence of the practice. Rhino horns deriving from ‘put and take’ operations fed into illegal horn flows from elsewhere in South Africa and surrounding countries (including Namibia, Zimbabwe, and Mozambique) en route to consumer markets. Once the supply of horns had ebbed off from sources north of South Africa, South African wildlife professionals stepped up to meet the supply. It is difficult to establish how many rhinos were hunted by way of ‘put and take’, as existing official databases on the sale of live rhinos, hunts, and trophy exports only capture official numbers. One informant remarked:

“There’s a massive blank from when fucking TRAFFIC stopped monitoring stuff until they realized there was shit. And in that void we have only the farmers and the vets that know what we were doing. But you can’t tell anyone because otherwise they are going to put you into jail. Even though everything you did at the time was legal and now they want to try and fucking catch someone. These are guys that were legally involved in something, which is now illegal. How do you want to prosecute them? Nobody is going to admit to anything. They will stand together.”

The informant alludes to a social bond amongst wildlife professionals who justify ‘put and take’ and domestic trade of rhino horn as a practice permissible by the law of the land. There is a tacit acknowledgment that these unbridled economic activities may lack social legitimacy in broader society. A wildlife veterinarian, for example, described the hunts (including pseudo-hunting which is discussed below) as “pre-moratorium legal (but unethical) hunts” mainly involving “surplus bulls in the industry” (Schack 2012: 1). Empirical evidence confirms that bulls were the principal trophy animals; however, a few hunting outfitters offer a more exotic bouquet of hunting safaris such as hunting multiple rhinos on one permit, hunting young animals, hunting of rhinos with restricted hunting gear (including crossbows or bow and arrows), or “canned” Big Five hunting from helicopters (Interviews, 2013).

The knowledge that some activities might be construed as legal but illegitimate or unethical (the section on 'contested illegality' will discuss this in more detail) might explain why the sector continues to be shrouded in secrecy. Consecutive surveys of rhinos on private land sketch a historical narrative (see also Chapter 4) of how conservation authorities experienced difficulties in accessing information on the fate of rhinos bought from the state, and their progeny from the early 1970s onwards. An author of the latest survey on rhino numbers and stockpiles on private land, undertaken between 2008 and 2011, remarked that the survey obtained a response rate of 25 % from rhino owners (Jo Shaw, personal communication, 2015). Earlier surveys achieved even lower participation numbers (Hall–Martin et al. 2008). The question arises why the majority of rhino owners are not willing to provide information on their rhino numbers or the size of their rhino horn stockpiles. Naturally, once property rights were conferred upon private individuals, rhinos moved from the public to the private sphere. This new breed of private rhino owners had become sole proprietors of rhinos with no reporting or accountability functions obtaining from the conversion of a common good to private property. This state of affairs is different to recent custodianship programs, where communities or individuals receive user rights while rhinos remain the property of the state. In some instances, private sales, translocations, the sale of game reserves and farms, or the creation of large amalgamated reserves and biospheres led to obfuscation as to rhino ownership or location (Buijs/Papenfus 1996: 1–2). This was not necessarily a purposeful attempt at creating smokescreens. The regulatory framework governing movement, translocations and private sale or barter trade of rhinos came only into force when the NEMBA Act was enacted and the TOPS Regulations were promulgated in 2004 and 2008 respectively. Yet rhino owners maintain that the state should have no business as to keeping track of the fate of the founding populations and their progeny (Interview with rhino owner 10, 2013) because “what happens behind this game fence is my business” (Presentation by conservator 14, 2015). This attitude precedes the period of political transformation in South Africa and uncertainty about the future of the farming community. There were few legitimate reasons to conceal such information in the heydays of apartheid unless there were indeed illegal, unethical or illegitimate activities taking place. In post-apartheid South Africa, the white farming community remains distrustful of the democratically elected (mostly black) government. While the white farming community is by no means a homogenous grouping, its strong political ties to the apartheid regime, economic privileges and support (such as

subsidies, marketing boards and property rights of wild animals) and exploitative labour relations on some farms had contributed to large-scale social engineering in South Africa's rural areas, and upheld the social structure and economic powerbase of the apartheid state (see also Chapter 4). This privileged state of affairs shifted to incorporate the interests of rural (black) dwellers and communities with the changing of the political guard in 1994.

Once NEMBA and the TOPS regulations came into effect, wildlife professionals reported that upon applying for permits to hunt or dehorn rhinos, or to register rhino horn stockpiles, poachers hit their reserves or organized gangs robbed their stockpiles at gunpoint (Interview with rhino owner 1 & 6, 2013). Rhino owners felt that full disclosure put them at risk for poaching, farm attacks or theft from rhino horn stockpiles. While such fears are legitimate, the peers of rhino owners – such as members of the Private Rhino Owners Association (PROA) – struggle to gain access to this 'privileged' information too (Interviews, 2013). This lack of transparency might ultimately derail the quest for the legalization of the trade in rhino horn.³²¹

Dishonesty or non-disclosure is partially legitimized by pointing to "corrupt permit officers" or to other public officials perceived as harbouring connections to organized crime gangs.³²² In other instances, rogue farmers or wildlife professionals instigated robberies and theft as smokescreens to cache illegal hunting or dehorning of rhinos (Interviews and focus groups with law enforcement officials, 2013). Awareness of 'foul apples' in the peer group, the associated fear of stigma as well as silent rebellion directed at public officials and "their new regulations" also explain why non-disclosure, obfuscation, and secrecy of rhino populations and stockpiles held in private hand, continue to characterize the relationship of some private rhino owners with the state. This environment of distrust and secrecy has allowed rogue and unethical wildlife professionals to fly under the radar, who are protected through a mutual

³²¹ The CITES Secretariat has admonished South Africa in the past for failing to furnish details on the size of private rhino horn stockpiles, as well as exact figures of rhino crashes held on private land.

³²² While racism and racial discrimination are still widespread across many communities in post-apartheid South Africa, the white farming community is renowned for discriminatory and racist practices (compare with Chapter 4). Although there have been incidences of corruption within the law enforcement and nature conservation bureaucracies, the assumption that all public officials of the new dispensation are corrupt and corruptible has to be read in the context of a white superiority complex supported by racist apartheid ideologies of yesteryear.

distrust by the white farming community of the new government, its land reform programme and broad-based black empowerment policies.

Regardless of the prevailing secrecy, 'put and take' of rhino bulls bought from the state happened with the indirect sanctioning of the state (Interviews, 2013); park officials, for example, knew that a rhino bull's life expectancy was significantly shortened when sold to a hunting outfitter or a game reserve that offers trophy hunts. Scientists argue that the South African national herd was only able to recover and increase to its current size because private and communal farmers made farmland available for range expansion (Emslie/Brooks 1999: 33). The 'carrying capacity' of national parks and nature reserves had been reached. Scientific studies legitimize the hunting of "surplus bulls" or "problem bulls" by way of demonstrating an inherent male gender bias in rhino populations. The SADC Rhino Management Group (RMG) found that there was a 53% male sex ratio of black rhino at birth in the southern African region. Some black rhino populations have hence a pronounced male bias (Knight/African Rhino Specialist Group 2013: 2). A behavioural study of wild black rhino populations in Namibia (Berger 1995: 1–2) suggests however that secondary sex ratios³²³ favour female black rhinos, as male rhinos are more prone to human predation, a finding consistent with data from 12 black rhino populations across Africa. The male bias appears to be of greater significance when it comes to semi-wild or captive bred rhino populations. Few rhino bulls are required to achieve ideal breeding conditions and significant population growth. A ranching manual suggests a ratio of 2 male to 4 female white rhinos (du Toit 1998: 11). Breeding bulls should be replaced every six years "before they start breeding with their own offspring" while age variance, amongst other factors, can affect dominance patterns among rhino bulls which in a worst case scenario can end in the death of male competitors (du Toit 1998: 29).

Black rhinos are known as the more aggressive and solitary of the rhino species thus "problem bulls" have been traditionally associated with the black species, whereas the more numerous white rhinos tend to be associated with the management issue of "surplus bulls". Both of

³²³ The primary sex ratio refers to the sex ratio at the time of conception whereas the secondary sex ratio is the sex ratio at the time of birth.

these rhino management issues are conflated in public and policy discourse on the matter. While the one does not preclude the other, they should be seen as two distinct management issues with separate outcomes, depending on the species, habitat and breeding format. Government authorities (the Namibian and South African governments) employ the rationale, which legitimizes the trophy hunting or sale of “problem bulls” and “surplus bulls”³²⁴ at intervals to maintain the health, longevity and social structure of rhino herds.³²⁵ Animal activists have suggested that translocating “problem animals” to other locations could save the animal’s life (Fears [3 January 2015] 2015). Such translocations come however at a high price.³²⁶ Moving surplus or problem bulls to other rhino populations may be equally problematic as these herds “do not want additional males” (Knight/African Rhino Specialist Group 2013: 2). In light of severely constrained conservation budgets, government authorities cannot afford to translocate “problem animals” (Interviews, 2013). Meanwhile, animal activists are not fronting the money to undertake the suggested translocations, which involve finding suitable land, capture, translocation and on-going management and monitoring (Knight/African Rhino Specialist Group 2013: 5). While there are no reliable statistics about the percentage of “problem bulls” in rhino herds,³²⁷ some conservators and animal activists

³²⁴ A state witness called on behalf of the State in aggravation of sentence during the Lemtongthai trial (the linked phenomenon of pseudo-hunting is discussed in the next section) conceded that the rhinos that were hunted and killed during the pseudo-hunting expeditions had been surplus bulls “that were destined to be shot by trophy hunters” (Navsa/Wallis/Swain 2014: 12). The appellate judge ruling on behalf of the Supreme Court of Appeals regarded this concession as a distinguishing feature of this case of pseudo-hunting from “those of the conventional type of poacher, namely, a person who kills indiscriminately without any pretence of legality” (Navsa/Wallis/Swain 2014: 12).

³²⁵ The Namibian government is allowed to sell five black rhino hunts per annum. The full quota has never been exploited. In 2013, the Dallas Safari Club (DCS) auctioned off a black rhino hunting permit on behalf of the Namibian government for the hefty sum of \$ 350 000. Animal activists have criticized the auction and petitioned the United States Fish and Wildlife Service to prevent the import of the hunting trophy.

³²⁶ Conservation organization *Rhinos without Borders* is planning to move 100 white rhinos from South Africa to Botswana at a cost of \$ 45 000 per animal (approximately 40 266 € per animal) (Paul 2014). The translocation of desert-adapted black rhinos in Namibia costs an estimated \$ 10 000 per animal (approximately 8940 €) involving the use of helicopters in remote areas (Fears [3 January 2015] 2015).

³²⁷ In response to the fallout after the DCS auction in the US, the African Rhino Specialist Group (AfRSG) provided the falling data:

“Based on extensive monitoring of the species in its key range states over an extended period we know that some black rhinos are being killed in fights with aggressive bulls and that valuable breeding females and their calves are sometimes killed. This is more likely to be the case when densities build up relative to carrying capacity in an area, and where breeding populations have a markedly male biased population. (SADC RMG data shows that from 2007-2011 fighting deaths were the single greatest known cause of known black rhino deaths in Namibia (31%) with females and sub-adults/calves making

have questioned the perceived high incidence of “problem animals” (Interviews, 2013). There have been suggestions that the notion of ‘problem bulls’ is exploited (personal communication with conservator, 2014)³²⁸ to sell “surplus bulls” for profit to hunting outfitters. Rhino breeders also use the lack of breeding success as a legitimization device to allow trophy hunts of non-breeding rhino cows (Interviews, 2013).

While the state’s adoption of the notion of “problem bulls” and “surplus bulls” is embedded in scientific discourse, criminal actors have abused the notion of “problem animals” to legitimize illegal hunting of rhinos. The US indictment of Dawie Groenewald³²⁹ charges that the alleged rhino horn trafficker sold illegal rhino hunts to American hunters at gun and hunting shows (the next section provides more details on the Groenewald gang). The owner of *Out of Africa Adventurous Safaris* and his US-based brother Janneman Groenewald claimed allegedly that particular rhinos had to be hunted because they presented a “problem”, were a “nuisance”, a “menace”, “aggressive” and “dangerous” or “mean” (The Grand Jury for the Middle District of Alabama 2014: 8–14). The Groenewald brothers told their American clients that because the dead or darted rhinos³³⁰ were “problem” animals, their remains/horns could not be exported as a trophy. In lieu of returning home with the hunting trophy, the hunters could take measurements of the rhino horns. They could also take photos and videos of the hunt and themselves posing with the dead animal. According to the indictment, Groenewald sold the

up 26.7% and 35% of all fighting deaths respectively)(Knight/African Rhino Specialist Group 2013: 1).”

³²⁸ A South African professional hunter, his US client and conservation officials linked to the Namibian Ministry of the Environment and Tourism (MET) were involved in a black rhino bull trophy hunt in 2013, which led to the wrongful killing of the only black rhino cow in Mangetti National Park in Namibia. The quartet allegedly thought that they were stalking a rhino bull. The trophy hunter claimed that he shot the rhino cow after it charged the hunting party. The case has been mired in controversy with anecdotal evidence suggesting foul play, bribes and expiration of hunting permits (personal communication with professional hunter and conservator, 2014).

³²⁹ The alleged rhino poaching kingpin faces 1736 counts of racketeering, money laundering, fraud, intimidation, illegal hunting and dealing in rhino horns in South Africa. The provisional trial date was set for August 2015 but is likely only to go ahead in 2016 (Rademeyer 2014a).

³³⁰ The South African government has banned so-called ‘green hunts’ or ‘darting safaris’ while the South African Veterinary Council has declared them an “unethical procedure” in 2010 (South African Veterinary Council 2010). Originally conceived as “a unique synergy between sports hunting and conservation” (SouthAfrica.info 2005), green hunts involve the temporary immobilization of wild animals for research or management purposes (South African Veterinary Council 2010). Unscrupulous wildlife operators exploited green hunts by darting animals too frequently without consideration for the animal’s well-being or the long-term effects of repeated anaesthesia (Interviews, 2013).

rhino horns obtained from these hunts to criminal networks (The Grand Jury for the Middle District of Alabama 2014: 8), thus profiting from both: the illegal hunts to legitimate trophy hunters, and the subsequent illegal sale of rhino horns to criminal actors. The American hunters were allegedly not told that these hunts were not permitted (lacked the required paperwork) and were in violation of South African laws. It is nonetheless rather surprising that the hunters bought Groenewald's fabrications and relinquished the collection of their hunting memorabilia.

'Put and take' transactions could also involve the exchange of rhinos for other species of wildlife or rhino horn without any money exchanging hands. A rhino breeder could, for example, exchange two young rhino bulls for a fixed number of wild animals with another farmer. The breeder could also swap the same two young rhino bulls for multiple sets of rhino horn. Breeders were also paying wildlife professionals (e.g. wildlife veterinarians or wildlife capturers) with unregistered rhino horn.³³¹ The state would have no record of these transactions because there were no official paper trails nor was there any exchange of money per se. A wildlife professional explains (Interview with wildlife professional 2):

"... in that process there was the deadly timing of other guys realizing: we can sell these legally to guys through hunts. There were several guys trying to jump onto the bandwagon. The first guy to do it properly was old Mr Smith and there was a whole bunch of others that you haven't heard of because they were the clever guys. The idiots got caught. The guys that behave like idiots, they are the ones that come in with organized crime connections. With the starting of the pseudo-hunts, guys got a wobble that we can't shoot rhinos anymore. I think the shit started at old Tim Barton near Steven van der Merwe. He was also buying quite a lot of stuff [rhino horn] from Steven. The guys were doing hunts at Tim Barton and we would drop off little rhinos – two or three-year-olds. They would shoot those and leave with big rhino horns, which came from Steven. He said

³³¹ Wildlife transporters and game capturers have smuggled rhino horn inside translocation crates from South Africa to Asian countries (Interview with rogue wildlife professional 2; law enforcement official 2; rhino farmer 12; 2013). According to a wildlife professional (Interview; 2013):

"At the same time we were starting to send all our rhino out – shipments to China – you know and when we were sending our shipments to China, there were lots of horns going with those rhinos. So each baby rhino had a big rhino horn lying in its crate. If anybody said anything, then this all had just broken off...[...]... these were not smuggling networks, organized crime – these were just guys that have made the connection and who said: "Let's do this as well". In that process, everybody started to realize: "Wow, look what we can get for the stuff."

he had so many rhinos, what is he supposed to do with it. Then, when they put the moratorium on, that's when everything changed.”³³²

Regulators have tried to address the practice of ‘put and take’. Regulation 24 of the Threatened or Protected Species Regulations (TOPS) directs that rhinos may only be hunted 24 months after introduction into an area to allow them to establish a genetic line (Friedmann et al. 2011: 3). In practice, this regulation is difficult to enforce – and operators have already devised a mechanism to bypass the regulation, the ‘swap and take’ method. In this instance, the rhino owner swaps the newly acquired rhino with an extant rhino on the farm, which is then made available for a trophy hunt. Both ‘put and take’ and ‘swap and take’ are on the borderlines of what constitutes legality and illegality and without scrutiny, the line is easily crossed. Moreover, ‘put and take’ enabled other forms of illegal hunting, dehorning, and horn laundering on private land.

6.2 Permit fraud

All modes of horn ‘production’ on private land share the commonality that perpetrators display detailed and extensive knowledge of the rules and how to bypass, flout or break the same, or exploit legal loopholes. While wildlife professionals and rhino owners tend to regard the law (NEMBA), the regulations (TOPS regulations) and the moratorium on domestic trade as responsible for the surge of poaching, the regulatory framework did not emerge from a vacuum. In fact, as documented in previous chapters, the first rules governing the management and specifically the hunting of wildlife were passed during colonial times. The breaking or flouting of hunting rules was seen a gentleman’s derelict (unless it involved indigenous hunters or Afrikaners) and, in some cases, it was a rite of passage. A double morality legitimizes modern rule breaking, partially linked to a sense of entitlement and privilege, and the earlier averred to ‘silent rebellion’ to the new rule-makers and “their rules”. A wildlife professional explains (Interview, 2013):

³³² The names of individuals mentioned in the citation have been changed to preserve the anonymity of respondents.

“The way it used to work, the law was always there but nobody ever pushed it. Within 48 hours of the guy getting the horn, you had to go to nature conservation and get a chip in. And then you could apply for a permit and sell it. As you had a permit to sell and trade, they never kept track of anything. You could sell without anyone noticing or caring. And because it wasn't really checked on, if you had a permit for one horn, you could use it for weeks or months. So what a lot of people miss is not only the entitlement that the farmer feels and that he is truly entitled to. He just bought this, most of them come from the park.”

The quotation above refers to the most common form of permit fraud before the implementation of stricter regulations and enforcement (Interviews with law enforcement officials and conservators, 2013). Wildlife professionals would use the same permit to shoot and dehorn multiple rhinos. Or, as was the case in some provinces – most notably in the northern Limpopo Province, wildlife professionals could use a “standing permit” for white rhino hunts on certain properties. In other words, hunting outfitters applied for a blanket permit once and after that they hunted without further permits and state supervision on these properties until August 2008 (Milliken/Shaw 2012: 38, Interviews with wildlife professionals, 2013).

6.2.1 The Groenewald gang

The previous section referred to the alleged “rhino horn syndicate kingpin” Dawie Groenewald and his accomplices, known as the Groenewald gang or the “Musina group”.³³³ The rhino poaching syndicate faces 1736 counts of racketeering, money laundering, fraud, intimidation and illegal hunting and dealing in rhino horns in South Africa (Rademeyer 2012) while the US indictment alleges that the Groenewald siblings (see earlier section) sold illegal hunts to US trophy hunters. According to the South African criminal indictment (compare with: National Prosecuting Authority 2011), Groenewald and his accomplices were involved in intricate scams, ranging from false permit applications through to illegal dehorning of rhinos and the laundering of unregistered rhino horns. Rhinos and rhino horns were acquired

³³³ Musina is a border town in the Limpopo Province. Dawie Groenewald’s farm called Prachtig is located near Musina and most of the South African wildlife professionals with direct links to his criminal network live in the town or nearby.

through a variety of gray and illegal channels. The court case is likely to resume in 2016 after several postponements since the initial arrests of gang members in 2011.³³⁴ Amongst Groenewald's co-accused are wildlife veterinarians, professional hunters, a pilot, farm labourers and two wives (his own and the wife of wildlife veterinarian Karel Toet),³³⁵ who assisted with the permit applications and other administrative tasks. The Groenewald gang entered into business ventures with rhino farmers and wildlife professionals, many of whom were unaware that they were breaking the law at the time. What renders this case interesting is the demonstrable interface between legality and illegality. The following section provides a few examples of the Groenewald gang's activities.

Groenewald hunted numerous rhinos illegally on his farm Prachtig in the northern Limpopo Province (the indictment alleges that he killed 59 of his own rhinos) and procured live rhinos and rhino horns from other rhino farmers. It is alleged that he dehorned rhinos and sold at least 384 rhino horns over a four-year period (Jooste 2012). The role of professional hunter Nardus Rossouw is central to illegal and pseudo-hunts (see also next section) conducted on Prachtig and other hunting reserves, as well as obtaining rhinos and horns on behalf of the gang. Groenewald's list of rhino and rhino horn suppliers, and service providers (game capturers, transporters, hunters, butchers, etc.) reads like a list of the "who's who in the wildlife industry of South Africa" – including the names of the world's biggest rhino breeder John Hume, Marnus Steyl who collaborated with the Laotian Xaysavang network (discussed in detail below) and the Kruger National Park as supplier of live rhinos (compare with: National Prosecuting Authority 2011). In terms of the National Environmental Management of Biodiversity Act (NEMBA), separate permit applications have to be tendered to dehorn a rhino, to transport rhino horns, as well as to possess rhino horn. According to Colonel Jooste's affidavit (Jooste 2012: 14),³³⁶ the Groenewald gang flouted these rules on numerous

³³⁴ The court bid to get the domestic moratorium on the trade in rhino horn lifted (see Chapter 5) led to latest court postponement in the Groenewald case. Prosecutors believe that the merits (or lack thereof) of that case are likely to impact the outcome of the Groenewald case.

³³⁵ While Sarette Groenewald and Mariza Toet were the administrators and bookkeepers of the gang, the fact that they are the wives of two central players in the network is emphasized here because their family ties render them trustworthy, and important assets.

³³⁶ Colonel Johan Jooste heads the Endangered Species Unit at the Directorate for Priority Crime Investigations (DPCI), South Africa's organized crime fighting unit.

occasions. The carcasses of rhinos that were allegedly illegally hunted, killed and dehorned on Prachtig were either sold to a local butcher,³³⁷ buried or burnt (Jooste 2012: 11).

An innovative method involved the re-sale or trade exchange of dehorned rhinos. John Hume, for example, accepted 14 dehorned rhinos in respect of a debt owed to him by Groenewald (Jooste 2012: 76-77). Karel Toet, Groenewald's veterinarian, dehorned the rhinos before the live but dehorned animals were sold to fellow rhino breeders. He was also in charge of translocating and selling rhinos that had been dehorned. Several hundred rhinos were allegedly dehorned and the resultant horns were laundered into legal or gray supply chains. Groenewald and Toet did not only dehorn rhinos on Groenewald's farm Prachtig but are believed to have offered dehorning services to fellow rhino breeders across South Africa. Toet's wife Mariza and Groenewald's wife Sariette applied and falsified permits for translocations and dehorning of rhinos (e.g. using the same micro-chip numbers again, using expired permits or swapping permits).³³⁸ Their roles in the Groenewald syndicate should not be underestimated, as they were allegedly responsible for multiple fraudulent permit applications. These also included applications for rhino translocations that never occurred (with the objective of hiding illegally dehorned rhinos) through to applications for translocations of dehorned rhinos without separate permits for 'missing' rhino horns, which should have been registered as part of Groenewald's private stockpile. The two wives are heavily invested in the business ventures of their husbands as shareholders, bookkeepers, and administrators.³³⁹ Direct family ties to central figures in the Groenewald gang, as well as the women's financial and criminal investment (culpability) help to resolve the coordination problem of security. Through the clever manipulation of paperwork, the women were responsible for the safe and 'legal' transfer of illegally obtained rhino horn from legitimate rhino breeders and wildlife industry players to Asian markets. The adage of 'blood is thicker than water' is of importance here.

³³⁷ 39 carcasses were sold to a local butcher between 2008 and 2010.

³³⁸ When a rhino is dehorned, the horn has to be micro-chipped and registered with nature conservation officials.

³³⁹ Sariette Groenewald, for example, holds a 50% stake in the private company Catfish Investments 59. She is the only member of the closed corporation Valinor Trading 142 CC. The gang used Valinor for the financial aspects of 'Out of Africa Safaris' and Valinor Trading.

In some instances, Groenewald and his colleagues failed to notify nature conservation officials before moving rhinos to other properties despite being explicitly ordered to do so, thus bypassing inspections that would have identified fraudulent permit applications. In another incident, the Groenewald gang allegedly tried to obstruct the course of justice by offering bribes to an investigating officer to loose a case docket regarding the unlawful possession of elephant tusks. One of Groenewald's associates had delivered the tusks to the Vietnamese owner of a warehouse at the China Mall in Johannesburg (Jooste 2012: 66-67). When fraudulent permit applications failed, the gang would thus attempt to corrupt relevant police or nature conservation officials as a contingency plan (another security precaution to resolve the coordination problem of security). Groenewald was arrested for an illegal leopard hunt and export of the leopard trophy in the US in 2010. While under house arrest in the US, he allegedly instructed fellow syndicate member Tielman Erasmus to stage a house breaking on his farm. He suspected that environmental management inspectors would inspect the farm in his absence and find numerous dehorned rhinos but no rhino horns (Jooste 2012: 12). Groenewald's attempt to cache his illicit activities through staging a house breaking failed, and forms part of the state's indictment against him and his gang.

Groenewald had strong social networks with fellow members of the wildlife industry in southern Africa and beyond (including the US) who were willing to conduct business with him. The existence of social ties that stretched beyond his immediate social network gave Groenewald the competitive edge (compare with: Morselli 2001: 228). Socially embedded in the southern African wildlife industry with strong business connections to the consumer market (Vietnam), as well as extensive knowledge of the tricks of the trade, Groenewald was in an excellent position to procure high volumes of rhino horn through gray and illegal channels. Many horn procurement methods crossed the fine line between legality and illegality. While fellow wildlife industry players often thought that they were acting within the ambit of the law when transacting with the gang, Groenewald and his associates were fully aware of the regulations and how to bypass them. Although it was illegal to hunt and dehorn rhinos without the required paperwork, the gang managed to sell their criminal and gray activities as legitimate business enterprises. To some business partners, trading rhino or rhino horns with Groenewald at the domestic level appeared to be legitimate. Moreover, the privatization of rhinos and the entitlement to do 'as you please with your own property'

allowed many criminal and gray activities to go undetected for several years. It is particularly surprising that Groenewald conducted business with agents of the state (he bought rhinos from the KNP), even after the Directorate for Priority Crime Investigations (DPCI) had commenced with *Project Cruiser*, an investigation into his fraudulent and criminal operations. The complicity of wildlife professionals such as wildlife veterinarians, helicopter pilots, professional hunters and fellow rhino breeders facilitated the gang's activities.

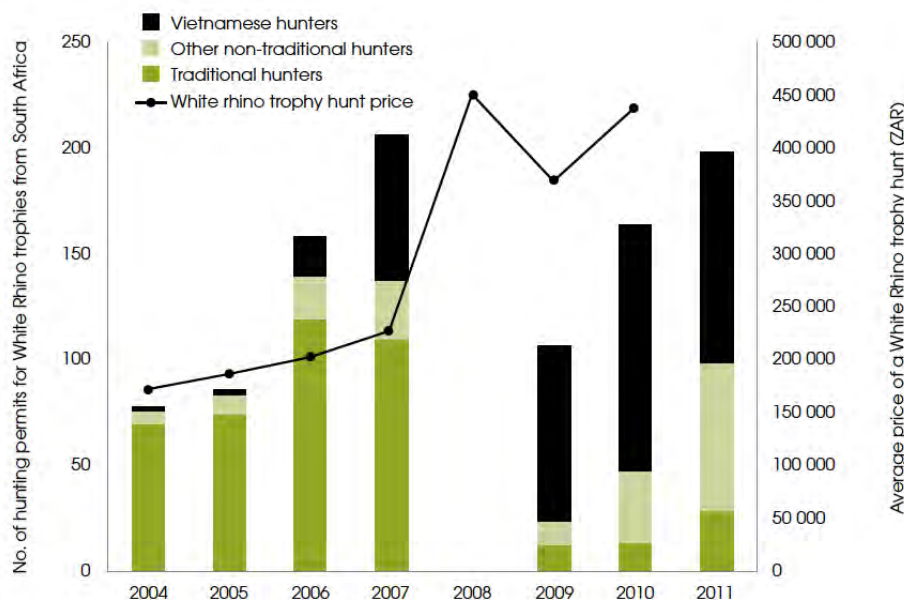
6.2.2 The pseudo-hunting phenomenon

Another creative way of supplying Asian consumer markets with 'legally' attained rhino horn involved hunters originating from countries that have no tradition or culture of sports hunting. In continuation of colonial big game hunting and safaris, the majority of traditional rhino hunters herald from Europe and North America (Interview with professional hunter, 2013; data supplied by PHASA, 2013). As of the early 2000s, a new breed of hunters arrived on South African shores (see Graph 4). Young Vietnamese nationals with no or a limited (sometimes falsified) track record of trophy hunting booked white rhino hunts with South African outfitters. In terms of CITES stipulations and domestic laws in South Africa, hunters are allowed to shoot one white rhino per calendar year while the annual quota for black rhinos is restricted to five animals. These hunting trophies may be exported as hunting memorabilia for non-commercial use. Vietnamese crime groups together with their local intermediaries recruited Vietnamese citizens as stand-in trophy hunters to bypass the rule of 'one white rhino, per person, per annum'. Their role was hence to pose as trophy hunters for the purposes of compliance with permit regulations while a South African professional hunter would shoot the rhino on their behalf. It is mandatory in terms of South African law that a South African professional hunter and an official from nature conservation accompany each rhino hunting party. The professional hunter is only supposed to dispatch the so-called 'kill shot' if the hunter as per the hunting permit fails to kill the rhino with his or her first shot and the animal is wounded. Known as "pseudo-hunting", a law enforcement official explains the phenomenon as follows (Interview; 2013):

“When the demand grew, they decided: let's go and hunt rhinos. As a PH [professional hunter] and an outfitter, you need to sell your hunts as a package. It is a contract with requirements. There is no hunting offered in Vietnam. They do not have firearms and they do not belong to a hunting fraternity and there is no hunting fraternity in Vietnam. So why the hell would you come to hunt a rhino all the way from Vietnam? With all these guidelines that you have, they are not hunters. I can show you pictures of people that supposedly go hunting in high heels. And if you check all these hunters involved in these trophy hunts, they are between the ages of 26 and 32. If you compare that to their income, then you ask yourself what does it cost to be a hunter? What does it cost to hunt a rhino? They are shot in less than half an hour; they pay cash. They pay for that hunt between 500,000 and 1 million Rand³⁴⁰ – only for the horn. What happens to those trophies, they supposedly go to the taxidermist. And then they get lost in the system. Loads of taxidermists are complicit. They use the system to defraud the state. A hunter hunts for memorabilia. But what do these guys do? They hunt for commercial exploitation, whether it is for libation cup or for status in the country. If they are involved in pseudo-hunts, the farmers buy rhinos at auctions and in less than 48 hours the rhino's shot, from auction to grave.”

The CITES regulations ban the commercial exploitation of rhino horn; rhino trophies have hence to be exported and stay in tact (as opposed to the export of the horns only, pieces of horn or powdered horn) and they may not be traded commercially.

Graph 4: Nationality of hunters applying for white rhino hunts juxtaposed against the average price of trophy hunting, 2004-2011



Source: Graph extracted from Milliken and Shaw (Milliken/Shaw 2012: 53); data compiled by Michael Knight (No hunting permit data was available for 2008)

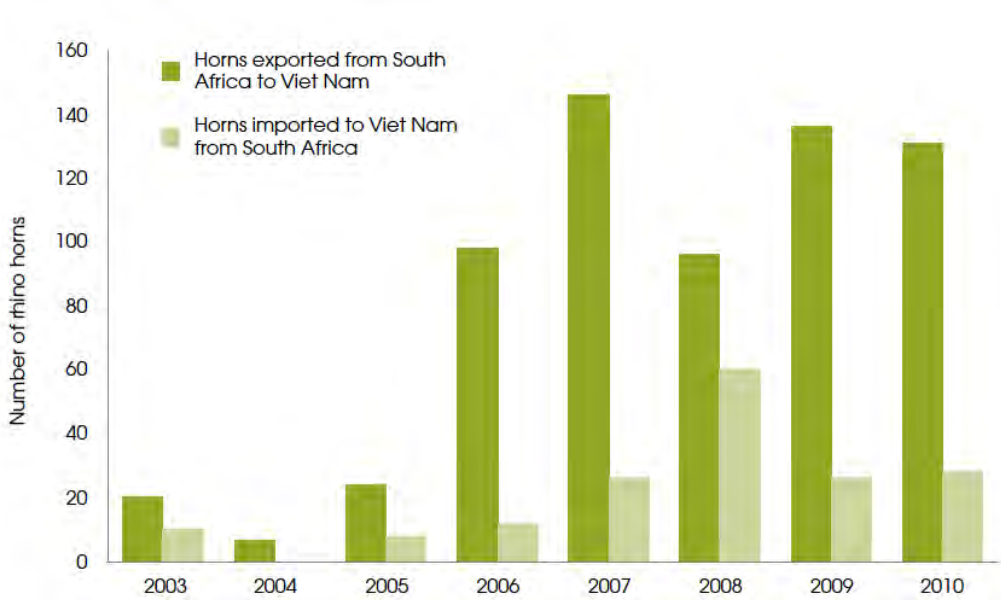
³⁴⁰ This amounts to 47 420 € to 94 950 €.

The only permissible use of a rhino trophy is thus as hunting memorabilia in the trophy hunter’s private collection.

While rhino horn obtained through pseudo-hunting passed as a legal flow out of South Africa initially, law abiding wildlife professionals and conservation officials became suspicious once it became apparent that the young Southeast Asian hunters were stand-in’s to obtain rhino horn through legal channels (Interviews, 2013). The afore-mentioned TOPS regulations also targeted this illegal practice. The resilience and creativity of rhino traffickers is apparent in the employment of new strategies to bypass regulations and the law (see next section).

Official records show that the exportation of ‘legally’ attained rhino horn from South Africa to Vietnam was prevalent throughout the 2000s. The CITES Trade Database (Graph 5) provides a register of legally exported and imported rhino trophies and other rhino products (such as rhino tails and genitalia) from South Africa. Vietnamese horn importers were using CITES export permits to import multiple rhino horns on the same single-use export permit to Vietnam until its expiration date was reached after six months (Milliken/Shaw 2012: 58).

Graph 5: South Africa's officially reported export data versus Vietnam's officially reported import data of rhino horn (2003-2010)



Source: CITES Annual Report Data provided in (Milliken/Shaw 2012: 59)

According to annual export and import data provided to CITES, Vietnam acknowledged receipt of about 25 % of the legally imported rhino horn trophies between 20003 and 2010. This

discrepancy suggests that approximately 487 of 657 'legal' rhino horns entered the illegal market in Vietnam (Milliken/Shaw 2012: 58). As recent as 2012, South Africa reported the export of 16 rhino horns and 13 rhino trophies to the southeastern Asian country. About the former, Vietnamese authorities confirmed the import of 28 horns (a difference of 12 additional rhino horns) and in reference to the latter, of the 13 trophies only 1 was registered for importation upon arrival in Vietnam (CITES Trade Database 2012). Direct exports of rhino trophies from South Africa to Vietnam stopped entirely by 2013 (CITES Trade Database 2013). In excess of 400 rhino trophies (800 horns) were 'legally' exported to Vietnam from 2003 to 2012 (Carnie 2013).

6.2.3 Thai sex workers as trophy hunters

Unlike the Vietnamese pseudo-hunters who had to be flown in from their home country, a Laotian wildlife trafficking network, using a front company called 'Xaysavang Trading Export-Import',³⁴¹ employed a clever cost-saving measure. The Thai representative of Xaysavang in South Africa recruited Thai sex workers who were already based in South Africa to accompany him and his South African intermediaries to private hunting reserves and farms to act as stand-ins for trophy hunters. The wildlife traffickers thus saved on financing travel costs from Southeast Asia to South Africa. A local henchman³⁴² trawled through Johannesburg's strip clubs and brothels in search of Thai nationals³⁴³ with valid travel documents, which were

³⁴¹ Investigative journalist Julian Rademeyer (2012) provides a detailed account of the Xaysavang wildlife network in his book *Killing for Profit*. Chumlong Lemtongthai was running the South African operation of the network until his arrest in 2011 and subsequent conviction in 2012. He was sentenced to 40 years imprisonment, which was reduced to a 30-year sentence on appeal in 2013 (Tsoka/Levenberg 2013). The Supreme Court of Appeal heard the case in 2014 and shortened Lemtongthai's sentence to an effective 13-year prison term and a R 1 million monetary fine. Failing payment of the fine would lead to an effective period of imprisonment of 18 years (Navsa/Wallis/Swain 2014).

³⁴² Johnny Olivier the local 'handlanger' (helper) of Chumlong Lemthongthai turned against the wildlife crime network and became the star state witness against the Thai national. His police statement and various interviews with journalists provided insight into the inner workings of the network. His motivation to turn against the network is discussed later in this section.

³⁴³ Johnny Olivier suggested that the Thai women might have been trafficked to South Africa (Olivier 2011: 2). Another criminal actor likewise maintained that the Xaysavang network was also involved in drug and human trafficking (Interview with smuggling intermediary, 2013).

needed for the application for hunting permits. The Xaysavang wildlife trafficking network had initially extended its operations to South Africa in a bid to source lion bones, teeth, and claws, which were sold as substitutes for tiger bones in traditional Chinese medicine preparations.³⁴⁴ Upon arrival in South Africa, the transnational coordinator and transporter of the network Chumlong Lemthongthai saw advertisements for Big Five hunts including rhino and informed his boss of this “business opportunity”. Keen to fund “any trade in rhino horn”, the Laos-based kingpin Vixay Keosavang ordered Lemthongthai to “make inquiries” (Navsa/Wallis/Swain 2014: 9, Interviews, 2013). The network first appeared on the South African police’s radar when five members offered tens of thousands of Dollars for three rhino horns to an undercover police officer in 2008 (Connett 2014). The Xaysavang network’s infamous pseudo-hunting scheme commenced in late 2010. Of significance was a clear separation of duties. The syndicate sought out South African wildlife professionals and conservation officials with a penchant for “dodgy deals” that would facilitate their nefarious activities by availing their services and providing unhindered passage of rhino horn out of the country. To the wildlife network, cooperation with South African wildlife professionals involved little effort and operational risk. However, the ‘legal’ export of hunting trophies involved comparably more administrative and organizational footwork than a poaching excursion into a protected area would (Interviews, 2013).

The local organizer of these pseudo–hunts was a South African game farmer and safari operator who employed the services of a professional hunter to shoot the rhinos on behalf of the Thai pseudo–hunters. Marnus Steyl first supplied lion bones and later progressed to rhinos, arranging rhino hunts, the removal and weighing of the rhino horns. The live rhinos were purchased at discounted prices at auctions as rhino farmers were starting to off-load rhinos in the face of the escalating poaching crisis. He would also find farmers and outfitters

³⁴⁴ Criminal syndicates sell lion bone as tiger bone to unsuspecting consumers in Southeast Asia. Traditionally tiger bone is cooked up into a jelly-like substance known as ‘tiger cake’ or imbibed as ‘tiger wine’ (Interviews with TCM practitioners, Hong Kong, Hanoi and Ho Chi Minh City, 2013). While the illegal supply chain of lion bone was not the focus of my research, interviews with rhino horn smugglers and traders indicated that wildlife traffickers were seldom species-specific but include a number of endangered or threatened species and other contraband in their smuggling bouquet. The arrival of the Xaysavang network in South Africa coincided with a drastic increase of the officially recorded export data of lion bones on the CITES database, with 386 and 645 sets of bones exported from the country in 2009 and 2010 respectively, whereas only 89 sets of lion bones had been exported between 2000 and 2008. Of those sets, 75% went to Asia with the ‘lion’ share of 67,7% destined to Laos (Lindsey et al. 2012: 13), the home base of the Xaysavang network.

who were willing to host the Thai pseudo–hunting party. Upon receiving the Thai nationals’ passports, Steyl would forward the necessary information as well as copies of passports to the outfitters or landowners who then applied on their behalf for the hunting permits (Navsa/Wallis/Swain 2014: 9). The Thai sex workers and strippers would accompany the syndicate members to game reserves and hunting farms to pose next to the dead rhinos (see Figure 9) in exchange for free food and drinks and R 5000 (475 €) for the “job” (Kvinta 2014). The professional hunter Harry Claassens killed the rhinos, and Steyl and his farm workers would dehorn the rhinos and take care of the carcasses. Occasionally Lemthongthai or one of his friends would pose as hunters (Olivier 2011: 6). Steyl was paid R 60 000 (6 135 €) per kilogram of rhino horn; the price went subsequently up to R 65 000 (6 646 €) per kilogram (supporting evidence attached to Olivier police statement).

Figure 9: Thai pseudo-hunter



Source: provided by Paul O’Sullivan

According to the hunting regulations, nature conservation officials ought to be present and monitor all rhino hunts. The Department of Environmental Affairs failed to provide proper supervision of these hunts (Navsa/Wallis/Swain 2014: 12–13) and Lemthongthai and other members of the syndicate boasted later “everyone has a price in South Africa” (Interviews,

2013). In his ruling during the appeal hearings the appellate judge commented on the incompetence and possible collusion of the nature conservation officials:

“Equally, the relevant government department can rightly be criticized, not only for lack of proper supervision of the authorized hunt, but, if the photographs that form part of the record are anything to go by, it appears that at least some of the officials involved probably knew that the terms of the permit were not being met and that the stated purpose of the hunt was false. From the photographs it appears that these officials should have known that the persons present during the hunt were not the persons to whom the permits to shoot and kill rhino had been granted and were not in truth genuine trophy hunters.”

Olivier’s police statement was more damning in providing a list of contacts of the Xaysavang network within the North Western nature conservation department, the customs and airports authority, as well as pliable taxidermists (Olivier 2011: 9). The same nature conservation official would be on ‘standby’ to come to Steyl’s farm to be present during the hunt, measure the horn, scan the chip inside the horn and put the details of the hunt into the Professional Hunters Register. Olivier witnessed the exchange of bribe money once but thought that there was a standing arrangement in place (Olivier 2011: 7–8). The provincial conservation official appears to have assured the national officials of the legitimacy of the applications (Interview, 2013).

Lemthongthai’s Thai associate in South Africa, “the man on the ground” Chunchom Punpitak (Olivier 2011: 6) oversaw the hunting parties while Lemthongthai would monitor the horn shipments between South Africa and Laos and their onward journey to consumer markets (Olivier 2011: 5). The syndicate received 26 permits to shoot and kill rhinos of which most horns were fraudulently exported (Navsa/Wallis/Swain 2014: 4). A taxidermist mounted the horns on decorative shields to give them the semblance of real hunting trophies, which were then shipped to Laos. Lemthongthai falsified the customs documents by changing the consignee and country of destination (Navsa/Wallis/Swain 2014: 4); the hunting trophies should have been shipped to the permanent address of the Thai sex workers and exotic dancers in Thailand. In 2011, South African investigators closed in on the South African operation of Xaysavang Trading Export Import Company Limited. Lemthongthai and his associates were arrested and charged with transgressing the Customs and Excise Act, and

contravening against the NEMBA, and a bouquet of crimes linked to the transgression of the Preventing of Organized Crime Act (POCA) (The Regional Division of Gauteng Kempton Park 2012).

6.2.4 The resilience of the Xaysavang network

As the lead research question of this dissertation asks why the rhino has not been better protected in spite of myriad measures to disrupt the illegal market in rhino horn, the arrest and conviction of Lemthongthai, on the face of it, would suggest that this is indeed a successful disruption of an illegal rhino horn supply chain. Why was Lemthongthai arrested? And did his arrest and his subsequent trial and that of his co-accused (which included the game farmer Steyl and professional hunter Claassens) successfully disrupt the market for any length of time? In response to the former question: Johnny Olivier, the South African associate who was responsible for the “administrative go-between activities” (he was paid R 5000 – 475 € per rhino) allegedly got scruples when he discovered an order from Lemthongthai to Steyl for a further 50 rhinos (100 rhino horns) and 300 sets of lion skeletons.³⁴⁵ The team was supposed to kill and dehorn 15 rhinos per month; they would receive R 65 000 (6 646 €) per kilogram of rhino horn and R 10 000 (1 022 €) for lion skeletons weighing more than 10 kg (Olivier 2011: 10). Olivier turned state witness and his statement to private investigator Paul O’Sullivan led customs investigators to the heart of the Xaysavang’s South African operation but left the transnational smuggling operation and supply chain virtually undisturbed. Olivier and his girlfriend received immunity from prosecution and entered briefly a witness protection programme but his betrayal did not go unnoticed. Lemthongthai allegedly put out an R 100 000 (10 225 €) bounty on their heads and the couple started receiving veiled threats on social media and suspicious phone calls. Apparently Lemthongthai had taken everyone’s photo at a party a few months earlier. Should any team member ‘snitch’, then their photo would be sent to people that knew how to take care of

³⁴⁵ Olivier made the claim about scruples and “blood money” to private investigator Paul O’Sullivan and later in his police statement (Olivier 2011: 10). Investigative journalist Julian Rademeyer relates that Olivier had a rather murky past and dubious reputation (Rademeyer 2012). His motivation to inform on the dealings of Xaysavang remains unclear; however, the sudden concern for rhino appears out of place after sourcing 100s of rhinos for the network (Interview with intermediary, 2013).

snitching (Kvinta 2014). While the digital capturing of conspirators suggests that Lemthongthai tried to resolve the coordination problem of security by way of an insurance policy, an intricate and complex security system appears to protect the Xayasavang network. As it turned out, Chumlong Lemthongthai was assigned as the “fall guy” who took the blame as the “director” of the import export company; Olivier had his day in court and lived to tell the tale. Charges were dropped against all of Lemthongthai’s co–accused³⁴⁶ after he pleaded guilty and claimed that the others had no knowledge of his illegal dealings. Lemthongthai’s fate and the consequences of his arrest assist in responding to the latter question, which related to whether the arrests had led to a successful disruption of the market.

Lemthongthai’s co-accused got off scot-free to deflect from other Xaysavang dealings. The risk of ‘getting caught’ is considered an operational risk to wildlife traffickers and succession planning and securing the continuity of the supply chain is inherent to any successful transnational operation, thus resolving the coordination problem of security. The network had several fall back scenarios in case of detection and defection of key players. Lemthongthai had left an impeccable digital record of his business dealings,³⁴⁷ which had assisted investigators and prosecutors in putting their case together. While Lemthongthai may have been the designated as the ‘fall guy’ (and more so by virtue of his digital record keeping suggesting that he thought his approach was failsafe), some of South Africa’s finest legal

³⁴⁶ The National Prosecution Authority (NPA) reinstated the charges against game farmer Marnus Steyl in 2012. He fought for a permanent stay of execution, which was granted in June 2015.

³⁴⁷ It would appear rather naïve of Lemthongthai to leave behind such detailed accounts of his business dealings. He was, however, sure of the legitimacy of his dealings in light of him attaining the “right” paperwork to move the rhino horns ‘legally’ out of the country. He believed that he was acting within the limits of the South African law, which permitted Thai nationals to hunt rhinos and export the horns to their home country. While he was paying R 60 000 to R 65 000 per kg of rhino horn, poached rhino horn would enter the “black market” at a cost of R 200 000 to the poaching organizer. Although Lemthongthai’s alleged profit margin was less than R 100 000 per rhino hunt, poaching intermediaries would make a profit of R 450 000 per hunt (Interview, 2013). The payment structures are discussed in more detail below. It is noteworthy how pseudo trophy hunting was legitimized as the lesser of two evils. Moreover, while the digital record on Lemthongthai’s laptop provides insight into the ‘pseudo-legal’ dealings of the Xaysavang network, there was no paper trail of the overtly illegal transactions. According to sources within the criminal underworld that cooperated with Lemthongthai (Interviews, 2013 and 2014), the network had been involved in the illegal killing and dehorning of at least 700 rhinos in southern Africa. The court cases against Lemthongthai and associates, however, dealt with a few dozens of pseudo-trophy hunts (The Regional Division of Gauteng Kempton Park 2012).

minds were assigned to his case.³⁴⁸ The lawyers first fought in the High Court and later in the Supreme Court of Appeal for reductions to Lemthongthai's prison term. The initial 40-year sentence was first reduced to a 30-year term, and then the Supreme Court of Appeal took off a further 17 years in 2013. Lemthongthai is to serve a 13-jail sentence and pay a fine of R 1 million. According to law enforcement sources (Interviews, 2013), Keosavang is taking good care of Lemthongthai's family in Thailand in the interim, and he will be generously rewarded upon his release from prison. By exonerating the others, Lemthongthai ensured that none of the other co-accused would release privileged information about the network's operations and that they could carry on with their nefarious activities. The network managed to resolve the coordination problems of cooperation and security successfully through Lemthongthai's role as intermediary and 'fall guy'. These roles were based on his reputation as a trustworthy criminal associate and mutual trust that both Lemthongthai and the network would honour their roles in the 'security' agreement (non-disclosure of operational secrets versus support of next-of-kin).

The significance of the responsibilities and functions linked to the role of the local organizer needs to be underscored: Steyl is but one example of a handful of southern African organizers³⁴⁹ who act as intermediaries between the supply and demand side of the market. These organizers have access to influential political and economic elites in southern Africa and Southeast Asia; Steyl, for example, travelled to Thailand on several occasions. Moreover, South African law enforcement authorities and their Asian counterparts have evidence that South African wildlife professionals and their representatives have undertaken several "marketing trips" to Vietnam (Interview, 2013). In essence, Steyl's role and function as the local organizer with a direct connection to the source (rhino horn, lion bone and other wildlife products) is far more valuable to transnational traffickers than the role of transnational transporters (in this case Lemthongthai's role). While Lemthongthai was the person responsible for the transnational transport (export/import) of rhino horn, lion bone and other

³⁴⁸ According to key informants interviewed in southeastern Asia, the network financed Lemthongthai's lawyers. Julian Rademeyer (pers. communication, 2016) believes that game farmer Marnus Steyl and associates footed the legal bill but could not find corroborating evidence.

³⁴⁹ According to poachers, law enforcers and intelligence operators (Interviews, 2013 and 2014), Groenewald and Ras are also organizers. There is also anecdotal evidence of three white executives in the import-export business (two of South African and one of Zimbabwean descent) operating from Mozambique.

wildlife contraband from South Africa to Southeast Asia until his arrest and subsequent conviction, his functions and duties were rapidly moved to someone else.³⁵⁰

The arrest and conviction of Keosavang's "deputy" (Rademeyer 2014b) also failed to disrupt the market. While it put an end to the recruitment of Thai sex workers as trophy hunters, other 'legal' and illegal flows of rhino horn continue to feed the market. A separate case in Kenya has linked the Xaysavang network to ivory trafficking (Fuller 2013)³⁵¹ while interviews indicated that the networks were involved in a number of other legal and illegal flows of rhino horn, ivory, lion bone and other wildlife products out of South Africa, Namibia, Mozambique, and Tanzania (Interviews, 2013). The primary modus operandi of the Xaysavang network is the conversion of illegally obtained wildlife and wildlife parts into seemingly legal wildlife commodities. The network smuggles 1000s of wild animals and animal parts to Laos each year. Keosavang maintains a number of captive breeding facilities and farms in Laos, from where illegally obtained wild animals or animal parts are exported with official Laotian government paperwork stating that the animals derive from captive breeding facilities (Fuller 2013, Interview with Steven Galster, Freeland Foundation, 2013). Dubbed the "Pablo Escobar" of illegal wildlife trade (Rademeyer 2014b), Vixay Keosavang has powerful networks extending to the political and military elite of the southeast Asian country (Gosling/Reitano/Shaw 2014: 24). The former soldier turned business entrepreneur remains "untouchable" in his home country of Laos (Gosling/Reitano/Shaw 2014: 23) despite the US issuing a \$1 million reward for information leading to the dismantling of the Xaysavang network in 2013. Evidence at Lemthongthai's trial had included airway bills showing that some rhino horns had been shipped to one of Keosavang's addresses in Laos – yet, this evidence did little to dismantle or disrupt his wildlife business (Fuller 2013).

³⁵⁰ The Freeland Foundation believes that Loy Chanthamvonga, a young woman who frequently travels to Mozambique, is Lemthongthai's successor. She was implicated in a rhino horn shipment to Thailand, which also involved a Vietnamese national and two police officers (Rademeyer 2014b).

³⁵¹ The Kenya Wildlife Service and customs officers seized 260 kg of elephant ivory and 18 kg of rhino horn at Nairobi airport in 2008. The shipment was registered to Xaysavang Import and Export and bound for Laos (Connett 2014).

6.2.5 “Round-tripping”: Rhino horn in transit

By the time the legal loophole had been plugged and a temporary ban had been imposed on Vietnamese trophy hunters in 2012, a new breed of “non-traditional” hunters had already slipped into the region. Czech, Polish and Ukrainian hunters were now posing as “proxy” hunters for criminal groupings; their ‘hunting trophies’ were ‘legally’ exported to their home countries. From there, the horns were pilfered into illegal supply chains to Vietnam (Interviews with law enforcement officials and conservators, 2013). In July 2013, 24 rhino horns were confiscated and 16 suspects arrested in the Czech Republic; an additional eight horns were seized in Slovakia. Czech authorities charged the group of 16 including three Vietnamese nationals, with being members of an international crime syndicate in December 2014. The syndicate is alleged to have moved rhino horn from South Africa via the Czech Republic and Slovakia to Vietnam. This practice has been dubbed “round-tripping” (Bloch 2014). In 2012, the Czech Republic informed CITES that intermediaries with contacts to the local Vietnamese community had recruited Czech citizens from a specific area in northern Bohemia to act in staged trophy hunts in South Africa. Like the Vietnamese pseudo-hunters, these hunters were not registered members of any hunting association, possessed no hunting licenses or rifles and had no previous hunting experience. The recruiters paid the travel expenses of the Czech hunters to South Africa, contingent on the hunter signing a declaration that the hunting trophies would be surrendered to the recruiter upon return to the Czech Republic (CITES Secretariat 2013: 6). The South African partners – Czech nationals living in South Africa and rogue wildlife professionals associated with the earlier mentioned Dawie Groenewald – arranged the permit applications, hunts and export of the rhino horns. East European customs officials have limited experience in identifying African wildlife contraband, a weakness easily exploited by wildlife syndicates. The Czech authorities became suspicious upon inspecting rhino horns that were not mounted on a trophy but individually wrapped in clear plastic and packed into wood shipping crates and stamped with an official South African CITES export approval. Another shipment of horns was concealed in custom-made machine parts (pers. communication with Julian Rademeyer, 2016). According to the airway bills, the horns were to pass through the Czech Republic en route the final destination of Vietnam (Bloch 2014). The Czech network is allegedly connected to Dawie Groenewald’s “Musina group” after microchips in some of the confiscated horns were traced back to several farms in

the Limpopo Province and his name and the names of his co–accused appeared on permit applications.

More recently, there have been suspicions that ‘traditional’ hunters (notably US and Russian nationals) were also hunting on behalf of Vietnamese groups (Interviews with wildlife veterinarian 3, 2013). The US indictment of Dawie Groenewald confirmed that US trophy hunters had indeed collaborated (albeit “unknowingly”) with the Groenewald siblings.

6.2.6 The impact of pseudo–hunting on price structures and trust issues

The price of ‘legal hunts’ surged after it became apparent how lucrative this economic exchange was. According to Adri Kitshoff, former chief executive officer (CEO) of the Professional Hunters Association of South Africa (personal communication, 2015),³⁵² the price ranged between US \$ 40 000 and US \$ 50 000 per hunt in 1995 to 2000, and from 2001 to 2005 it cost between US \$ 50 000 and \$ 65 000 per hunt (compare with Graph 4). Pseudo–hunting increased drastically from 2008, and so did the price for legal rhino hunts. A typical rhino hunt would cost between US \$ 90 000 to US \$ 110 000 at the height of the pseudo–hunting phenomenon between 2008 and 2011. The entry of the Vietnamese hunters into the trophy hunting market also led to a shift in price valuation by rhino owners and outfitters, who started charging per inch, and in some cases, per kilogram of horn. The length or weight of the rhino horn hence affected the total price of rhino hunts. Once the TOPS regulations were promulgated and adjusted to address, amongst others, the issue of pseudo–hunting, the price came down slightly before surging again. Most rhino owners and outfitters continue to charge per inch in lieu of quoting for a rhino hunt irrespective of the length or weight of the horn. In 2015, hunting outfitters who did not own land or rhinos were charging \$ 3 500 (3 125 Euros)³⁵³ per inch, which includes the total amount disbursed to the rhino owner. Typically a

³⁵² Adri Kitshoff, the former CEO of the Professional Hunters Association of South Africa made available the quantitative data provided in this paragraph.

³⁵³ Trophy hunts are usually quoted in US Dollars. This is partially linked to the high number of American trophy hunters supporting the South African hunting industry, and major hunting exhibitions, shows and auctions such as the Dallas Safari Club happen on US soil.

hunter would pay \$ 91 000 (81 250 Euros) to a hunting outfitter for a rhino that carries 26-inch horns.³⁵⁴ Wildlife professionals involved in the hunting industry have taken to defining rhinos in terms of the length of their horns – typically a rhino that carries a 26-inch horn is described as a “26-inch rhino” (Interviews with wild professionals, 2013; see also Chapter 4 on the sale of live rhinos).

While the new price structure based on inches of horn became a market-related standard in the wildlife industry, trust issues led to a further adaptation of remunerating farmers and outfitters for rhino hunts according to the weight of horn. Some criminal actors insisted on dispensing payment only once the rhino had been shot, dehorned and the horns had been weighed. Interviews with wildlife professionals, rhino owners and a prominent intermediary of a rhino trafficking syndicate revealed great levels of distrust between rhino owners on the one hand, and local “*handlangers*”³⁵⁵ and their Asian connections on the other. Farmers who hosted pseudo-hunts and engaged in horn laundering knew that they had no recourse to legal protection, should their criminal associates decide to default on payments, defraud or ‘rat’ on them. Intermediaries and their Asian associates were concerned about getting real horn (as opposed to fake horn, which is prevalent and widespread both on the supply and demand side of the market) and getting sufficient horn for the price they were paying (Interviews with horn smugglers and intermediaries, 2013). In the aftermath of the first pseudo-hunt, Lemthongthai expressed buyer’s remorse for having paid “too much money” for the two rhino hunts. He then decided that “we shoot, we cut, we weigh, then pay” (Olivier 2011: 4). In fact, Lemthongthai would only pay the money three to four days after the rhino had been dehorned to ensure that the weight of the horn had stabilized from “moisture loss” (Olivier 2011: 6).

It is interesting that illegal market pricing structures affected the legal trophy-hunting sector. Legal actors followed suit by valuing rhinos in terms of inches and grams of rhino horn instead of selling rhino hunts. Of further interest is the agency of horn suppliers in co-determining the

³⁵⁴ The price may also vary according to the location of the hunting reserve and the size of the land (the appeal of the experience). Some rhino hunts in “premier areas” where rhinos are “wild” or “free ranging” will sell for more than \$ 150 000 (Adri Kitshoff, personal communication, 2015).

³⁵⁵ Afrikaans word for helper or ‘hangers-on’.

price of rhino horn, suggesting that not only the sacred valuation of rhino horn in consumer markets but also the security premium associated with securing the supply chain (converting illegally obtained rhino horn into seemingly legal rhino horn through permit fraud) and disbursements to legitimate wildlife professionals play a role in the high price of rhino horn. Law enforcement officials and police reports (Interviews, 2013; documents in the possession of researcher) confirm that “rhino trophies” exported from pseudo-hunts and illegal hunts consisted of the horns only. The sale of rhino horns per inch or kilogram reveals yet another expression of contested illegality, where wildlife professionals and their clients disregard that rhino horn is not a tradable commodity permissible by the law of the land. The rhino is valued in terms of the weight or length of its horns, effectively rendering “a rhino worth more dead than alive” (Interviews, 2013).

6.3 Cooperation: The African-Asian connection

Wildlife professionals including job categories such as wildlife veterinarians, professional hunters, game capturers and transporters, nature conservation officials and helicopter pilots acted on occasion as the ‘go-between’ or intermediary of rhino farmers and Asian buyers. This intermediary function was not only important in connecting potential buyers (Asian networks) with suppliers (rhino farmers), but it also put distance (an additional node) between different stages of the supply chain. The intermediary was the ‘fall guy’ should ‘something go wrong’ during a business transaction. In essence, the intermediary provides protection for both the supplier and buyer thus resolving a potential fall out due to distrust on either side. Asian buyers were careful to choose intermediaries that either had a good reputation and social capital within the rhino owner community, or wildlife professionals who were known as mavericks, thereby resolving the coordination problems of cooperation and security. Where rhino owners or outfitters had their dedicated business connections to consumer markets (discussed in more detail below), the role of the intermediary was superfluous. A South African wildlife veterinarian who had been recruited to identify rhino farmers willing to host white rhino hunts with Vietnamese pseudo-hunters on their land said:

“The discussions [*the informant refers to a meeting with an alleged rhino poaching kingpin*] centred around the possibility of acquiring white rhino for “legal” hunts and helping them to get in touch with the right people. I had to source places where the Vietnamese hunters could hunt rhino. The ideal rhino had to be older rhino bulls with big back horns and the front horns needed to have big bases contributing to a heavier weight and larger profit. It was all about the weight and not about the length of the horns or the trophies. The purchase price at that time was between R40 000-00 to R60 000-00 per kilogram [*4120 Euros to 6175 Euros per kilogram*].³⁵⁶ This was only for the horns. The hunting price will be determined by the weight of the horns after the hunt. I would have received 3% to 5% commission based on the weight of the rhino horns after the hunt. The payments would have been in cash. I was only to source rhino. [*Name of South African intermediary*] used his own Professional Hunters...[...]... These rhino hunts were only for the rhino horns and not for the trophy. [*Two Vietnamese gentlemen*] were responsible for getting hunters from Vietnam and they acted as the link between South Africa and Vietnam. [*The South African intermediary*] was also responsible for obtaining the permits in South Africa.”

In cases where the state has no or limited knowledge as to actual rhino numbers in a reserve or on a farm, there was (and continues to be) no need for rogue operators to apply for hunting permits or commit permit fraud. The secrecy governing rhino numbers and reserve locations (see earlier section on ‘put and take’) allows such operators to go about their business with no detection. This breed of rhino farmers and wildlife professionals tends to have their own ‘pipeline’ to Asian markets, and intermediaries were infrequently used because there was no need for them. Law enforcement officials regard these operators as “particularly clever” as they did not get involved with “organized crime” (Interviews, 2013).³⁵⁷ The initial connection to Asian traders and consumers happened either through historical trade connections,³⁵⁸ marketing trips to southeast Asia or existing or emerging business relationships with nationals or diplomats of consumer countries resident in South Africa or one of the neighbouring rhino range states (Zimbabwe, Zambia or Namibia). The advantage of

³⁵⁶ The informant was referring to events that happened in 2010.

³⁵⁷ Arguably the criminal actors involved in this specific flow constitute an evolved form of organized crime where possible interruption of the supply chain is kept to an absolute minimum. The level of sophistication is achieved by involving a few trusted actors only who have the means and contacts to supply, procure and transport rhino horn at low cost and minimum risk.

³⁵⁸ Consumer markets in Asia, Middle East and Northern America have received rhino horn sourced from African rhinos for several centuries. Historical trade connections in this instance refer to the establishment of trade relations between sanction busters (the international community imposed economic sanctions on apartheid South Africa), apartheid military intelligence operatives and rogue wildlife professionals who traded ivory and rhino horn for weapons and ammunition.

the direct connection between the rhino owner, or the wildlife professional with access to rhino horn, and the Asian consumer is that the supply chain out of the country is comparatively shorter than in the other setups. These relationships are based on mutual trust involving actors of similar socio-economic background, social capital and access to influential and powerful political or economic elites at the source and in the market.

6.4 Contested illegality: Legitimizing regulatory breaches

The notion of contested illegality is a recurring feature in the rhino horn supply chain across different flows, where the legitimacy of the rules and/or rule-makers is questioned, or cultural frames legitimize illegal or gray economic activities. The lack of acceptance of illegality or what is referred to as the notion of contested illegality – in this case, non-acceptance of the trade ban and domestic regulations governing the hunting and management of rhinos and their horn – is employed as a legitimization device for illegal or gray economic activities involving rhino horn in the private sector. Wildlife professionals who are involved in the illegal rhino horn supply chain expressed sentiments of unfairness, impracticability and hostility with regards to the CITES and TOPS regulations, as well as the moratorium on the domestic trade of rhino horn in South Africa (see also Chapter 5). In essence, the narrative relating to the regulation of the industry has become a ‘chicken and egg’ debate of whether (over-) regulation led to illegal economic activities involving rhino horn or vice versa. As explained in Chapter 4, state authorities privatized rhinos in order to increase the total conservation area in South Africa, to create multiple viable rhino populations and to spread the risk of disease and extinction. The first rhinos were sold to private individuals and corporate entities in the late 1960s. CITES instituted the international trade ban on rhinos and their products in 1977. As one of the original signatories of the treaty, South Africa was required to domesticate and implement the trade ban, which effectively happened in the late 2000s. CITES granted some leeway as provisions were made for the non-commercial exchange of white rhino trophies in the early years of the multilateral environmental treaty. The Convention, the linked trade ban and domestic regulations became a thorn in the eye of many rhino owners and wildlife professionals who wanted free reign and agency to determine what happened to their

“property” and “investment”, especially once property rights had been conferred and clearly articulated (Interviews, 2013).

In essence, the CITES trade ban was interpreted as a deliberate stumbling block, which was “out of touch with the realities of the African bush” (Interview with conservator 3, 2013) and “dictated upon African conservators by powerful animal rights lobbies and greenies within CITES” (Interview with rhino owner 11, 2013). Interviews with rogue wildlife professionals (including rhino owners) portrayed the rhino horn trade ban as one of many prohibition-based systems that failed to enforce its stated objective – in this instance, the regulation of wildlife trade and avoidance of species extinction. The argument proffered is one of “where there is a demand, there is a supply – and if it’s not the farmer who conserves and helps the rhino, then it will be the poacher that meets the demand” (Interviews with wildlife professional 3, 2013). The role of the state is minimal in this narrative as to allow for ‘unfettered market exchanges’ in which self-interested individuals realize their full economic potential, and where ‘the invisible hand’ of the market determines supply and demand by way of pricing mechanisms. The notion of contested illegality became an important element of legitimizing illegal economic activities, as soon as the CITES trade ban was instituted, and continues to legitimize underhand and illegal economic activities.

Once the South African state had identified irregular non-conservation orientated activities on private land, piecemeal regulatory controls were introduced in the late 1970s and 1980s in preparation of South Africa’s bid at CITES to get rhinos down-listed from Appendix I (total trade ban) to Appendix II (partial trade ban), and subsequent attempts to allow for controlled legal trade. The South African government’s leading argument was to incentivize private rhino owners to continue breeding rhinos on private land. CoP decisions allowed the export of white rhino trophies as of 1979; white rhinos were then moved from Appendix I to Appendix II in 1994, and by 2004, Namibia and South Africa were granted an annual hunting quota of five black rhinos.

Chapter 5 and earlier sections of this chapter referred to the TOPS regulations. The regulations were not only aimed at bringing South African norms and standards in tune with the requirements set out by CITES but also to close loopholes that had been previously

exploited. Originally the regulations were promulgated in 2008; however, due to the phenomenon of pseudo-hunting and the identification of additional loopholes, the regulations were amended and updated in 2013 (Interview with government official 5, 2013). While DEA officials maintain that private rhino owners were sufficiently consulted ahead of the promulgation, private rhino owners felt that their concerns and complaints were not sufficiently considered. The sentiments expressed by the rhino owner below (Interview with rhino owner 2, 2013) mirror the narrative of many wildlife professionals interviewed for this research:

“One of the things is you’re the owner of the rhino. That means you own everything on it, the horn or the body parts belongs to you. But if that rhino dies and you obtain the horn, then you need the possession permit which is fine by me. You cannot pass-on the horn to someone else, not even your children. So what must you do with it? You are not allowed to donate it, you are not allowed to sell it and you are not allowed to keep it in your house without a permit. So it is a worthless thing. Why must you protect a worthless thing? When I die, it will be a problem, it wont even be part of my estate.”

Prior to the end of the apartheid regime, the state’s main focus was aimed at assisting private rhino owners whereas the attention has shifted to include the interests of local communities living in or adjacent to conservation areas in the post–apartheid regime. Commercial farmers – rhino owners are included here – were a powerful lobby within the ruling National Party during the apartheid regime. Farmers had direct connections to the provincial nature conservation bureaucracies and representatives in parliament, thereby influencing decisions pertaining to their interests. Their status as members or associates of the political and economic elite began to change during the 1990s. Strong political ties to the apartheid regime, economic privileges and support, and exploitative labour relations on some farms had contributed to large-scale social engineering in South Africa’s rural areas and upheld the social structure and economic powerbase of the apartheid state. The change in the political and economic status of farmers was not only linked to the political transformation in South Africa but macro-economic changes in the global arena such as market deregulation and the weakening of the South African Rand. Larger game reserves and game farms that offer trophy hunting and ecotourism were largely unaffected by broader political and economic changes as South Africa had morphed into a top destination for trophy hunting and ecotourism after the

end of apartheid. Foreign hunters and tourists provided ready access to foreign currency and contributed to the growth of the economy.

Interviews held with a bouquet of wildlife professionals (farmers, game capturers, wildlife veterinarians, taxidermists, anti-poaching personnel) revealed a contradictory and paradoxical relationship with state actors after the end of apartheid. On the one hand, the support of the state was needed to maintain land and rhino (and broader wildlife) ownership privileges; on the other, the changing of the guard signalled that it was not going to be 'business as usual' and that political transformation might lead to the loss of at least some privileges.

Interestingly, game and hence rhino farming offered an escape clause from possible land claims³⁵⁹ and tricky labour relations (see also the section on privatization in Chapter 4).

Moreover, since rhinos had been declared a private property, they could be translocated to other game reserves or farms that were not subject to land claims or complicated labour relations. In some instances, wildlife professionals legitimize 'off the book transactions' and the circumvention of regulations as a form of resistance to the new political dispensation.

Resistance to the new regime is linked in part to perceptions of incompetence and corruption of the new elite, "unfair" labour laws and regulations (farm workers enjoyed no labour protection during apartheid), the threat of land claims and the increasing incidence of farm attacks. One rhino owner said (Interview with rogue rhino owner 6, 2013):

"I want to ask you another question. The Minister of Health of any country – who must that be? You think it can be a farmer or do you think it must be a doctor? A stupid farmer like me knows that the Minister of Health must be a doctor for he's got all the knowledge. How can somebody that doesn't even own a bloody lizard, can make laws, can organise the environment and tell us what to do?"

The resistance to regulation (portrayed as "over-regulation" by many wildlife professionals) is also linked to a sense of deprivation of agency. Increased state intervention by way of rule-making, strict or partial implementation and enforcement of the rules has accentuated tensions between the wildlife sector and the state in the post-apartheid period. The apartheid state had facilitated the establishment of game reserves and farms by providing farmers and wildlife entrepreneurs with support (e.g. subsidies and property rights). Wildlife owners had free reign over their movable and immoveable assets with little regulatory interference or

³⁵⁹ The South African government has opened a land claims process for people and communities that were dispossessed their land after 1913 (Commission on Restitution of Land Rights 2015).

disruption to economic exchanges. In addition to other existential threats to the former status quo, the post-apartheid state is associated with introducing new rules, which are believed to aim at dispossessing and emasculating the white farmer (Interviews, 2013). Sentiments of a loss of privilege (the right to determine what happens to their property), deprivation and entitlement were expressed: “the government is out to get us”. A government official (Interview with intelligence officer 2, 2013) recounts an encounter at a meeting of rhino owners: “You are making us all poor. We no longer have income from harvesting the horn.”

While the majority of the around 400 rhino farmers and rhino reserve owners appear to be in favour of legalizing the trade in rhino horn³⁶⁰ and hence conform to the new rules (Taylor, Andrew et al. 2014, personal communication with PROA, interviews with private rhino farmers, 2013), there are a select few rhino farmers and associated wildlife professionals that continue to flout regulations and engage in illegal and semi-legal transactions involving rhino horn. Those in favour of legalization cite, amongst others, the rising costs of securing rhinos on private land and the private sector’s “enormous contribution to rhino conservation”. The cost of securing rhinos has indeed snowballed and is likely to surge further as criminal actors canvas new methods and security actors conceive of new countermeasures. Buijs (2002: 37; 1996) had pointed to the lack of security measures to safeguard many private rhino owners’ “good investment” in the 1990s and 2000s before poaching had become an issue of concern. By the end of 2014, private rhino owners were spending around 272 million South African Rand (20 million Euros) per annum on rhino security in addition to the current government expenditure in excess of 1 billion South African Rand (75 million Euros)(Jones 2014). Rhino owners are now calling on the government to assist with the protection of rhinos on private land. Smaller game farms and reserves that do not attract sufficient international trophy hunters or tourists struggle to meet the rising security costs. The legalization narrative further suggests that rhino farmers should be rewarded by allowing them to reap financial rewards for their efforts through the re-opening of the trade of rhino horn.

In conclusion, contested illegality in these flows of the rhino horn supply chain, on the one hand, relates to dissatisfaction with the international regulatory regime and national regulations in South Africa; and on the other, there is contempt and lack of respect for the

³⁶⁰ I interviewed a few rhino owners who oppose trade proposals.

rule-makers and enforcers operating both at the international and national level. The perceived illegitimacy of the rules and rule-makers functions as a legitimizing mechanism that permits (provides agency for) actors to break or bend the rules. A subset of this legitimizing mechanism relates to the normative aspects of the rules. To the rogue wildlife professional (used as an umbrella term here), the contestation of the ban also relates to the valuation of rhino horn as a highly profitable commodity. The intrinsic value of the rhino as a wild animal worthy of protection for the common good is secondary in this instance. In borrowing from the conservation discourse that portrays private ownership of rhinos as a conservation strategy, the rogue wildlife professional legitimizes his or her illegal economic activities in terms of contributing to conservation. What happens behind his or her game fence should escape from the state's scrutiny and interference, which is contingent upon the community of private rhino owners (those that follow and those who flout the rules) keep on growing the number of rhinos conserved on private land.

6.5 Conclusion

A key feature of these gray flows is the exploitation of legal and regulatory loopholes as actors ride on the edge of legality. South African wildlife professionals and rhino breeders who form part of the country's white economic elite are the principal actors. Regulatory breaches and the exploitation of legal and regulatory loopholes, including illegal hunting and dehorning of rhinos, as well as the stockpiling and laundering of illegally harvested rhino horn into legal trade flows constitute modes of 'production'. What renders these flows particularly efficient and safe is the early stage conversion of an essentially illegal good to legal status (the laundering of illegally harvested horn into legal trade flows), and contrariwise, the conversion of a legal product (the hunting trophy) into an illegally traded good in consumer markets. The early conversion curtails opportunity costs and risks further down the supply chain. From an illegal market actor's perspective, this mode of obtaining horn is not only the safest and modest expedient method but it also minimizes the number of intermediaries required from the point of origin to the consumer market. This brings down operational costs and increases the profit like in other legal and illegal businesses. It also allows a largely unhindered passage of the horn through the minimal exposure to social control actors (national and international

law enforcement agents) and measures aimed at disrupting the market. Moreover, the horn stays in its original state, meaning it is not processed into smaller pieces or powder form before reaching the consumer market. This is significant when it comes to quality control, valuation and pricing of the horn on the consumer market (see Chapter 8).

The significant role of wildlife industry players in rhino extinction (as opposed to rhino conservation) is noteworthy. While public attention has been drawn to rhino poaching in public parks, rogue elements within the wildlife industry were the catalyst for poaching to increase in national and provincial parks (discussed in more detail in Chapter 7). It is important to note that gray flows are not separate and disconnected from other legal and illegal flows (see also Chapter 7). The same actors and/or their social networks have a vested interest in or influence on other flows.

Chapter 7: Poaching rhinos: Illegal flows of rhino horn

“I’m shooting for the money” (Poacher, Cubo village, 2013)

“You know I wasn't born to hunt a rhino. In the village, we hunt the small animals. You know the guys in the villages; they don't hunt the big animals. They want fresh meat. They only hunt for the day. Normally, they keep big animals safe. There is no fridge. And the land used to be free long ago, now the land is not free. I can't just go anywhere; otherwise the guy will start fighting with me. And he will say this is my land and we will start fighting. Government can stop this thing; they just must give people jobs. Crime is everywhere and the police is shooting us all.” (Poacher 16, SA correctional centre, 2013)

7.1 Introduction

This chapter draws on insights from Chapter 4, which dealt with the history of conservation and associated protection paradigms. The earlier chapter served the purpose of demonstrating how the social architecture and engineering of the colonial and apartheid dispensations led to the loss of land ownership and ancestral burial grounds, as well as property and hunting rights of the indigenous and local peoples of South Africa and neighbouring countries. The Kruger National Park (KNP), South Africa’s flagship national park, other public parks like Hlhuluwe-Imfolozi and Mkuze in the province of KwaZulu-Natal, and privately-owned reserves and farms across the country have become the setting of what is often described as “a war to save the world’s last rhinos” (Interviews, 2013 and 2014). Of the approximately 21 000 remaining rhinos³⁶¹ in South Africa – 19 300 are white rhinos and approximately 1 700 animals belong to the black species (Milliken 2014: 15). Between 8 394 to 9 594 white and 343 to 487 black rhinos remain in the KNP (Ferreira et al. 2014: 1).³⁶²

Rhino numbers have become a contested issue, tying into public policy debates, and conservation and fundraising agendas of various conservation NGOs and private operators.

³⁶¹ Milliken collated rhino numbers from IUCN/SSC AfRSG data that was last updated on 13 October 2013. In 2015, conservators (personal communication, 2015) estimated that the total number of rhinos had dropped to 19 700 animals of both species in South Africa.

³⁶² The figures relate to a population survey undertaken in 2013. Surveyors used helicopters to count rhinos in 878 randomly selected blocks of three square kilometres in size (Ferreira et al. 2014: 1). A follow-up survey was undertaken in 2014. The 2015 survey determined that the KNP is home to 8,400 to 9,300 white rhinos, according to numbers released by the South African Minister of Environmental Affairs Edna Molewa at the end of January 2016. The Minister did not provide numbers for black rhino populations housed in the KNP (Molewa 2016).

The fact that the KNP is home to the greatest number of rhinos in South Africa remains uncontested. Roughly the same size as Wales or Israel, the KNP stretches across an area of close to 20 000 square kilometres. The Park extends 350 kilometres from north to south and about 60 kilometres from east to west (Kruger National Park 2015). It shares its northern borders with Zimbabwe, and Mozambique extends along its eastern boundary. Since 2001, the KNP forms part of the Great Limpopo Transfrontier Park (GLTP), which joins Kruger with Gonarezhou National Park in Zimbabwe and the Limpopo National Park in Mozambique (Kruger National Park 2015). Flanking the western boundary of the Kruger Park and covering close to 2 000 square kilometres are private game reserves (known under the umbrella term of Associated Private Nature Reserves (APNR), compare with Chapter 4).³⁶³ Another layer of private game reserves, a so-called ‘buffer zone’ is located along the eastern boundary of the KNP and south of the Limpopo National Park (hereafter LNP) in Mozambique (discussed in the case study on the LNP in Chapter 4). South African corporates, private individuals and shareholding companies lease these concessions from the Mozambican government.³⁶⁴

The creation of the LNP is contextualized as a post-colonial conservation initiative that perpetuates the social, economic and political alienation and marginalization of rural communities living in and the near the park. As a consequence, the perception has emerged that wild animals, and the rhino, in particular, are valued higher than local people. Moreover, the changed conservation status of the LNP (from multi-use to total protection) has led to the further economic marginalization of village communities living inside or on the edge of the Park. Without any economically viable alternative available to them, this constellation provides an ever-growing pool of villagers willing to risk their lives to hunt rhinos on the other side of the international boundary separating South Africa from Mozambique. While the

³⁶³ Groups of freehold landowners, corporate and individual concession-holders own these reserves with traversing rights. Animals are able to follow natural migratory routes to a limited extent as fences between the private reserves and Kruger have been taken down (Frommer 2015).

³⁶⁴ All land in Mozambique belongs to the state and thus cannot be owned or sold. However, the “right of use” of the land called the “direito de uso e aproveitamento da terra” (DUAT) title can be acquired for 50 years and is renewable for another 50. The infrastructure and buildings hence can be owned and resold. Most foreign investors seek local partnerships or register a local company in Mozambique (Wester 2015). The game reserves located along the KNP/Mozambican border are predominantly owned by South African corporates or shareholdings in partnership with Mozambican citizens. These politically connected generals and politicians assert their influence in Maputo should conflict arise between the concession-holders and local communities (Interviews, 2013).

dominant conservation narrative focuses on Western conservation ideals, which assume a tension between wild animals and local communities, the earlier chapter had called for a nuanced reflection on how the framing of conservation might carry its own seeds of destruction. The narrative of 'human/wildlife conflict' has created an environment that is conducive to the rise of self-styled Robin Hood-type social bandits whose illegal economic activities are both socially sanctioned and embedded within village communities. The KNP as the epicentre of the "poaching crisis", and the LNP and Mozambican villages immediately adjacent to the KNP, which are the "springboard" for the majority of illegal hunting parties into the Park, served as the main research sites for this chapter. It is against this background that the following chapter analyses the role of key actors, their role and function in the overall market structure. It will be argued that rhino poaching is not only a crime driven by greed and impoverishment but also motivated by environmental and social justice principles. The facilitation role of kingpins and smuggling intermediaries enables the continuity of this particular illegal flow of horn. The chapter also draws on data collected at other public parks and reserves, as well as private game reserves and farms for comparative and illustrative purposes.

7.2 Diffusion, expansion and adaptation of flows from 2008 onwards

The following section deals with the emerging supply structures and flows of rhino horn from the late 2000s onwards. The previous chapter provided insight into flows of rhino horn located at the interface of legality and illegality. Bundled together with the illegal poaching of rhinos in range states north of South Africa, these sub-legal flows constituted the principal supply arteries of horn to northern and Asian markets prior to the late 2000s. While gray channelling continues, current horn supplies derive predominantly from the illegal hunting and dehorning of rhinos in national parks and private game reserves in South Africa. The transformation from gray channelling to illegal hunting occurred in 2008 when poaching statistics spiked from 13 rhino deaths in 2007 to 83 in 2008 (see Table 1). The surge in poaching in South Africa came later than Zimbabwe where the first signs of the current poaching crisis appeared in 2003 when 44 rhino were poached. That coincided with the land reform programme and may have also contributed to the spillover into South Africa later.

The spike appears to have coincided with the promulgation of the TOPS regulations in the same year. Wildlife professionals hence correlate the spike in illegal hunting with the TOPS regulations and the subsequent moratorium on the domestic trade in rhino horn (which became effective in 2009, see Chapter 6) and suggest that “organized crime” entered the fray once ‘legal’ actors were prevented from trading in rhino horn. As demonstrated in the previous chapter, these so-called legal wildlife actors bear all the hallmarks of organized crime agents and certainly meet the definitional criteria set out in the Palermo Convention (discussed in Chapter 1). As a matter of empirical evidence, ‘organized crime’ (in the form of wildlife professionals, military and political elites) has been part and parcel of the illegal and gray supply chains of rhino horn since the bush wars of the 1980s.

The suggested correlation tallies with the notion of what law enforcers and criminologists call the “balloon effect”. The term refers to the geographic displacement of criminal markets as a reaction to policy or law enforcement interventions (Windle/Farrell 2012: 868). According to the metaphor employed here, once the state squeezes one end of a latex balloon, it will bulge elsewhere (Transform Drug Policy Foundation 2011: 4). In fact, South African police investigators (Interview with law enforcer 5, 2013) employ the metaphor of the balloon effect:

“We all know about the Vietnamese connection, people using diplomatic vehicles... The smuggling routes changed when we put pressure on the airports. It is exactly the same as the balloon effect. If you squeeze one side, the balloon is just going to pop somewhere else. Kruger started squeezing their poachers, and then they pop up by me or in Limpopo and elsewhere. The moment we start squeezing, they move back. When you put pressure, they will look for easier targets. Mozambique is an easier target. Namibia is an open question.”

The notion of a balloon effect feeds into a number of paradigms and narratives including critiques of drug prohibition, notions of how ‘organized crime’ is structured, and how it operates. Proponents of drug legalization point to the geographic displacement of cannabis or coca plantations in South America when analysing the lack of success in curbing drug supplies in the infamous “War on Drugs” (The Economist 2014). Instead of curbing a criminal activity and illegal markets, law enforcement moves criminal actors and illegal markets elsewhere (Transform Drug Policy Foundation 2011: 4). The literature on organized crime points to the adaptability, planning and foresight of organized crime actors. The law enforcement adage of

“organized crime is always a step ahead of the police” refers to a proverbial game of ‘cat and mouse’ in which the cat (law enforcement) is relegated to a catch-22 situation and is ultimately destined to fail. Thus, the suggested causal relationship of the state’s intervention versus a non-state actor’s pre-emptive evasion of such interventions suggests the hypothetical invincibility and superiority of the non-state actor – in this case, the non-state actor referred to is organized crime. Organized crime moves on to “weaker jurisdictions” even before the balloon is effectively squeezed (Transform Drug Policy Foundation 2011: 869). According to this paradigm and associated policy narratives,³⁶⁵ there is little hope for the effective disruption and dismantling of illegal drug markets, and hence, legalization or decriminalization is offered as an appropriate policy framework. Criminologists have offered nuanced views on the balloon effect demonstrating both negative and positive impacts (see for example: Windle/Farrell 2012). Moreover, a growing body of scholarly literature (Nadelmann 1990; MacCoun 1996; Raymond/Raymond 2004) points to the merits and weaknesses of prohibition-based systems.

With regards to the current inquiry, a shortcoming relates to the deterministic and paradoxical assumptions underpinning the paradigm. To suggest that the threat of state intervention and the execution thereof leads to defection or displacement of organized crime equates to the denial of other permissive factors – environmental, structural and actor-driven – leading to the same or a similar outcome. It is hence imperative to inquire why criminal actors choose to move operations or are swayed upon the proverbial “squeezing of the balloon”. The first line of inquiry relates to whether the same actors are involved or whether a different set of actors seizes a form of comparative advantage by operating from a different location. If it were the same actors: Are they pushed or pulled? Does the move constitute a ‘cause and effect’ scenario or is it a choice they make? A further line of inquiry relates to why this move was not made earlier – especially in reference to the suggestion that criminal actors only move to “weaker jurisdictions” once they start to feel the heat (Windle/Farrell 2012:

³⁶⁵ There are empirical studies that dispute the invincibility of organized crime and demonstrate that spatial, temporal or tactical displacement can lead to positive outcomes including deterrent and cascading effects (Windle/Farrell 2012: 871). Moreover, a multi-pronged, transnational and multi-sectorial approach, which incorporates cooperation with those negatively and positively affected by organized crime, has been shown to disrupt illegal markets (Interview with wildlife crime investigator, 2015).

869). Moreover, can the displacement be pinpointed to a specific point in time, was it staggered over a period of time, or did it lead to a process of transformation?

The previous chapter examined why the domestic and international trade bans lack social legitimacy amongst rhino farmers and wildlife professionals. The legitimization device of “contested illegality” has been discussed throughout the dissertation. Calls for trade legalization commenced shortly after the inception of the CITES ban on the international trade in rhino horn. Curiously up until 2009, legal domestic trade was permissible in South Africa. The rather liberal interpretation of what constituted ‘legal’ economic actions such as the exploitation of legal loopholes and under- or no reporting of stockpiles, were also highlighted in the earlier chapter. The domestic moratorium has led to a crescendo of protest against both the international and domestic ban, occasioning the South African government’s current investigation whether to consider a proposal of limited trade at the CITES CoP17 in 2016. Proponents of trade legalization argue that once farmers were banned from ‘legally’ trading in rhino horn, the trade moved underground, effectively aiding and abetting illegal hunters rather than “rhino breeders and conservators” (Interviews, 2013).³⁶⁶ This view ignores a number of other factors that influenced diffusion and diversification of horn supplies and trafficking routes. While the strengthening of regulations led to the defection of some rogue rhino owners and wildlife professionals,³⁶⁷ organized illegal hunting did not emerge out of a vacuum left by the defectors. Rogue elements within the wildlife industry were the direct and indirect catalysts (‘fire makers’) for a few early poaching groups to emerge in Mozambique and South Africa. In some instances, poaching groups emulated illegal practices of the wildlife and conservation industry (e.g. farm labourers and rangers who left their former employers picked up on the tricks of the trade, and forged their own business connections to Asian markets). Or, rogue wildlife professionals recruited poachers by providing tools to hunt

³⁶⁶ The South African government has set up a Committee of Enquiry to look into the viability of a legal trade in rhino horn. Public hearings were held at the end of March 2015. A motley crew of rhino farmers, conservators and activists reflected on the strengths and weaknesses of a regulated trade in rhino horn. Their presentations can be found at https://www.environment.gov.za/event/deptactivity/committeeofinquiry_rhinopoaching_workshop#workshopagenda (accessed 26 March 2015).

³⁶⁷ Once the state had spelled out that it was illegal to trade in rhino horn or allow suspicious hunting parties onto one’s property, law abiding actors were no longer willing to cooperate with horn intermediaries.

(hunting rifles) and connections to horn buyers (explained in more detail below). The causal inference of “over-regulation” or “trade bans” leading to an escalation of poaching thus needs to be critically interrogated as it disregards a number of parallel processes.

Firstly, the idea that poachers filled a void suggests naively that there were either no other illegal market participants prior to the regulations, or that rogue elements within the wildlife sector accepted state intervention and ceased all illegal or semi-legal activities. In essence, the notion of “filling the void” or the “trade moved underground” suggests market failure and termination of gray flows; in other words, the state managed to successfully disrupt the market and former market participants were either “neutralized” (arrested) or ceased all illegal or sub-legal activities. Moreover, there is also an assumption that all rhino suppliers were competing in an open transparent and legal market, only selling horn to South Africans. This view discounts that illegal hunting, stockpiling and horn laundering was taking place despite domestic trade being permitted. As demonstrated in the previous chapter, illegal hunting, dehorning, stockpiling and horn laundering (which was illegal before) continues in the private sector regardless of the regulations and the moratorium. However, an organized crime investigator concedes the following (Interview with law enforcer 14, 2013):

“Well, they will rather do the business in Mozambique because there is no legislation. It is better to be corrupt there, it's better to export there. And coming back to the rhino horn stocks of the private rhino owners, some of whom are facing criminal charges now. They are a bit reluctant to participate because they don't know if these guys are going to say we know these guys, we've traded with them. It's like opening a can of worms.”

Secondly, there is an implicit assumption that a few wildlife professionals, rhino farmers and Asian wildlife traffickers held monopoly control over rhino horn supplies out of South Africa, benefitting all those willing to do business with them. Was there a quasi-vertical integration of legal, semi-legal and illegal flows of rhino horn? Hypothetically speaking, if a hierarchical structure were in place with a handful of actors pulling the strings in a highly concentrated market, then law enforcement could have easily disrupted illegal trafficking of rhino horn and dismantled the market by now.³⁶⁸ If only a few actors were to control the market, they would

³⁶⁸ This discounts the possibility of cooperative alliances between law enforcement and illegal market actors.

have to enforce market control by way of asserting coercive powers, or there would have to be insuperable barriers to entry, which exclude potential competitors either structurally or economically (Steinberg 2005a: 9).³⁶⁹ Following this logic and considering the high profits associated with rhino horn, new market entrants would have to compete for a piece of the “rhino horn pie”. No evidence could be found suggesting ‘turf wars’ between the Afrikaner cliques of rhino criminals (the so-called “boere mafia”), the ‘new breed’ of poaching syndicates active in national parks and game reserves, and rhino horn thieves. In fact, as will be shown in this chapter, there were high levels of cooperation.

Instead of market capture of the one group of actors and market exit of the other, cooperative alliances were formed (the section on the role of kingpins will discuss the pathways to cooperation in more detail); and while some alliances weathered the test of time and possible conflict due to heterogeneous social structures and weak links, others dissipated. In addition to the entry of Mozambican criminal entrepreneurs and their hunting crews, other African hunting teams crossed into South Africa, and criminal actors active in other illicit markets diversified their bouquet of criminal activities to include rhino poaching. South Africa offered opportunity structures to foreign hunting crews, and more so as rhino numbers were being depleted in their countries of origin. A poacher from Zimbabwe explains (Interview, 2013):

“It was not mentioned to me, it was a rumour. There were some people that knew this item. We used to kill them but we did not know where to sell them. People used to get them from us for next to nothing, for a few dollars – you know. That was in 2007. Then we continued, we used to bargain with those buyers and they used to hike the price bit by bit in order to lure us into this. The buyers were Chinese – of course. No English, no German, no any other nation. Vietnamese, we have just heard about them but we have not sold any to them. Most of them are these Chinese guys in Johannesburg that order horn in Chinatown, in Joburg there. We were in Beitbridge³⁷⁰ then. I used to

³⁶⁹ In his analysis of illicit abalone market, Steinberg (2005a: 9) suggests that illicit market monopoly is asserted by way of coercive power or through economies of scale. In the latter case, entry to the market is limited due to the high costs associated with the market entry. Market pioneers are hence likely to dominate the market for a long time.

³⁷⁰ Beitbridge is a border post between Zimbabwe and South Africa. There are two small towns both named Beitbridge on both sides of the border. Like other border towns in the region, there is a lot of ‘wheeling and dealing’ happening in the two towns. While the political border between Zimbabwean and South Africa is regarded as porous; traffickers and smugglers prefer passage through the official border post to minimize

work in Zim³⁷¹ then. I poached there. The security became tight and tighter. People were killed; more people were killed in game parks. In South Africa, the situation was quite lax. The security is not good, the game parks are quite small – they are like zoos, they are not like our areas in Zim. They are just very small. You can even hunt in the darkness of the night and get that thing. So we decided to move that side. Here in Zim the numbers of rhinos are low, not like in South Africa. Here they are many in Mokopane, Lephalale, Thabazimbi³⁷² – but in Zim, they are selected and only in some areas. The game parks are not private like here, where they are owned by individuals...[...].³⁷³ Security is now very tight although we can get in, even though security is very tight. We found it is not as easy as here in South Africa. No, here it is so easy. Getting in and all... You can any time get into this small area and find the tracks. It is easy to track and then you find them.”

The informant makes reference to the dwindling rhino numbers in Zimbabwe. According to the African Rhino Specialist Rhino Group’s (AfsRG) latest statistics (provided in: Milliken 2014: 15), less than 700 white and black rhinos remained in Zimbabwe as of October 2013.³⁷⁴ Noteworthy is the high mobility of illegal hunting crews; in other words, foreign hunting crews were willing to move their operations across the border and the barriers to entry into the South African supply structures appeared marginal. This specific informant had historical connections to a Chinese intermediary in Johannesburg, which cancelled out the need to identify a new buyer and supply chain. Others sought out alliances with local criminal groups (Interviews, 2013). Instead of competition (so-called ‘turf wars’), there is a form of mutual ‘criminal’ assistance amongst southern African hunting crews. For example, the Zimbabwean crews had access to hunting rifles, which they either were willing to lease out or they offered

dangers associated with illegally crossing against the payment of a bribe (see for examples: Hübschle 2010). The informant refers to the Zimbabwean border town of Beitbridge in the citation above.

³⁷¹ ‘Zim’ is the colloquial reference for Zimbabwe.

³⁷² The three names refer to small towns in the northern province of Limpopo in South Africa.

³⁷³ Rhino poaching occurs predominantly in the national parks of Zimbabwe. As a consequence, most of the remaining rhinos are found in less than ten privately–managed conservancies (Duffy/Emslie/Knight 2013a: 4). In stark contrast to private ownership of rhinos in South Africa, rhinos found on private land are managed under a private custodianship programme for the benefit of all Zimbabweans (Saxton 2007: 10).

³⁷⁴ Zimbabwe experienced a poaching spike in the mid-80s, which was attributed to the attrition of black rhinos in Zambia’s Luangwa Valley in the 1970s. Lusaka the Zambian capital was the major wildlife trafficking hub at the time. By the 1980s, Zambian intermediaries directed their poaching groups to Zimbabwe to supplement the diminishing horn supplies in Zambia with poached rhino horn from its southern neighbour (Milliken et al. 1993: 21). The Zimbabwean Department of National Parks and Wild Life Management (DNPWLM) gained notoriety during the so–called “Rhino Wars” in the 1980s through its systematic and deadly anti-poaching effort, which also included the dehorning of rhinos as a conservation method (Milliken et al. 1993: 2).

their services as seasoned rhino hunters to the highest bidder (compare with the section on the role of kingpins in this chapter). The composition of hunting crews is often heterogeneous,³⁷⁵ meaning that men of different age groups, ethnicities and nationalities cooperate. Deployment into a hunting crew depends on a number of factors such as the location of the reserve or park, prior knowledge of, or intelligence regarding the contours of the park, as well as the skills sets required for a planned hunt (Interviews with poachers, 2013).³⁷⁶ Whereas Zimbabwean poaching gangs adapted the composition of their groups and modus operandi in the past,³⁷⁷ the new generation appears more security conscious and convenience-orientated. The subtext of the cited interview underlines the motivation clearly: Why waste one's time and potentially one's life when South Africa offers rhinos on a "golden platter"? Criminal actors active in violent crimes such as cash-in-transit heists or armed robberies also jumped ship because "rhino poaching is much easier" (Interview with private security actor 3, 2013).

Thirdly, buyers, intermediaries and law enforcement officials (Interviews, 2013) cite the increasing price of 'legal' or 'gray' rhino trophy hunts as a significant cost consideration leading to the escalation of illegal hunting. It was cheaper and less complicated to undertake business with local hunters who were paid comparatively little. When pseudo-hunting commenced in the early 2000s, a trophy hunt would cost in the region of R 150 000 to R 200 000 (19 370 € to 25 770 € – compare with Graph 4). One Mozambican kingpin (Interview, 2013) was paid 1 900 €/kg when he started illegally hunting in the KNP in 2009. The rates for South African illegal hunting teams were lower than that of their Mozambican counterparts. Some hunters were paid as little as R 80 000 to R 250 000 (8 300 € to 26 000 €) per hunt at the time (Interviews with convicted poachers, intermediaries and transporters, 2013). By the

³⁷⁵ Heterogeneity of hunting crews does not extend to questions of gender. While women involved were involved in later stages of supply chains, no evidence could be found of women participating in hunting crews.

³⁷⁶ Zimbabweans and Mozambican poaching groups are not pioneers in traversing international borders in pursuit of high-value wildlife contraband. South African professional big game hunters operated in Zimbabwe in the past (du Toit 2013, Interview with conservator, 2013); as recent as 2 April 2015, two suspected poachers were shot dead in the private conservancy of Malilangwe in southeastern Zimbabwe. One of the suspects was a South African citizen (Eyewitness News 2015).

³⁷⁷ Poaching expeditions into Zimbabwean national parks could take up to two weeks during the late 1980s and early 1990s. The groups incorporated a greater number of members to assist with carrying provisions in and rhino horn and ivory out (Milliken et al. 1993: 26).

time the Xayasavang network got involved the cost of attaining a set of 'gray' rhino horns had more than doubled. Chumlong Lemthongthai was paying 6 135 €/kg for pseudo-hunted rhino horn. At an average weight of 5,88 kg per set of white rhino horn,³⁷⁸ a pseudo rhino hunt cost close to € 36 000 or more. Additional costs associated with transportation, permits and taxes and cooperation premiums (bribes paid to social control agents) increased the total cost of pseudo-hunted rhino horn.

Pseudo-hunting had lost its appeal by the time of Lemthongthai's arrest in 2011. While hunting regulations had been adjusted to deal with the phenomenon (albeit not too successfully as East European hunters took over from their Asian colleagues), the reasons for supply diversification seem to have been driven by efficiency and security considerations (compare with: Morselli/Giguère/Petit 2007), as well as opportunity structures linked to the geographic location of the KNP and its close proximity to major traffic hubs (discussed below). Because the cost of 'legal' or gray rhino hunts had escalated, poaching had become an attractive alternative that could deliver higher volumes of horn at lower prices and through less complex supply chains. As attractive as the semblance of legality may have been to organizers, transporters and consumers, the operational focus shifted to organized poaching expeditions into the Kruger National Park, provincial parks and private game reserves. While the re-focusing from pseudo-hunting to organized poaching did not constitute market failure or disruption per se, it does signal the adaptability of wildlife traffickers and the primacy of cost saving, efficiency and security considerations – "the dollar sign rules" (Interview with transporter, 2013).

Fourthly, the migration to organized poaching and the continued laundering of stockpiled or illegally dehorned rhino horn was further assisted through the by then firmly established and secure illegal and legal supply chains out of South Africa and neighbouring countries (Interviews with intermediaries and law enforcement officials, 2013). Intermediary networks,

³⁷⁸ The average weight of the front horn of a rhino is between 5 to 9 kg, and the back horn weighs up to 1,5 kg (de Wet 2013: 4). Based on a study conducted in the KNP and cross comparisons with data from elsewhere in Africa, former National Parks Board scientists (Pienaar/Hall–Martin/Hitchens 1991: 6) pegged the average weight of horns of white rhinos living in the wild at 5,88 kg (for both the anterior and posterior horn) whereas the average weight of black rhino horns were 2,65 kg for animals living in the KNP and KZN national parks (slightly less than the East African species). The average weight proposed by Pienaar and his colleagues has become the accepted norm, frequently cited in rhino research (see for example: Milliken 2014).

trafficking channels and alliances with state actors had been firmly established by the late 2000s. While some southern African traffickers may have had historical trade and smuggling connections through apartheid military intelligence structures to Asia (Interviews, 2013, 2014), new business opportunities and routes emerged in the mid- to the late 2000s. Historically, Asian criminal groups have been involved in a number of cooperative alliances with local actors in both legal and illegal markets. For example, the historical bartering trade of methaqualone and later, precursor chemicals used in the production of crystal methamphetamines (locally known as 'tik'), in exchange for high-value maritime resources such as abalone³⁷⁹ had led to criminal alliances between local gangs from the Cape Flats³⁸⁰ and Chinese criminal groups (compare with: Steinberg 2005a). Initially interested in abalone, lion bones and ivory, Asian criminals branched out into the more lucrative rhino horn market while Afrikaner kingpins started actively marketing South African rhino horn to Asian buyers in Asian countries (see the previous chapter). Wildlife traffickers 'piggy-backed' onto existing trafficking and intermediary networks and routes, expanding and entrenching them further. In some instances, symbiotic relationships emerged which facilitated cheap, reliable and speedy transportation of wildlife contraband together with other licit or illicit commodities from source to destination. Smugglers were in a position to move greater volumes of horn as many more rhinos could be shot dead and dehorned than 'pseudo' or 'proxy' hunted. There are also a number of opportunity structures that render illegal hunting on public or private properties an attractive business proposition. The KNP is located a 5-hours drive from OR Tambo International Airport in Johannesburg, and Maputo can be reached by car in about 6 hours. Moreover, Swaziland is in close proximity, as is Durban harbour, South Africa's principal port, which provides access to international maritime routes. Located in the hinterlands of South Africa are smuggling corridors between Swaziland and Mozambique. These corridors were used to move anti-apartheid activists and fighters, weapons and ammunition to South African liberation movements during the anti-apartheid struggle. After the end of apartheid, the corridors morphed into trafficking arteries, along which cannabis, guns, cigarettes, stolen motor vehicles, other contraband and legal commodities (to avoid taxation) were smuggled

³⁷⁹ Abalone is a maritime snail found predominantly in the cold waters along the West and Overberg coastlines bordering the Atlantic Ocean. Abalone is highly coveted in Asian markets for its aphrodisiac qualities.

³⁸⁰ The Cape Flats refers to an area of Cape Town, to which people of mixed race were forcibly moved during the apartheid regime.

from and to South Africa, and its neighbours. They also used to move wildlife contraband including rhino horn from the source (predominantly from the KNP) to transshipment hubs in East Africa.

Finally, the creation of the LNP has led to the economic marginalization of village communities living inside the area of the park or on its edge. The seven-year period from the proclamation of the Park in 2001 to the escalation of rhino poaching in the KNP in 2008 saw village communities' lives and fortunes change from bad to worse. The resettlement of communities (see Chapter 4), as well as those that chose to stay behind, has led to diminished income streams, and changed social relations within the village unit. These impoverished communities provide a ready pool of villagers willing to risk their lives in pursuit of the 'golden' horn.

In concluding this section, it is important to note that a number of parallel processes led to the migration from legal and gray flows of rhino horn to the time expedient, cost efficient, less complex and secure flow of illegally hunted rhino horn from national parks and game reserves. The following sections will analyse the crucial role of kingpins and intermediaries in the supply chain.

7.3 Kingpins, intermediaries and smugglers: The local stronghold

Local kingpins,³⁸¹ intermediaries and transporters are the anchor and driving force behind this illegal flow. The role of these actors is central to the continuity of horn supply; however, actor constellations are complex and multi-layered, and economic relationships are frequently dropped, reinvented or discontinued. While organizing and coordinating illegal hunting groups takes up a great part of the everyday responsibilities of a rhino kingpin, their functions also include quality control, conflict resolution, liaison and cooperation with local authorities and

³⁸¹ The South African organized crime unit within the SAPS, the Hawks, employ the term "kingpin" to refer to local crime bosses. For the sake of consistency, the controversial term is employed in this dissertation. It is acknowledged that 'queenpins' do exist and the term "kingpin" could be construed as sexist and gender insensitive. However, those interviewed (bosses, poachers and investigators) used the term frequently and felt comfortable with the labeling, associated narratives and meanings.

village elders, horn transporters, competitors and social control agents, as well as securing continuity of the supply chain. The section draws on data collected in the Mozambican borderlands and South African prisons.

7.3.1 The social economy in the borderlands: What does it take to become a rhino kingpin?

While there have been a few cases of social upward mobility and rank advancement from poacher to kingpin, the majority of kingpins have prior experience in cross-border crime,³⁸² law enforcement careers or conservation backgrounds,³⁸³ or they were running successful legitimate businesses such as taxi or transportation companies in their previous lives. Once rhino poaching emerged as a lucrative economic opportunity, these actors diversified into rhino poaching. According to intelligence reports (Interview with intelligence officers, Mozambique and KNP, 2013), a “group of fourteen”³⁸⁴ ran the first poaching crews “in the old days” of 2008. Knowledge of traversing routes through the park, location of waterholes and big animals, as well as bush navigation, military³⁸⁵ and tracking skills rendered them ideal recruits. White South Africans involved in gray and illegal flows of horn recruited the Group of 14, who became the main horn suppliers and poaching intermediaries in subsequent years. A Massingir-based kingpin revealed (Interview, 2013):

³⁸² A notorious rhino kingpin who goes by the pseudonym of Mr Navara was the organizer of a cross-border car theft syndicate. The syndicate was importing stolen cars from South Africa to Mozambique. Mr Navara’s passion for stealing luxury SUV Nissan vehicles of the ‘Navara’ brand has earned him his nickname. The kingpin is wanted for the abduction and murder of a wildlife veterinarian in South Africa’s Limpopo Province. In the absence of an extradition treaty between Mozambique and South Africa, Simon Ernest Valoi (his real name) remains untouchable (Interviews, 2103). Justice Ngovene, another kingpin runs a DVD counterfeiting business and ‘jailbreaks’ (cracks) security codes of stolen mobile phones and computer equipment. He was building Massingir’s first hotel during the last field visit to Massingir in August 2013. Justice is also known by the name “Nyimpini” which is the Shangaan word for centre, core or foundation, or the handle of an axe – illegal hunters use either ax, pocket knives or machetes to remove rhino horns.

³⁸³ Several rangers and field guides from the KNP, LNP and Hlhuluwe-Imfolozi (some of whom are no longer in the employ of these parks) are running their hunting groups (Interviews with kingpin 1 and intelligence operatives, 2013).

³⁸⁴ The origin of the number is unclear, perhaps even mythical. Empirical evidence confirms that there were a number of poaching pioneers living in proximity of the KNP on the South African and Mozambican side.

³⁸⁵ The decades-long civil war in Mozambique equipped most Mozambicans over the age of 40 with basic military skills, which were needed for daily survival.

“This whole thing started with the people from South Africa. They came to Mozambique and introduced this business to us and they paid us a lot of money. They basically revealed the secret. Then the Chinese saw the opportunity then they started coming to us for business...[...]... The South African white man opened our eyes, then most of us saw the potential of the business and then we started to do it on our own and we introduced more hunters.”³⁸⁶

The South African recruiters provided hunting rifles, ammunition and cash for the horns. Early transactions also involved the barter of hunting rifles for rhino horn (Interview with kingpin, 2013). The early poacher-kingpins fulfilled organizational, operational and logistical functions. Once illegal hunting crews had poached and dehorned rhinos in the KNP, rhino horns were taken to Mozambique. From there the horn would be taken on foot through the Giyani border post to Johannesburg (back to South Africa) or transshipment hubs in Beira and Maputo. The South African recruiters had business and farming interests in Mozambique, which provided them with legitimate reasons to seek out ‘partnerships’ with locals. Two individuals have been linked to ivory and rhino horn smuggling during the border wars of the 1970s and 1980s. The existing export and import businesses were used as a front to conduct illegal deals and export wildlife contraband to consumer markets. The group of white South Africans is still operating out of Mozambique; the local kingpins are however dealing with buyers and transporters directly. At least two of the original kingpins (who were still active in March 2016) and one intermediary were involved in cross-border smuggling operations involving stolen motor vehicles.³⁸⁷ The Mozambican kingpins and poachers interviewed for the research had traversed the Kruger National Park on numerous occasions to search for employment in South Africa and to visit their families in the villages.³⁸⁸

³⁸⁶ Other kingpins, poachers and intelligence operators confirmed the unlikely alliance between white rhino criminals and black criminal entrepreneurs (the background to poaching kingpins is discussed below).

³⁸⁷ Known as the “Wild West of car dealing and wheeling” in law enforcement circles, the small town of Chokwe is located about 120 km south from Massingir and 225 km north of Maputo. It is believed that the majority of South African stolen motor vehicles transit through Chokwe (Interviews with regional law enforcement officials, 2013). Chokwe was a local market where rhino horn transactions would take place up until 2012/2013.

³⁸⁸ As mentioned in earlier chapters, colonial borders were drawn with little regard for indigenous African people and their spheres of influence. The Shangaan people, for example, live in Mozambique and South Africa. The political and economic situation in Mozambique led to men seeking employment in South African mines and on farms. Pathways through the KNP were often the most convenient and easy route to South Africa and vice versa (Interviews, 2013).

7.3.2 Need, greed and environmental justice principles

What motivates kingpins and their hunting crews to kill and dehorn rhinos? Law enforcement and conservation officials portray communities living inside or on the edge of the LNP as a homogeneous group of people that consists of poachers, and villagers who benefit from rhino poaching (Interviews, 2013).³⁸⁹ It is suggested that rural poverty, opportunity structures of living close to the park, and greed are feeding the poaching crisis. These factors constitute sufficient drivers of poaching; however, the root causes of poaching touch on the history of conservation, hunting rights and land ownership in southern Africa (compare with earlier chapters, especially Chapter 4). The effects of structural violence are visible in the village communities who not only live on the edge of parks but also on the edge of society when it comes to social and economic upliftment initiatives. The continued economic, political and social marginalization of village communities (unpacked in Chapter 4) has given rise to environmental and social justice concerns. While the rhino has a bounty on its horn that far outweighs the average annual income of a rural villager, poaching is not just about the price of the horn but also about claiming reparations for the loss of land, hunting and land use rights and demands for economic opportunities and agency to co-determine the future and good fortunes of village communities (Interviews, 2013). It is against this backdrop that kingpins and hunters have emerged as self-styled Robin Hoods, who use rhino poaching for social and economic upward mobility. Says one kingpin based in a Mozambican village community (Interview with kingpin 3, 2013):

“We are using rhino horn to free ourselves.”

Mozambican villagers, rangers, poachers and kingpins, as well as convicted rhino criminals serving prison sentences in South African correctional centres expressed their annoyance with the state for valuing animals over human lives (Interviews and focus groups 2012, 2013). A horn smuggler (Interview with intermediary 1, 2013) explained the rhino issue as follows:

³⁸⁹ The bombing of all villages within 30 km radius of the KNP on the Mozambican side has been mooted as an anti-rhino poaching strategy in an online discussion group. While this is an extreme proposal of a radical minority, it shows how stigmatization of villagers as a homogenous group of poachers is increasingly entering mainstream thinking.

“This [rhino problem] is because of conservation. They say that we need those things [rhinos]. They are nice. Some of the white people here treat them like their friends. They value the rhino more than black human beings. And now they see it as a business, if you have two rhinos you are rich.”

The rhino has become the lucrative scapegoat for the on going relative deprivation and economic marginalization of village communities. Unlike the slow trickledown linked to community beneficiation initiatives of the state and private operators in and around conservation areas, community members observe the upward social mobility of kingpins, poachers and their families. The influx of hard cash into village communities has created the perception that all villagers benefit equally from rhino poaching, the so-called ‘Robin Hood effect’ (Interviews with KNP officials, 2013). The social banditry associated with Robin Hood captures an important aspect of kingpins’ and poachers’ asserted identities in the context of village communities. The role, functions and identities of kingpins and poachers are however far more complex, multi-layered and contingent on the geographic context. While many poachers originate from village communities, others join hunting crews from communities elsewhere, even foreign countries (usually connected to village communities via kinship ties). The level of social embeddedness of kingpins and poachers varies and carries structural and logistical implications for the flow of rhino horn. Of importance are community perceptions of whether their fortunes and livelihoods are improving. The community appears to benefit largely indirectly, as there are very few direct hand-outs. Direct hand-outs are relegated to certain kingpins “throwing a village party” by slaughtering a few cows and providing traditional beer upon the return of a successful poaching expedition to the Kruger National Park. Others construct servitudes, water wells, spaza shops³⁹⁰ and shebeens,³⁹¹ and occasionally a few cows are donated for slaughtering to the benefit of the community (Interviews and focus group, 2013). Compared to the meagre livelihoods of village communities, kingpins and poachers have purchase power, allowing them to buy greater volumes of goods and services, which indirectly benefit community members. One young poacher (mid-20s) related how he was bearing the risk when going on hunting expeditions in the Kruger Park and thus was not prepared to share his profits with the community (Interview

³⁹⁰ A spaza shop is a small neighbourhood grocer.

³⁹¹ A shebeen is a pub.

with poacher 15, Massingir, 2013): “It benefits me, I don’t give to the community.” Not all poachers are paid equally well. A crime investigator in the KNP (Interview, 2013) recounted the story of interrogating a 17-year old poacher, whose teammate was killed during a shootout with the KNP anti-poaching unit:

“What the hell are you doing here? Did they promise you money? Yes. But the money is not the issue. They promised to give me 12,5 kilos mielie meal.³⁹² They are four – three kids [and him], his father passed away at the mines. He’s a veewagter.³⁹³ He's looking after cattle for somebody else. He is the only one that earns money in that house. For a bag of mielie meal...”

Foreign or out-of-town poaching crews rely on local accommodation, food and logistical assistance from members of the community. It is, however, incorrect to assume that the entire community is complicit or benefits in equal measures.

Poaching profits are predominantly laundered into the property, luxury goods and automobile sectors. The Mozambican town of Massingir exudes an aura similar to short-lived boomtowns during an apparent ‘Gold Rush’. It has become a magnet for business entrepreneurs from other provinces or across the border, keen to seize new opportunities. Young men from elsewhere in Mozambique and South Africa arrive in Massingir seeking recruitment into poaching crews. One kingpin is building a hotel complex; others have invested in holiday houses at the coast – the coastal town of Belene, for example, is located a 5 hours drive from Massingir.³⁹⁴ Many poachers are building modern townhouses in the villages, replacing the traditional clay and reed huts common in the region. The property boom has also led to an influx of skilled artisans, labourers and business people working in the construction, building materials and retail sectors. The younger generation invests their rhino profits into off-street vehicles and luxury cars (Interviews with poachers and kingpins, 2013; field observation) while the older generation is buying heads of cattle which signal affluence and status in village communities. While rhino poaching has become the main source of income, some rhino

³⁹² ‘Mielie meal’ refers to maize meal, a coarse flour made from maize. It is a staple food across most of the southern African region, often eaten as porridge (pap).

³⁹³ ‘Veewagter’ is the Afrikaans word for cattle herder.

³⁹⁴ Rhino horn profits have been invested into several luxurious seaside villas in the small coastal town.

kingpins are astute business entrepreneurs, running a number of legal and illegal side businesses. There is awareness about the ceiling to the rhino horn fortunes; in other words, kingpins acknowledge the existential threat to rhinos through poaching and that they will have to seek new sources of income, or return to the old ones once the rhinos are gone (Interviews, 2013). Fast moving consumer goods (designer clothing, shoes and sunglasses), off-street vehicles and face brick houses have become sought after consumer products and status symbols amongst kingpins and poachers. Instead of accepting hard cash for rhino horn, some poachers choose to pay off motor vehicles³⁹⁵, construction materials for building face brick houses, real estate or consumer goods instead. Rhino kingpins through their business connections are able to procure or assist with the procurement of such consumer goods and construction materials (which are mostly imported from South Africa). They also control the debt economies emanating from this barter trade, which provides them with another layer of control and an informal economic leadership role. In essence, indebted poachers have to supply rhino horn to a specific creditor kingpin. However, this dependent type of relationship is not widespread as most kingpins are considered a benign presence that uplifts the fortunes of village communities.

In line with environmental and social justice arguments, kingpins, poachers and smugglers portrayed their criminal careers as legitimate livelihoods throughout the process of data collection in the borderlands and South African prisons. Two charismatic Mozambican kingpins, for example, have constructed their identity as “economic freedom fighters”³⁹⁶ that fight for the economic and environmental rights of their village communities. Others have labelled themselves as ‘businessmen’, ‘developers’, ‘community workers’ or ‘retired hunters’ (Interviews with kingpin 1 and 2, 2013). A convicted poacher (Interview with poacher 16, 2013) stated:

“You see in a rural area, they used to call each and everyone that stayed there and they talked with us to decide about things that concerned us. Now things are different.

³⁹⁵ Crime intelligence officers verify the registration numbers of vehicles driven by poaching suspects at intervals. The majority of vehicles were reported as stolen or no public record is available (Interviews, 2013).

³⁹⁶ The Economic Freedom Fighters (EFF) is a splinter party of the ruling African National Congress (ANC) in South Africa. Dispellled former ANC Youth League, commander-in-chief Julius Malema formed the socialist party. Its policy platform of land reform and wealth redistribution is receiving widespread support in South Africa and beyond.

And they put the president on the chair, they don't ask us anymore, they do things on their own. It is them that behave like they are crooks. That's why we end up killing the rhinos.”

Kingpins lay claims to fulfilling important social welfare, community development and political leadership functions. Rhino horn is instrumental to achieving these overtly altruistic goals in an environment where the state has failed to provide such functions (see next section). The actual representatives of the state and traditional leaders fulfil ceremonial duties, often heavily subsidized by resident kingpins (Interviews, 2013). Similar legitimization strategies are employed in other natural resource-dependent economies elsewhere in the southern African region. Abalone poaching gang leaders in the Western Cape Province of South Africa have also made claims about the social legitimacy of abalone poaching in light of commercial fishing quotas, which are perceived to be unjust and unfair to struggling grassroots fishing communities along the South African coastline (Hauck 1997; Hauck/Sweijd 1999, Interviews with conservation officials, Western Cape, 2014 and 2015). In the case of rhino poaching, legitimization strategies also include the appropriation of job labels from the 'legal' hunting sector. Rhino poachers regard themselves as 'professional hunters' or 'hunters' (Interviews with convicted poachers and active poachers, 2013). The position of a hunter comes with status and prestige in village communities where a young boy's first hunt is a rite of passage and "you actually become a man when you hunt" (Focus group, 2013). The poacher is claiming back his right to hunt by poaching in modern day conservation areas, which were the traditional hunting grounds of his forefathers. Colonial anti-poaching laws and their modern incarnation in the form of hunting regulations require payment for hunting permits. Total protection zones which ban hunting and other land uses have led to the economic and geographic exclusion of rural communities from 'legal' hunting in areas close to their location. Rhino poaching thus was initially also a form of protest against the hunting ban – another expression of contested illegality – allowing actors to protest against unfair and economic exclusionary rule making. What started as an illegal economic activity born out of need and protest against unfair rules has however snowballed into greed-based accumulation further exacerbated by the high value of rhino horn.

7.4 Feedback loops of rhino poaching and anti-poaching measures

The previous section dealt the social embeddedness of rhino poachers within village communities and the legitimation strategies employed to justify illegal economic activities. This section looks into the negative impacts and their societal relevance, as well as feedback loops tied to the militarization and securitization of responses against poaching and the social embeddedness of poachers and rangers. Several focus groups and individual interviews exposed deep rifts within village communities; especially mothers and wives were deeply concerned about the poaching phenomenon fearing for their children's or husband's lives³⁹⁷ and the potential loss of a breadwinner should they get killed or arrested. Far from being supportive of poaching, they shared how poaching had affected the social fabric of village life, mostly to the detriment of women and children.³⁹⁸ A convicted Mozambican poacher shared (Interview with convicted poacher 2, 2013):

“The parents get very angry but there's nothing they can do about it. There's no employment in the area. Our parents worry that rangers will kill us. They do warn us but we don't listen. Sometimes on Fridays and Saturdays, they have community meetings to talk to us about the dangers of poaching.”

³⁹⁷ While women are involved further along the illegal supply chain of rhino horn, I had not come across female poachers in the southern African context at the time of fieldwork. However, two young mothers were convicted of conspiracy to hunt rhinos and possession of an unlicensed firearm and ammunition in the Ladysmith Regional Court in March 2016 (Skinner 2016). It also bears pointing out that women were combatants during the Mozambican civil war. An interview with a researcher working in the field of disarmament, demobilization and reintegration (DDR) in Mozambique (Interview with researcher 1, 2012, 2013) revealed that many Mozambican women over the age of 30 know how to handle guns and defend themselves by using such guns (which had become a necessity during the civil war). The ability to use firearms to defend one's life does not necessarily correlate with a willingness to go poaching in the Kruger National Park. However, the recent case in the Ladysmith Regional Court raises interesting questions as to the poaching motivations of the two young mothers and warrants further inquiry into pathways to poaching.

³⁹⁸ While walking through one of the villages I came upon an old woman, who was looking after a group of eight children outside a hut. Four of the kids were the old woman's grandchildren, who had been left in her care. Her daughter had left the father of her children for a rich poacher in the village. The grandmother was disgruntled about the state of affairs, as she received no financial support from the daughter or the deserted husband. One of the children had to be hospitalized as a consequence of severe burns from a shack fire the night before. The family could not get hold of the mother because “when the boys come back from Skukuza, then there is money and celebration” (Interview with old woman, Massingir, 2013). According to the grandmother, the mother looked after the children whenever her boyfriend went off on another poaching expedition. The daughter brought no money home, as the horn profits are spent on “women and booze”.

A few half-built houses in the villages are a stark reminder of the stark reality that many poachers do not return from ‘Skukuza’.³⁹⁹ According to Mozambican sources (Mabunda 2012),⁴⁰⁰ close to 400 poaching suspects from Mozambique had lost their lives between 2008 and early 2014. South African officials are apprehensive to share the statistics (see Table 12) for fear of bad press and retribution (Interviews, 2013). At the time of writing, poachers had not killed rangers; however, one ranger was killed and another seriously wounded in ‘friendly fire’ (personal communication with KNP officials, 2015).

Table 12: Arrests and deaths of poachers in the Kruger National Park, 2010 - 2014⁴⁰¹

	2014	2013	2012	2011	2010
Neutralized	174	133	73	82	67
Killed in action	45 ⁴⁰²	47	17	21	4

Source: Supplied by Kruger National Park on 25 August 2014

Focus groups with community representatives in the borderlands revealed that the deaths of poaching suspects had led to further alienation and outright antagonism of community members towards the Park. Community members recounted that many villagers traversed the KNP in search of work or to visit families in South Africa. As shown earlier, colonial-era political borders remain across most of southern Africa, which suited colonial interests at the time but often separated local communities. According to interviews with Kruger officials and

³⁹⁹ Skukuza is the main rest camp and administrative headquarters of the KNP. When a poacher announces that he is ‘going to Skukuza’, it indicates that he is preparing for a poaching expedition into the KNP.

⁴⁰⁰ Investigative journalist Lazaro Mabunda undertook fascinating research into poaching crews in the Mozambican borderland in 2012. According to one of his confidential police sources in the Mozambican police (pers. communication in 2015), 363 Mozambican poaching suspects had been shot dead in the Kruger between 2008 and early 2014. Former Mozambican President Joaquim Chissano announced at a press conference in September 2015 that South African rangers and security forces had killed 476 Mozambicans in the Kruger National Park between January 2010 and June 2015 (AIM 2015). It is unclear why the Mozambican and South African statistics do not tally, which might be linked to SANParks’ use of term ‘neutralized’ (compare with next footnote). Dead bodies or the disappearance of a community member are certainly difficult to conceal.

⁴⁰¹ Explanatory note: The KNP environmental management inspectorate employs the unfortunate term “neutralized” to reflect the total of suspected poachers killed and arrested inside the KNP.

⁴⁰² By 25 August 2014, 23 suspected poachers had been killed. The figure of 45 deaths derives from a media briefing. Attempts to confirm the statistics with KNP officials were not answered.

older village community members (Interviews and focus groups, 2013), some villagers carry dual citizenship.

People living on both sides of the border are highly mobile and move between South Africa and Mozambique for numerous reasons. In the eyes of the community, Kruger game rangers kill their fellow villagers on the suspicion that all trespassers are poachers. The increasing militarization of responses to rhino poaching is pitting them against park authorities, rangers and rhinos. Moreover, these responses have further exacerbated the sentiment that wild animals are valued higher than black people in conservation and government circles. On the other end of the spectrum are the Kruger rangers who risk their lives each day to protect the rhino (see Graph 6). While there has been poaching of wildlife ever since the Park's inception, the duties of a ranger used to entail conservation-orientated endeavours and to deal with delinquent tourists. Nowadays, rangers receive quasi-guerrilla-style, anti-poaching training, and spend most of their time defending rhinos and tracking the spoor of suspected poachers (Interview with KNP official, 2013).

Another cleavage arises from the social embeddedness of poachers and rangers with consequences for harmonious relations and social life at the village level, and the effectiveness of law enforcement disruptions. Many LNP employees (including the ranger corps) and the work force on privately-owned concessions are recruited from local village communities living inside or on the edge of the Park and private concessions. The original ranger corps in the LNP consisted of 45 guards and 55 field rangers, who were responsible for wildlife conservation and law enforcement. The numbers of the ranger corps have been augmented by the addition of an elite special anti-poaching unit of 30 men, who were deployed in mid-December 2013. Members of the unit received specialized training, three Land Cruiser vehicles, rifles, radios and patrol equipment (Peace Parks Foundation 6 January 2014). Most of the privately-owned hunting and tourist concessions⁴⁰³ south of the Park have

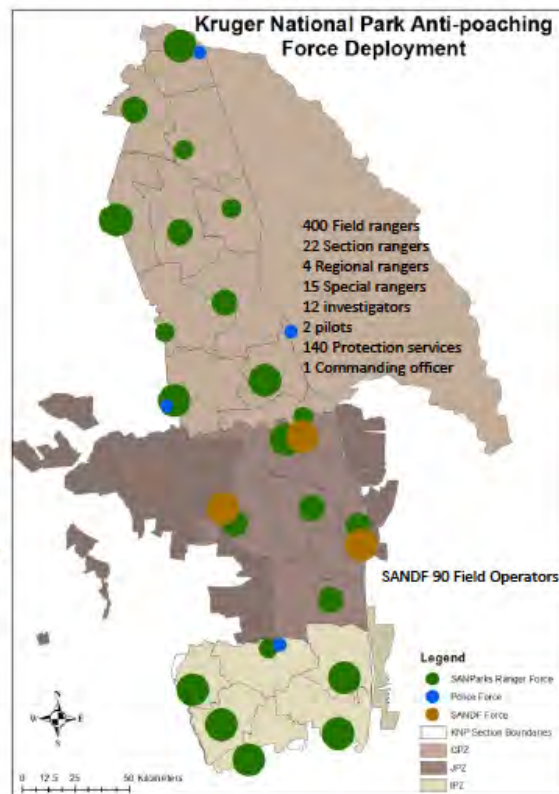
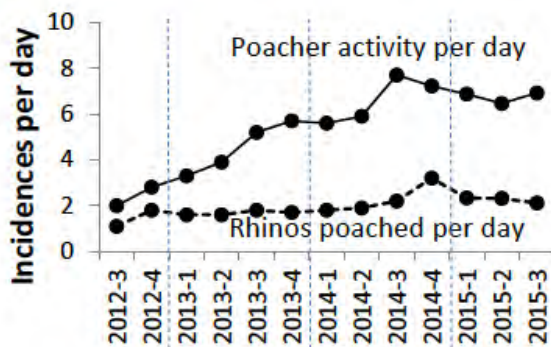
⁴⁰³ South of the Limpopo National Park and along the eastern boundary of the Kruger National Park are several hunting and tourist concessions. These concessions are predominantly owned by South African corporates (including for example Singita's Twin City, and Hulett Tongaat), hunting concessions such as Sabie Park or ecotourism initiatives like the Xhongile Game Park. All of these concessionaires have Mozambican shareholders, as foreign nationals are not allowed to own land in Mozambique. The Mozambican shareholders are politically connected individuals in Maputo, who assert their influence should problems arise between concessionaires and communities (Interviews in 2013). Interviews with community members living on the edges of these concessions

employed their own ranger corps, sometimes even specialized anti-poaching and intelligence gathering units are deployed that work closely with the anti-poaching forces in the KNP. Curiously, Mozambican government forces such as the “Força de Guarda Fronteira” (border guards) defer to security officials employed by these private operators.

Graph 6: Anti-poaching interventions in the Kruger National Park



The difference that rangers make



- 3 incursions per day
- 12 groups in the Park any time
- 4300 poachers in the Park last year
- 111 contacts
- 77 sightings
- 1403 incidents

Source: Sam Ferreira (2015: slide 3)

In instances where locals are employed as rangers or guards, family or community members may be pitted against one another during anti-poaching ambushes on private land, or when poachers traverse public or private land en route to the KNP (Interviews, 2013). An ‘anti-

revealed that while concessionaires were investing monies into community development initiatives (as part of the deal), the communities perceived these projects as a form of placation to make good on another round of displacement. Some concessionaires are seen as the new ‘colonial masters’, who are fencing off their properties and barring access to villagers (Interviews, 2013). Labourers, rangers or guards from the village communities, work on these concessions. They are often severely underpaid and not allowed to bring their families to stay with them on the concessions.

poaching ambush' is a preventative attempt to either stop potential poachers from crossing into the KNP or to prevent wildlife poaching on the concession.⁴⁰⁴ While the term 'ambush' is appropriated from military jargon, many of the anti-poaching units operating in the area do not have permits to carry weapons,⁴⁰⁵ and hence, the element of surprise is used instead of the military variant of a "shoot to kill approach".

In some instances, concessionaires are equipping their staff with weapons, as carrying weapons may constitute a greater risk to rangers who struggle to match to the prowess of their well-trained and better-equipped opponents. Moreover, these weapons could get lost, stolen or rented out to poachers (Interviews, 2013). One concessionaire said for example: "I only trust my rangers as far as I can see them" (Interview, 2013). Typically, such ambushes are launched close to the boundary with the KNP (the concessions serve as a buffer zone) and in concert with the anti-poaching operations in the KNP. Concealed at strategic locations in the bush, a group of rangers (sometimes in collaboration with border guards or the police) will await the arrival or return of suspected poachers and stop them from progressing further, and hand them over to relevant law enforcement agents. The KNP and concessionaires regard such ambushes as a proactive strategy,⁴⁰⁶ as rifles and vehicles are regularly confiscated. However, poachers are likely to choose a different route, gather intelligence on standard operating procedures, or pay a bribe to avoid detection in the preparation of the next hunting expedition. On several occasions, field rangers found themselves face-to-face with family members en route to the KNP, or the worst-case scenario (Interview, 2013):

"My head ranger – we tracked his son. We told Kruger about the group. They climbed over the fence, all three of them. And he heard on the radio that his son was killed in a shootout."

⁴⁰⁴ Kruger rhinos regularly cross into the LNP and onto private land in Mozambique. As the chances of the rogue rhino surviving for any length of time are suboptimal, rangers walk the rhino back across the border and return it to the care of KNP rangers (Interviews, 2013).

⁴⁰⁵ There is a due process to apply for firearms in Mozambique, which can stretch over several months.

⁴⁰⁶ Obviously, this applies only to the scenario where potential poachers were stopped before shooting a rhino, in which case the only chargeable crime would be trespassing on protected land and carrying an illegal firearm (if that were the case).

Anti-poaching operations and ambushes have led to several revenge attacks and death threats against anti-poaching staff and concessionaires. Some concessionaires have resorted to recruiting rangers and security staff from other parts of the country to circumvent the possible consequences of the social embeddedness of poachers and rangers. As the head of an anti-poaching unit in Mozambique explained (Interview with anti-poaching operative 6, 2013):

“I mean we have an obligation to employ community members, but it’s impossible for a community member to be an effective field rep. He cannot from a law enforcement perspective, because he’s got to go home. And what man is not going to protect his own family, what man is not going to play the game if somebody comes and says listen, best you look the other way because I know where you live. I know where your kids are, what man is not going to...you can’t expect him to.”

Field rangers and scouts were paid an average wage of 3 000 to 4 000 Metical⁴⁰⁷ per month amounting to about 75 to 100 Euros (Interviews, 2013) at the time of fieldwork.⁴⁰⁸

Concessionaires provide an additional bonus contingent on the success of anti-poaching operations (Interviews with concessionaires, 2013). A community leader put this wage in perspective: a 50 kg bag of rice cost about 900 Metical (23 Euros) at the time (Interview, June 2013). In comparison, a poaching team could earn 200, 000 to 300, 000 Metical (5,125 to 7,700 Euros) per hunt.⁴⁰⁹ While the ‘bounty’ for rhino horns appears relatively high in comparison to the minimum wage, it is negligible when compared to the price of rhino horn on consumer markets. However, rangers are easily swayed to look the other direction or assist with operational intelligence, especially when relatives are involved in hunting crews (discussed in more detail below). In light of the low wages for anti-poaching personnel (which applies to parks and reserves in South Africa, too), it is also not unexpected that rangers, field scouts and other staff in parks start their own hunting crews, or become involved in poaching to supplement their meagre earnings.

⁴⁰⁷ The Metical is the Mozambican currency. In November 2014, one Euro could be exchanged for about 40 Metical.

⁴⁰⁸ The minimum wage was about 2 500 Metical per month at the time. In April 2014, the minimum wage of workers in the agricultural, livestock and forestry sectors was increased to 3,100 Metical (Agencia de Informacao de Mocambique 30 April 2014)

⁴⁰⁹ Poachers operating from the South African side of the border get paid less. The going rate in 2014 was between 30, 000 to 50, 000 Rand for a pair of horns (2,200 to 3,700 Euros).

Turning to the macro-level: Mozambique does find herself in a precarious position with regards to the rhino issue: On the one hand, its neighbour and transfrontier parks partner South Africa, CITES and the international community are pushing for adequate conservation laws, a comprehensive anti-poaching strategy and a tougher stance against poaching. On the other hand, the southern African country is facing increasing criticism from its own citizenry over Mozambican nationals getting shot and killed, or arrested inside the KNP. Essentially rhino poaching and the militarized responses to it are reinforcing the 'fortress' conservation paradigm discussed in Chapter 4. While voluntary resettlement from conservation areas was employed when the LNP was initially established (see Chapter 4), the Mozambican government employs now the supposed threat of rhino poaching from village communities living inside the LNP to extend its control over the Park. Government officials and intelligence actors have stigmatized village communities as 'rhino poachers'. The stigmatization serves the prioritization of the resettlement of village communities beyond the boundaries of the Limpopo National Park as an anti-poaching measure, reflecting the old conservation adage that local communities and wild animals are supposedly a noxious combination. In addition, concessionaires along the eastern boundary are seeing their land tenure rights protected (which had been tenuous) as their concessions have been declared as buffer zones in the name of protecting rhinos.⁴¹⁰ According to a rezoning briefing document (SANParks 9 July 2012: 4–5), the Great Lebombo Conservancy is to become “the first shield of defence against rhino poaching, provide ecotourism development opportunities (on the Mozambican side) for the private sector investors and create a logical deterrent to poaching activities through tourism activities.” The declaration of additional “intensive protection zones” along the eastern border of the Kruger National Park signals a potential return to forced removals rather than 'voluntary resettlement'. It remains unclear how the Mozambican government plans to move entire villages, and it boggles the mind as to how the geographic displacement of such villages could be conceived as an appropriate anti-poaching measure. Intelligence operatives active in the border regions shared this sentiment (Interview with intelligence operative 8; Interviews 2013):

⁴¹⁰ Massé and Lunstrum (2015) have developed the concept of “accumulation by securitization” to capture the nexus between conservation-securitization, capital accumulation and dispossession. The researchers discuss the increasing privatization and securitization of responses to rhino poaching, which also includes land grabs.

“You might be moving potential poachers further away from the Park but where there is a will, there is a way. You have basically just added another 40 km for them to walk extra and that they will and you have made some villagers very angry.”

Moreover, the governments of South Africa and Mozambique signed a Memorandum of Understanding (MOU) in April 2014 to enhance bilateral cooperation with regards to the rhino issue. The MOU, amongst other measures, paved the way for a controversial law enforcement measure that allows for cross-border “hot pursuits” to take place. Essentially, this measure allows South African law enforcement officials to chase a poaching suspect across the border without a warrant or official permission. This measure has a nasty connotation in the South African context as South African Special Forces crossed into neighbouring countries to apprehend or even kill suspects during the apartheid regime (Orkin/Community Agency for Social Enquiry 1989: 127–128). Rhino protection strategies such as the resettlement of “problem villages”, the creation of “total protection zones” and “hot pursuits” signal a return to fortress conservation in a zero sum game, which sees wildlife conservation pitted against the interests of rural village communities. The ‘quasi’ war against poaching appears to be strengthening the symbolic (and deadly) message that poaching of rhinos is illegal in the KNP; however; on the ground, there are perceptions that the state has instituted “shoot to kill” policies to protect rhinos (wild animals) and kill villagers.

When asked whether the rhino carried cultural significance or symbolic value, convicted poachers and kingpins observed that the rhino was “feared”, “admired” and “respected” but not hunted. Kids were warned to stay clear of the rhino because it was an “angry” and “dangerous” wild animal (Interviews, 2013). In the current context of expanding transfrontier conservation initiatives, the “white” rhino has taken on a symbolic meaning, representing the continued multi-layered marginalization of village communities. Each fallen rhino whittles away from the notion of ‘peace parks’ and the long-term sustainability of conservation areas. Poachers are killing the ‘white men’s’ natural heritage, which was socially constructed through successive regimes of exploitation and dispossession of local people living near parks. Rhinos are not only killed for profit, but they are also killed for their symbolic value. The deadly anti-poaching measures and the village community-unfriendly expansion drives of conservation areas are exacerbating the rhino problem by turning village communities against

wild animals. Meanwhile, the deadly role of ‘white’ rhino poaching syndicates (see discussion in Chapter 6) in destroying the same natural heritage is downplayed in the mainstream discourse, suggesting the return to the race-based normative categories of ‘black poachers’ (bad hunter) versus ‘white hunters’ (good hunter).

7.5 Roles and functions within poaching groups

Interviews with kingpins, intermediaries, smugglers and poachers and their law enforcement nemeses (Interviews, 2013) revealed that hunting expeditions into parks and reserves range from highly organized, well-planned and executed, to opportunistic, and sometimes chaotic operations. Tidings of the high earnings attached to rhino poaching have led to amateurs seizing the opportunity, and embarking on chaotic badly planned incursions into reserves and parks. While some opportunists are caught and arrested, others succeed.⁴¹¹ Kingpins usually coordinate highly-organized operations, which come with the promise of fringe benefits to poachers such as “life insurance” in the case of death, and legal support and access to top criminal lawyers in the case of capture.⁴¹² They tolerate ‘unattached’ or independent hunting crews, many of whom ultimately choose to cooperate with the kingpins as they have ready access to buyers, hunting rifles, ammunition, and they provide logistical support before and after hunts. While there was no evidence that kingpins or competing poaching crews informed on unattached or less experienced hunting crews, there was a sense⁴¹³ that the unlucky ones served as cannon fodder or “dead cows for piranhas” (see next chapter). A kingpin explained that the “bosses” had a preference for multiple rhino hunts to take place concurrently. The Park’s security forces have only the capacity to deal with a limited number

⁴¹¹ An anti-poacher (Interview, KZN, 2013) related how an obese teacher from an urban centre in South Africa had joined a spontaneously constituted poaching group. The quartet jumped into a saloon (an inappropriate vehicle when driving on sand roads in the bush), stopped on the road next to a rhino reserve. After scaling the game fence with difficulty, an anti-poaching unit intercepted them. The unfit teacher was apparently struggling to keep up with the rest of his crew.

⁴¹² These fringe benefits may or may not materialize as interviews with several convicted poachers revealed. The “boss” had arranged for legal representation in a few cases. A handful of legal teams appear to defend these rhino criminals; in other words, the same criminal lawyers appear on behalf of alleged rhino criminals in South African courts (Interview with prosecutors, 2013).

⁴¹³ Some convicted poachers claimed that they were unlucky and got caught during their very first hunt. While few criminals would admit to any crimes beyond the crime at hand, some might have been ‘unlucky first-timers’.

of “trespassing” incidents – “maybe one or two” while the others “will still bring back the horn” (Interview, Cubo, 2013). Some hunting expeditions are choreographed in such an efficient manner that the outgoing hunting crew will swap hunting rifles and intelligence on fresh rhino tracks and the position of anti-poaching units as they pass the incoming crew.

Originally kingpins recruited their own hunting teams from local villagers who were firmly embedded in their communities and could be trusted to bring back the rhino horn. However, news of the good fortunes of rhino poachers has travelled beyond the village communities in and around the parks. Many new hopefuls arrive daily in the hope of getting recruited into poaching crews. Initially, kingpins were seeking to recruit men with hunting or bush tracking skills. In the aftermath of the decades-long civil war in Mozambique, many men (and women) possess military and tracking skills, and some have access to old weapons from caches situated in the border areas.⁴¹⁴ In the early phase of poaching in the KNP, Portuguese colonial hunting rifles and old rifles dating from the Civil War were used to kill rhinos, fitted with homemade silencers. As the rhino fortunes grew, kingpins and hunters invested in sophisticated hunting rifles such as CZ-550s, as well as Mauser .458’s, .375’s, typically used by trophy hunters to shoot rhinos or elephants. One kingpin said that he and one of his close associates would also provide weapons training to new recruits. Another kingpin accepted new recruits once they had passed a test, which could range from hunting bush meat through to acquiring hunting rifles through a holdup or robbery.⁴¹⁵ Kingpins set up the poaching crews, which will consist of a hunter, a tracker and a food and water carrier (who may also carry the horns). The number of participants in hunting crews is, however, variable depending on the projected duration of the stay inside the park. In light of declining rhino numbers and increasing pressure from anti-poaching units, poaching crews spend longer periods of time tracking rhinos and evading detection in the Park. The duration of the hunting expedition is contingent on the reliability of the group’s intelligence. This changed state of affairs had led to the enlargement of some hunting crews. Additional members are enlisted to carry extra

⁴¹⁴ Trained in low intensity warfare, ex-soldiers with bush-tracking skills from the days of the apartheid bush wars were connected with a number of poaching incidents in game reserves and parks in KwaZulu-Natal.

⁴¹⁵ Game and commercial farmers are reputed to hold hunting rifles and other high calibre rifles on their properties. Organized crime investigators (Interviews, 2013) pointed to the possible connection between farm attacks and rhino poaching; however, only tenuous links were made between ballistics at rhino crime scenes and stolen hunting rifles.

provisions for longer stays in the park and to provide protection in case of detection.⁴¹⁶ Larger groups may split up once they are inside the Park. Some hunting crews enter the Park legally and book into safari camps; others use one of the many footpaths and animal migration routes traversing parks, reserves and wilderness areas. When rhino poaching increased in frequency in the late 2000s, poaching crews concentrated on areas with high rhino densities in the southern parts of the Park. When entering Kruger from the Mozambican side, poachers are dropped off as closely as possible to the fence line. An off-street vehicle (a so-called four-by-four drive) is needed to drive along the otherwise impassable sand roads. Another option further south is the hiring of a boat to row across the Corumana dam, or simply to wade across the Sabi River.

According to KNP anti-poaching officials (personal communication, 2015), there was an available pool of 2 500 to 3 000 poachers in and around the national park⁴¹⁷ and an average of ten to fifteen hunting crews were tracking rhinos at any given point in time in 2015 (see Graph 6). When illegal hunting into the KNP commenced in the late 2000s, hunting crews were still learning the ropes and mistakes were made, but the crews learnt rapidly, adapted their modus operandi and upgraded their 'toolbox'. An investigator (Interview with KNP investigator, 2013) points to the inferior types of gun, ammunition and sloppy execution of early poaching in the KNP. Some poachers used AK-47's and multiple shots in lieu of the professional 'one-shot-kill' to the heart or lungs. In the modern poacher's toolbox are sophisticated hunting rifles, machetes or axes, satellite navigation systems or mobile phones (sometimes even GPS-enabled smartphones). While there is no network signal in many parts of the KNP, Movitel⁴¹⁸ cell phone towers are sprinkled across the Mozambican borderlands, which facilitate communication between kingpins and poachers once they get close to the Mozambican border. The term "poacher's moon" used to be synonymous with a higher rate

⁴¹⁶ The high rate of poacher fatalities in the KNP has led to some groups carrying handguns for self-defence purposes.

⁴¹⁷ This number had grown to 6 000 poachers in and round the Park by 2016 (pers. communication with Julian Rademeyer and KNP officials, 2016).

⁴¹⁸ Movitel is a joint venture between Viettel Global, a Vietnamese telecommunications company owned by the Vietnamese Ministry of Defence, and Mozambican partners. The first cell phone towers were erected in October 2011, and the company launched officially in May 2012. Movitel was the fastest growing telecommunication company in the Middle East and Africa in 2014 (IT News Africa 2014).

of rhino attrition. The natural light of the full moonlight shines the poachers' path during the full moon period hence the term "poacher's moon". While rhino poaching is still rife during poacher's moon, illegal hunters are traversing the park day and night in search of their bounty. Kruger officials also found that poaching rates spiked before East Asian holidays⁴¹⁹ and during the Christmas holiday season.⁴²⁰

Kingpins were initially involved in illegal hunting expeditions themselves; nowadays they execute multiple functions essential to the continuity of the flow. It is important to differentiate between hunters and kingpins within the overall structure of the flow. Although poaching groups display a flat structure by virtue of relationships being reliant on reciprocal trust and "everyone faces the same fears and risks in the bush" (Interview, 2013), the position of the hunter is attributed with the highest status and commensurate with the most rewarding remuneration within poaching groups. The hunter is thus the unofficial leader of the group in the bush. Once the hunting crew leaves the bush, the buck stops with the kingpin, who wears many different hats but most importantly he has to assure that the horn moves further along the flow. What differentiates kingpins from poachers and other members of village communities is their social capital, which incorporates the ability to communicate and trade beyond the confines of village communities. On the one hand, kingpins are competent economic actors that hold the key to local horn transactions; on the other hand, these kingpins exude high levels of social and cross-cultural mobility enabling them to undertake business with criminal actors transcending boundaries presented by ethnicity, language and nationality. Kingpins recruit, mobilize and motivate others to partake in hunting expeditions that involve the illegal killing and dehorning of rhinos in protected areas. They ensure that hunts go ahead without disruptions by the government or traditional authorities; in other words, standing arrangements exist to ensure the undisturbed flow of horn from the park to the buyer (discussed in more detail below). Once the kingpin takes receipt of the horn, a process of quality control commences (see Chapter 8). Upon confirming weight, provenance

⁴¹⁹ No supporting data could be provided for this claim. However, several rangers and security personnel suggested that Asian intermediaries were returning home to spend holidays with their families and capitalized on the return trip by transporting horn back home.

⁴²⁰ Crime statistics confirm a spike in property crimes during the festive season in South Africa (Lancaster 2014). There is no empirical evidence to explain the phenomenon. According to anecdotal accounts, thieves seize opportunities while holidaymakers let their guard down. With regards to spikes in rhino poaching, anti-poaching operatives (Interviews, KNP, 2013) suggest, "Poachers celebrate Christmas too".

and authenticity of the horn, the kingpin 'secures' the horn from detection through law enforcement for its onward journey. Kingpins, poachers and smugglers confirmed that the horn is left intact; in other words, it is not processed into disks, pieces or powder at the source. As an anti-poaching measure, some rhinos carry satellite trackers in their horns. Poaching crews use rubber tubes of car tires to disrupt the tracker signal en route to the kingpin (Interview with poacher 15, 2013). The kingpin will boil the horn to stop organic material from releasing putrid smell,⁴²¹ which could attract the attention of sniffer dogs. To permanently disrupt the tracking device, kingpins put the horn into an oven, 'baking' the tracking device at extremely high temperatures for several hours. This process destroys the signal permanently (Interview with kingpin 2, 2013). These security and quality control measures showcase sophisticated planning and foresight of wildlife trafficking groups.

Kingpins also provide the important bridge between poacher and buyer by facilitating the safe and speedy passage of horn from the park to the buyer or smuggler. This process earns them double commission; they thus profit from "buying" the horn from their own or independent poaching crews, and from selling the horn to the smuggler or buyer. Initially, rhino horn was supplied to South African buyers, who arranged its integration into gray and legal flows. The migration to new buyers (Chinese and Vietnamese buyers), local markets (Chokwe, Maputo, Beira) and routes (from Maputo, Nairobi, Lusaka to Middle Eastern and Asian entrepôts or directly to the market) appears to have been triggered by opportunity structures presented by the geographic location of Mozambique, the high presence of rhinos close to the Mozambican border in the KNP, and the state of the criminal justice system in that country. In the late 2000s, kingpins and independent poachers sought out new buyers to introduce competition and negotiate better prices for the horn. The rapprochement between kingpins, poachers and Asian buyers was actively pursued, and business connections were established through opportunistic meetings or referrals. In this instance, the kingpin's worldliness and social skills facilitated the establishment of new criminal connections. As one kingpin put it: "If you want to sell a rhino horn, you go to Asian markets or Chinatown and speak to anyone". Many of the extant kingpins have worked and travelled beyond their village communities, which allowed

⁴²¹ The horn is usually removed as close as possible to the growth point to maximize weight and profit. Hacking or cutting close to the growth point inevitably involves blood and gore, which decompose and rot once taken off a rhino.

them to reach out and establish both strong and weak connections in South Africa and beyond.

While business alliances are fluid and reinvented frequently, the demand has grown to the extent that horn is pre-ordered and, in some cases, a deposit is paid to ensure exclusive delivery to the ordering party. The time-span between placing the order and receiving the horn plays a significant role, especially in cases where couriers are already awaiting their consignment. Transporters and buyers (Interviews, 2013) hence prefer to engage with kingpins who have a reputation for speedy delivery of the genuine product. There are however no exclusive relationships; in other words, kingpins engage with a number of buyers and vice versa. Moreover, some kingpins combine intermediary and transport functions. In such cases, the kingpin or a trusted associate transports the horn to the buyer or courier, or the latter undertakes the journey to fetch the horn (which happens on rare occasions).

Although the initial procurement of rhino horn is essential to initiating this illegal flow, securing its onward journey is equally important and navigated through relationships built on trust and the reputation of those involved. Kingpins have struck up deals with law enforcement officials in some instances, whereby a police officer transports rhino horn to the buyer or ensures its safe passage (more below). An organized crime investigator (Interview, 2013) describes the next level of sophistication:

“ And then you get situations where the poachers pay 30,000 Rand danger pay to hunt a rhino. They shoot a rhino and they immediately get paid 25, 000 to 30,000 Rand per kilo. Now they can afford it, like the big Joe also. He knows that the next level is the market. The good thing about his operation, he does not stand the risk to be shot or apprehended. He minimises risk by transporting it in a taxi, transport it in a private vehicle, as long as I keep on the road, get the horn to my markets and sell it off. And you see the current case in Skukuza: a traffic cop from the Kruger, a game ranger and another staff member. The game ranger shoots the rhino and the traffic cop transports the horn outside the park and then asked his wife to transfer it further to the market. How you going to stop a traffic cop? He is a police officer. Organized crime at its best. The wife sold it to the market in Johannesburg.”⁴²²

⁴²² 25 000 Rand was worth €1870 and 30 000 Rand was € 2 240 at the time of the interview.

The most common form of horn transportation from the border villages involves a close and trusted associate of the kingpin transporting the horn to the buyer or transnational courier. These local horn couriers tend to use public transport – buses and minibus taxis – commuting between Gaza Province and Maputo (or one of the other transshipment hubs, see below). Public transport provides another layer of protection to the courier. In the case of detection, the courier can easily shift the blame to the driver or fellow passengers. Local couriers have trust-based relationships with kingpins anchored through familial, kinship or past criminal relationships; kingpins seldom use so-called “runners”, as the risk of detection and defection is too uncertain. One smuggler said (Interview with smuggler 4, 2013):

“I can’t see someone trusting a runner in the street to transport a rhino horn in a taxi. Maybe they stole it somewhere. I, as a supplier, would not do that. I would want to have a clean deal. Like a guy like Mr Big, where I know if he doesn’t pay me, I kill him. Simple because that is the deal, you take this from me this is my money. If you don’t do it, I know where you live. I kill you. With small runners you don’t have it. It is like drugs. You know where the guy lives and if he doesn’t pay, then there is an accident.”

The role of the traditional intermediary who interacts with poachers on behalf of buyers is more common in rhino horn flows out of South Africa. In this instance, the intermediary constitutes another segment or nodal point in the flow. On the one hand, the intermediary negotiates the price, provides both poacher and buyer with anonymity from one another and hence an additional layer of protection from detection; on the other hand, this additional segment renders the exchange less efficient but more secure and creates social distance between poacher and buyer (the security/efficiency trade-off is discussed in more detail below). Other tasks include quality control, money laundering and off-shore investments, as well as the coordination of local and international transport logistics. Unlike the kingpins, the traditional intermediary needs no charisma or social skills. Good contacts in the criminal underworld and law enforcement are, however, obligatory. This type of intermediary has well-established legitimate business or investment links to South African or Asian buyers, which justify close ties in the eyes of the outside world. She is the known ‘go-to’ person when poachers are looking for a buyer. Due to the expediency, efficiency and security of flows out of Mozambique, the role of the traditional intermediary is largely obsolete or diminished. As

poaching crews get better financial rewards in Mozambique, South African poachers are increasingly moving their horn supplies to Mozambique (Interviews, 2013 and 2014).⁴²³

7.6 Cooperation, security and competition: How kingpins secure the continuity of the flow

A kingpin's sphere of influence is spatially confined to his geographic location and reach. The level of tolerance and independence between the different Mr Big's is remarkable; however, a form of hegemony ('pegging order') was carefully negotiated in the Mozambican hinterlands based on seniority, popularity, the number of teams and the durability and strength of network connections. Areas of influence are fluid and hence open to negotiation. One Massingir-based kingpin informs on his competition ('rats' them out) when their activities lead to botched horn deals or they undercut his price; he thus asserts his influence and "puts them back in their place" (Interview with anti-poaching official, 2013). Another kingpin is reputed to have a penchant for violence and coercion (Interviews, 2013); however, turf issues and competition are more pronounced on the South African side where a former police officer ran the Bushbuckridge and Hazyview areas with an iron fist until his arrest in 2012 (Interviews, 2013).⁴²⁴ A convicted poacher from Mozambique explains the difference (Interview with poacher 3, 2013):

"It is safer to deal with the Mozambicans than South Africans. They can pay you and then get someone to kill you after the deal. Then take back the money they've paid you - and that happens a lot. And the bosses from Mozambique pay more than South African bosses because it is easier to transport from Mozambique. They can get a truck full of logs or woods and they can put the horns underneath. They even transport the guns that way."

⁴²³ They get introduced to kingpins or intermediaries through kinship ties or criminal connections.

⁴²⁴ Alleged South African rhino kingpin "Big Joe" Nyalunga, a former police officer, wielded considerable influence over people and authorities living in the Bushbuckridge area near the KNP. He also has a reputation for violence, and there are anecdotal claims that he murdered and tortured a man.

At the time of data collection, there was little competition or conflict amongst poaching groups or pronounced 'turf issues'. Pressed about competition or the potential for conflict, one kingpin (Interview, 2013) explained how hunting crews deal with one another:

"It does not happen. No one owns the Kruger and even when we meet we just greet each other and it's not often that we see each other."

The structure and composition of hunting crews minimize the risk of "taking out" another group while on the hunt. There is a high likelihood that the hunters know each other, they might have hunted together in the past, may do so in the future, or they might be tied to one another through kinship or friendship ties. Several kingpins and poachers talked about the potential for conflict and competition once rhino numbers grew less; high demand on rare resources is likely to lead to conflict-laden social relations and diversification into other coveted wildlife products like ivory (Interview with kingpins, 2013).

Kingpins are confronted with the potential defection of their hunting crews. Several types of defection are theoretically possible, some of which are linked to the dangers and challenges of illegal hunting in protected areas. There are natural dangers associated with hiking through the bush, such as running into dangerous animals⁴²⁵ or exposure to the elements.⁴²⁶ Poachers also face the potential detection, arrest or deaths by security forces deployed in conservation areas. As mentioned in earlier sections, kingpins and their network connections ensure legal representation for poachers and smugglers; fines and bail are taken care of, especially in cases where the arrestee might have access to privileged information that could disrupt the flow. The longer it takes to track and shoot a rhino, the higher the likelihood of detection, and the longer until the buyer takes receipt of the order of rhino horn. Time and speed of execution are hence important elements in the planning phase of a hunt. Actionable intelligence or

⁴²⁵ KNP rangers ran into a now notorious kingpin who was a hunter a few years back. He had been mauled during a lion attack while on a rhino hunt. When the rangers came across him and his teammate, they claimed to be looking for work in South Africa. The pair was taken to the next hospital, treated and released. Rangers found the hunting rifles a few days later (Interviews, KNP, 2013).

⁴²⁶ Large parts of the KNP are made up of dry "bushveld" (South African term for dry savannahs). Temperatures range in the late 30s to early 40s in the summer months, and the mercury drops close to 0 degrees in winter nights. Floods are a common occurrence during the rainy season, when otherwise dry riverbeds swell to full capacity and beyond, sometimes sweeping away rest camps and park infrastructures.

knowledge of recent rhino sightings, tracks or locations, and the position and movements of security personnel shorten the duration in the park and thus minimize the risk of detection. Such intelligence is either gathered proactively or bought from so-called “spotters”, who work in parks or reserves and are hence well-acquainted with standard operating procedures, shift rosters and rhino sightings (Interviews with anti-poaching officials, 2013). An organized crime investigator put it like this (Interview, 2013):

“The field rangers get paid 5,000 Rand now, so when one of these guys come with 50,000 Rand to show them the rhino, what is your choice going to be? Do you remember when they had the illegal strike inside the park? And all the Rangers parked out here. They were out here for about a month. It was so easy to make contact with these guys and give them a cell phone number that they can contact these guys. You know – at the end of the day we all have a price. Syndicate bosses pay one hundred thousand Rand so that a docket is lost.”⁴²⁷

Payment to members of poaching groups is disbursed on a sliding scale linked to functions, responsibilities and gun ownership of individual group members. ‘Payments’ (bribes) to game rangers, law enforcement officials and other social control agents are standard practice and considered operational costs (Interview with kingpin, 2013). In cases where no standing agreement exists (securing “free passage” of poaching groups forms part of the kingpin’s coordination repertoire), poachers will carry money on them “to free themselves” should they “run into trouble” (Interview with kingpin 2). The ‘bounty’ on the rhino and the low wages paid to game rangers, as well as situational insider knowledge, standard operating procedures of anti-poaching units render staff entrusted with protecting rhinos particularly vulnerable to accepting bribes or recruitment into poaching groups. Says a Massingir-based kingpin (Interview, 2013):

“We are scared of the rangers. I am so scared of them. South African rangers will kill you but the rangers in Mozambique take bribes. There are rangers who work with the hunters. There’s a ranger who has his own group of hunters. He’s got a high position there, and if he finds a hunter that is not in his group he will shoot him, and most hunters know him.”

⁴²⁷ 5000 Rand was worth 427€ and 50 000 Rand was 4275 € at the time of data collection.

Fieldwork undertaken in the borderlands adjacent to the KNP (also known as the “eastern boundary”) found a network of border protection staff (Força de Guarda Fronteira), rangers from the LNP and the KNP, private security and intelligence operators and poachers that directly affect the protection (or lack thereof) of the rhino. The official ‘protectors’ (game rangers) and the border guards are important elements within the illegal flow as they provide protection, information, and in some instances, guns to the poachers. A conservator in Mozambique revealed (Interview with conservator 8, 2013):

“The guardians of the park are complicit. We confiscated the same gun three times and we confiscate good hunting rifles from poachers all the time. They rent it from rangers in the Limpopo National Park. One of the main rangers had all the main guys under his protection. No one could do anything. So we had this massive event and got the governor to talk about anti-poaching. So in front of this guy, we gave a big speech with the Guarda Fronteira. Then there was political pressure, and they removed all the Guarda Fronteira and then they phoned me and said they had just gone into a little village and had confiscated 42 rifles. As it turns out, they confiscated all of the Limpopo National Park’s guns because they were corrupt and had no control over who had access to the guns. They were renting out the guns. It was an absolute dog show. For one year, the Limpopo National Park didn't have any AK-47s.”

The defection of poaching crew represents another risk. This can take the form of selling the ordered rhino horn to a higher bidder or the theft of freshly harvested horn by competitors.⁴²⁸ Failing to deliver ordered rhino horn or reneging on payment for horn can lead to negative sanctions and consequences for the poacher or their families. “I get my boys to get them”, said one kingpin, alluding to the use of force in case of defection. However, the need for direct enforcement or coercion appears to be rare on the Mozambican side, as the kingpin knows and recruits his poaching crews personally and often shares strong links with them and their extended families.

Criminal and terrorist networks use trust and secrecy as mechanisms to conceal criminal activities and associations (Morselli/Giguère/Petit 2007). At the village level, it is difficult to hide clandestine activities or liaisons, because boundaries between public and private life are fluid. In other words, there is limited room for anonymity and privacy. Illegal economic activities are embedded in village communities and have led to changes in the social

⁴²⁸ A convicted poacher related an incident where poachers working for two different bosses attacked a returning hunting crew, stealing their bounty. The two kingpins resolved the turf issue peacefully.

stratification of the community. As argued in earlier sections of this chapter, the community is not complicit in rhino poaching per se; community members do, however, know who the bosses and poachers are, and are aware of the other connections they cultivate. While the composition of villages is heterogeneous, community members are bound together by their shared experience of economic displacement, marginalization and exclusion. The traditional notion of secrecy (keeping certain facts hidden from public view) is not relevant to village communities; the binding mechanism preventing villagers (including criminal actors) from divulging information to unknown entities or persons is based on solidarity and ethical, cultural and community building mechanisms, which prevent villagers from stigmatizing their own in front of others. I refer to this mechanism as ‘village kinship’, which extends the idea of social embeddedness. Kingpins and poachers thus resolve the coordination problem of security through village kinship at the village level. The village will keep the “secret” until it becomes untenable or affects the well-being of the community. In the current dispensation, rhino kingpins and poachers appear to act in the interest of the community while the Park and rangers have been undermining the interests of the community.

Once rhino horn moves beyond the confines of the community, other mechanisms become relevant. An earlier section of this chapter described how kingpins migrated from South African buyers to Asian buyers. This was a proactive but dangerous move at the time. At present, kingpins collect intelligence ahead of meeting with potential future business partners. One kingpin related (Interview, 2013):

“I know the customers from my past, but if people call me for the first time I don’t give them the correct information. I give them the wrong information. Then I send my guys to go and check who arrived at the place. Maybe one guy or two guys, and if we don’t suspect anything, my guys will bring the people to me. I make sure there’s no police.”⁴²⁹

Beyond traversing difficult terrain, poachers face a multitude of dangers and risks for which they have developed innovative protective measures. Brotherhood exists between poaching

⁴²⁹ The same procedure was followed ahead of the interview with me. I was asked to meet the kingpin at a specific restaurant in Massingir. The interview was scheduled for 12 o’clock. Several people passed through the restaurant during the course of the next three hours. After my companion and I had passed muster, the kingpin and his associate arrived for the interview.

crews from village communities: Information on rhino sightings and ranger presence is shared. An early warning system has been devised in Massingir: different types of cool drink cans on the roof rack of kingpin's off-street vehicle signal whether it is safe to head into the KNP. Poachers also consult with traditional healers (so-called sangomas) ahead of poaching expeditions. A sangoma will advise as to when it would be safe for poachers to slip through the fence line and hunt rhino. They also prepare 'muti' (traditional medicine) to protect poachers during the hunt.⁴³⁰ Some sangomas recommend the removal of the eyes and ears of the dead rhino after the animal has been killed. According to poachers (Interviews, 2013), "the rhino's soul can't hear or see you [the poacher] and can't show who you [the poacher] are." Anti-poaching officials confirmed that they encounter carcasses of rhinos where the eyes have been cut out with machetes or hand knives (Interviews, 2013). A new trend relates to the removal of rhino feet and genitals.⁴³¹ The role of the sangoma is attributed to high status and influence in village life. Many poachers related how the sangoma's sanctioning of a planned hunt was as important as leasing the gun. In essence, the sangoma legitimized the illegal expedition in the Park by providing protection and the go-ahead. According to Kruger officials (Interviews, 2013 and 2014), there were a couple of Mozambican sangomas running poaching groups.

7.7 Smuggling the horn: Efficiency versus security concerns

The heterogeneous profile of local and international transporters and their strategic deployment is noteworthy. Transport intermediaries acting on behalf of the international buyer (predominantly Asian) are individuals with legitimate business in the village communities or in local markets, such as running a local retail business or involvement in the telecommunications, construction or university sector. The mode of inland transportation and transshipment hub changes frequently, contingent on the choice of transcontinental

⁴³⁰ One anti-poaching official (Interview, 2013) recounted that he found raw eggs in the pocket of a poacher. The sangoma had told the man that he would have to turn around as soon as the egg broke because it would no longer be safe in the Park. The egg was in tact at the time of the poacher's arrest.

⁴³¹ South African conservators (personal communication, 2015) believe that these body parts are sold to the local muti market.

transportation. Research elsewhere (Milliken 2014: 20–21) and empirical data collected for the current study at both ends of the supply chain⁴³² suggest that most horn leaves the African continent by plane, its onward journey from entrepôts depends on the connectedness of intermediaries. Kingpins and their minions thus ferry the horn either to the local market (which used to be based in Chokwe, Beira and Maputo)⁴³³ or directly to the buyer's transport intermediary who would be located in Maputo or Johannesburg.⁴³⁴ The latter option of the kingpin or the local transporter transferring the horn to the buyer, or the transcontinental transport intermediary, is the preferred choice as it is fast and efficient. While the previous chapter pointed to complex systems and relationships involving wildlife professionals and organized crime groups involved in gray channelling, illegal poaching in the KNP has allowed criminal actors to pursue decentralized, straightforward and direct routes due to the opportunity structures (discussed above) presented by Mozambique bordering the Park. The simplest, most direct and efficient route from the KNP to the international transshipment point was also the most secure and has been tried and tested by organized crime groups involved in a bouquet of criminal markets for several decades.

South African authorities have successfully intercepted several huge and multiple smaller consignments of rhino horn often smuggled in tandem with other prohibited wildlife products passing through Oliver R Tambo International Airport (Interviews with SARS officials, 2013). Prince Manyathi, a magistrate presiding over cases of wildlife trafficking going through the airport provides a nuanced profile of the smugglers (quoted by: Trung/Huong 2013):

“Since 2008, more than 30 rhino horn smuggling cases have been seized in Johannesburg. During the period of 2010 - 2012, there were 132 people from various

⁴³² According to interdiction data of Vietnam's CITES Scientific Authority provided in 2013 (personal communication, 2013), all interdictions involving rhino horn had occurred at the two main international airports in Ho Chi Minh City and Hanoi, except for one interdiction along a major highway in 2004.

⁴³³ A curious adaption was the use of white Mozambicans of Portuguese extraction to transport horn from Massingir to Maputo. These runners supposedly carry an aura of privilege and status, which allows them to navigate through roadblocks without being stopped or searched (Interviews with intelligence officers, 2013).

⁴³⁴ Rhino horn has also been smuggled via Cape Town International Airport out of the country. Police and intelligence data suggests the use of the international airports in Manzini, Swaziland and Maseru, Lesotho. Due to the high number of pilots involved in rhino poaching syndicates, organized crime investigators believe that organized trafficking groups use small light airplanes and transport rhino horn to neighbouring countries from the many unregistered landing strips sprinkled across South Africa.

countries participating in and smuggling rhino horns, were under arrest in South Africa, of which Vietnamese nationals accounted for most of the detainees. On average, every 10 detected cases, there would be 9 cases conducted by Vietnamese people, and the other one has the involvement of Vietnamese nationals. Most of the detainees admit in the court that they can receive USD 8,000 for a pair of rhino horn, smugglers can have USD 15,000 to take them out the South Africa, but there is no specific amount for the payment by the final consumer” ...[...]...4 months ago, we detained 2 Vietnamese students smuggling rhino horns, each of them carried 10 horns. In the court, they admitted that they were hired to transport a sealed package that they did not know what was inside. The court found they were guilty and sentenced them with a monetary punishment of 1 million Rand (about USD 90,000) for each of them. They paid the amount right away. This is to confirm that there is surely a very strong organization backing them up, willing to pay in cash for the transporters if they are under arrest. Most of the hired transporters of rhino horns are poor or are having financial difficulty.”

Wildlife trafficking networks were using Vietnamese students enrolled at South African universities and technikons⁴³⁵ as horn couriers upon returning to their home country for Tet celebrations⁴³⁶ and other holidays (Interview with organized crime investigator, 2013). There were also cases where trafficking networks recruited people in Hanoi and other Vietnamese cities to collect a ‘package’ in South Africa. They would fly to the country, collect the parcel at the airport and fly out the same or next day (pers. communication with Julian Rademeyer, 2016). Similar to drug trafficking networks, the profile of couriers and the point of departure and arrival are highly adaptable. Decoys are used to distract law enforcement officials (see next chapter). According to law enforcement sources (Interviews, 2013 and 2014), Vietnamese nationals have been smuggling rhino horn from other airports in southern Africa, with the international airports in Nairobi and Maputo frequently featuring as transshipment nodes. Airlines with direct or indirect flights to Vietnam and other Southeast Asian destination such as Bangkok and Hong Kong are preferred. European airports also serve as transit hubs (An 2015). African transcontinental smugglers are a rarity because Asian law enforcement agents are reputed to screen people traveling on southern African passports (Interviews in Hong Kong and Vietnam, 2013).

⁴³⁵ The term ‘technikon’ refers to a technical and vocational training college in South Africa.

⁴³⁶ Tet, the “Feast of the First Morning of the First Day” refers to Vietnamese New Year. The date of the most important cultural event in Vietnam coincides with the Chinese New Year, with the date usually falling between January and February.

While rhino horn is still transiting through OR Tambo, Maputo International Airport has become the airport of choice for organized crime groups as staff from the higher echelons of airport management through to customs and cleaning staff have a reputation for assisting with the safe passage of contraband against a small fee. This assessment corresponds with the observation of an airport executive based at Maputo International Airport, who stated that wildlife contraband was only detected and confiscated when the relevant gatekeepers had not received their bribe. They may also be unhappy with the amount paid, or the horns were “supposed” to be confiscated as a token of political will (Interview, Maputo, 2013).

Competition between different wildlife trafficking groups increases as rhino horn travels along the illegal flow. According to a horn smuggler (Interview, 2013), several major seizures in Asian transshipment hubs were the result of tip-offs by competing organized wildlife trafficking groups:

“Yes it was competition. I understand Chinese and the way I see them operate. They want to prove to one another who's the biggest, who is the greatest. If I am more than you, I have to oppress you. You can't do anything. They make it like a mafia-way, you understand. They like it this way, these kingpins. Because the information was spot-on. It was exact.”

Rhino horn is also smuggled on-board of shipping vessels, concealed inside containers carrying a variety of natural resources from southern and East African port cities including Cape Town, Durban, Beira, Mombassa and Dar es Salaam. Smugglers remarked that air travel was the preferred mode of transportation due to time and efficiency concerns.

The previous chapter touched on the role of Vietnamese embassy staff in the procurement and transportation of rhino horn from the source to their home country.⁴³⁷ The dubious role of embassy staff came initially under the spotlight after environmental journalists filmed the embassy's former first secretary receiving rhino horns from a known trafficker on the street outside the Vietnamese embassy in Pretoria in 2008 (50/50 2008).⁴³⁸ South African police

⁴³⁷ An informant in Vietnam (Interview, 2013) equally found evidence that diplomatic staff at the South African embassy in Vietnam was involved in rhino horn smuggling. The matter is with South African authorities.

⁴³⁸ Vu Moc Anh was recalled after the incident. Law enforcement investigators (Interviews, 2013) believe that she has been posted to the Vietnamese embassy in Maputo. This could not be independently confirmed.

officers also found evidence that the former economic attaché was using his diplomatic immunity to transport and smuggle rhino horns in diplomatic vehicles and bags (Rademeyer 2012: 257). A political counsellor at the embassy and the deputy head of the Vietnamese ‘Government Office’ were equally implicated in rhino horn procurement and transport (ibid). More recently, North Korean diplomats have been linked to rhino horn trafficking. The South African government, for example, expelled a North Korean diplomat in December 2015. The diplomat abused his diplomatic immunity and the embassy’s diplomatic pouch to smuggle rhino horn out of South Africa. He was arrested in the Mozambican capital of Maputo in May 2015 after 4.5 kg of rhino horn and close to \$ 100 000 were found in a vehicle in which he was traveling. The car had diplomatic number plates and was registered to the North Korean embassy in Pretoria. The diplomat and his companion were subsequently released on bail of \$30 000 and returned to South Africa (Rademeyer 2015).⁴³⁹

Fieldwork in Vietnam revealed that buyers and consumers trusted the provenance and authenticity of rhino horn when procured from or via diplomats and government officials (see Chapter 8 on fake horn). Disrupting illegal flows of rhino horn (or any illegal substance or commodity) becomes a matter of high politics and quiet diplomacy when criminal actors can claim diplomatic immunity from prosecution. By virtue of their diplomatic status, Vietnamese diplomats and their pouches are untouchable like the Mozambican kingpins. The smuggling of any contraband through diplomatic channels is the most secure flow because law enforcement bodies hold no jurisdiction to open and search diplomatic pouches (compare with: United Nations Conference on Diplomatic Intercourse and Immunities 1961: Article 27 of the Vienna Convention on Diplomatic Relations).

⁴³⁹ Julian Rademeyer compiled a timeline of North Korean diplomatic involvement in rhino horn trafficking that dates back to the 1980s. In his book on ‘Operation Lock’ (a controversial law enforcement operation to disrupt rhino horn trafficking in the 1980s), John Hanks (2015: 104-107) argues that North Korean embassies were notoriously underfunded. Diplomats were expected to raise the remainder of the funds in their host countries. Hanks suggests that North Korean diplomats financed the embassy in the Zimbabwean capital of Harare through “the purchase, smuggling and resale of rhino horn (Hanks 2015: 104).” The embassy had been opened in 1981, and consecutive councilors and embassy staff were allegedly using their diplomatic privileges to smuggle rhino horn out of the country. The former head of WWF-South Africa states that “irrefutable evidence during a number of sting operations” was made available to Zimbabwean ministers (Hanks 2015: 105). However, the Zimbabwe police and conservation agencies were allegedly instructed to leave the embassy staff alone in the early 1990s (ibid). The North Korean embassy in Harare closed in the late 1990s.

Illegal market actors confirmed that the risk of detection was higher in source countries where sniffer dogs and competent border staff knew how to identify rhino horn whereas law enforcement staff in transit and destination countries have not been sufficiently trained to identify illegal wildlife contraband (compare with: Sellar 2014a; Sellar 2014b). Similar to the gray channels described in the previous chapter, the shorter the supply chain (the fewer segments or nodal points), the faster and more secure the flow. While gray channelling involves more segments and actors in the supply chain as a precautionary security measure, actors involved in this illegal flow commented on their preference for shorter supply chains with a few “tried and tested” intermediaries who are nonetheless swapped depending on the final destination of the horn and the mode of transportation. A few strategic actors such as government officials and law enforcement agents receive regular payments to “clear the coast” (Interviews, 2013). The intermediary and transport roles are hence of particular significance in short flows as any wrong move could lead to detection or defection.

Existing literature suggests that criminal networks face an efficiency/security trade-off and security concerns appear to reign supreme in operational decision-making (Morselli/Giguère/Petit 2007; Lindelauf/Borm/Hamers 2009). Trust and secrecy are the two binding mechanisms that ensure and facilitate collaboration between network members and enable flows (Morselli/Giguère/Petit 2007: 144). Empirical evidence collected for this project suggests the need for a more nuanced interpretation when it comes to illegal rhino horn supply chains. While security concerns appear to play a structuring role in gray flows of rhino horn, they appear secondary to efficiency and quality control concerns in illegal flows. Why is this the case? When seen through a South African or international lens, the illegal hunting and killing of rhinos, the dehorning and subsequent smuggling of rhino horn from the bush through to transit hubs and the final consumer markets constitute an unambiguous illegal flow. Actors do not bend the rules or exploit loopholes in this instance; they break the ‘law of the land’ on several counts. This includes, but is not limited to, trespassing in a protected area, hunting without a permit, illegal hunting of rhinos (and calves), illegal possession of rhino horn, illegal possession of firearms and ammunition, dealing in rhino horn, theft, illegal immigration, racketeering and money laundering (Interview with prosecutors 1 and 2, 2013).

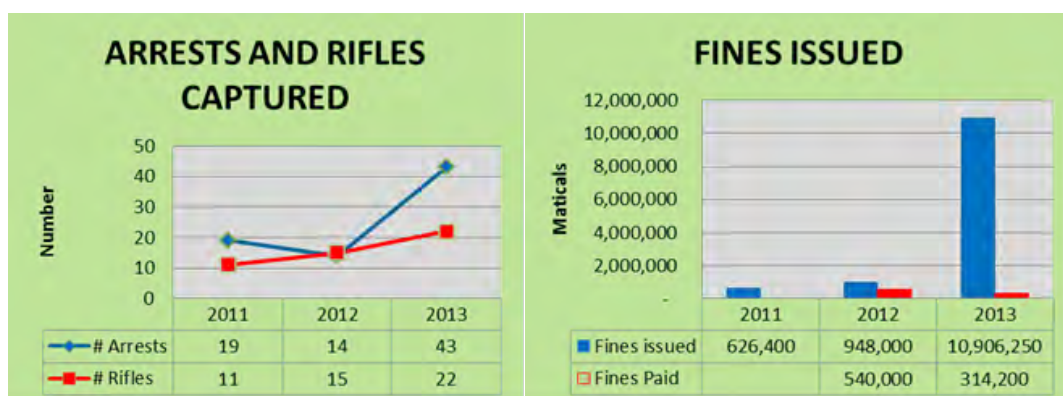
Illegal market actors and market disruptors (law enforcement and government officials) cited the illegitimacy of the hunting and rhino horn trade ban and the valuation of rhino horn as a legitimate tradable commodity as legitimization devices for their illegal activities. Like other important actors in the overall market structure, these actors invoke the notion of contested illegality. The crime of rhino poaching and rhino horn trafficking was interpreted in a less serious light than crimes that affected the community or fellow human beings directly. Poachers and kingpins appear to use this form of reasoning to bypass law enforcement, and they feel secure and untouchable on their home turf. Moreover, a few market disruptors were co-opted into poaching groups or started their own hunting crews (several rangers from the KNP and LNP run their own hunting teams – see section on cooperation). The participation of social control agents in poaching groups does not only secure the flow of rhino horn, but it also legitimizes the criminal activities associated with obtaining and trafficking of rhino horn. The argument goes that if a member of the political, economic or social elite is involved in the flow, then it cannot be against the law (Interviews, 2013). Their participation may render the flow more secure, but this does not equate to the coordination problem of security being less of concern.

Seen from a Mozambican perspective, rhino poaching was not specified as a criminal offence in the Mozambican criminal code until April 2014. According to Portuguese colonial laws, poaching of wildlife was indeed a minor transgression in Mozambique obtaining discretionary fines, except for the occasional heavy-handed action against villagers suspected of subsistence poaching in national parks (Witter 2013). Rhino kingpins (Interviews in Mozambique, 2013) justified illegal hunting by stating that rhino poaching was not even a crime in Mozambique (at the time). Moreover, hunting of wild animals was a rite of passage for young boys growing up in villages, and boys and men had been hunting in the former Coutada 16 (now designated as the LNP) for many generations. Poachers (Interviews, 2013) referred to the double-edged morality of allowing “white men” to hunt rhino legally while the “black man” is guilty of a criminal offence and stigmatized as a “poacher” because he cannot afford the pricing of commercial sports hunting.

The Mozambican parliament passed the Conservation Areas Act (Republic of Mozambique 2013) in April 2014, which provides for custodial sentences of between eight and twelve years

for individuals who kill any protected species without a license or use banned fishing gear such as explosives or toxic substances. The Act also penalizes individuals found using illegal firearms or snares with a prison sentence of up to two years. Anyone found guilty of the illegal exploitation, storage, transport or sale of protected species will be fined between 50 and 1000 times the minimum monthly national wage paid to public officials⁴⁴⁰ (CITES Secretariat 2014:8– 9). Rhino poaching and the trafficking and possession of rhino horn thus were criminalized in Mozambique in April 2014. However, the country’s legislation is currently being revised to impose stiffer penalties for traffickers. At this stage, smugglers usually receive a fine whereas poachers get jail time. Implementation, diffusion and compliance of the new law has to involve training and capacity building of law enforcement and judicial officers, as well as awareness raising and education amongst those constituencies affected by the new law.

Graph 7: Mozambican arrest, rifle confiscation and fines data, 2011 - 2013



Source: Report on Rhinoceroses, CITES Secretariat (CITES Secretariat 2014: 8)

As shown in the graph above (Graph 7), there has been a steady increase in arrests, rifle confiscations and fines issued between 2011 and 2013. The proof is in the pudding: Those arrested are often released within a few hours (Interview with poaching kingpins 1 and 2, Massingir, 2013), rifles find their way back into circulation and only a small percentage of fines are paid.

⁴⁴⁰ This amounts to US \$ 4 425 and US \$ 88 500 at the current exchange rate in November 2014.

7.8 Conclusion

This chapter has dealt with structures and processes linked to the greatest source of rhino horn, the illegal hunting of rhinos in South African conservation areas. While this form of horn 'production' constitutes an illegal flow from the bush to the market, it is connected to gray channelling (Chapter 6) as some of the same intermediaries, transporters and routes are used. This chapter also demonstrates the historical lock-in linked to conservation paradigms, which renders disruption of these flows a difficult if not impossible undertaking. The increasing militarization of anti-poaching operations is contributing to the further alienation of local communities, which under different circumstances, could act as the first line of defence against rhino poaching. Actors in this flow have mastered the coordination problems of competition, cooperation and security.

Chapter 8: Fake rhino horn: Trust and the issue of quality control

“You can feel it; you can see it if your eyes are open. Normally, especially when you're African, you will know. You know there are some people here that don't know about rhinos, they've just heard about rhinos. They've never seen the rhino. Maybe only in the zoo (Interview with convicted poacher 16, 2013).”

8.1 Introduction

Chapter 3 focused on the demand and valuation of rhino horn. A parallel market for fake rhino horn has existed ever since rhino horn became a high-end tradable good several millennia ago. The issue of fake horn is relevant to the overall market structure due to its incidence along the entire supply chain and its implication for valuation. The normative perceptions of regulators and illegal market actors regarding the legality of fake or ‘Ersatz’⁴⁴¹ horn, for example, provide fascinating insights on the valuation of rhino horn. Tied to the coordination problem of value is the issue of quality control. How do market actors ensure that they do not buy, trade or consume fake rhino horn? The chapter begins with the differentiation of different types of fake rhino horn before looking at actors involved in the production and distribution of such horns. The research identified the role of the rhino horn assessor, who fulfils the function of quality control and risk mitigation.

8.2 Legal actors and Ersatz horn

Both legitimate and criminal actors are involved in the production of fake or ‘Ersatz’ rhino horn, which differs regarding quality, purpose and functionality. Taxidermists, manufacturers and scientists belong to the category of legitimate horn replica producers although rogue taxidermists have also been complicit in criminal conspiracies involving fraud, theft and laundering of original and fake rhino horn. Taxidermists produce a replica of hunting trophies and rhino horns for museums, galleries, zoos and private collections in order to prevent theft of the originals or to replace originals that were stolen previously (see Figure 10). The

⁴⁴¹ The German word “Ersatz” has become usus for substitute horns.

production of such horn replicas requires a specialized artisanal process. Taxidermists use a variety of materials to recreate rhino horn including Jesmonite acrylic resin, glass fibre or silicone (Natural–History–Conservation.com 2015). Such horn replica can look surprisingly authentic as a gang of thieves found out when they broke into the Natural History Museum in the British county of Hertfordshire, and stole replicas made of resin from stuffed rhinos in 2011 (Staff reporter for Canberra Times 2011).

Figure 10: Rhino trophy with Ersatz horn



Source: Photo taken by Jens Beckert in Paris, France

These high–quality ‘Ersatz’ horns have become an area of concern to CITES authorities, which found that the quality of fake rhino horns used to deceive enforcement authorities had improved markedly. The CITES Secretariat (2013: 6) and law enforcement officials (Interviews, 2013) reported a high number of incidents involving professional, pseudo and proxy hunters who removed rhino horns from their hunting trophies and replaced them with fake horns upon returning to their home countries. Intermediaries launder the real horns into the illegal market. Such fake rhino horns could be easily identified in the past as they were shaped into horn moulds using fiberglass or plastic; however, recent samples have been made from high-quality resin with a more solid structure than real horn. This improvement renders visual identification of this horn ‘Ersatz’ difficult. As a consequence, CITES officials burn a small quantity of dust from the horn, which should deliver a distinctive smell depending on whether keratin biomass or synthetic materials are present (Carnie 2012). Due to the replacement of

real horn and its laundering into illegal trade flows, the CITES Secretariat has called on member countries to implement adequate legislation and enforcement controls to prevent horns of legally obtained hunting trophies from entering illegal trade flows, and to ensure that the trophies “remain in the possession of their owners for the purpose indicated in the CITES export permit” (CITES Secretariat 2013: 6). The quality and authenticity of replica horns are hence dependent on the trophy owner’s rationale for replacing the horn with a replica. It could be a safety precaution to avert theft. Depending on whether close or corruptible ties to public officials are in place, the mounting of cheap plastic replica may be sufficient to keep up a semblance of legality. This façade may also apply to scenarios where the chances of a trophy audit are unlikely.⁴⁴²

In the hope of manufacturing a facsimile rhino horn that could act as a viable substitute for the original material,⁴⁴³ several teams of scientists and engineers are in the process of “bioengineering” synthetic rhino horn (Zak 2015; Aulakh 2015), attempting to “clone” rhinos and rhino horn (Sullivan Brennan 2014; Speart 1994), or investigating the potential for growing rhino horn in vitro (Yang 2011: 8).⁴⁴⁴ Since rhino horn was struck off the list of permissible ingredients in the Chinese pharmacopeia in 1993, government and traditional medicine authorities have encouraged the substitution of rhino horn with the horn of water buffalo, saiga antelope, cattle and yak to achieve similar results. Such ‘Ersatz’ horns are legitimate, viable and more affordable than rhino horn; offering them as the ‘real deal’

⁴⁴² In 2014, South African investigative journalist Simon Bloch (personal communication, 2015) contacted the CITES management authority in Poland to verify whether Polish authorities were monitoring the influx of hunting trophies from South Africa. After a Czech-Vietnamese trafficking network was busted, suspicions are rife that Polish hunters were also collaborating with Asian wildlife trading networks. Bloch was told that the Polish authorities were “struggling” to do check up’s on Polish trophy hunters due to country’s privacy laws.

⁴⁴³ Conservation NGOs such as the WWF contest the legitimacy of producing legal horn substitutes to prevent poaching. Says WWF wildlife trade expert Colman O’Criodain (quoted in: Aulakh 2015):

"There is already a huge quantity of fake horn in circulation in Vietnam but that isn't denting the poaching levels. In general, we favour trying to change consumer behaviour rather than pandering to it. That is where we are currently directing our efforts."

⁴⁴⁴ Yang’s article refers to scientific research into the self-healing nature of rhino horn. While rhino horn is considered dead tissue, scientists have captured images that show a polymer substitute filling cracks of rhino horn. Two hypotheses might explain this phenomenon: either there are living cells in the horn (and thus rhino horn could be grown in vitro) or there might be a transport system inside the horn that carries living cells to affected areas of the horn (Yang 2011: 8). Chapter 3 discusses the chemical composition of rhino horn in more detail.

constitutes, however, fraud and deception (Nowell 2012a: 2). The proposed substitution of rhino horn with the horn of other animals may have led to some unintended near cataclysmic consequences for the saiga antelope (compare with Chapter 3). In the 1980s, the WWF suggested the use of saiga horn as a viable alternative to rhino horn. Says a WWF official (personal communication, 2014):

“... yes it is true that in the 1980s, while saiga was still common and illegal hunting wasn't a problem, we did tout it as an alternative. That was before the collapse of the Soviet Union, which led to the explosion in poaching that caused population crashes.”

Saiga horn is used almost exclusively in TCM. Wildlife monitoring network TRAFFIC corroborates that the price for saiga horns has increased significantly since the mid–1990s (von Meibom et al. 2010: 34). Highly organized poaching gangs pushed the formerly abundant populations of the Asian antelope typically found in the steppes of Kazakhstan, Uzbekistan and the Russian Federation into a state of significant population decline through illegal hunting.⁴⁴⁵ China is the largest importer and consumer of saiga horn, followed by Singapore and Japan with Singapore, Hong Kong and Malaysia as important trade entrepôts (von Meibom et al. 2010: V). A TRAFFIC research project seeking, amongst others, alternatives to the use of saiga horn in TCM found that few TCM traders⁴⁴⁶ recommended rhino horn as a viable substitute for saiga horn (von Meibom et al. 2010: 27); in other words, the corollary of replacing saiga with rhino horn was not endorsed or recommended to the TRAFFIC researchers.

The official Chinese pharmacopeia recommends the use of water buffalo in lieu of rhino horn (Nowell 2012a: 33), and this appears to have had no impact on water buffalo populations in Asia. This substitution is not entirely unproblematic as rhino horn is perceived as a superior

⁴⁴⁵ The number of saiga antelopes decreased from approximately 1 250 000 animals in the mid–1970s to less than 60 000 antelopes by 2010 (von Meibom et al. 2010: 33). Because male saiga antelopes fashion the coveted horns only, the sex ratio of populations is significantly skewed to the point where roughly 7% of populations are adult males (von Meibom et al. 2010: 33).

⁴⁴⁶ Five staff members out of a sample of 52 TCM shops suggested replacing saiga horn with rhino horn (which was deemed impossible to obtain) in Malaysia. TCM traders in Singapore and China did not recommend rhino horn as Ersatz horn for saiga horn (von Meibom et al. 2010).

health tonic and cooling medicine to some practitioners and their patients. As a traditional doctor in Hong Kong disclosed (Interview, 2013):

“In traditional medicine the rhino horn is very important and the medical effect is very good. If we use the buffalo to replace the rhino horn, we will use 10 or 20 times more. It is hard to replace it. When we boil the medicine, we will use lots of big pieces of buffalo and it is inconvenient. The medical effect may be not very good so some people in China still use the rhino horn illegally.”

8.3 Criminal actors and fake or Ersatz horn

While law-abiding doctors and patients choose water buffalo, other horn ‘Ersatz’ and herbal tinctures, gullible TCM traders, doctors and consumers have fallen victim to fraudsters who peddle water buffalo and horn replica as if it were real rhino horn with the concomitant pricing of between US \$ 25 000 to US \$ 45 000 per kilogram of rhino horn.⁴⁴⁷ Roughly between 70 to 90%⁴⁴⁸ of “rhino horn” purchased from markets, traditional apothecaries, and medical practices or on-line is believed to be either fake or a horn substitute in Vietnam (Institute of Ecology and Biological Resources quoted in: Anonymous 2013, Interview with conservation geneticist, Hanoi, 2013; Nowell 2012a; Amman 2013b; Kvinta 2014). While Vietnamese nationals are largely unfamiliar with the ‘look and feel’ of rhino horn (Interview with representative of TCM authority, HCMC, 2013),⁴⁴⁹ water buffalo is distinctive and recognizable due to its concentric-shaped fibres and its distinct yellowish colour with a white core whereas rhino horn consists of keratin tubules and is dark brown. The tip of the water buffalo horn is

⁴⁴⁷ At the time of my fieldwork in Southeast Asia, TCM traders, doctors and consumers paid between US \$ 25 000 to US \$ 45 000 per kilogram of rhino horn. As small amounts of horn were required for medicinal purposes, rhino horn was dispensed in disks or powder-form, rendering its identification tricky. The price of African ‘rhino horn’ was lower than Asian rhino horn, which is believed to be more potent than the African variant.

⁴⁴⁸ The overall market share of fake and Ersatz horn in Vietnam is difficult to assess. Vietnamese government authorities (Interviews, 2013) tend to stress the high incidence of fake horn in order to deflect from international data suggesting that Vietnam is the main consumer of ‘real’ rhino horn (Milliken/Shaw 2012; Rademeyer 2012). Dr Cindy Harper from the Veterinary Genetics Laboratory at the University of Pretoria tested samples collected from markets and traders in Vietnam. Investigative journalist Karl Amman and his team had collected the 30 samples from TCM outlets. 90% were fakes. A Vietnamese conservation geneticist who tests rhino horn on behalf of law enforcement authorities pegged the market share of fake and ersatz horn at 70%. He based the assessment on the DNA analysis of 300 horn samples collected between 2003 and 2013 (Interview, Hanoi, 2013).

⁴⁴⁹ Poachers killed and dehorned the last Javan rhino in Vietnam’s Cat Ba National Park in 2010.

solid but it becomes hollow towards the end – unlike rhino horn, which is solid throughout. Due to the familiarity of locals with water buffalo horn, the horn is blackened and “rhinofied” (made to look similar to Asian rhino horn) to deceive prospective buyers. Criminals also peddle the horn of African ox considered a superior ‘Ersatz’ as it is an unknown entity in Vietnam. The tip and colour of cattle horn look surprisingly similar to African rhino horn (Interviews in Hanoi and HCMC, 2013). The search for an ever-improved version of fake rhino horn has led criminal entrepreneurs to invest in highly sophisticated horn forgery equipment and to set up fake horn manufactories.⁴⁵⁰ According to the head of molecular systematic and conservation genetics at the Institute for Science and Technology in Hanoi, the sophistication of counterfeiting technologies has improved to such a degree that only experts can distinguish real from fake rhino horn (Interview in Hanoi, 2013). Professional fraudsters have mastered the art of faking rhino horn by using human and animal hair to get the distinctive smell of burnt keratin, should the above-mentioned test of burning horn dust be employed to verify the authenticity of the horn in question. Imitation horn is ‘cloned’ to near perfection mimicking the natural characteristics of horn such as colour, odour, hair, density, hardness, contours and the uneven natural grooves along the surface of the horn (Interviews in Hanoi, HCMC and Johannesburg, 2013). Those cheated have no recourse to the law as it is not only illegal to sell but also to buy rhino horn in Vietnam, Hong Kong and China.⁴⁵¹

Curiously it is not only unsuspecting horn consumers in Vietnam or China that buy tainted horn but there are others that knowingly and willingly buy Ersatz horn. While common-varieties type of fake horn can be procured for as little as US \$ 200 in Vietnam, sophisticated types of Ersatz horn come at a price and are essentially valued as a “second-best” alternative or as credible replica of the real thing with associated functions. Conscious buyers of “superior” replica or Ersatz horn pay up to US \$ 10 000 per horn (Interviews with smugglers and intermediaries, 2013). In an attempt to impress their peers, aspirant horn consumers buy

⁴⁵⁰ Karl Amman (2012: 36) has collected film footage of a factory where the tips of water buffalo are reshaped and polished to look like rhino horn. Data collected in Hanoi unveiled small factories that were converting human and animal hair as well as fur into fake rhino horn.

⁴⁵¹ The focus of this research was in these three countries during data collection. The transnational/international trade and use of rhino horn is in principle illegal in all CITES member countries; however, international regulations and determinations concerning the ban and authorized use have not been domesticated in all jurisdictions.

fake horn because they cannot afford real horn. An informant in Hanoi explains (Interview with rhino scientist 2, 2013): “Some people want to buy and keep the horn even, when they know its fake at home for decoration.”

Wealthy business entrepreneurs and politicians, on the other hand, buy fake horn to protect their investment. The fake or Ersatz horn is show-cased in lieu of real horn (similar to the Ersatz horn employed in museums and collections in Europe, North America and southern Africa), which is stowed in a safe location. While showing off one’s wealth and status is integral to conspicuous consumption, it would be “stupid” not to protect one’s “very expensive investment and growing asset” (Interviews with intermediaries and consumers, Hanoi and Johannesburg, 2013). The need to protect rhino horn is not only linked to its high value but to the real threat of theft (theft of rhino horn is widespread across the world). This became apparent after the vice president of Sarcombank had a rhino horn valued at an estimated 4 billion Vietnamese Dong (134 530 €) stolen from his mansion in the Mekong Delta (Staff reporter for Thanhnien News 2012).⁴⁵²

8.4 Trust, quality control and the role of the horn assessor

Due to the high incidence of fake horn, criminal actors, traders and consumers employ a number of measures to ensure the authenticity of their acquisition. Criminal groups involved in sham or illegal hunting expeditions ensure that a trusted ally such as the horn organizer or smuggling intermediary attends the hunt or receives the horn immediately after the hunt, without the precious good changing hands in the interim. By being present during the hunt and the subsequent dehorning of the animal, rhino trafficking intermediaries and/or the Asian associates ensure the quality and the provenance of the horn, thereby resolving the coordination problems of valuation, cooperation and security. This mechanism is an important aspect of valuation of rhino horn when it lands in Asia. Smuggling intermediaries who coordinate both legal and illegal flows of rhino horn ensure that the horn dispatched at the

⁴⁵² The case is of Tram Be is also of interest as the banker was guilty of contravening CITES rules, namely the illegal possession of rhino horn. The rhino trophy was registered to a Vietnamese trophy hunter who had legally hunted the rhino in South Africa and gave the horn to Be as a gift (Staff reporter for Thanhnien News 2012). The gifting of trophy horn was not a criminal offence at the time.

point of origin is the same as the one that arrives on the other side. These smuggling intermediaries are closely connected by way of communication devices such as mobile phones or instant messaging on electronic devices, or the horn is marked with concealed signs only known to the intermediaries. The receiver would thus know whether the original horn has been tampered (Interviews with intermediaries, 2013). Of significance is the chosen route, mode of transport, the length of the flow (how many segments or intermediaries are involved), and who receives the horn on the other side. The shorter and more direct the route, the lesser the risk of tampering with the expensive illicit commodity. Should diplomats, law enforcement, customs, port or conservation officials be involved in the transportation or facilitation thereof, then the risk of defection is reduced as the person's position or status holds sway and "opens doors" (Interviews with smugglers, 2013).

Consumers, dealers and smugglers (Interviews, 2013) articulated a preference for trophy horn. Consumers and dealers, in particular, trusted the provenance of the horn if the dealer could provide proof of the hunting permit, the CITES import or export permit, or a photo of the supposed trophy hunt. This corresponds with the preference for wild rather than farmed rhino horn. When rhino horn was employed for medicinal purposes, consumers and doctors alike suggested that horn from wild rhinos was more potent⁴⁵³ than that of farmed animals. Hunting permits, photos and other official looking documentation, of course, can be falsified. If the dealer has a permanent address such as a shop, stall or residence from where she trades, then consumers trust such dealers and their product more readily (Interview with Chinese intermediary and consumers, 2013). A good reputation is cultivated over time and with sufficient exposure to the right clientele, which accentuates the importance of reputation and trust in resolving the coordination problem of cooperation and security in illegal markets. Word of mouth advertising through social networks allows credible and trustworthy horn dealers to stay in business (Interview with Chinese smuggler, 2013). Similar to the drug trade, the reputation of the dealer rises or falls with his or her last deal. Moreover,

⁴⁵³ The preference for wild rhinos is linked to the belief that the curative and especially detoxifying properties of rhino horn are linked to the rhino's diet of poisonous plants, thorns and brambles in Asia (Interviews, 2013). The preference for wild over farmed animal products is not specific to the rhino market. Research elsewhere has shown a preference for bear bile and tiger bone from wild populations (Economists at Large 2013: 11).

“scoring” rhino horn⁴⁵⁴ involves a pattern of interactions similar to that of a stereotypical drug deal involving wealthy drug users from the upper strata of society. Rhino horn cannot be procured on the open market, especially by unknown entities (compare with section on ‘Fake horn production and quality control at source’). Only law enforcement officials, journalists or tourists would attempt to buy horn from random people that they have ostensibly profiled as possible horn dealers (Interviews, 2013). A trusted member of one’s social network (such as a family member, friend, colleague or law enforcement official) introduces an aspirant buyer to the dealer. The dealer employs a number of safety precautions to minimize security risks (e.g. the person responsible for the referral has to act as a ‘go-between’ or buffer between buyer and dealer) and defection (such as advance payment).

Dealers prefer to enter into business arrangements with individuals whom they trust to pay the asking price for the right amount or quantity of horn – the preference is to sell whole horns or large quantities of horn as opposed to grams or pieces of horn (Interviews with intermediaries, 2013). The horn is usually pre-ordered, and as described elsewhere, the price of the horn is contingent on its weight, which is usually not available at the time of ordering. Immediate availability and low prices are viewed with suspicion; in other words, there should be a waiting period to allow the seller to source the horn and the price has to be pegged according to the known street value (Van/Tap 2008: 7, Interviews with consumers, 2013). The deal or exchange does not happen in a back alley or ‘bad part of town’ but at the buyer’s, referent or dealer’s residence or workplace (Interviews with consumers and intermediaries, 2013). The location of the deal serves the function of normalizing the transaction as it happens in respectful surroundings such as the private or public sphere of the transacting parties. It also provides another layer of security⁴⁵⁵ and legitimizes the deal as a business

⁴⁵⁴ It is important to differentiate between the process of actively seeking to procure or obtain rhino horn as opposed to the process of receiving rhino horn as a gift (the notion of gift-giving is explored in more detail in Chapter 3). The former action assumes agency on the part of the actor whereas the latter refers to an act of giving where the recipient is assumed to be a passive actor unless he or she were to reject the gift. In this instance, the actor moves from being a passive recipient to assuming agency and control over the exchange.

⁴⁵⁵ Illegal business transactions (including drug deals) are commonly believed to take place at locations that appear to guarantee the anonymity of the market participants such as hotel rooms, restaurants, and busy or isolated public spaces. The corollary suggests that the dividing lines between public and private lives and work and leisure are blurred. This provides a further layer of legitimacy to the horn trade as market participants allow the lines of division to be broken.

transaction that can be safely and legitimately done from one's place of residence or work. This suggests that market participants are not concerned about the potential fall-out, stigma or social sanctions that might obtain from dealing or consuming rhino horn by their inner circle of family, friends or colleagues, as these actions are not perceived as illegitimate. These deals nevertheless form part of an informal underground economy in big urban centres and stand in direct contrast to the open trade of wildlife contraband in peripheral locations removed from the prying eyes of the international community and local law enforcement.⁴⁵⁶ Unlike drug users, rhino horn buyers are usually not returning customers.⁴⁵⁷ Unless the

⁴⁵⁶ Reports (Amman 2012; Amman 2015b) and interviews with representatives of conservation NGOs in Vietnam (Interviews, 2013) suggest that wildlife contraband including rhino horn is traded openly in towns and villages close to Vietnam's north-eastern border with China. I was unable to travel to the northern regions due to time constraints. However, I undertook data collection and observations in the southern regions of the Mekong Delta, where smuggling activities were rife and law enforcement limited. The open trade of wildlife contraband in border towns corresponds with research elsewhere (Nijman 2010; Nijman/Shepherd 2014; Nijman/Shepherd 2015; Environmental Investigation Agency 2015) on the lawlessness and thriving illegal wildlife trade in neighbouring countries such as Laos, Thailand and Myanmar. Situated in a Special Development Zone and adjacent to China's Yunnan province, the town of Mong La in Myanmar has gained notoriety as the Asian response to the "sin city" of Las Vegas (Environmental Investigation Agency 2015). The tax-free zone caters almost exclusively to Chinese tourists who arrive to enjoy leisurely pursuits, forbidden or illegitimate in their own country such as gambling, prostitution and the consumption of endangered wildlife products (Environmental Investigation Agency 2015: 3). An EIA investigation found that shavings of rhino horn were sold in Mong La (Environmental Investigation Agency 2015: 10); however, there is a high probability that these shavings might be counterfeit or Ersatz horn in light of the findings of the current study. Based on regular surveys of markets in Tachilek and Mong La, Nijman and Shepherd (2015: 5) observe:

"The trade in Tachilek and Mong La occurs in openly, with protected wildlife openly displayed for all to see. Large cat skins were prominently displayed and many of the tiger bone wine vats had tiger skin hanging above them. During our nine visits we did not once experience any evidence of law enforcement with respect to protected wildlife. Traders were generally frank when discussing the trade without expressing fear for prosecution."

These findings suggest a core versus periphery bias with regards to law enforcement and social acceptance of open trade of endangered wildlife (drug and human trafficking is also rife in the region – as the area is part of the infamous *Golden Triangle* region). This bias is not uncommon: some border towns and regions operate differently from the laws and norms established in the core – the urban political and business centres of power, authority and influence – and the state may directly or indirectly sanction this state of affairs due to the high economic returns and taxes (the previous chapter deals with the suspension of legal rules and regulations in villages along the Mozambican border, immediately adjacent to the Kruger National Park). The long arm of the state is bendable, open to manipulation and criminal alliances in border regions, which are difficult to patrol due to geographical characteristics (Nijman/Shepherd 2015) or their special political and economic status (Environmental Investigation Agency 2015).

⁴⁵⁷ This excludes the category of investors who stockpile rhino horn as a growing asset with huge growth potential.

purchased horn serves the function of a gift, consumers procure horn on the basis of need and affordability.⁴⁵⁸

People in certain positions are assumed to be worthy of trust and respect by virtue of their status and role in society, as well as the access (to horn supplies) and influence the position confers upon them; consumers thus trust the provenance and authenticity of rhino horn if the supplier is either a law enforcement, customs or conservation official, or a diplomat with legitimate connections to the source (Interviews with intermediaries, Johannesburg and Massingir, 2013; consumers, Hanoi and Ho Chi Minh City, 2013). Law enforcement and customs officers had easy access to confiscated rhino horn while government officials and diplomats who had been posted to South Africa in the past, or family members of diplomats on mission in South Africa were also perceived as credible suppliers of rhino horn with direct links to the source country (Interviews with consumers and suppliers, 2013).⁴⁵⁹ A forensic scientist in Hanoi supported this assumption, stating that horn confiscated at the airport and brought in for testing by the police, customs or CITES management authority was usually the 'real thing' (Interview, Hanoi, 2013).⁴⁶⁰ Law enforcement officials are also known to exercise

⁴⁵⁸ In his theory of conspicuous consumption Veblen suggests that consumption of valuable goods correlates with the reputability of "a gentleman of leisure" (Veblen 1899: 123). Competition between "gentlemen of leisure" may lead to mass accumulation of valuable goods to upstage one another. Veblen argues that competition extends to a range of gifts, feasts and "costly entertainments" (Veblen 1899: *ibid*). It is thus not quantity but quality and diversity of valuable goods that matters. This assumption is consistent with my findings: I found no empirical evidence in the literature or during data collection that horn consumers had multiple horns on display. This seems to indicate that horn fulfils a symbolic function of signalling that its owner holds a certain position and status in society. In this instance, the quantity of rhino horn is irrelevant. However, possession of this valuable good serves as a 'place holder' for the owner to assert his or her rightful place in society. In essence, horn consumers are unlikely 'return customers' unless they are buying gifts for friends or business associates.

⁴⁵⁹ Amman (2015b) made a similar observation after talking to a horn dealer in the northern parts of North Vietnam who had his horn stocks confiscated by members of the drug enforcement unit claiming that they would pay the dealer later.

⁴⁶⁰ I was offered and shown rhino horn on many occasions in Hanoi and Ho Chi Minh City. Interestingly powdered rhino horn had fallen out of favour, largely because it was so difficult to distinguish it from any other powder. Moreover, the primary use of rhino horn had shifted to status-uplifting and investment purposes. Traders and consumers were offering pieces, disks or entire horns. There was little doubt that Asian samples were fake because there are simply not enough Asian horns in existence to trade in the 'open' market. Without having a DNA kit available, the chutzpah to smuggle samples out of Vietnam to have them tested later nor being an expert in identifying rhino horn, I would nonetheless support the notion that horn sold on the open market (i.e. in TCM or TVM apothecaries, medicine stall and wholesalers) is largely fake or Ersatz whereas horn derived from social control agents and diplomats is authentic. The daughter of Stage 4 prostate cancer patient related how her father obtained a prescription for rhino horn from the same doctor who treated former President Nguyen Minh Triet for prostate cancer (see also the section on the cancer myth in Chapter 3). She obtained 50 grams of rhino horn from a trusted source that works for the anti-smuggling authority in Hanoi. She explained:

their position of power to seize illegal horn stocks that never enter the legal chain of custody but are laundered directly into illegal market flows (Interview with TCM trader and intermediary, 2013).

For those with no privileged access to real horn suppliers, the fall back option is to obtain an independent assessment of horn authenticity. As laboratory tests are expensive and carry the risk of detection and horn confiscation by law enforcement authorities (Interviews, Hong Kong and Hanoi, 2013), a new role has emerged for practitioners of TVM or TCM in the cities of Ho Chi Minh City, Hanoi and other urban centres: the role of the horn assessor. TVM/TCM doctors still fulfil the role of primary healthcare providers in Vietnamese society (Drury 2009). In addition to assuming an important role in the horn valuation chain, the judgment, sanctioning and assessment of TCM doctors is valued intrinsically due to their status and position in society. Moreover, a code of honour similar to western notions of doctor-patient privileges obtains to the relationship between the horn assessor and client. An assessor thus would not report a client (usually also his/her patient) for possession of rhino horn to the authorities. Despite its illegal status, the use of horn is deemed a legitimate practice and morally acceptable to a broad sector of Asian society (Drury 2009; Milliken/Shaw 2012; Nowell 2012b), including the TVM/TCM doctors turned horn assessors who mingle among the upper strata of society.

Consumers who are unsure of the provenance or quality of the offered horn can take samples, disks, pieces or powdered rhino horn to these horn assessors to test whether “it’s the real thing”. Fraudulent or scam ingredients are not uncommon in Chinese medicine. A whole body of literature speaks to the phenomenon and assists laypersons by providing pictorial depictions and diagnostic keys to distinguish the real from the fake (Nowell 2012a: 33). Three horn assessors (independent of each other) invited this researcher to attend horn assessments. While there were slight nuances to the individual assessments, the assessors all tested the colour, smell, taste, density and composition of the horn. These tests involved no DNA-analysis or modern instruments; instead, assessors relied on their five

“I got it from my customer who usually stay at my hotel. He works for the smuggling department. Normal people cannot buy it...I got the good price from him because he is my regular customer.”

senses and auxiliary tools like torches and scales. Due to strong social network links and the perception of doing a service to society, these assessors expected no payment for their services. The assessor is rewarded generously in kind (i.e. with rhino horn) if the horn is found to be genuine. Horn assessments can lead to conflict between seller and buyer (Anh 2014). This is especially the case when sellers realize that they have fallen prey to fraudsters further up the supply chain, and they will not be able to recoup their money.

A noticeable side effect of the high incidence of fake horn and associated fraud is that few TCM or life-style consumers are willing to buy processed powdered horn (except rhino pills – see below). Potential buyers insist on proof of provenance. In cases where the paperwork is non-existent or missing (like the abovementioned hunting permits), consumers want to see and examine the full horn, and when it is financially affordable the entire horn is purchased (Interviews, 2013). TCM doctors correlate the increased incidence of illegal rhino killings with the high number of fake horns in the market. Whereas consumers used to buy small quantities of rhino horn in the past, they have to dig deeper into their pockets to buy a whole horn, which is a form of quality control and insurance policy. Says a TCM doctor in Hong Kong (Interview, 2013):

“One reason that rhino are killed more is because when patients want to get the real rhino horn, they must get the whole horn to ensure it is real. They use very little, the rest of the horn is wasted.... [...] ... If we use rhino horn we just use 3 to 5 grams per day. We can't take it for a long time, not longer than two weeks. If you buy in China, you should go to the very big pharmacy shop. Some of them have good credit because they are operated by very big medical group so they can be trusted.”

While the citation refers to the medicinal use of rhino horn, data collection on the African and Asian side confirmed a market preference for whole horns of other user groups too. Those seeking to show off their wealth by displaying rhino horns, investors and gift-givers preferred whole rhino horns to horn disks or powder for obvious reasons. Quality control, financial as well as aesthetic considerations, explain this market preference.

The construction of trust between different actors within this type of market exchange is linked to a number of factors, of which at least one is necessary for an exchange to occur. Key factors include the reputation and status of the dealer and whether the initial introduction

between dealer and buyer is achieved through close or weak social links. Moreover, location (business or private residence), time considerations (speed of horn delivery) and integrity of the horn (whole horn versus horn powder or disks) are important, as well as the choreography of the deal (does it follow expectations and cultural norms?). Should these factors fail to impress the prospective buyer, the fall back option is to employ the services of a horn assessor. The reputation and social position of the assessor are determining factors whether his or her ruling is accepted.

8.5 Rhino horn pills: Trust in factory-produced medicines

The citation of the Hong Kong-based TCM practitioner in the previous section makes reference to the trustworthiness of Chinese pharmaceutical corporations,⁴⁶¹ which is a significant observation per se and worthy of further analysis. Similarly, other TCM wholesalers and some consumers inferred that the ingredients of factory-produced medicines were superior, credible and genuine whereas small traders and doctors had to improvise or substitute should an ingredient be unavailable (Interviews, 2013). Trust in medicines that are pre-packaged, carry a visible (not necessarily known) logo is consistent with consumer

⁴⁶¹ The business concept and approach of multinational pharmaceutical corporations (big pharma) are progressively viewed as unsustainable in Western societies (Hunter/Stephens 2010). The operational focus on chronic diseases and medicines that promise huge profit margins is seen as misplaced if not inhumane. Start-ups and corporations are increasingly moving into niche markets in an attempt to secure “niche busters” as opposed to “blockbuster medicines” (Dolgin 2010). As distrust of corporations is growing (especially in the anti-globalization and Occupy movements) across many parts of the world, segments of Western societies are turning to natural or combination therapies. The inability to cure major diseases, the huge profit margins and the side-effects of “blockbuster” medications and failure to roll them out at affordable prices to patients in the Global South have invoked criticism and questions as regards the motifs driving pharmaceutical companies (Barsh 2001). It would thus appear counterintuitive for Asian consumers to trust factory-produced medication over medicines dispensed by known family doctors or pharmacists. When asked about this apparent disconnect, consumers related how Asian pharmaceutical companies managed to combine the “old” with the “new”; in other words, companies were distributing traditional medicines using modern technologies to growing numbers of consumers. There has been a renaissance of traditional medicine in large parts of Asia including Vietnam and China, encouraged and supported by the political elite (Drury 2009: 44–46). In the wake of this renaissance, pharmaceutical factories and corporations have mushroomed across the region, specializing in the production of wholesale ingredients or processed traditional medicines. In light of the high incidence of fake ingredients in TCM (not only in rhino horn medicines), but it is also reasonable to assume that some consumers would display a market preference for factory-produced medicines based on trust in the reputation and delivery of genuine products of such companies. Interestingly, many medicines stalls and practitioners carry both factory-produced TCM products and raw ingredients of medicines so that doctors and patients can prepare medical preparations.

research into counterfeit pharmaceuticals elsewhere (compare with: Hornberger 2010; Hübschle 2010-2011).⁴⁶²

TCM traders and consumers referred to a rhino horn pill produced in China, which supposedly contains powdered rhino horn. Vietnamese shopkeepers and stallholders revealed that the rhino horn pills contained not only rhino horn but also gold and other herbal ingredients. One dealer explained the use of the pill as follows:

“ It is recommend to drink three pills a day. It is very good for people having a disease like stroke, high blood pressure, and it helps with hangovers. When someone gets drunk, you take a pill, the next morning you will feel completely normal.”

Upon closer inspection of the pills on sale in the back chamber of a TCM wholesaler, the Mandarin dosage form indicated water buffalo horn as the main active ingredient. When asked about this, the shopkeeper explained that the form “lied” to conceal the real ingredients because it was forbidden to sell rhino horn (Interview, 2013).⁴⁶³ She and other TCM dealers expressed no reservations or scruples as regards the sale of an illegal commodity (rhino horn) or a fake substitute (water buffalo pills). The price of the pills ranged between 250 000 to 700 000 Vietnamese Dong (8.90 € to 24.80€), which in itself was an indication that the rather large pills (2 cm in diameter) wrapped in intricately carved wooden boxes might contain no real rhino horn. The dealer explained that the price range was linked to the amount of rhino horn contained inside individual pills. It is doubtful that any registered pharmaceutical company would produce illegal medicines in the current regulatory

⁴⁶² While health practitioners and patients supported factory-produced medicines in southern Africa, the price was a significant consideration in choosing medicines. This is particularly pertinent in light of the notion of intellectual property rights in debates governing the use of original versus generic medicines and the high incidence of counterfeit medicines with unknown health impacts (Hübschle 2010-2011).

⁴⁶³ Research into counterfeit pharmaceuticals (UNODC 2009; UNODC 2010) has shown that it is very hard to distinguish the packaging of originals and counterfeit medicines. Some pharmaceutical corporations have introduced barcodes to protect consumers against the purchase of counterfeit medication. The consumer verifies the authenticity of the pills by checking the code via text message or through a barcode scanner on their mobile phone (World Health Organisation/International Medical Products Anti-Counterfeiting Taskforce 2012). I tried to establish whether counterfeit rhino pills were a problem and what recourse consumers had should they buy ‘fake’ pills. The stated “true” ingredients of the pills were of no consequence to sellers and consumers. This finding appears to support data that horn consumption and possession increasingly fulfils status uplifting rather than health functions.

environment unless it were state-sanctioned. Water buffalo was the likely main active ingredient in the pills.

One Chinese pharmaceutical company has however been on the radar of conservators and journalists alike (Beech/Perry 2011; Cota-Larson 2013; Nowell 2012a) due to its professed objective of producing pills from rhino horn shavings. In 2006, the Long Hui Pharmaceutical Company announced plans to farm rhinos with the objective of “rhino propagation and scientific research” (Long Hui Corporation 2006: 1). The “Shaving alive rhino horn technology and rhino horn pharmacological study” would see horn shaved off live animals by means of “self-suction living rhinoceros horn scraping tool” for medicinal purposes (Long Hui Corporation 2006: 4; Beech/Perry 2011). The business plan (translation by the Rhino Resource Centre: Long Hui Corporation 2006) stated:

“Rhino horn is very important in traditional Chinese medicine field due to its following effects: detoxification and anti-cancer, eliminating pathogenic heat from the blood, removing eczema. Rhino horn resource is rare because rhino are protected by World Organization and nobody shall catch and kill them or do trade activities on rhino horns. Chinese government encourages people to develop new substitute for it, but no substantial progress has been made. Therefore, rhino horn market demand will be great.”

The company proposed the production of several types of pills and tonics containing rhino horn. The business plan has been taken off the company’s website in the interim as it clashes both with CITES rules and Chinese domestic laws, which ban any use of rhino horn unless its purpose is to research viable substitutes for use in medicines (The People’s Republic of China 1993). A *Time Magazine* exposé suggests that Longhui is a subsidiary of large weapons manufacturer – the Hawk group – with strong links to the highest echelons of the political elite in China (Beech/Perry 2011). Environmental activists claim that Longhui has established two rhino farms in China stocked “with dozens of rhinos imported from South Africa” (Welz 2012). Parliamentary records confirm that at least four South African white rhinos were exported to a Longhui “breeding facility” in 2010 (Molewa 2012b) and officially, a further 68 white rhinos were exported to China in the period 2007 to early 2012 (Molewa 2012b).⁴⁶⁴ It

⁴⁶⁴ China and South Africa’s official import and export numbers of live rhinos do not correspond (also compare with Chapter 4), which led to a brief moratorium on the sale of live animals. According to CITES data, South

remains unclear whether any horn harvesting has taken or is taking place at any Chinese breeding facilities (Milliken/Emslie/Talukdar 2009: 7).⁴⁶⁵ Chinese state officials vehemently deny any extracurricular activities involving the dehorning or shaving of imported rhinos at the CITES CoP 15 in Qatar (Beech/Perry 2011). Conservators have however queried the high number of African white rhinos exported to China for the purpose of range expansion when the region is climatically different from the white rhino's natural habitat (Cota-Larson 2013).

8.6 Fake horn production and quality control at the source

According to law enforcement officials and criminal actors (Interviews in Mozambique and South Africa, 2013), there is “willing seller, willing buyer” for every rhino horn in southern Africa; in other words, horn ‘producers’ do not have to search for buyers as the horn is pre-ordered and demand outstrips supply. The only horn “floating around” is “a guy looking for a buyer with a false horn” (Interview with law enforcer 4, 2013). Greedy individuals hoping to “make a quick buck” have fallen victim to fake horn dealers. As is the case in Asia, cheated individuals have no recourse to the law as they were dabbling on the wrong side of the law. A biodiversity investigator with a sleigh of *Schadenfreude* said (Interview, 2013):

“We have got guys here that went and got bank overdrafts to buy rhino horn and when they got it. It was false horn and they are still paying off their bank overdrafts.”

Horn buyers and intermediaries fulfil a similar role at the source. Like their Asian counterparts, they use a good dose of common sense and the mantra “if you are African, you will know” (Interview with convicted poacher 16, 2013). A transporter explains (Interview with intermediary 2, 2013):

“Rhino horn is very tough material, even how much you try to crush it down, you cannot crush it. Even how much you try to hit it on the floor or on a rock, you cannot

Africa exported 193 rhinos between 2006 and 2009 while recipient countries reported the import of 235 rhinos (Milliken/Emslie/Talukdar 2009: 7)

⁴⁶⁵ A research informant visited a state-run breeding facility in 2013. The delegation was reportedly shown healthy rhinos but none of their progeny. There were no signs of horn harvesting; it would appear unlikely that foreign visitors would be given privileged access however positively inclined they might be towards the farming or harvesting of rhinos.

crush it. But with fake horn, it breaks. Horn material is easy to identify. For me, I grew up in the rural areas and I almost know all kinds of horns. Game horns, domestic animal horns, horns – I know a number of them so I can easily identify them: this one is a horn, this one is a rock... The article, how much you can get for it...”

The quality of fake horn varies from intricately cut wooden horn replicas to Ersatz horn made out of resin. African-based scammers have to deal with the familiarity of buyers and smugglers with horn, finer details such as the smell of freshly-harvested horn (with all the blood and gore) have to be considered in the production process. A convicted horn smuggler related as follows (Interview, 2013):

“They put some other blood of what it smells like because it has a smell. Very, very bad smell. That smell I know it. If it is another smell, I know it's not the real one. You know the thing is, they used to put shampoo or Colgate – if you mix it, it takes away the smell. If you take the shampoo, you can't smell it, not even the dogs.⁴⁶⁶ So when it comes for us to test, we use a hammer. You must hit it, almost 3 times. Very hard. You hit it in the middle. The real rhino horn will never break. But if it is a fake one, it will break.”

Sophisticated fraudsters also dress up in the uniforms of actors who would have legitimate access to rhino horn; uniforms of KNP rangers and the requisite ranger regalia, for example, carry “street cred”⁴⁶⁷ and persuasive value because the carrier of such a uniform is recognized as someone working in the KNP with direct access to rhino horn. While some rangers are complicit in the illegal supply chain (compare with the previous chapter), they are not the primary scammers. These uniforms may land up in the hands of scammers through indirect family, community or friendship networks.

Rogue wildlife professionals and rhino owners who sell rhino horn illegally from stockpiles only transact with known and trusted peers. Several wildlife ‘kingpins’ and intermediaries fulfil the role of quality control, transportation and other functions linked to this illegal market exchange. Farmers and wildlife professionals are socially embedded within a small homogeneous wealthy group of landowners that are tied together by a common political

⁴⁶⁶ Shampoo or toothpaste is used to conceal the smell of rhino horn from sniffer dogs specifically employed to search for rhino horn and wildlife contraband on travellers or in their belongings.

⁴⁶⁷ Also known as ‘street smart’, ‘street cred’ is colloquial for acceptance of someone amongst young people in urban settings. It also refers to an actor’s ability to interact at street level.

outlook, culture and tradition and a good dose of survival instinct in light of political transformation and the changing of the political guard, which carried uncertainty as to the question of land ownership and restitution.

8.7 Cooperation between ‘con-men’ and dealers

Rhino horn “con-men”⁴⁶⁸ and ‘real’ horn dealers tend to co-exist in harmony, mutually benefiting from each other’s business. According to a former Asian intermediary currently incarcerated in a South African prison (Interview, 2013), criminal actors on both ends of the supply chain would knowingly buy high-quality fakes from ‘con-men’. Criminal actors procure fake rhino horn for two purposes. The fake horn⁴⁶⁹ is either used as a decoy to distract law enforcement officials from big consignments of ‘real’ horn passing through a port of entry or entrepôt, or to replace real horn taken from government stockpiles and police safes (where confiscated horn from customs interdictions and criminal cases is stored). In the latter case, South African law enforcement or conservation officials would swap the horn with fakes and sell it to rhino horn traffickers. Criminal actors (Interviews in South Africa and Vietnam, 2013) confirmed that law enforcement officials also laundered confiscated horn into illegal markets on the demand side of the market. As observed earlier, confiscated horn from informal markets or TCM apothecaries seldom enters the official chain of custody and thus officials would not need to provide ‘Ersatz’ horns.⁴⁷⁰

The use of decoys, on the other hand, is similar to the ‘dead cows for piranhas’ ploy in transnational drug trafficking operations. A large number of drug mules are earmarked to serve as ‘dead meat’ thrown to ‘piranhas’ (law enforcement officers) to divert their attention

⁴⁶⁸ “Con-men” is short for “confidence men”, a trickster who manages to win someone’s trust to deceive them.

⁴⁶⁹ Criminal actors might also employ one or two small ‘real’ horns to distract law enforcement.

⁴⁷⁰ The high incidence of corrupt and illegal activities of law enforcement officials partially explains why rhino horn interdiction rates are particularly low in comparison to actual rhinos killed for their horn. The section on smuggling (see Chapter 7) provides further details on the sophistication of horn smuggling operations. It bears mentioning that an unknown number of illegally harvested rhino horn never enters illegal supply chains. Such horn is stockpiled for its rarity value and kept as an investment.

from drug smuggling professionals.⁴⁷¹ Rhino smugglers use fake rhino horn to distract law enforcement officials (Interview with smuggling intermediaries; Mozambique and South Africa, 2013). It would appear counterintuitive for criminal networks and transporters to sacrifice real rhino horn however small the quantity because of its high street value and the sophisticated transport methods employed to ship horn from supply to consumer markets. Vietnamese authorities reported several interdictions of comparatively small quantities of rhino horn ranging from 0,55 to 0,95 kg in 2013 (Interview with government official, Hanoi, 2013; data provided by CITES management authority, Vietnam), which suggests that the smugglers were “rookie” rhino mules,⁴⁷² opportunistic horn buyers or “sacrificial lambs”. The smuggling of fake rhino horn is regarded a far less serious offence than smuggling real rhino horn in Asia. On-line searches and interviews identified two cases of fake rhino horn reported to law enforcement: a suspected smuggler was released after a rhino horn in his possession turned out to be fake in Chitwan National Park in India (Hindustan Times 2013) and an Indonesian court sentenced a man to 18 months in jail after he sold 70 fake Sumatran rhino horns (Deutsche Presse Agentur 2004). In South Africa and neighbouring Zimbabwe, the smuggling or possession of fake rhino horn also obtains penalties (Muleya 2014; Hosken/SAPA 2012).

8.8 Fake antique libation cups and the notion of ‘pre-Convention’ rhino horn

Another form of deception involves the conversion of real ‘raw’ horn into fake antique libation cups and other ornamental carvings. These *objets d’art* are sought after artefacts in Asian markets, the US and amongst art collectors and connoisseurs of Asian antique carvings (United States District Court 2013: 2).⁴⁷³ A 2013 court case heard by the United States District

⁴⁷¹ Typically the drug syndicate would tip-off law enforcement about an expected drug delivery. While law enforcement deals with the tip off and is sufficiently distracted, other drug couriers with larger quantities will pass through ports of entry undetected (Hübschle 2008).

⁴⁷² ‘Rookie’ is a colloquial term used for a person that is inexperienced, a first-timer or amateur.

⁴⁷³ Libation cups have become highly valued and coveted artefacts over the past decade, spurred on, amongst other reasons, by the high prices achieved at auctions of renowned internationally recognized auction houses (see also Chapter 3). A story that achieved world notoriety involved an anonymous collector picking up a 17th-century Chinese libation cup for \$ 4 (Australian \$) at a Sydney charity shop and selling it for \$ 75 640 through Sotheby’s Australia a few months later. The Chinese ‘Ding’ bowl sold for US \$ 2.225 at Sotheby’s New York

Court in the district of Jersey (United States District Court 2013) involved the owner of an antique business in China, Zhifei Li who had procured and smuggled rhino horn and *objets d'art* made out of rhino horn and ivory from the US through Hong Kong to China. The case is noteworthy as it illustrates firstly, the global nature of rhino horn trafficking, and secondly, the sophistication and innovative techniques of those involved in the procurement and smuggling of processed and raw rhino horn across the world. Li admitted to selling and smuggling 30 raw rhino horns to factories in China where raw rhino horns are carved into fake antiques known as *zuo jiu* (Mandarin for “to make old”). The extraordinary valuation of rhino horn was evident when the scraps from the carving process were sold on the illegal medicines market (US Department of Justice 2013). As ringleader of a transnational trafficking operation, Li also received and sold artefacts made out of rhino horn or ivory from accomplices in Europe and the US, and procured art objects on an internet auction website and through phone bidding. Li would provide photos of the artefacts to a group of wealthy Chinese nationals. If they were interested in purchasing the offering, then they would have to make an advance payment (United States District Court 2013: 8–9), suggesting that they shared the same social network. According to the court papers (United States District Court 2013: 16), Li also made claims that “he did not buy “fresh horns” but only horns that were 50 years old”, and that no CITES permits were required for pre-Convention horns. Both claims were not true but point to another form of deception and fraud, namely the sale of pre-Convention horn. This ploy has been used to smuggle and trade rhino horn (and ivory), ostensibly attained from hunting trophies and artefacts pre-dating CITES.

8.9 Conclusion

This chapter illustrates how actors bridge several coordination problems, of importance to the unhindered flow of rhino horn, namely the coordination problems of value, cooperation and security. In light of the high price of rhino horn, it is not surprising that criminal entrepreneurs, as well as actors from the legal sector, have seized a thriving business

auction in March 2013. The seller found the famous bowl at a neighbourhood tag sale in 2007. Unaware of the potential value, the bowl was bought for \$ 3 (Cockington 2013).

opportunity through the production of fake rhino horn. The high incidence of fake horn in circulation poses a problem to horn suppliers and consumers alike. Both actor groups have developed mechanisms to ensure quality control and proof of provenance. Intermediaries and smugglers do not only ensure quality control but also the secure transfer of precious horn consignments. The level of cooperation is complex as well as sophisticated as it links suppliers to consumers. Those consumers who cannot rely on trust-worthy referrals from within their social networks, hire the services of horn assessors. What is curious about certain types of fake rhino horn is its high street value, further accentuating the sacred value of rhino horn in consumer markets. The fact that consumers are willing to pay good money for fake rhino horn reinforces that many consumers appreciate rhino horn as a status symbol.

Conclusion: How can the rhino be better protected?

“I don’t believe that we can stop the hunting as long as there are rhinos, the hunting will continue. And as long as Chinese are still here, it’s impossible to stop (Interview with poacher, Massingir, 2013).”

“The only thing that can stop hunting is if the government speaks to people like me, the experienced and the big bosses because we know the business, and who goes to hunt where and when, we also know the buyers. We can help the government to arrest all those who do rhino poaching (Interview with kingpin 3, Massingir, 2013).”

“I don’t think that giving rhinos to farmers and communities will be the solution. The demand is too big. Say you cut two horns from your rhino and the Chinese have ordered five horns, so you will be forced to go and hunt for three more horns (Interview with rhino kingpin 1, 2013).”

Why has the rhino not been better protected?

The leading research question of this dissertation asked why the rhino has not been better protected despite the myriad measures employed to disrupt the market. A theoretical framework grounded in the sociology of markets was used to explain the structure and functioning of the illegal market in rhino horn. It was argued that a sociological study of valuation, competition, cooperation and security in the illegal market for rhino horn could assist in understanding the reasons why it is so difficult to disrupt the various flows of rhino horn. Central to the analysis was the idea of a historical lock-in and the concept of “contested illegality”, a legitimization mechanism employed by actors to justify illegal economic action in contravention of the law on the books, or used to defend the exploitation of legal or regulatory loopholes. The following sections summarize the findings, ending with an assessment of the rhino’s long-term chances of survival.

The sacred value of rhino horn

Cultural beliefs led to the sacralization of rhino horn in Asian communities; however, the animal itself is not imbued with sacred value. The valuation of rhino horn in consumer markets tends to trump conservation and anti-poaching initiatives in places geographically far

removed from the consumer. The sanctity of ancient beliefs and socially accepted norms not only supersedes rhino conservation initiatives but also international trade bans and domestic rules. The history of the cultural use of rhino horn highlights the difficulties associated with attempts to reverse social norms that are supported by cultural beliefs but out of sync with modern regulations. While few consumers uphold the quasi-mythical valuation of rhino horn as miracle cure for a bouquet of ailments, its transcendental and sacred value remains, and explains, in addition to the increasing rarity of the species and its use as a status symbol, the high price of rhino horn. The high price on the consumer market has led to comparatively high disbursements for rhino horn on the supply side, facilitating the entry of new horn producers (rhino poachers). The dissertation argues furthermore that trophy hunters were crucial to the economic valuation of rhinos on the supply side. In this instance, rhino horn is appreciated for its symbolic value. Both the economic and cultural valuation have led to the high demand for rhino horn, thus resolving the coordination problem of value.

Historical lock-in

The dissertation showed that rhino conservation and protection have been closely linked to colonial land appropriation, subjugation, exploitation and loss of hunting rights of local and indigenous communities. The privatization of farmland and wildlife in South Africa heightened the alienation and marginalization of local communities further, creating a huge rift between local people on the one hand, and conservation areas and wild animals on the other.

Exacerbated by the high number of deaths of poaching suspects in parks, the prevalent sentiment among many locals is one of the wild animals getting valued more than black lives. This sentiment is also employed as a legitimization tool. Rhino horn is not only hunted for its financial but also for its symbolic value. The symbolic value of rhino horn is linked to the historical lock-in and systematic disenfranchisement of the rural communities living around protected areas. Underpinning these conservation regimes are archaic and elitist preservation and conservation paradigms that discount the potential for harmonious relationships between local communities and wildlife. In the modern context, parks and game reserves continue to present manifestations of colonial dispossession and apartheid segregation. Conservation areas are seen as symbols of elite interests and wealth, inaccessible to the poor

majority. These problematic conservation approaches and paradigms have led to a historical lock-in, where romantic and utopian notions of 'Africa's Wild Eden' continue to undermine the support and buy-in from local communities in wildlife conservation.

Contested illegality

The notion of '*contested illegality*' was introduced as a legitimization strategy of important actors who justify their participation in illegal or gray flows of rhino horn based on the perceived illegitimacy of the rhino horn prohibition. The process of illegalization of the trade in rhino horn commenced in the late 1970s when the multilateral environmental treaty CITES entered into force. Prior to that, economic exchanges involving rhino horn were either legal or undetermined. The diffusion of the trade ban at the domestic level in range, transit and consumer countries has succeeded to varying degrees. The dissertation highlighted important actors such as public officials, law enforcement officials, wildlife professionals, local communities and criminal actors who do not accept the law on the books for a variety of reasons including the perceived unfairness of the ban, divergent social or cultural norms that clash with the ban, or for politico-historical reasons. Contested illegality is linked closely to the coordination problem of valuation. For example, consumers who value rhino horn as a sacred good are unperturbed about breaking the law when purchasing rhino horn. In addition, both suppliers and consumers display a sense of entitlement. These actors feel that they have a right to use natural resources, which the law prohibits. There is thus a cognitive dissonance between the law on the books, cultural practices and social norms. While rural communities continue to feel that the state and other non-state actors value rhinos more than the lives of black people, poaching is likely to obtain limited negative sanctions and continue unabated. The notion of contested illegality also facilitated this research project greatly. Actors who do not believe in the legitimacy of the trade ban had no qualms to share their insights on illegal economic action.

The interface between legality and illegality

One of the key findings was the involvement of actors from the legal sector such as wildlife professionals and public officials in the illegal and gray flows of rhino horn. Bolstered by sentiments of contested illegality, such actors have no qualms to exploit or bypass regulatory loopholes. These actors belong to influential and transnational social networks with links to political and economic elites in supply, transit and consumer countries. While conventional narratives point to the involvement of organized crime in transnational rhino horn flows, this label is only correct if wildlife professionals and state officials are subsumed under it, and the dominant role of local actors is acknowledged (as opposed to the othering of foreign criminals – organized crime as an ‘alien conspiracy theory’). The dissertation showed that state actors facilitated the economic valuation of rhino horn on the supply side by privatizing rhinos. The international regulatory protection regime is riddled with ambiguities such as allowing the trophy hunting of rhinos, which usually leads to a hunting trophy (a status symbol) while prohibiting other not dissimilar uses of rhino horn (such as objets d’art or status symbols). The juxtaposition of white trophy hunter⁴⁷⁴ versus black poacher is eye opening. While wealthy trophy hunters are allowed to kill rhinos for a fee (ostensibly hunting profits are employed to serve conservation objectives), locals with no economic resources are stigmatized as poachers when trespassing and hunting wild animals on land that was formerly theirs. The interface between legality and illegality thus relates to agents of the state facilitating illegal flows, the existence of legal and illegal means of horn ‘production’ and legitimate and illegitimate uses of rhino horn, as well as an arms race between state actors and their close anti-poaching associates on the one side, and poachers and local communities living in close vicinity or in parks, on the other. This interface between legality and illegality has led to ambiguity as to what is legal or illegal. The gray area has led to ample opportunities to bypass formal rules, aiding and abetting illegal economic action.

⁴⁷⁴ There are also poaching groups consisting of white poachers. For example, incidents of so-called “chemical poaching” involved wildlife veterinarians, game capturers, helicopter pilots and professional hunters who use veterinary drugs to anaesthetize rhinos. The animal is dehorned once it is sedated, and the horn is sold to buyers.

The resilience of flows

The metaphor of flows was employed to show the adaptability and resilience of flows. However, the historical lock-in created through the implementation of archaic conservation paradigms, the regulatory backdrop and the resultant expression of contested illegality have created favourable conditions for the illegal market in rhino horn to grow and flourish. Rhino poaching did not emerge from a vacuum, factors such as the historical lock-in, the sacred value of rhino horn and contested illegality facilitate the resilience of rhino horn flows and undermine protective measures. Various chapters showed how actors managed to resolve the coordination problems of value, cooperation, competition and security. By resolving these issues, actors created a bridge from African savannahs to Asian markets. While analyses of legal or formal markets focus on the coordination problem of value, cooperation and competition, it is argued here that actors in illegal markets have to deal with an additional coordination problem, that of security. Although actors in legal transnational markets may likewise institute security precautions, the need to exercise caution and implement a security plan is more pressing in illegal markets. Not only is the security of illegal market participants at stake but also the continuity of the supply chain. Especially in cases where high-value contraband such as rhino horn is transported, actors need to ensure that the good is not intercepted en route to the market. Usually, the safest and most expedient method involves facilitation and/or transport of rhino horn by untouchable agents of the state, including diplomats and law enforcement officials. Beckert's theory of social order in legal markets stresses that actors want to create "stable worlds" by resolving the coordination problems of value, cooperation and competition (Beckert 2009). It is argued here that actors in illegal markets thrive on chaos and unpredictability. While they reduce uncertainty by addressing security concerns, collaborators, flows and routes change frequently. It stands to argue that illegal markets thrive in a state of disorganized crime or organized chaos. Many of the illegal activities described in this dissertation flourish because illegal market actors are adaptable and resilient, and not hamstrung by bureaucratic rules of engagement that slow down law enforcement responses.

The structure of the market

The dissertation has focused on legal, gray and illegal flows of rhino horn while also presenting an overview of the production and function of fake and Ersatz rhino horn in the overall market for rhino horn. These flows were presented as distinct entities for the purposes of analytical clarity. However, these four flows are interconnected and form a composite whole. In essence, the market in rhino horn is constituted of hybrid complex flows that involve recurring actors who hold social capital. The dissertation stressed the role of intermediaries who play the role of connecting producers to consumers. Intermediaries have access to transnational social and criminal networks and knowledge of the 'product' and regulatory loopholes. While Asian nationals were often involved in transnational transport facilitation, local intermediaries such as the poaching kingpins and wildlife professionals provide the most crucial bridge between Africa and Asia. While horn producers are mostly closed homogeneous groups, these local intermediaries are worldly, connected and prone to taking calculated risks that open new opportunities and business ventures. As mentioned in the earlier section on the interface between legality and illegality, the dissertation cautiously applies the idea of the involvement of organized crime due to its traditional association with foreign mafia-type groups. It stands to argue that both legal and criminal actors constitute organized rhino crime. It is acknowledged that several pipelines out of Africa involve professional smugglers who have expert knowledge of smuggling both legal goods and contraband along transnational flows. Pivotal to understanding the architecture of rhino horn flows is a nuanced awareness of how the economic valuation of rhinos by way of privatizing ownership rights (the conversion of a public good to private ownership), the colonial history of land appropriation and conversion of indigenously-owned land into conservation areas has opened the proverbial can of worms in the South African case.

Theoretical contribution

The dissertation contributes to Beckert's theory of coordination problems by introducing the coordination problem of security, which is of relevance to actors in transnational and illegal markets. While various scholars have written about the notion of contested illegality, it is

introduced as a mechanism employed to legitimize illegal and gray economic action. While it is difficult to generalize from one case study, the illegal market in rhino horn appears to present an ideal type. Structural conditions tied to the historical lock-in, contested illegality, the participation of actors from the state and legal sector, and the interface between legality and illegality create the perfect environment for the illegal market to flourish.

Parting words

In conclusion, the title of this dissertation is borrowed from a popular TV series that dramatizes conflict between ruling royal elites in a medieval phantasy epic. Since embarking on the journey of researching rhinos, I have been amazed by the emotions, conflict and moral panic this majestic creature inspires amongst a rather diverse group of people. Once I was in the thick of the research, it felt like I was observing a drama unfolding in front of my eyes: Tugged away in their fortresses kings, queens, scribes, advisors and companions were pitted against conquerors, reformers and the people – all surviving in a rather uncertain environment. The dissertation touched briefly on the role of the international community, conservation NGOs and private individuals who are fundraising to save the rhino. These funds seldom reach the places where they could achieve tangible results that affect changes on the ground. Instead of dedicating monies to the militarization of anti-poaching measures or paying inflated salaries to NGO staff, the state, the conservation community and international donors should support initiatives that affect positive changes for local communities living close to parks. Consultation should be done in a bottom-up fashion so that the voices of marginalized people are finally heard. Local communities need to be given agency to co-determine their livelihoods, the outlook for conservation areas and the wild animals contained within them. Only once gains from wildlife and parks enhance the well-being of local communities, live animals and parks will be attributed with value (be it intrinsic or instrumental), and rhinos will have a fighting chance. Unfortunately, this dissertation topic does not examine a game or a drama series; it deals with the real-life issue of the possible extinction of a wild animal. Unless we change course, the rhino and other creatures will be relegated to natural history books.

Appendix A: Research sites and maps

The following places were visited during the course of this research project:

- KwaZulu–Natal (KZN): The south-eastern province of KwaZulu–Natal is home to the port city of Durban, several national parks including Hluhluwe–iMfolozi, Mkuze, iSimangaliso Wetlands, Thembe Elephant Park and the private game reserve Phinda, all of which were visited.
- Limpopo Province: The northern province of South Africa shares borders with Zimbabwe, Botswana and Mozambique. Many private game reserves and farms are located in this province, which is also home to a portion of the Kruger National Park and the UNESCO–recognized Waterberg Biosphere Reserve.

Map 2: Map of South Africa



Source: <http://www.safaribookings.com/parks/south-africa> (accessed 2 July 2014)

- Mpumalanga Province: The eastern province of South Africa borders Swaziland and Mozambique and holds the southern sections of the Kruger National Park. The capital

city Mombela, formerly known as Nelspruit, and the town of White River were important pit-stops.

- Gauteng: Johannesburg, South Africa’s business centre and the administrative capital of South Africa, Pretoria, are both located in the Gauteng Province. National departments (ministerial offices), law enforcement agencies, the national prosecutorial authority (NPA), NGOs and professional associations are also housed in this province.

Map 3: Map of the Kruger National Park, Limpopo National Park and Massingir



* Limpopo National Park (Mozambique) - bordered by the Limpopo River in the east, the South African border to the west and Lake Massingir in the south. Map shows point A, which is the town of Massingir.

MAP - Southern Mozambique parks, Zimbabwe & Kruger National Park

Source: Map provided by Brian Sandberg⁴⁷⁵

- Kruger National Park (KNP): Two trips were made to South Africa’s flagship safari park, the Kruger National Park where most of the world’s remaining rhinos live and are poached. At the invitation of the University of Pretoria, a joint presentation (with a

⁴⁷⁵ A detailed map is also accessible at: <https://goo.gl/maps/um6ky> (my creation)

former colleague) on researching sensitive subjects was given at the One Health Conference during the first month of fieldwork. The conference and subsequent networking opened many doors to engage with the conservation community, KNP and Mozambique. Upon receipt of the research permission, a further 3 weeks of intense fieldwork were undertaken in the Park.

- Mozambique: Many rhino poachers either originate or commence their cross-border hunting expeditions from small villages situated in close proximity to the Mozambican border with the Kruger National Park. The biggest village of Massingir was visited twice, and several smaller villages were also frequented. I also spent time in the Limpopo National Park, Chokwe, Belene and the capital city of Maputo.
- Swaziland: Upon completing fieldwork in the Kruger National Park, a road trip was taken through Swaziland en route back to Cape Town. The country's Game Act is both lauded as an exemplary piece of legislation because poaching carries a minimum jail sentence of five years (Ramsay 2014) and contested as draconian (Werksman/Cameron/Roderick 2014: 193).
- Namibia: Namibia is one of the four major rhino range states in Africa (Duffy/Emslie/Knight 2013b). The country's communal wildlife conservancies have become a model for community-based conservation and sustainable livelihoods. Historically, elephants and rhinos were hunted and traded by the South African Defence Force and its affiliates during the bush wars in northern Namibia and southern Angola (Reeve/Ellis 1995). At the time of fieldwork, no poaching incidents had occurred in recent history and the question arose, why Namibia was spared. Since then, poaching numbers have soared and theories that it was a matter of time for rhino poaching to sweep across South Africa's northern borders have indeed materialized (Duffy/Emslie/Knight 2013b: 6).
- Hong Kong: Several consignments of smuggled rhino horn from South Africa (together with other wildlife products) were interdicted in Hong Kong. The city where 'east meets west' offers many fascinating avenues for the investigation of cultural meanings of wildlife consumption, the use of animal products in Traditional Chinese Medicine (TCM) and enforcement efforts. The Regional Office of TRAFFIC and WWF-Hong Kong hosted me. This offered a foot in the door, as did the invitation to provide a seminar on my project at the Policing Studies Forum of the University of Hong Kong.

Map 4: Map of Southeast Asia



Source: http://webspaces.webring.com/people/mj/james_shum/sin-hkg/ (accessed on 4 July 2014)

- Vietnam: According to the literature (Gwin 2012; Milliken/Shaw 2012; Rademeyer 2012; Nellemann et al. 2014; Gosling/Reitano/Shaw 2014; Ipsos Marketing 2013) rhino horn is destined for both Vietnamese and Chinese markets. Due to time and language constraints and the innate limitations of Ph.D. research, I chose to undertake research of the market structures and consumer preferences in Vietnam. While I was not able to do fieldwork in China, I was able to interview Chinese respondents and experts on wildlife trade in China in South Africa, Hong Kong and on-line. I had identified key informants ahead of the field trip to Vietnam and employed the services of two interpreters in the major urban centres of Ho Chi Minh City and Hanoi. Several trips to rural areas, including the Mekong Delta, were undertaken.
- Correctional centres (prisons) in South Africa: The final month of fieldwork entailed a road trip to correctional centres strewn across five provinces of South Africa. 30 inmates convicted for rhino-related offences were interviewed in 15 maximum- and medium-security correctional centres.⁴⁷⁶

⁴⁷⁶ The Department of Correctional Services (DCS) differentiates between minimum-, medium- and maximum-security facilities. Offenders (as they are referred to in DCS parlance) are sent to these correctional centres

Appendix B: Indemnity form for interviews with offenders

The research guide of the Department of Correctional Services gave me the form below with the request to have all prison research informants sign it prior to conducting the interview.



correctional services
Department:
Correctional Services
REPUBLIC OF SOUTH AFRICA

PARTICIPATION IN INTERVIEW

Indemnity form

I
Registration number hereby declare that I am in custody at
..... Center.

I hereby agree/do not agree to be interviewed by

I do so entirely at my own will and I do not hold the Department of Correctional Services or any of its members, responsible for anything that might transpire from the interview.

I do not want any or expect any reward of any nature for partaking in the interview.

I certify that I make this statement out of my own free will and understands the contents thereof.

SIGNED: WITNESS:

DATE: WITNESS:

depending on the seriousness of their crime, the length of their prison sentence and conduct during their prison term.

Bibliography

- 2010: *The Protection of State Information Act*. Republic of South Africa.
<http://www.r2k.org.za/wp-content/uploads/Protection-of-State-Information-Bill-POSIB_bill06D-2010.pdf>.
- 50/50, 2008: *Vietnam embassy was caught red-handed in illegal rhino horn transaction*.
<https://www.youtube.com/watch?v=l4a_UhWIMu8> (23 April 2015).
- 't Sas-Rolfes, Michael, 2000: Assessing CITES: Four case studies. In: Jon and Barnabas Dickson Hutton (ed.) *Endangered Species Threatened Convention: The past, present and future of CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora*. London: Earthscan Publications Ltd., 69-87.
- 't Sas-Rolfes, Michael, 2012: *The Rhino poaching crisis: A market analysis*: Independent consultant (February 2012).
- 't Sas-Rolfes, Michael, 2011: *Saving African rhinos: A market success story*. Bozeman, Montana: PERC.
- Abbott, Dina, 2006: Disrupting the 'whiteness' of fieldwork in geography. In: *Singapore Journal of Tropical Geography* 27, 326-341. <<http://dx.doi.org/10.1111/j.1467-9493.2006.00265.x>>
- Abercrombie, Nicholas/Stephen Hill/Bryan S Turner, [1984] 2006: *Criminology*. The Penguin Dictionary of Sociology. London Penguin Books. 5th 5th.
- Abercrombie, Nicholas/Stephen Hill/Bryan S. Turner, [1984] 2006: *Competition*. Dictionary of sociology. London: Penguin Reference. 5th 5th.
- Abraham, S.A., et al., 2013: *Connections and complexity: New approaches to the archaeology of South Asia*. Walnut Creek: Left Coast Press.
<<http://books.google.co.za/books?id=bRHjGtTUR3sC>>
- Absa, 2003. Johannesburg: Absa.
- Adam, Heribert, 1981: The vocation of a sociologist in South Africa. In: John Rex (ed.) *Apartheid and social research*. Paris: The Unesco Press, 115–128.
- Adcock, Keryn/Richard Emslie, 1994: *The role of trophy hunting in white rhino conservation with special reference to BOP Parks*. Rhinos as game ranch animals. Onderstepoort, South Africa (9-10 September 1994).
- Africa Geographic, 2012a: Facts & figures. In: *Africa Geographic*.
- Africa Geographic, 2012b: Run Baby Run. In: *Africa Geographic*.
- AfricaHunting.com, 2010: *Hunting in the Associated Private Nature Reserves adjoining the Kruger National Park*. AfricaHunting.com.
<<http://www.africahunting.com/threads/hunting-in-the-associated-private-nature-reserves-adjointing-the-kruger-national-park.15022/>>.
- Agencia de Informacao de Mocambique, 30 April 2014: *Mozambique: Government announces new minimum wages*. <<http://allafrica.com/stories/201405010229.html>>
- Aggler, Brian, 2008: *President Triet reportedly ill, again; PM moves army leaders*. Wikileaks: Wikileaks. <https://wikileaks.org/plusd/cables/08HANO1947_a.html> (17 March 2015).
- AIM, 2015: *Mozambique: Chissano say about 500 poachers killed in South Afrca*.
<<http://africajournalismtheworld.com/2015/09/23/mozambique-chissano-says-about-500-poachers-killed-in-south-africa/>> (23 September 2015).
- Alder, Christine/Kenneth Polk, 2005: The illicit traffic in plundered antiquities. In: P. Reichel (ed.) *Handbook of transnational crime and justice*. Thousand Oaks: Sage Publications, 98-113.

- Amman, Karl, 2012: Tiger cake and rhino horn – a walk on the Asian wild side. In: SWARA. <<http://www.karlamann.com/pdf/swara-rhino-piece.pdf>>
- Amman, Karl, 2013a: *Hanoi connection: The rhino horn mafia*. <https://www.youtube.com/watch?v=1WhTj_50KMo> (2 April 2013).
- Amman, Karl, 2013b: *The rhino and the bling*.
- Amman, Karl, 2015a: *Characteristics of rhino horn trade along Vietnam's northern borders*: Conservation Action Trust (15 April 2015).
- Amman, Karl, 2015b: *The rhino horn story at the consumer end*. Karl Amman. <<http://www.karlamann.com/rhino-horn.php>>.
- An, Ha, 2015: 65 kgs of smuggled rhino horns, ivory busted at Hanoi airport. In: *Thanhnieen News*, 17 April 2015. <<http://www.thanhnieennews.com/society/65-kgs-of-smuggled-rhino-horns-ivory-busted-at-hanoi-airport-42265.html>>
- Anderson, Chris, 2008: *The end of theory: Will the data deluge makes the scientific method obsolete?* Edge. <http://edge.org/3rd_culture/anderson08/anderson08_index.html>.
- Anh, Trần Nguyễn 2014: Rhino: A eulogy. In: *Tien Phong Online*, 12 November 2012. <<http://www.tienphong.vn/xa-hoi/te-giac-loi-ai-dieu-782167.tpo>>
- Animal Rights Africa, 2009: *Under siege: Rhinoceroses in South Africa* Animal Rights Africa.
- Anonymous, 2013: *Rhino Horn prescriptions*. Hanoi, Hoi An, Cat Ba and Ho Chi Minh City: TVM doctors.
- Anonymous author for *The Environmentalist*, 1983: Yemen acts to halt rhino horn daggers; scientific tests fail to show rhino horn effective as medicine. In: *The Environmentalist* 3, 153-153. <<http://dx.doi.org/10.1007/BF02240165>>
- Anonymous writer for EyeWitness to History, 1997: "On Safari With Theodore Roosevelt, 1909. EyeWitness to History <<http://www.eyewitnesstohistory.com> > (13 September 2014).
- Anthropology Southern Africa, 2014: *Ethical guidelines and principles of conduct for anthropologists*. Southern Africa. <<http://asna.popcliq.com/images/documents/principles-of-conduct-asa.pdf>>.
- Appadurai, Arjun, 1994: Commodities and the politics of value. In: Susan M. Pearce (ed.) *Interpreting objects and collections*. London: Routledge, 76-91.
- Arets, E.J.M.M., et al., 2011: *Competing claims on natural resources: Global trends and local case studies* Wageningen UR. <<http://edepot.wur.nl/196220>>
- ASEAN–WEN, 2014: *What is ASEAN–WEN?* <<http://www.asean-wen.org/index.php/about-us/what-is-asean-wen>>
- Aspers, Patrik, 2011: *Markets*. Cambridge: Polity.
- Aspers, Patrik/Jens Beckert, 2011: Value in markets. In: Jens Beckert and Patrik Aspers (ed.) *The worth of goods*. Oxford: Oxford University Press, 3-38.
- Aulakh, Raveena, 2015: Lab-grown horns could save rhinos; Seattle biotech company says synthetic powder may help spare animals from poachers. In: *The Toronto Star*.
- Ayling, Julie, 2013: What sustains wildlife crime? Rhino horn trading and the resilience of criminal networks. In: *Journal of International Wildlife Law & Policy* 16, 57-80. <<http://dx.doi.org/10.1080/13880292.2013.764776>>
- Bahn, Susanne/Pamela Weatherill, 2013: Qualitative social research: A risky business when it comes to collecting 'sensitive' data. In: *Qualitative Research* 13, 19-35. <<http://qrj.sagepub.com/content/13/1/19.abstract>>
- Baillie, J.E.M./E.R. Butcher, 2012: *Priceless or worthless? The world's most threatened species*. London: Zoological Society of London.

- Bales, Kevin, 1999: *Disposable People. New Slavery in the Global Economy*. Berkeley: University of California Press.
- Barsh, Russel Lawrence, 2001: Who steals indigenous knowledge? In: *Proceedings of the Annual Meeting (American Society of International Law)* 95, 153-161.
<<http://www.jstor.org/stable/25659474>>
- Basu, Gautam, 2014: Concealment, corruption, and evasion: A transaction cost and case analysis of illicit supply chain activity. In: *Journal of Transportation Security*, 1-18.
<<http://dx.doi.org/10.1007/s12198-014-0140-8>>
- Beare, Margaret, 2003: Introduction. In: Margaret Beare (ed.) *Critical reflections on transnational organised crime, money laundering, and corruption*. Toronto, Canada: University of Toronto Press, XI - XXIX.
- Becker, Howard S., 1958: Problems of inference and proof in participant observation. In: *American sociological review* 23, 652-660. <<http://www.jstor.org/stable/2089053>>
- Becker, Howard S., 1967: Whose side are we on? In: *Social Problems* 14, 239-247.
<<http://www.jstor.org/stable/799147>>
- Beckert, Jens, 2003: Economic sociology and embeddedness: How shall we conceptualize economic action? In: *Journal of Economic Issues* 37, 769-787.
- Beckert, Jens, 2007: *The Social Order of Markets*. Cologne: Max Planck Institute for the Study of Societies.
- Beckert, Jens, 2009: The social order of markets. In: *Theory and Society* 38, 245-269.
- Beckert, Jens, 2010: How do fields change? The interrelations of institutions, networks, and cognition in the dynamics of markets. In: *Organization Studies* 31, 605-627.
- Beckert, Jens, 2011a: Imaginative value in the economy. In: Jens Beckert and Patrik Aspers (ed.) *The worth of goods: Valuation and pricing in the economy*. Oxford: Oxford University Press, 106-128.
- Beckert, Jens, 2011b: Where do prices come from? Sociological approaches to price formation. In: *Socio-Economic Review* 9, 757-786.
<<http://ser.oxfordjournals.org/content/9/4/757.abstract>>
- Beckert, Jens /Frank Wehinger, 2011: *In the Shadow: Illegal markets and economic sociology*. Cologne: Max Planck Institute for the Study of Societies.
- Beckert, Jens/Frank Wehinger, 2013: In the shadow: illegal markets and economic sociology. In: *Socio-Economic Review* 11, 5-30.
<<http://ser.oxfordjournals.org/content/11/1/5.abstract>>
- Beech, Hannah/Alex Perry, 2011: Killing fields: Africa's rhinos under threat. In: *TIME Magazine*, 32-39.
- Beinart, William, 2003: *The rise of conservation in South Africa: Settlers, livestock, and the environment, 1770-1950*. Oxford: Oxford University Press.
- Bell, Celia M./Monique S.J. Simmonds, 2006: *Plant substances as alternatives for animal products in traditional medicines*
- Report to the UK Department of Environment and Rural Affairs.
- Bell, Sandra/Kate Hampshire/Stella Topalidou, 2007: The political culture of poaching: a case study from northern Greece. In: *Biodiversity and Conservation* 16, 399-418.
<<http://dx.doi.org/10.1007/s10531-005-3371-y>>
- Belousov, Konstantin, et al., 2007: Any port in a storm: Fieldwork difficulties in dangerous and crisis-ridden settings. In: *Qualitative Research* 7, 155-175.
<<http://qrj.sagepub.com/content/7/2/155.abstract>>

- Bennett, Elizabeth L., 2012: Another inconvenient truth: The failure of enforcement systems to save charismatic species. In: *Fauna and Flora International* 45, 476-479.
- Bentley, Larry, 29 September 2014: Rhinos fetch a pretty price. In: *Zululand Observer*. <<http://zululandobserver.co.za/48477/rhinos-fetch-a-pretty-price/>>
- Berger, Joel, 1995: Predation, sensitivity, and sex: Why female black rhinoceroses outlive males. In: *Behavioral Ecology* 6, 57-64. <<http://beheco.oxfordjournals.org/content/6/1/57.abstract>>
- Berger, Joshua Howat, 2011: Apartheid echoes for evicted S.Africa farm workers. In: *AFP*. <<http://www.ruraldevelopment.gov.za/phocadownload/newspaper-clippings/2011/february/07022011-5.pdf>>
- Bestor, Theodore C., 2001: Supply-side sushi: Commodity, market, and the global city. In: *American Anthropologist* 103, 76-95. <<http://www.jstor.org/stable/683923>>
- Biggs, Duan, et al., 2013: Legal trade of Africa's rhino horns. In: *Science* 339, 1038-1039. <<http://www.sciencemag.org/content/339/6123/1038.short>>
- Bishop Isidore of Seville, [6th Century AD] *The Etymologies of Isidore of Seville, 6th century A.D.* <<https://sites.google.com/site/theetymologies/complete-text/liber-xiv>>
- Bless, C./C. Higson-Smith/A. Kagee, 2006: *Fundamentals of social research methods: An African perspective*. Cape Town: Juta. <<http://books.google.de/books?id=7aKGSIsNk-IC>>
- Blevins, K./T. Edwards, 2009: Wildlife crime. In: J. Miller (ed.) *21st century criminology*. San Antonio: Sage Publications, 557–564.
- Bloch, Simon, 13 November 2014: Tongaat Hulett: Outcry over elephant killings in Mozambican sugar plant. In: *The Star*. <<http://www.4-traders.com/TONGAAT-HULETT-LTD-1413420/news/Tonga-at-Hulett--Outcry-over-elephants-killings-in-Mozambican-sugar-plant-19386715/>>
- Bloch, Simon, 2014: Czech police charge 16 for trading in rhino horn. In: *Business Day*, 18 December 2014. <<http://www.bdlive.co.za/national/science/2014/12/18/czech-police-charge-16-for-trading-in-rhino-horns>>
- Bloomberg Business, 2015: *Gold, Silver, and Industrial Metals Prices*. <<http://www.bloomberg.com/markets/commodities/futures/metals/>> (28 April 2015).
- Boeyens, Jan C.A. /Maria M. van der Ryst, 2014: The cultural and symbolic significance of the African rhinoceros:
A review of the traditional beliefs, perceptions and practices of agropastoralist societies in southern Africa. In: *Southern African Humanities* 26, 21–55.
- Bollier, David, 2010: *The promise and peril of big data*. Washington, DC: The Aspen Institute. <http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/The_Promise_and_Peril_of_Big_Data.pdf>
- Borchert, Peter, 27 February 2013: Timbavati rhino challenge. In: *Africa Geographic*. <<http://africageographic.com/blog/timbavati-rhino-challenge/>>
- Borchert, Peter, 2012: Founder's note. In: *Africa Geographic*, 4–5.
- Borten, Peter, 2014: *Niu Huang – Cow, ox, or water buffalo gallstone (bezoar) – "Cattle Yellow"*. <<http://chineseherbinfo.com/niu-huang-cow-ox-or-water-buffalo-gallstone-bezoar-cattle-yellow/>> (25 August 2014).
- Bosworth, Mary, et al., 2005: Doing prison research: Views from inside. In: *Qualitative Inquiry* 11, 249-264. <<http://qix.sagepub.com/content/11/2/249.abstract>>

- Bothma, J. du P./N. van Rooyen/M. W. van Rooyen, 2004: Using diet and plant resources to set wildlife stocking densities in African savannas. In: *Wildlife Society Bulletin* 32, 840-851. <<http://www.jstor.org/stable/3784808>>
- Bothma, J. du P./H. Suich/A. Spenceley, 2012: Extensive wildlife production on private land in South Africa. In: H. Suich/B. Child/A. Spenceley (eds.), *Evolution and innovation in wildlife conservation: Parks and game ranches to Transfrontier Conservation Areas*. London: Earthscan, 147–161.
- Bourdieu, Pierre, 1986: The forms of capital. In: J. E. Richardson (ed.) *Handbook of theory of research for the sociology of education*. Westport: Greenwood Press, 241–258.
- Bourdieu, Pierre, [2000] 2005 (a): Principles of an economic anthropology. In: Neil Smelser and Richard Swedberg (ed.) *The handbook of economic sociology*. Princeton: Princeton University Press, 75-89.
- Bourdieu, Pierre, 2005 (b): *The social structures of the economy*. London: Polity Press.
- Bowman, Blythe A., 2008: Transnational crimes against culture: Looting at archaeological sites and the “grey” market in antiquities. In: *Journal of Contemporary Criminal Justice* 24, 225-242. <<http://ccj.sagepub.com/content/24/3/225.abstract>>
- boyd, danah/Kate Crawford, 2012: Critical questions for big data. In: *Information, Communication & Society* 15, 662-679. <<http://dx.doi.org/10.1080/1369118X.2012.678878>>
- Brannick, Teresa/David Coghlan, 2007: In defense of being “native”: The case for insider academic research. In: *Organizational Research Methods* 10, 59-74. <<http://orm.sagepub.com/content/10/1/59.abstract>>
- Brantingham, Patricia L./Paul J. Brantingham, 1993: Environment, routine, and situation: Toward a pattern theory of crime. In: Ronald V. G. Clarke/Marcus Felson (eds.), *Routine activity and rational choice: Advances in criminological theory*. New Brunswick, New Jersey: Transaction Publishers, 259–294.
- Brayboy, Bryan McKinley/Donna Deyhle, 2000: Insider-Outsider: Researchers in American Indian communities. In: *Theory Into Practice* 39, 163-169. <http://dx.doi.org/10.1207/s15430421tip3903_7>
- Bretschneider, E., 1875: Notes on Chinese medieval travellers to the west. In: *Chinese Recorder* 6, 1–22.
- Bretschneider, E., 1910: *Medieval researches from Eastern Asiatic sources*. London: Kegan Paul, Trench and Trubner
- Briggs, George W., 1931: The Indian rhinoceros as a sacred animal. In: *Journal of the American Oriental Society* 51, 276–282
- Briggs, George W., 1938: *Gorakhnāth and the Kānpṛaṭa Yogīs*. Calcutta: Motilal Banarsidass. <<http://books.google.co.za/books?id=DXPa3jZDQZUC>>
- Brodie, Neil, 2003: Lessons from the illegal trade in illicit antiquities. In: Sara Oldfield (ed.) *The trade in wildlife: Regulation for Conservation*. London: Earthscan, 184–195.
- Brooke Darby, M., 2014: *The escalating international wildlife trafficking crisis: Ecological, economic, and national security issues*, Bureau of International Narcotics and Law Enforcement Affairs: U.S. Department of State. <<http://www.state.gov/j/inl/rls/rm/2014/226421.htm>>.
- Brooks, Andrew, 2014: Controversial, corrupt and illegal: Ethical implications of investigating difficult topics – Reflections on fieldwork in southern Africa. In: Jenny Lunn (ed.) *Fieldwork in the Global South*. London: Routledge, 34–48.

- Brymer, Richard A., 1991: The emergence and maintenance of a deviant sub-culture: The case of hunting/poaching sub-culture. In: *Anthropologica* 33, 177-194.
<<http://www.jstor.org/stable/25605608>>
- Buijs, Daan, 1987: *A summary of the introduction of white rhino onto private land in the Republic of South Africa*. Johannesburg: Rhino and Elephant Foundation.
- Buijs, Daan, 1998: *White rhinos on private land in South Africa 1997* African Rhino Owners Association.
- Buijs, Daan, 2002: Strategic approach to private rhinoceros management and international trade in rhinoceros products. Pretoria: University of Pretoria.
- Buijs, Daan/Jeremy Anderson, 1989: White rhinos on private land in South Africa. In: *Rhino and Elephant Foundation Journal* 2, 26–31.
<<http://www.rhinoresourcecenter.com/index.php?s=1&act=pdfviewer&id=1292324107&folder=129>>
- Buijs, Daan/Theo Papenfus, 1996: *White rhinos of private land in SA*
- Bulmer, Martin, 2008: The ethics of social research. In: Nigel Gilbert (ed.) *Researching social life*. London: SAGE Publications, 145–162.
- Burawoy, Michael, 1998: The extended case method. In: *Sociological Theory* 16, 4-33.
- Burt, Ronald S., 1992: *Structural holes: The social structure of competition*. Harvard: Harvard University Press. <<https://books.google.co.za/books?id=gjtAAAAMAAJ>>
- Büscher, B./V. Davidov, 2013: *The ecotourism-extraction nexus: Political economies and rural realities of (un)comfortable bedfellows*: Taylor & Francis.
<<https://encrypted.google.com/books?id=eP2TAgAAQBAJ>>
- Büscher, Bram, 2010: Seeking 'telos' in the 'transfrontier'? Neoliberalism and the transcending of community conservation in Southern Africa. In: *Environment and Planning A* 42, 644–660. <<http://www.envplan.com/abstract.cgi?id=a42140>>
- Büscher, Bram/Wolfram Dressler, 2012: Commodity conservation: The restructuring of community conservation in South Africa and the Philippines. In: *Geoforum* 43, 367-376. <<http://www.sciencedirect.com/science/article/pii/S0016718510000862>>
- Büscher, Bram/Wolfram Dressler/R. Fletcher, 2014: *Nature Inc.: Environmental conservation in the neoliberal age*: University of Arizona Press.
<<https://encrypted.google.com/books?id=AiwoAwwAAQBAJ>>
- Büscher, Bram/Maano Ramutsindela, 2016: Green violence: Rhino poaching and the war to save southern Africa's Peace Parks. In: *African Affairs*.
- But, Paul Pui-Hay/Lai-Ching Lung/Yan-Kit Tam, 1990: Ethnopharmacology of rhinoceros horn I: Antipyretic effects of rhinoceros horn and other animal horns. In: *Journal of Ethnopharmacology* 30, 157–168.
- But, Paul Pui-Hay, Yan-Kit Tam and Lai-Ching Lung,, 1991: Ethnopharmacology of rhinoceros horn. II: Antipyretic effects of prescriptions containing rhinoceros horn or water buffalo horn. In: *Journal of Ethnopharmacology* 33, 45-50.
- Callon, Michel, 1998: Introduction: The Embeddedness of Economic Markets in Economics. In: Michel Callon (ed.) *The Laws of the Market*. Oxford: Blackwell, 1-57.
- Cardamone, Tom, 2012: *Ivory and insecurity: The global implications of poaching in Africa* Global Financial Integrity.
- Carnie, Tony, 2012: Fake rhino horn pushes up price of the real thing. In: *Cape Times*, 27 July 2012.
- Carnie, Tony, 2013: Criminals's new ploy to obtain rhino horn. In: *Cape Times*, 5 February 2013.

- Carruther, Jane, 2006: Mapungubwe: An historical and contemporary analysis of a World Heritage cultural landscape. In: *Koedoe* 49, 1–13.
- Carruthers, Jane, 1993: 'Police boys' and poachers: Africans, wildlife protection and national parks, the Transvaal 1902 to 1950. In: *Koedoe* 36, 11–22.
- Carruthers, Jane, 1995: *The Kruger National Park: A social and political history*. Pietermaritzburg: University of Natal.
- Carruthers, Jane, 2008: "Wilding the farm or farming the wild"? The evolution of scientific game ranching in South Africa from the 1960s to the present. In: *Transactions of the Royal Society of South Africa* 63, 160-181.
<<http://dx.doi.org/10.1080/00359190809519220>>
- Casada, J.A., 1998: *Africa's greatest hunter: The lost writings of Frederick C. Selous*. Long Beach: Safari Publishers.
- Castells, Manuel, 1999: Grassrooting the space of flows. In: *Urban Geography* 20, 294-302.
<<http://dx.doi.org/10.2747/0272-3638.20.4.294>>
- Castells, Manuel, 2000: Materials for an exploratory theory of the network society. In: *The British Journal of Sociology* 51, 5-24. <<http://dx.doi.org/10.1111/j.1468-4446.2000.00005.x>>
- Castells, Manuel, 2011: *The rise of the network society: The information age: Economy, society, and culture*: Wiley. <<https://books.google.co.za/books?id=FihjywtjTdUC>>
- Castley, J. Guy/A. J. Hall–Martin, 2003: The status of the southern white rhinoceros (*Ceratotherium simum simum*) on private land in South Africa in 2001. In: *Pachyderm* 34.
- Cesara, Manda, 1982: *Reflections of a woman anthropologist: No hiding place*. New York: Academia Press.
- Chambers, Robert, 1983: *Rural development: Putting the last first*. London: Longman.
- Chambliss, William, 1988: *On the take: From petty crooks to presidents*. Bloomington: Indiana University Press.
- Chapman, J., 1999: *The art of rhinoceros horn carving in China*. London: Christie's Books.
<<http://books.google.co.za/books?id=Tb5JAQAIAAJ>>
- Child, Brian 2012: The sustainable use approach could save South Africa's rhinos In: *South African Journal of Science* 108.
- Chin, Ko-lin/James Finckenauer, 2011: Chickenheads, agents, mummies, and jockeys: The social organization of transnational commercial sex. In: *Crime, Law and Social Change* 56, 463-484.
- CITES, 1973: *Convention on International Trade in Endangered Species of Wild Fauna and Flora* CITES. Washington, D.C. <<http://www.cites.org/sites/default/files/eng/disc/E-Text.pdf>>.
- CITES, 1992: *Resolution 8.3: Recognition of the benefits of trade in wildlife*, CITES.
- CITES, 1994: *Resolution Conference 9.14: Conservation of and trade in African and Asian rhinoceroses*, CITES.
- CITES, 2002: *Resolution 12.10: Registration of operations that breed Appendix-I animal species in captivity for commercial purposes*, CITES. <<http://www.cites.org/eng/res/12/12-10R15.php>>.
- CITES, 2004: *Resolution 13.5: Establishment of export quotas for black rhinoceros hunting trophies*, CITES.
- CITES, 2013a: *Resolution 16.3: CITES Strategic Vision 2008–2020*, CITES.
<<http://cites.org/sites/default/files/eng/res/16/E-Res-16-03.pdf>>.

- CITES, 2013b: *Source, transit and destination countries meet to develop concrete strategies and actions to combat the poaching of rhinoceros and the illegal trade in rhinoceros horn* <http://www.cites.org/eng/news/pr/2013/20131031_rhino_task-force.php>.
- CITES, 2014a: *Directory of illegal trade in rhinoceros horn focal points.* <http://cites.org/sites/default/files/notif/E-Notif-2014-047_0.pdf>.
- CITES, 2014b: *List of Contracting Parties*, CITES. <<http://www.cites.org/eng/disc/parties/chronolo.php>>.
- CITES, 2014c: *What is CITES.* <<http://www.cites.org/eng/disc/what.php>>
- CITES Rhinoceros Working Group, 2014: *Interpretation and implementation of the Convention; Species trade and conservation: Rhinoceroses.* Geneva, Switzerland: <http://www.cites.org/sites/default/files/eng/com/sc/65/E-SC65-43-01_0.pdf>
- CITES Secretariat, 2013: *Interpretation and implementation of the Convention, Species trade and conservation: Rhinoceroses*
- CITES Secretariat, 2014: *Interpretation and implementation of the Convention, Species trade and conservation: Rhinoceroses.* Geneva:
- CITES Trade Database, 2012: *Export data: Ceratotherium simum simum.* <http://trade.cites.org/en/cites_trade>.
- CITES Trade Database, 2013: *Export data: Ceratotherium simum simum.* <http://trade.cites.org/en/cites_trade>.
- Clarke, S. , 2004: *Shark product trade in Hong Kong and mainland China and implementation of the CITES shark listings* Hong Kong: TRAFFIC East Asia.
- Clottes, Jean, October 2002: *Chauvet cave (ca. 30,000 B.C.).* <http://www.metmuseum.org/toah/hd/chav/hd_chav.htm>.
- Cock, Jacklyn/David Fig, 2000: From colonial to community based conservation: Environmental justice and the national parks of South Africa. In: *Society in Transition* 31, 22-35. <<http://dx.doi.org/10.1080/21528586.2000.10419008>>
- Cockington, James, 2013: \$4 op shop sells for \$75,000. In: *The Sydney Morning Herald*, 25 June 2013. <<http://www.smh.com.au/money/investing/4-op-shop-buy-sells-for-75000-20130624-2otj4.html>>
- Cohen, Andrew, 1997: Sturgeon poaching and black market caviar: A case study. In: Vadim J. Birstein/John R. Waldman/William E. Bemis (eds.), *Sturgeon Biodiversity and Conservation.* Springer Netherlands, 423-426. <http://dx.doi.org/10.1007/0-306-46854-9_32>
- Collins, A./G. Fraser/J. Snowball, 2013: Rhino Poaching: Supply and Demand Uncertain. In: *Science* 340, 1167-1167. <<Go to ISI>://WOS:000319972800017>
- Collins, Alan/Gavin Fraser/Jen Snowball, 2013: Could a regulated market approach for rhinoceros horns work in South Africa? Some practical issues and concerns. <http://www.essa2013.org.za/fullpaper/essa2013_2708.pdf>
- Colombo, Francesca, 6 September 2003: Animal trafficking – A cruel billion-Dollar business. In: *Inter Presse Service News Agency.* <<http://www.ipsnews.net/2003/09/environment-animal-trafficking-a-cruel-billion-dollar-business/>>
- Comaroff, Jean/John L. Comaroff, 2006: Law and disorder in the postcolony: An introduction. In: Jean Comaroff/John L. Comaroff (eds.), *Law and disorder in the postcolony.* Chicago: Chicago University Press.
- Commission on Restitution of Land Rights, 2015: *Frequently asked questions and answers.* Pretoria: Commission on Restitution of Land Rights,.

- <http://www.ruraldevelopment.gov.za/component/content/article/347-land-claim/re-opening/771-faq>>.
- Compilation of folk tales of Middle Eastern and Indian descent, 1850: The second voyage of Sindbad the seaman *One thousand and one nights: The Arabian Nights*.
<<http://classiclit.about.com/library/bl-etexts/arabian/bl-arabian-2sindbad.htm>>
- Connett, David, 2014: \$1m bounty of the 'Pablo Escobar' of animal trafficking head: Reward targets Vixay Keosavang in new escalation of fight against this 'lucrative' crime. In: *The Independent*, 19 January 2014.
- Conrad, Kirsten, 2012: Trade bans: a perfect storm for poaching? In: *Tropical Conservation Science* 5, 245-254.
- Cook, Dee/Martin Lowther Roberts, Jason, 2002: The international wildlife trade and organised crime: A review of the evidence and the role of the UK.
<<http://www.wwf.org.uk/filelibrary/pdf/organisedCrime.pdf>>
- Copes, Heath/Andy Hochstetler/Anastasia Brown, 2013: Inmates' perceptions of the benefits and harm of prison interviews. In: *Field Methods* 25, 182-196.
<<http://fm.sagepub.com/content/25/2/182.abstract>>
- Corbin, Juliet/Janice M. Morse, 2003: The unstructured interactive interview: Issues of reciprocity and risks when dealing with sensitive topics. In: *Qualitative Inquiry* 9, 335-354. <<http://qix.sagepub.com/content/9/3/335.abstract>>
- Cota-Larson, Rhishja, 2013: *Rhinos from South Africa to China: A troubling timeline* Annamiticus. <<http://annamiticus.com/Reports/TroublingTimeline.pdf>>
- Côté-Boucher, Karine, 2015: The paradox of discretion: Customs and the changing occupational identity of Canadian border officers. In: *British Journal of Criminology*.
<<http://bjc.oxfordjournals.org/content/early/2015/04/02/bjc.azv023.abstract>>
- Couzens, Edmund, 2003: *The influence of English poaching laws on South African poaching laws*. *Fundamina : A Journal of Legal History*.
<http://reference.sabinet.co.za/webx/access/electronic_journals/funda/funda_n9_a4.pdf>.
- Cressey, D., 1969: *Theft of the nation: The structure and operations of organized crime in America*. New York: Harper & Row.
- Cromsigt, Joris P. G. M./Mariska te Beest, 2014: Restoration of a megaherbivore: landscape-level impacts of white rhinoceros in Kruger National Park, South Africa. In: *Journal of Ecology* 102, 566-575. <<http://dx.doi.org/10.1111/1365-2745.12218>>
- Crow, Matthew S./Tara O'Connor Shelley/Paul B. Stretesky, 2013: Camouflage-collar crime: An examination of wildlife crime and characteristics of offenders in Florida. In: *Deviant Behavior* 34, 635-652. <<http://dx.doi.org/10.1080/01639625.2012.759049>>
- Cumming, D.H.M./R.F. du Toit/S.N. Stuart, 1990: *African elephants and rhinos: Status survey and conservation action plan*. Gland, Switzerland: IUCN.
<<https://portals.iucn.org/library/efiles/documents/1990-006.pdf>>
- Daffue, Elise, 2013: *The many faces of rhino poaching*, Stop Rhino Poaching. Pretoria: Stop Rhino Poaching.
- Daffue, Hendrik/Elise Daffue, 2013: *Rhino horn conduits – Organized crime levels*. Pretoria: Stop Rhino Poaching.
- Damm, Gerhard R., 2008: Recreational trophy hunting: "What do we know and should we do?". In: *Best practices in sustainable hunting*, 5–11.
- David, Matthew/Carole D. Sutton, 2011: *Being ethical Social research: An introduction*. London: SAGE Publications, 29–53.

- De Soto, Hernando, 1989: *The other path*. New York: Basic Books, Member of the Perseus Books Group.
- de Wet, Kobus, 2013: *Masters research proposal: Development of a case-based approach to the forensic examination of a rhinoceros poaching crime scene*; Department of Environmental Sciences: UNISA (27 April 2013).
- Denzin, Norman, 2012: Triangulation 2.0. In: *Journal of Mixed Methods Research* 6, 80-88.
- Denzin, Norman 1970: *The research act: A theoretical introduction to sociological methods*. Piscataway, New Jersey: Transaction publishers.
- Department of Environmental Affairs, 30 June 2014: *Panel of experts invites stakeholder participation as it explores rhino horn trade feasibility as part of South Africa's comprehensive integrated approach to reduce rhino poaching*. Pretoria. <https://www.environment.gov.za/mediarelease/stakeholderparticipation_rh_inotrade>.
- Department of Environmental Affairs, 2010: *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Regulations*. Vol. No. R. 173. <https://www.environment.gov.za/sites/default/files/legislations/nemba_wildfaunaandflora_g33002rg9240gon173.pdf>.
- Department of Environmental Affairs, 2012: *Convention on International Trade in Endangered Species of Wild Flora and Fauna*. Presentation made to the Portfolio Committee on Water and Environmental Affairs.
- Department of Environmental Affairs, 2014a: *Minister Edna Molewa leads implementation of integrated management of rhinoceros in South Africa*. Pretoria. <https://www.environment.gov.za/mediarelease/molewa_integratedstrategicmanagement_rhinoceros>.
- Department of Environmental Affairs, 2014b: *Rhino poaching statistics update (14 May 2014)*. Pretoria. <https://www.environment.gov.za/mediarelease/rhinopoaching_statistics_14may2014>.
- Department of Environmental Affairs, 2014c: *South Africa hands over chairmanship of the Group of Like-Minded Mega-Diverse Countries to Guatemala in the Republic of Korea*. <https://www.environment.gov.za/mediarelease/sahandsover_lmmchairmanship>
- Department of Environmental Affairs and Tourism, 2009: *Government notice on national moratorium on the trade in individual rhinoceros horns*. No. 148. <https://www.environment.gov.za/sites/default/files/gazetted_notices/nemba_memorarium_g31899gon148.pdf>.
- Desmond, Matthew, 2014: Relational ethnography. In: *Theory and Society* 43, 547-579. <<http://dx.doi.org/10.1007/s11186-014-9232-5>>
- Deutsche Presse Agentur, 2004: Indonesian court sentences fake rhino-horn vendor to jail. In: *Deutsche Presse Agentur*, 21 January 2004.
- Dewey, Matías, 2011: *Fragile states, robust structures: Illegal police protection in Buenos Aires*. Hamburg: German Institute of Global and Area Studies.
- Dewey, Matías, 2012: Illegal police protection and the market for stolen vehicles in Buenos Aires. In: *Journal of Latin American Studies* 44, 679-702. <<http://dx.doi.org/10.1017/S0022216X12000831>>
- Dewey, Matías, 2014a: *Crisis and the emergence of illicit markets*. MPIfG Discussion Paper. Cologne: Max Planck Institute for the Study of Societies (29 May 2014).

- Dewey, Matías, 2014b: *Crisis and the emergence of illicit markets: A pragmatist view of economic action outside the law*. MPIfG Discussion Paper: Max Planck Institute for the Study of Societies.
- Di Minin, Enrico, et al., 2014: Identification of Policies for a Sustainable Legal Trade in Rhinoceros Horn Based on Population Projection and Socioeconomic Models. In: *Conservation Biology*. <<http://dx.doi.org/10.1111/cobi.12412>>
- Dickson, Barney, 2003: What is the goal of regulating wildlife trade? Is regulation a good way to achieve this goal? In: Sara Oldfield (ed.) *Trade in Wildlife: Regulation for Conservation*. London: Earthscan Publications Ltd., 23-32.
- Dickson-Swift, Virginia, et al., 2007: Doing sensitive research: What challenges do qualitative researchers face? In: *Qualitative Research* 7, 327–353.
- Dickson-Swift, Virginia, et al., 2009: Researching sensitive topics: Qualitative research as emotion work. In: *Qualitative Research* 9, 61-79. <<http://qrj.sagepub.com/content/9/1/61.abstract>>
- DiMaggio, Paul J./Walter W. Powell, 1983: The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. In: *American sociological review* 48, 147-160.
- Đỗ Tất Lợi, 1962: *Những cây thuốc và vị thuốc Việt Nam*. Hanoi, Vietnam: Nhà xuất bản Y học.
- Dolgin, Elie, 2010: Big pharma moves from 'blockbusters' to 'niche busters'. In: *Nat Med* 16, 837-837. <<http://dx.doi.org/10.1038/nm0810-837a>>
- Donnelly, Lynley, 2013: Welfare could be the Gini in the bottle. In: *Mail & Guardian*, 10 May 2013. <<http://mg.co.za/article/2013-05-10-00-welfare-could-be-gini-in-the-bottle>>
- Dorman, Russell, 2014: *The power of the unicorn*. Wellcome Collection: The blog for the incurably curious. <<http://blog.wellcomecollection.org/tag/unicorns/>>.
- Drummond, The Honourable William Henry, 1875: *The large game and natural history of South and South-East Africa*. Edinburgh: Edmonston and Douglas.
- Drury, Rebecca, 2009: Identifying and understanding of wild consumer animal products in Hanoi, Vietnam: Implications for conservation management. Ph.D., London, United Kingdom: University College London.
- Drury, Rebecca, 2011: Hungry for success: Urban consumer demand for wild animal products in Vietnam. In: *Conservation and Society* 9, 247-257. <<http://www.conservationandsociety.org/article.asp?issn=0972-4923;year=2011;volume=9;issue=3;spage=247;epage=257;aulast=Drury;type=0>>
- Dry, Gert, 2011: *Commercial wildlife ranching's contribution to a resource efficient, low carbon, pro-employment green economy*. 7th International Wildlife ranching Symposium. Kimberley. <http://www.sawma.co.za/images/Dry_Gert_Commercial_wildlife_ranching%27s_contribution_to_a_resource_efficient_low_carbon_pro-employment_green_economy.pdf>.
- du Toit, J. G., 1998: *Rhino ranching: Management manual for owners of white rhinos*. Onderstepoort: SAVA Wildlife Group.
- du Toit, J. G., 2015: *White rhino population Kruger National Park*. <<http://lowvelder.co.za/279143/anti-poaching-experts-wants-national-statistics-on-rhino-poaching-released/>>.
- du Toit, J. G./O.L. van Schalkwyk, 2011: *How to improve wildlife production in South Africa*
- du Toit, Raoul, 2013: *Response to poaching in Lowveld*. 12th Session of AfRSG meeting. Naro Maru Lodge, Kenya (16 to 23 February 2013).

- Dubow, Saul, 1995: *Scientific racism in modern South Africa*. New York: Cambridge University Press. <<http://books.google.ca/books?id=C4m8Vc2rWyYC>>
- Duffy, Rosaleen, 2001: Peace parks: The paradox of globalisation. In: *Geopolitics* 6, 1-26. <<http://dx.doi.org/10.1080/14650040108407715>>
- Duffy, Rosaleen, 2014: Waging a war to save biodiversity: The rise of militarized conservation. In: *International Affairs* 90, 819–834.
- Duffy, Rosaleen/Richard H. Emslie/Michael H. Knight, 2013a: *Rhino poaching: How do we respond?* London: UK Department for International Development.
- Duffy, Rosaleen/Richard H. Emslie/Michael H. Knight, 2013b: *Rhino poaching: How do we respond?*
- Duffy, Rosaleen/Freya A.V. St John, 2013: *Poverty, poaching and trafficking: What are the links?*
- Dutschke, Mira, 2015: What's in a name? In: *African Independent*. <<http://www.ilisolezwe.co.za/features/whats-in-a-name-1480812>>
- Dzingirai, V., et al., 2013: On the edge of state and economy. In: Jens A. Andersson, et al. (eds.), *Transfrontier Conservation Areas: People living on the edge*. London: Routledge, 106–122.
- Economists at Large, 2013: *Horn of contention: A review of literature on the economics of trade in rhino horn*. Melbourne, Australia: IFAW South Africa.
- Edwards, Karen, 2008: Rhinoceros. In: *Milton Quarterly* 42, 290-294. <http://dx.doi.org/10.1111/j.1094-348X.2008.00205_5.x>
- Eliason, Stephen L., 2008: Wildlife crime: Conservation officers' perceptions of elusive poachers. In: *Deviant Behavior* 29, 111-128. <<http://search.ebscohost.com/login.aspx?direct=true&db=sih&AN=28790919&site=ehost-live&scope=site>>
- Eliason, Stephen L., 2011: Trophy poaching: A routine activities perspective. In: *Deviant Behavior* 33, 72-87. <<http://dx.doi.org/10.1080/01639625.2010.548289>>
- Ellis, Richard, 2013: *Tiger bone and rhino horn: The destruction of wildlife for Traditional Chinese Medicine*. Washington, D.C.: Island Press.
- Ellis, Stephen, 1994: Of elephants and men: Politics and nature conservation in South Africa. In: *Journal of Southern African Studies* 20, 53-69.
- Ellis, Stephen/Janet MacGaffey, 1996: Research on sub-Saharan Africa's unrecorded international trade: Some methodological and conceptual problems. In: *African Studies Review* 39, 19–41. <<http://dx.doi.org/10.2307/525434>>
- Eloff, Corné, 2012: *Rhino poaching in South Africa: Is it a losing battle?*<http://www.rhinosourcecenter.com/pdf_files/139/1395039960.pdf>
- Eloff, Corné/Andrew M. Lemieux, 2014: Rhino poaching in Kruger National Park, South Africa: aligning analysis, technology and prevention. In: Andrew M. Lemieux (ed.) *Situational prevention of poaching*. London: Routledge, 18–43.
- Emslie, R., 2008: Rhino population sizes and trends. In: *Pachyderm* 44.
- Emslie, R./Martin Brooks, 1999: *Status survey and conservation action plan: African rhino*IUCN/SSC African Rhino Specialist Group. <<https://portals.iucn.org/library/efiles/documents/1999-049.pdf>>
- Emslie, R.H., et al., 2009: *Guidelines for the in situ re-introduction and translocation of African and Asian rhinoceros*: IUCN.

- Emslie, Richard H /Tom Milliken/Bibhab Talukdar, 2013: *African and Asian rhinoceroses – Status, conservation and trade* CITES Secretariat.
<<https://www.rhinos.org/Assets/final-cop16-rhino-rpt.pdf>>
- enca reporter, 2016: Mozambican villagers moved further away from the border to curb poaching. In: *enca*, 8 March 2016. <<http://www.enca.com/africa/mozambican-villagers-moved-further-away-border-curb-poaching>>
- Enright, K., 2008: *Rhinoceros*. London: Reaktion Books.
<<http://books.google.co.za/books?id=BYbxAQAAQBAJ>>
- Environmental Investigation Agency, 2015: *Sin City: Illegal wildlife trade in Laos' Golden Triangle Special Economic Zone*. London, United Kingdom: Environmental Investigation Agency,.
- Espeland, Wendy, 2005: *Thinking about standards in qualitative research*. Workshop on interdisciplinary standards for systemic qualitative research, Michele Lamont. Arlington, Virginia.
- Ess, Charles/AoIR Ethics Working Committee, 2002: *Ethical decision-making and Internet research: Recommendations from the AoIR Ethics Working Committee* Association of Internet Researchers. <<<http://www.aoir.org/reports/ethics.pdf>>>
- Ettinghausen, Richard, 1950: *The unicorn*, Freer Gallery of Art Occasional Papers. Washington: Smithsonian Institution.
- Eustace, Michael, 2012: Rhino poaching: What is the solution? In: *Business Day*.
- Eybers, Johann, 2000: Call for inquiry into SADF gay rights abuses. In: *Die Beeld*.
<<http://www.news24.com/SouthAfrica/Call-for-inquiry-into-SADF-gay-rights-abuses-20000816>>
- Eyewitness News, 2014: *Zimbabwe rhino horn stock has weevils*.
<<http://ewn.co.za/2014/12/23/Zimbabwe-rhino-horn-stock-has-weevils>> (23 December 2014).
- Eyewitness News, 2015: Suspected SA poacher shot dead in Zimbabwe. In: *Eyewitness News*, 2 April 2015. <http://ewn.co.za/2015/04/02/Suspected-SA-poacher-shot-dead-in-Zimbabwe?utm_source=dlvr.it&utm_medium=twitter>
- Falberg, Alisha, 2013: "The living are getting rarer": The causes and consequences of the international trade in white rhinoceros horns under the Convention on International Trade in Endangered Species. In: *Journal of Law and International Affairs* 2, 182-236.
- Fall, Juliet, 2002: Divide and rule: Constructing human boundaries in 'boundless nature'. In: *GeoJournal* 58, 243-251.
<<http://dx.doi.org/10.1023/B%3AGEJO.0000017955.72829.15>>
- Faraquhar, Clare /(with Rita Das), 1999: Are focus groups suitable for 'sensitive' topics? In: Jenny Kritzingler/Rosaline Barbour (eds.), *Developing focus group research: Politics, theory and practice*. London: SAGE Publications, 47–63.
- Fears, Darryl, [3 January 2015] 2015: Before killing a rhinoceros bull, a hunter faces anger, death threats. In: *The Washington Post*.
<http://www.washingtonpost.com/national/health-science/before-killing-a-rhinoceros-bull-a-hunter-faces-anger-death-threats/2015/01/03/07601924-8a13-11e4-9e8d-0c687bc18da4_story.html>
- Feely, J.M., Black rhino, white rhino: What's in a name. In: *Pachyderm* 43, 111–115.
- Feige, Edgar L., 1989: *The underground economies*. Cambridge Cambridge University Press.
- Felbab-Brown, Vanda, 2011: *The disappearing act: The illicit trade in wildlife in Asia* Brookings Institute.

- Felbab-Brown, Vanda, 2014: *Security considerations for conducting fieldwork in highly dangerous places or on highly dangerous subjects*: Social Science Research Council. <http://www.brookings.edu/~media/research/files/papers/2014/06/06_security_considerations_fieldwork_felbab_brown/06_security_considerations_fieldwork_felbab_brown_report.pdf>.
- Fenio, Kenly Greer, 2014: *Poaching rhino horn in South Africa and Mozambique: Community and expert views from the trenches* US Department of State.
- Fernández-Kelly, Patricia/Jon Shefner, 2006: *Out of the shadows : Political action and the informal economy in Latin America*. University Park, Pennsylvania: Pennsylvania State University Press. <<http://www.loc.gov/catdir/toc/ecip065/2005037090.html>>
- Ferreira, Sam, 2013a: *Kruger National Park's response to poaching: Lessons learnt*. 11th IUCN SSC African Rhino Specialist Group. Laikipia County, Kenya (February 2013).
- Ferreira, Sam, 2013b: *An update on rhino research and surveys in SANParks*. Skukuza: SANParks.
- Ferreira, Sam, 2015: *Rhino poaching interventions*: Department of Environmental Affairs. <https://www.environment.gov.za/sites/default/files/docs/rhino_poaching_interventions.pdf> (30 August 2015).
- Ferreira, Sam M./Judith M. Botha/Megan C. Emmet, 2012: Anthropogenic influences on conservation values of the white rhinoceros. In: *Plos One* 7.
- Ferreira, Sam M., et al., 2014: *Rhino populations estimates in Kruger National Park*. Skukuza, Kruger National Park: SANParks.
- Ferreira, Sam M., et al., 2015: Disruption of rhino demography by poachers may lead to population declines in Kruger National Park, South Africa. In: *Plos One* 10. <<http://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0127783>>
- Ferreira, Sam M./Michele Pfab/Michael Knight, 2014: Management strategies to curb rhino poaching: Alternative options using a cost–benefit approach. In: *South African Journal of Science* 110. <http://www.sajs.co.za/sites/default/files/publications/pdf/Ferreira_Research_Article.pdf>
- Fielding, Nigel/Hilary Thomas, Qualitative interviewing. In: Nigel Gilbert (ed.) *Researching social life*. Los Angeles: Sage, 245–265.
- Filteau, Matthew R, 2012: Detering defiance: 'Don't give a poacher a reason to poach'. In: *Journal of Rural Criminology* 1, 236 – 255.
- Findlay, Stephanie, [SAPA-AP] 2014: Ramaphosa rakes in millions for impala. In: *Independent Online*, 8 September 2014. <<http://www.iol.co.za/new/politics/ramaphosa-rakes-in-millions-for-impala-1.1747544>>
- Fioramonti, Lorenzo, 2014: *How numbers rule the world: The use and abuse of statistics in global politics*. London: Zen Books.
- Fiorentini, Gianluca/Sam Peltzman, 1997: *The economics of organised crime*. Cambridge: Cambridge University Press. <<https://books.google.co.za/books?id=DepEk9KiKHsC>>
- Fischer, Anke, et al., 2013: (De)legitimising hunting – Discourses over the morality of hunting in Europe and eastern Africa. In: *Land Use Policy* 32, 261-270. <<http://www.sciencedirect.com/science/article/pii/S0264837712002128>>
- Flick, Uwe, [1998] 2014: *An introduction to qualitative research*. 5. Auflage. Los Angeles: Sage Publishers.
- Fligstein, Neil, 2001a: *The architecture of markets*. Princeton: Princeton University Press.
- Fligstein, Neil, 2001b: Social skill and the theory of fields. In: *Sociological Theory* 19, 105-125.

- Fligstein, Neil/Luke Dauter, 2007: The sociology of markets. In: *Annual Review of Sociology* 33, 105-128.
- Forsyth, Craig J./Thomas A. Marckese, 1993: Thrills and skills: A sociological analysis of poaching. In: *Deviant Behavior* 14, 157-172.
<<http://dx.doi.org/10.1080/01639625.1993.9967935>>
- Foster, Robert J., 2006: Tracking globalization: Commodities and value in motion. In: Chris Tilley, et al. (eds.), *Handbook of material culture*. London: Sage, 285-303.
- Freitag, Amy, 2012: *Wording matters: Conservation versus preservation*.
<<http://www.southernfriedscience.com/?p=11746>>
- Friedmann, Yolán, et al., 2011: *A moratorium on rhino hunting – some thoughts and recommendations*: Compiled by the Endangered Wildlife Trust with input from the SADC Rhino Management Group. <<http://www.peace-of-eden.co.za/blog/wp-content/uploads/2012/01/Rhino-hunting-moratorium.pdf>>.
- Frommer, 2015: *Private game reserves*. <<http://www.frommers.com/destinations/kruger-national-park/268098-sthash.qW4GizRT.dpbs#ixzz3VeqyAlZn>>.
- Fuller, Thomas, 2013: In trafficking of wildlife, out of reach of law. In: *New York Times*, 3 March 2013. <<http://www.nytimes.com/2013/03/04/world/asia/notorious-figure-in-animal-smuggling-beyond-reach-in-laos.html>>
- Gambetta, D., 1996: *The Sicilian mafia: The business of private protection*. Harvard: Harvard University Press. <<https://books.google.co.za/books?id=y3bv3tqWftYC>>
- Gambetta, Diego, 1988a: Can we trust trust? In: Diego Gambetta (ed.) *Trust: Making and breaking cooperative relations*. Oxford: Blackwell, 213-237.
- Gambetta, Diego, 1988b: Mafia: The price of distrust. In: Diego Gambetta (ed.) *Trust: Making and breaking cooperative relations*. Oxford: Blackwell, 158–175.
- Gambetta, Diego, 2009: *Codes of the underworld*. Princeton and Oxford: Princeton University Press.
- Game Warden, 2014: *Visiting John Hume's rhino breeding operation, South Africa*. Safari Talk. <<http://safariatalk.net/topic/13138-visiting-john-humes-rhino-breeding-operation-south-africa/>> (2 February 2015).
- Gao, Yufang/Susan G. Clark, 2014: Elephant ivory trade in China: Trends and drivers. In: *Biological Conservation* 180, 23-30.
<<http://www.sciencedirect.com/science/article/pii/S0006320714003371>>
- Geertz, Clifford, 1976: *The religion of Java*. Chicago: University of Chicago Press.
<<http://books.google.co.za/books?id=-SYM4PW-YAgC>>
- Geertz, Clifford, 1978: The bazaar economy: Information and search in peasant marketing. In: *American Economic Review* 68, 28-32.
- George, Alexander L. /Andrew Bennett, 2005: *Case studies and theory: Development in the Social Sciences*. Cambridge, Massachusetts: MIT Press.
- Gerring, John, 2007: *Case study research: Principles and practices*. Cambridge: Cambridge University Press.
- Gibbs, Carole, et al., 2010: Introducing Conservation Criminology: Towards Interdisciplinary Scholarship on Environmental Crimes and Risks. In: *British Journal of Criminology* 50, 124-144. <<http://bjc.oxfordjournals.org/content/50/1/124.abstract>>
- Gibbs, Graham R., 2007: *Analysing qualitative data*. London: SAGE Publications.
<<http://books.google.de/books?id=EfAX3YYkrdcC>>
- Gibson, Amelia 2015: *Rhino – Diet*. Rhino Info. <<http://www.rhinosinfo.com/rhino-diet.html>> (20 August 2015).

- Gilbert, Nigel, 2008: Research, theory and method. In: Nigel Gilbert (ed.) *Researching social life*. Los Angeles: Sage Publishers, 21–40.
- Glaser, B./Anselm Strauss, 1967: *The discovery of grounded theory: Strategies for qualitative data analysis*. London: Weidenfeld and Nicholson.
- Glazer, M., 1970: Fieldwork in a hostile environment: A chapter in the sociology of sociology research in Chile. In: F. Bonilla/M. Glazer (eds.), *Student politics in Chile*. New York: Basic Books.
- Glazewski, Jan, 2000: *Environmental law in South Africa*. Durban: Butterworths.
- Goffman, Alice, 2009: On the Run: Wanted men in a Philadelphia ghetto. In: *American sociological review* 74, 339-357. <<http://asr.sagepub.com/content/74/3/339.abstract>>
- Goffman, Alice, 2013: *On the run: Fugitive life in an American city (Fieldwork encounters and discoveries)*. Chicago: University of Chicago Press.
- Goffman, Erving, [1957] 1970: The characteristics of total institutions. In: Amitai Etzioni (ed.) *A sociological reader on complex organizations*. London: Holt, Rinehart & Winston, 312–338.
- Goffman, Erving, 1974: *Frame analysis: An essay on the organization of experience*. Boston: Northeastern University Press.
- Goldsmith, Andrew, 2003: Fear, fumbling and frustration: Reflections on doing criminological fieldwork in Colombia. In: *Criminology and Criminal Justice* 3, 103-125.
- Gosling, Justin/Teusday Reitano/Mark Shaw, 2014: *The global response to transnational organized environmental crime*. Geneva: The Global Initiative against Transnational Organized Crime. <<http://www.globalinitiative.net/knowledge-bank/publications/>>
- Gould, Chandre, et al., 2002: *Project Coast: Apartheid's chemical and biological warfare programme*. Cape Town: United Nations Institute for Disarmament Research <<http://books.google.co.za/books?id=Nq8OwvFpVSgC>>
- Granovetter, Mark, 1983: The strength of weak ties: A network theory revisited. In: *Sociological Theory* 1, 201-233.
- Granovetter, Mark, 1985: Economic action and social-structure - the problem of embeddedness. In: *American Journal of Sociology* 91, 481-510.
- Granovetter, Mark/Richard Swedberg, 2011: Introduction to the Third Edition. In: Mark Granovetter and Richard Swedberg (ed.) *The sociology of economic life*. Boulder, Colorado: Westview Press, XIII – XLI.
- Gray, David E., 2009: Research design: Qualitative methods *Doing research in the real world*. London: Sage Publications, 164–198.
- Greenberg, S., 2013: *The disjunctures of land and agricultural reform in South Africa: Implications for the agri-food system*. Cape Town: Institute for Poverty, Land and Agrarian Studies, University of the Western Cape. <<http://www.plaas.org.za/sites/default/files/publications-pdf/WP26Greenberg.pdf>>
- Grill, Bartholomäus, 2015: Kidapped in Mozambique: In the clutches of rhino poachers. In: *Der Spiegel*. <<http://www.spiegel.de/international/world/investigation-into-rhino-poaching-turns-into-kidnapping-a-1022611.html>>
- Groff, Katherine/Mark Axelrod, 2013: A baseline analysis of transboundary poaching incentives in Chiquibul National Park, Belize. In: *Conservation and Society* 11. <http://www.conservationandsociety.org/temp/ConservatSoc113277-3222483_085704.pdf>
- Gross, Ken Hawkeye, 1992: *Drug smuggling: The forbidden book*. Boulder, Colorado: Paladin Press.

- Gupta, Rani/Priya Ramnani, 2006: Microbial keratinases and their prospective applications: An overview. In: *Applied Microbiology and Biotechnology* 70, 21-33.
<<http://dx.doi.org/10.1007/s00253-005-0239-8>>
- Gwin, Peter, 2012: Rhino Wars. In: *National Geographic*, March 2012.
<<http://ngm.nationalgeographic.com/print/2012/03/rhino-wars/gwin-text>>
- Hall, Ruth, 2003: *Farm tenure*. Cape Town: School of Government, University for the Western Cape. <http://www.plaas.org.za/sites/default/files/publications-pdf/ELARSA_03.pdf>
- Hall, Tim, 2013: Geographies of the illicit: Globalization and organized crime. In: *Progress in Human Geography* 37, 366-385.
<<http://phg.sagepub.com/content/37/3/366.abstract>>
- Hall–Martin, A.J., et al., 2008: *An exert of the 2008 survey of white rhinocero, ceratotherium sium sium, on private land in South Africa*: WWF–Africa Rhino Programme.
- Ham Hoai Nhan, 2013: *Sừng tê giác Ham Hoai Nhan*.
<<http://phnhan.vncgarden.com/2013/10/sung-te-giac.html>>.
- Hammersvik, Eirik/Sveinung Sandberg/Willy Pedersen, 2012: Why small-scale cannabis growers stay small: Five mechanisms that prevent small-scale growers from going large scale. In: *International Journal of Drug Policy* 23, 458-464.
<<http://www.sciencedirect.com/science/article/pii/S0955395912001181>>
- Hanks, John, 2015: *Operation Lock and the war on rhino poaching*. Cape Town: Penguin Books.
- Haraway, Donna J., 1991: *Simians, cyborgs and women: The reinvention of nature*. London: Free Association Books.
- Harken, Jeremy, 2011: *Transnational crime in the developing world*. Research report. Washington: Global Financial Integrity. <<http://transcrime.gfintegrity.org/>>
- Harper, Cindy, 2011: *RhODIS profiling and a DNA database as a tool to protect the rhino*: Rhino Resource Centre.
<http://www.rhinosourcecenter.com/pdf_files/132/1321657369.pdf> (23 August 2014).
- Harrison, Jane/Lesley MacGibbon/Missy Morton, 2001: Regimes of trustworthiness. In: *Qualitative Inquiry* 7, 323–345.
- Hart, Keith, 1988: Kinship, contract, and trust: The economic organization of migrants in an African city slum. In: Diego Gambetta (ed.) *Trust: Making and breaking cooperative relations*. Oxford: Blackwell, 176-193.
- Hart, Keith, 1990: The idea of the economy: Six modern dissenters. In: R. Friedland and A.F. Robertson (ed.) *Beyond the marketplace: Rethinking economy and society*. New York: Aldine de Gruyter, 137-160.
- Harvey, Ross, 2015: *Preserving the African elephant for future generations*. Cape Town: South African Institute of International Affairs (SAIIA).
- Hauck, M./N. A. Sweijd, 1999: A case study of abalone poaching in South Africa and its impact on fisheries management. In: *ICES Journal of Marine Science: Journal du Conseil* 56, 1024-1032.
- Hauck, Maria, 1997: *Crime, conservation and community development: Ecological criminology and the case study of abalone poaching*. University of Cape Town.
- Hauck, Maria, 2009: *Rethinking small–scale fisheries compliance: from criminal justice to social justice*. Cape Town: University of Cape Town.
<http://uctscholar.uct.ac.za/PDF/90552_Hauck_PhD_Thesis_Final_2009.pdf>
- Healy, Kieran, 2006: *Last best gifts: Altruism and the market for human blood and organs*. Chicago: University of Chicago Press.

- Hearne, John/Margaret McKenzie, 2000: Compelling reasons for game ranching in Maputaland. In: Herbert H. T. Prins/Jan Geu Grootenhuis/Thomas T. Dolan (eds.), *Wildlife Conservation by Sustainable Use*. Springer Netherlands, 417-438. <http://dx.doi.org/10.1007/978-94-011-4012-6_19>
- Helliker, Kirk, 2013: *Reproducing white commercial agriculture in South Africa*; Sociology Department. Grahamstown: Rhodes University.
- Herbig, Friedo J. W. /Greg Warchol, 2011: South African conservation crime and routine activities theory: A causal nexus. In: *Acta Criminologica* 24.
- Heyman, Josiah McC, 2013: The study of illegality and legality: Which way forward? In: *PoLAR: Political and Legal Anthropology Review* 36, 304-307. <<http://dx.doi.org/10.1111/plar.12030>>
- Heyman, Josiah McConnell/Alan Smart, 1999: States and illegal practices: An overview. In: Josiah McConnell Heyman (ed.) *States and illegal practices*. Oxford: Berg
- Hieronimus, Tobin L./Lawrence M. Witmer/Ryan C. Ridgely, 2006: Structure of white rhinoceros (*Ceratotherium simum*) horn investigated by X-ray computed tomography and histology with implications for growth and external form. In: *Journal of Morphology* 267, 1172-1176. <<http://dx.doi.org/10.1002/jmor.10465>>
- Hindustan Times, 2013: CIAA smells rat as seized rhino horns turning out to be fake. In: *Hindustan Times*, 9 June 2013.
- Hirth, Friedrich, 1885: *China and the Roman Orient*. Chicago: Ares Publishers.
- Hopkinson, Lisa/Marius van Staden/Jeremy Ridl, 2008: National and international law. In: R. J. Scholes and K. G. Mennell (ed.) *Elephant management: A scientific assessment of South Africa*. Johannesburg: Witwatersrand University Press. <<http://www.elephantassessment.co.za/>>
- Hornaday, W.T., [1922] 1979: *The minds and manners of wild animals*. New York: Mittal Publications.
- Hornberger, Julia, 2010: *On fake goods and fake cops. In the business of securing the copy*.
- Hornsby, Rob/Dick Hobbs, 2007: A zone of ambiguity: The political economy of cigarette bootlegging. In: *British Journal of Criminology* 47, 551-571. <<http://bjc.oxfordjournals.org/content/47/4/551.abstract>>
- Hosken, Graeme/SAPA, 2012: Fake rhino horns found after crash; four suspected conartists held after hiding the 'bloodied' items in cooler box. In: *Pretoria News*, 2 March 2012.
- Huang, K.C., 1998: *The pharmacology of Chinese herbs*. Second edition. Auflage. Boca Raton: Taylor & Francis. <<http://books.google.de/books?id=xKGxTcF8u-sC>>
- Huang, Lixin 2011: *Statement opposing the use of rhino horn in medicines by the American College of Traditional Chinese Medicine and Council of Colleges of Acupuncture and Oriental Medicine*.
- Hübschle, Annette, 2008: *Drug mules: Pawns in the international narcotics trade*. ISS Today. <<http://www.issafrica.org/iss-today/drug-mules-pawns-in-the-international-narcotics-trade>>.
- Hübschle, Annette, 2010: *Organised crime in Southern Africa*. Pretoria, South Africa: Institute for Security Studies.
- Hübschle, Annette, 2010-2011: *Research into organized crime in Southern Africa*; Organized Crime and Money Laundering Programme. Cape Town: Institute for Security Studies.
- Hübschle, Annette, 2014: Of bogus hunters, queenpins and mules: the varied roles of women in transnational organized crime in Southern Africa. In: *Trends in Organized Crime* 17, 31-51. <<http://dx.doi.org/10.1007/s12117-013-9202-8>>

- Hübschle, Annette/Elrena Van der Spuy, 2012 Organized crime and law enforcement in Southern Africa: The challenges confronting research. In: *SADC Law Journal* 2.
- Huffman, T.N., 2007: *Handbook to the Iron Age: The archaeology of pre-colonial farming societies in southern Africa*. Scottsville: University of KwaZulu-Natal Press. <<http://books.google.co.za/books?id=BikSAQAIAAJ>>
- Human Rights Watch, 2011: *Ripe with abuse: Human rights conditions in South Africa's fruit and wine industries*. New York: Human Rights Watch. <<http://www.hrw.org/sites/default/files/reports/safarm0811webwcover.pdf>>
- Humphreys, Jasper/M. L. R. Smith, 2014: The 'rhinofication' of South African security. In: *International Affairs* 90, 795-818. <<http://dx.doi.org/10.1111/1468-2346.12141>>
- Hunter, Jackie/Susie Stephens, 2010: Is open innovation the way forward for big pharma? In: *Nat Rev Drug Discov* 9, 87-88. <<http://dx.doi.org/10.1038/nrd3099>>
- Hutton, Jon/Barnabas Dickson, 2000a: *Endangered species, threatened convention: The past, present and future of CITES, the Convention on International Trade in Endangered Species of Wild Flora and Fauna*. London: Earthscan.
- Hutton, Jon/Barnabas Dickson, 2000b: Introduction. In: Jon Hutton/Barnabas Dickson (eds.), *Endangered species threatened convention: The past, present and future of CITES, the Convention on International Trade in Endangered Species of Wild Flora and Fauna*. London: Earthscan, XV-XX.
- Huxley, Chris, 2000: CITES: The Vision. In: Jon Hutton/Barnabas Dickson (eds.), *Endangered Species threatened convention: The past, present and future of CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora*. London: Earthscan Publications Ltd., 3-12.
- Ingram, Darcy, 2009: " Au temps et dans les quantités qui lui plaisent": Poachers, Outlaws, and Rural Banditry in Quebec. In: *Histoire sociale/Social history* 42, 1-34.
- Institute for Security Studies, 2009-2010: *Annual review of organized crime in southern Africa*. Unpublished research report.
- International Sociological Association, 2001: *Code of ethics*. <http://www.isa-sociology.org/about/isa_code_of_ethics.htm>.
- Ipsos Marketing, 2013: *Consumer research on rhino horn usage in Vietnam*. Ho Chi Minh City: WWF
- TRAFFIC.
- IT News Africa, 2014: Movitel named fastest-growing telco in Africa. In: *IT News Africa*, 10 October 2014. <<http://www.itnewsafrika.com/2014/10/movitel-named-fastest-growing-telco-in-africa/>>
- IUCN, 2000: *The World Conservation Union on the Effectiveness of Trade Measures Contained in The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*IUCN.
- IUCN, 2012a: *Ceratotherium simum*. <<http://www.iucnredlist.org/details/4185/0>> (20 May 2014).
- IUCN, 2012b: *Diceros bicornis*. <<http://www.iucnredlist.org/details/6557/0>> (20 May 2014).
- IUCN Standards and Petitions Subcommittee, 2010: *Guidelines for Using the IUCN Red List Categories and Criteria. Version 8.1*, Prepared by the Standards and Petitions Subcommittee in March 2010. <<http://intranet.iucn.org/webfiles/doc/SSC/RedList/RedListGuidelines.pdf> > (18 April 2012).

- Jacobs, Bruce, 1998: Researching crack dealers: Dilemmas and contradictions. In: Jeff Ferrell/Mark Hamm (eds.), *Ethnography at the Edge*. Boston: Northern University Press, 160-177.
- Jacobs, Bruce A., 1999: *Dealing crack: The social world of streetcorner selling*. Lebanon, New Hampshire: Northeastern University Press.
<<https://books.google.co.za/books?id=glfDZ7Mx08oC>>
- Jacobs, Bruce A., 2006: The case for dangerous fieldwork. In: D. Hobbs/R. E. Wright (eds.), *The Sage handbook of fieldwork*. New York: Sage, 157-168.
- Jacoby, K., 2003: *Crimes against nature: Squatters, poachers, thieves, and the hidden history of American conservation*: University of California Press.
<https://encrypted.google.com/books?id=S_bO4-02aNUC>
- Jacques, Scott/Richard Wright, 2008: Intimacy with outlaws: The role of relational distance in recruiting, paying, and interviewing underworld research participants. In: *Journal of Research in Crime and Delinquency* 45, 22-38.
- Jenkins, Jerry, 1988: *Beyond the informal sector*. San Francisco: Institute for Contemporary Studies Press.
- Jenyns, S., 1954: The Chinese rhinoceros and Chinese carvings in rhinoceros horns. In: *Transactions of the Oriental Ceramic Society* 29, 15–26.
- Jones, Brian T.B., 1999: Policy lessons from the evolution of a community-based approach to wildlife management, Kunene Region, Namibia. In: *Journal of International Development* 11, 295–304.
- Jones, Bryan D., 1999: Bounded rationality. In: *Annual review of political science* 2, 297-321.
- Jones, Jonathan, 2015: A picture of loneliness: You are looking at the last male northern white rhino. In: *The Guardian*.
<<http://www.theguardian.com/commentisfree/2015/may/12/last-male-northern-white-rhino>>
- Jones, Pelham, 2014: *Rhinos on private land*, author.
- Jooste, Johan, 2012: *Supporting affidavit*. 000089, Directorate for Priority Crime Investigations (22 March 2012).
- Joubert, Dereck, 2015: Dereck Joubert responds to economics of hunting. In: *Africa Geographic*. <<http://africageographic.com/blog/dereck-joubert-responds-to-a-hunter-on-the-economics-of-hunting/>>
- Justus, James, et al., 2009: Buying into conservation: Intrinsic versus instrumental value. In: *Trends in Ecology & Evolution* 24, 187-191.
- Kahler, Jessica S./Meredith L. Gore, 2012: Beyond the cooking pot and pocket book: Factors influencing noncompliance with wildlife poaching rules. In: *International Journal of Comparative and Applied Criminal Justice* 36, 103-120.
<<http://dx.doi.org/10.1080/01924036.2012.669913>>
- Kahler, Jessica S./Meredith L. Gore, 2015: Local perceptions of risk associated with poaching of wildlife implicated in human-wildlife conflicts in Namibia. In: *Biological Conservation*.
<<http://www.sciencedirect.com/science/article/pii/S0006320715000567>>
- Kaplan, Robert, 2004: Treatment of homosexuality during apartheid. In: *British Medical Journal* 329, 7480. <<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC535952/>>
- Kaptchuk, Ted J., 2002: The placebo effect in alternative medicine: Can the performance of a healing ritual have clinical significance? In: *Annals of internal medicine* 136, 817–825.
- Katz, J., 1988: *Secductions of crime*. New York: Basic Books.

- Keller, Otto, 1909: Nashorn (*Rhinoceros indicus unicornis*; *Rhinoceros africanus bicornis*) *Die antike Tierwelt*. Leipzig: Wilhelm Engelmann, 383–389.
- Kenney, Michael, 2007: The architecture of drug trafficking: Network forms of organisation in the Colombian cocaine trade. In: *Global Crime* 8, 233-259.
- Kerry, John, 2013: *First reward offer for transnational organized crime*. Washington, DC: U.S. Department of State.
<<http://www.state.gov/secretary/remarks/2013/11/217558.htm>>.
- Khan, Samia/Robert VanWynsberghe, 2008: Cultivating the under-mined: Cross-case analysis as knowledge mobilization. In: *Forum: Qualitative Social Research* 9.
<<http://www.qualitative-research.net/index.php/fqs/article/view/334/730>>
- Kisling, V.N., 2000: *Zoo and aquarium history: Ancient animal collections to zoological gardens*. London: CRC Press. <<http://books.google.co.za/books?id=dxTrR5nOE0UC>>
- Kitzinger, Jenny /Rosaline Barbour, 1999: Introduction: The challenge and promise of focus groups. In: Jenny Kitzinger/Rosaline Barbour (eds.), *Developing focus group research: Politics, theory and practice*. London: SAGE Publications, 1–20.
- Kleiner, F., 2009: *Gardner's art through the ages: The western perspective*. Boston: Wadsworth Cengage Learning. <<http://books.google.co.za/books?id=mBrvazPDFoYC>>
- Kloppers, Roelof J., 2005: *Border crossings: Life in the Mozambique/South Africa borderland since 1975*. University of Pretoria.
<<http://www.repository.up.ac.za/handle/2263/28053>>
- Knight, M. H., et al., 2015: *Biodiversity plan for the white rhinoceros (Ceratotherium simum)*, Department of Environmental Affairs. Pretoria, South Africa: Minister of Environmental Affairs.
- Knight, Michael/African Rhino Specialist Group, 2013: *Dallas Safari Club Auction of a permit to hunt a Namibian black rhino*. Open Letter. Port Elizabeth: African Rhino Specialist Group. <4 March 2015>
- Koen, Hildegarde, et al., 2014: *A framework for inferring predictive distributions of rhino poaching events through causal modelling*. Pretoria: Council for Scientific and Industrial Research.
- Kopytoff, Igor, 1986: The cultural biography of things: Commoditization as process. In: Arjun Appadurai (ed.) *The social life of things: Commodities in cultural perspective*. Cambridge: Cambridge University Press, 70-73.
- Krug, Wolfgang, 2001: *Private supply of protected land in southern Africa: A review of markets, approaches, barriers and issues*. World Bank/ OECD International Workshop on Market Creation for Biodiversity Products and Services. Paris.
- Krüger, Johan/John Hume, 2015: *Consolidated heads of arguments*. Case No: 57221/12, High Court of South Africa. Johannesburg: Gauteng Local Division.
- Kruger National Park, 2009: *Hunting can help protect wildlife in South Africa*.
- Kruger National Park, 2015: *Great Limpopo Transfrontier Park*.
<<http://www.krugerpark.co.za/great-limpopo-transfrontier-park-south-africa.html>>.
- Krumer-Nevo, Michal/Mirit Sidi, 2012: Writing against othering. In: *Qualitative Inquiry* 18, 299-309. <<http://qix.sagepub.com/content/18/4/299.abstract>>
- Kumleben, M E, 1996: *Report of the Chairman Commission of Inquiry into the alleged smuggling of and illegal trade in ivory and rhinoceros horn in South Africa*. Cape Town, South Africa: Hansard.

- Kvale, Steinar/Steinar Brinkmann, 2009: *InterViews: Learning the craft of qualitative research interviewing*. 3rd. Auflage. Los Angeles: Sage Publications.
<<http://books.google.de/books?id=bZGvwsP1BRwC>>
- Kvinta, Paul, 2014: The madness of modern-day poaching. In: *Oustide Live Bravely*.
<<http://www.outsideonline.com/outdoor-adventure/nature/Hornswoggled.html>>
- Laburn, Helen P./Duncan Mitchell, 1997: Extracts of rhinoceros horn are not antipyretic in rabbits. In: *Journal of Basic and Clinical Physiology* 8, 1–11.
- Lancaster, Lisa, 2014: *Do crime levels spike in South Africa over the festive season*. Africa Check. <<http://africacheck.org/2014/12/17/analysis-do-crime-levels-spike-in-south-africa-over-the-festive-season/>> (21 April 2015).
- Langholz, Jeffrey/Graham I.H. Kerley, 2006: *Combining conservation and development on private lands: An assessment of ecotourism-based private game reserves in the Eastern Cape*. Port Elizabeth: Center for Arican Conservation Ecology, Nelson Mandela Metropolitan University.
- Latour, Bruno, 1993: *The pasteurization of France*. Havard: Harvard University Press.
- Laufer, Berthold, 1914: Chinese clay figures part 1: Prolegomena on the history of defensive armour. In: *Publications of the Field Museum of Natural History. Anthropological Series* 13, 73–315. <<http://www.jstor.org/stable/29782143>>
- Lavers, C., 2009: *The natural history of unicorns*: HarperCollins.
<<http://books.google.co.za/books?id=GzMtZjql37oC>>
- Lavorgna, Anita, 2014: Wildlife trafficking in the Internet age. In: *Crime Science* 3, 1-12.
<<http://dx.doi.org/10.1186/s40163-014-0005-2>>
- Lawhon, M./C. Herrick/S. Daya, 2014: Researching sensitive topics in African cities: reflections on alcohol research in Cape Town. In: *South African Geographical Journal* 96, 15-30.
- Lawrence, Thomas B./Nelson Phillips, 2004: From Moby Dick to Free Willy: Macro-cultural discourse and institutional entrepreneurship in emerging institutional fields. In: *Organization* 11, 689-711.
- LAWSA, 2014a: *Wide classification*. LAWSA Volume 1 (electronically updated).
- LAWSA, 2014b: *Wild animals*. LAWSA Volume 1 (electronically updated) (20 November 2014).
- Layne, Elizabeth, 1973: Eighty nations write Magna Carta for Wildlife. In: *Audubon Magazine* 3, 79–102.
- Leader-Williams, N., et al., 2005: Trophy hunting of black rhino *diceros bicornis*: Proposals to ensure its future sustainability. In: *Journal of International Wildlife Law & Policy* 8, 1-11. <<http://dx.doi.org/10.1080/13880290590913705>>
- Leader-Williams, Nigel, 2003: Regulation and protection: Successes and failures in rhinoceros conservation". In: Sara Oldfield (ed.) *The trade in wildlife: Regulation for conservation*. London: Earthscan Publications Ltd.
- Legal Brief, 2014: *SANParks and SAPS under fire in anti-poaching fight*. Sunday Times. South Africa. <<http://legalbrief.co.za/story/sanparks-and-saps-under-fire-in-anti-rhino-poaching-fight/>> (3 February 2015).
- Legodi, J, 2015: *In the matter between Krüger Johan, Hume John and The Minister of Water and Environmental Affairs, Wildlife Ranching South Africa, The Private Rhino Owners Association*. Case No: 57221/12, High Court of South Africa. Pretoria, Gauteng Division.
- Lehmann, David, et al., 2013: Dietary plasticity of generalist and specialist ungulates in the Namibian desert: A table isotopes approach. In: *Plos One* 8, e72190.
<<http://dx.doi.org/10.1371/journal.pone.0072190>>

- Lemieux, A. M./R. V. Clarke, 2009: The international ban on ivory sales and its effects on elephant poaching in Africa. In: *British Journal of Criminology* 49, 451–471.
- Lester, Matthew, 2014: *Agric land switched to game farming coming back to bite SA*. <<http://www.ru.ac.za/businessschool/latestnews/agriclandswitchedtogamefarmingcomingbacktobitesa.html>>.
- Levey, Adrian and Scott-Clark, Cathy, 2007: Poaching for Bin Laden. In: *The Guardian*. <<http://www.guardian.co.uk/world/2007/may/05/terrorism.animalwelfare>>
- Levi, Michael, 2009: McMafia: Crime without frontiers. In: *Trends in Organized Crime* 12, 78–80.
- Liebling, Alison, 2001: Whose side are we on? Theory, practice and allegiances in prisons research. In: *British Journal of Criminology* 41, 472–484.
- Liebling, Alison, 2014: Postscript: Integrity and emotion in prisons research. In: *Qualitative Inquiry* 20, 481–486. <<http://qix.sagepub.com/content/20/4/481.abstract>>
- Lindelauf, Roy/Peter Borm/Herbert Hamers, 2009: The influence of secrecy on the communication structure of covert networks. In: *Social Networks* 31, 126–137. <<http://www.sciencedirect.com/science/article/pii/S0378873309000021>>
- Lindsey, P. A./P. A. Roulet/S. S. Romañach, 2007: Economic and conservation significance of the trophy hunting industry in sub-Saharan Africa. In: *Biological Conservation* 134, 455–469. <<http://www.sciencedirect.com/science/article/pii/S0006320706003831>>
- Lindsey, P., et al., 2012: Possible relationships between the South African captive–bred hunting industry and the hunting and conservation of lions elsewhere in Africa. In: *South African Journal of Wildlife Research* 42, 11–22.
- Lindsey, Peter A., 2008: Trophy hunting in Sub–Saharan Africa: Economic scale and conservation significance. In: *Best practices in sustainable hunting*. <<ftp://ftp.fao.org/docrep/fao/010/aj114e/aj114e09.pdf>>
- Lo, T. Wing, 2010: Beyond social capital: Triad organized crime in Hong Kong and China. In: *British Journal of Criminology* 50, 851–872. <<http://bjc.oxfordjournals.org/content/50/5/851.abstract>>
- Lombardo, Robert M., 2013: The Chicago outfit: Alien conspiracy or machine politics? In: *Journal of Contemporary Criminal Justice* 29, 233–255. <<http://ccj.sagepub.com/content/29/2/233.abstract>>
- Long Hui Corporation, 2006: *Shaving alive rhino horn technology and rhino horn biological medicine industrialization project*. Beijing: Long Hui. <<http://www.rhinoresourcecenter.com/index.php?s=1&act=pdfviewer&id=1331457374&folder=133>>.
- Lopes, Adrian A., 2014: Civil unrest and the poaching of rhinos in the Kaziranga National Park, India. In: *Ecological Economics* 103, 20–28. <<http://www.sciencedirect.com/science/article/pii/S0921800914001153>>
- Lorenzen, Eline D., et al., 2011: Species-specific responses of Late Quaternary megafauna to climate and humans. In: *Nature* 479, 359–364.
- Lubnet, Steven, 2015: Ethics on the run. In: *The New Rambler*. <<http://newramblerreview.com/book-reviews/law/ethics-on-the-run>>
- Lunstrum, Elizabeth, 2010: Reconstructing history, grounding claims to space: History, memory, and displacement in the Great Limpopo Transfrontier Park. In: *South African Geographical Journal* 92, 129–143. <<http://dx.doi.org/10.1080/03736245.2010.530062>>

- Lunstrum, Elizabeth, 2013: Articulated sovereignty: Extending Mozambican state power through the Great Limpopo Transfrontier Park. In: *Political Geography* 36, 1-11. <<http://www.sciencedirect.com/science/article/pii/S0962629813000413>>
- Lunstrum, Elizabeth, 2014: Green Militarization: Anti-poaching efforts and the spatial contours of Kruger National Park. In: *Annals of the Association of American Geographers*, 1-17. <<http://dx.doi.org/10.1080/00045608.2014.912545>>
- Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora, 2014: *The Lusaka Agreement Task Force*. <http://lusakaagreement.org/?page_id=24>
- Luske, Bodina L., et al., 2009: Impact of the black rhinoceros (*Diceros bicornis minor*) on a local population of *Euphorbia bothae* in the Great Fish River Reserve, South Africa. In: *African Journal of Ecology* 47, 509-517. <<http://dx.doi.org/10.1111/j.1365-2028.2008.00973.x>>
- Lynch, Michael J./Paul B. Stretesky, 2011: Similarities between green criminology and green science: Toward a typology of green criminology. In: *International Journal of Comparative and Applied Criminal Justice* 35, 293-306.
- Mabunda, Lazaro, 2012: "Os agentes envolvidos são desertores das fileiras da Guarda Fronteira". In: *O País*.
- MacCoun, R., 1996: Assessing Alternative Drug Control Regimes. In: *Journal of Policy Analysis and Management* 15, 330-352.
- MacKenzie, Donald and Yuval Millo, 2003: Constructing a market, performing Theory: The historical sociology of a financial derivatives exchange. In: *American Journal of Sociology* 109, 107-145.
- Mackenzie, John M., 1988: *The empire of nature: Hunting, conservation and British imperialism*. Manchester: Manchester University Press.
- MacKenzie, Penny, 1998: The SANDF: Conservation or contamination. In: J. Cock/P. MacKenzie/International Development Research Centre (eds.), *From defence to development: Redirecting military resources in South Africa*. Ottawa: New Africa Books. <http://books.google.de/books?id=2ojN_M7HiZsC>
- Mackenzie, Simon/Tess Davis, 2014: Temple looting in Cambodia: Anatomy of a statue trafficking network. In: *British Journal of Criminology*. <<http://bjc.oxfordjournals.org/content/early/2014/06/13/bjc.azu038.abstract>>
- MacLeod, Fiona, 7 November 2014: *Kruger's rhino poaching 'highway'*. Oxpeckers. <<http://oxpeckers.org/2014/11/krugers-rhino-poaching-highway/>>
- MacLeod, Fiona, 9 September 2014: Kruger rhino sales canned. In: *Oxpeckers Environmental Journalism*. <<http://www.tourismupdate.co.za/home/detail?articleId=73793&useOldId=true>>
- Magome, Hector/J. Murombedzi, 2012: Sharing South African national parks: Community land and conservation in a democratic South Africa. In: W.M. Adams/M. Mulligan (eds.), *Decolonizing nature: Strategies for conservation in a post-colonial era*. London: Earthscan LLC, 108–134. <<http://books.google.de/books?id=30Yefk9aIL8C>>
- Malinowski, B./M.W. Young, 1979: *The ethnography of Malinowski: The Trobriand Islands 1915–18*. London: Routledge & Kegan Paul. <<http://books.google.co.za/books?id=RNQ9AAAAIAAJ>>
- Malone, Susan, 2003: Ethics at home: Informed consent in your own backyard. In: *International Journal of Qualitative Studies in Education* 16, 797–815. <<http://dx.doi.org/10.1080/09518390310001632153>>

- Mandela, Nelson, 2013 *A tribute to Nelson Mandela Nelson – his vision, legacy & challenge*. (published upon his passing).
<<http://www.wildernessfoundation.org.uk/2013/12/11/tribute-nelson-mandela/>>.
- Marcus, George E., 1995: Ethnography in/of the world system: The emergence of multi-sited ethnography. In: *Annual Review of Anthropology* 24, 95-117.
- Marcus, George E., 1999: What is at stake—and is not—in the idea and practice of multi-sited ethnography. In: *Canberra anthropology* 22, 6-14.
- Martin, E.B./C. Martin/M. Amin, 1982: *Run, rhino, run*. London: Chatto & Windus.
<<http://books.google.co.za/books?id=60NIAQAIAAJ>>
- Martin, Esmond B./Lucy Vigne/Crawford Allan, 1997: *On a knife's edge: The rhinoceros horn trade in Yemen* TRAFFIC International.
- Martin, R. B., 2012: A legal trade in rhino horn: Hobson's choice. Paper presented at conference on. <http://www.rhinosourcecenter.com/pdf_files/133/1331766338.pdf>
- Martin, R.B., 2000: CITES and the CBD. In: Jon Hutton/Barnabas Dickson (eds.), *Endangered species threatened convention: The past, present and future of CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora*. London: Earthscan 125–133.
- Marx, Karl, [1867] 2015: *Capital: A critique of political economy, Volume 1*. Vol. I. First English edition of 1887. Auflage. Moscow: Progress Publishers.
<<https://www.marxists.org/archive/marx/works/download/pdf/Capital-Volume-I.pdf>>
- Mason, Charles F./Erwin H. Bulte/Richard D. Horan, 2012: Banking on extinction: endangered species and speculation. In: *Oxford Review of Economic Policy* 28, 180-192.
- Massé, Francis/Elizabeth Lunstrum, 2015: Accumulation by securitization: Commercial poaching, neoliberal conservation, and the creation of new wildlife frontiers. In: *Geoforum*. <<http://www.sciencedirect.com/science/article/pii/S001671851500069X>>
- Mathews, Gordon, 2011: *Ghetto at the center of the world: Chungking Mansions, Hong Kong*. Chicago: University of Chicago Press.
- Max Planck Society, 2001: *Verantwortliches Handeln in der Wissenschaft: Analysen und Empfehlungen*. München: Max Planck Society.
- Max Planck Society, 2010: *Guidelines and rules of the Max Planck Society on a responsible approach to freedom of research and research risks*, Senate of the Max Planck Society.
<http://www.mpg.de/229644/Research_freedom>.
- Maykut, Pamela /Richard Morehouse, 1994: *Beginning qualitative researchers: A philosophical and practical guide*. Washington, DC: Falmer.
- McCall, George J., 2006: The fieldwork tradition. In: Dick Hobbs/Richard Wright (eds.), *The Sage handbook of fieldwork*. London: Sage Publications, 3–22.
- McCoy, Alfred W., [1972] 2003: *The politics of heroin: CIA complicity in the global drug trade*. Revised. Auflage. Chicago: Lawrence Hill Books.
- McCracken, D.P., 2008: *Saving the Zululand Wilderness: An early struggle for nature conservation*. Cape Town: Jacana.
<<http://books.google.co.za/books?id=3Tc9AQAIAAJ>>
- McFee, Kathleen, 1999: Selling nature to save it? Biodiversity and green developmentalism. In: *Environment and Planning D: Society and Space* 17, 133–154.
- McKie, Linda/Louise Ryan, 2012: Exploring trends and challenges in sociological research. In: *Sociology* 46, 1-7. <<http://soc.sagepub.com/content/46/6/1.abstract>>
- Merton, Robert K., 1972: Insiders and outsiders: A chapter in the sociology of knowledge. In: *American Journal of Sociology* 78, 9-47. <<http://www.jstor.org/stable/2776569>>

- Meskill, Lynn, 2012: *The nature of heritage: The new South Africa*. Oxford: Wiley-Blackwell.
- Michell, Lynn, 1999: Combining focus groups and interviews: Telling how it is; telling how it feels. In: Jenny Kitzinger/Rosaline Barbour (eds.), *Developing focus groups: Politics, theory and practice*. London: SAGE Publications, 36–46.
- Mikecz, Robert, 2012: Interviewing elites: Addressing methodological issues. In: *Qualitative Inquiry* 18, 482-493. <<http://qix.sagepub.com/content/18/6/482.abstract>>
- Miles, Matthew B./A. Michael Huberman, 1994: *Qualitative data analysis*. 2nd. Auflage. Thousand Oaks: Sage Publications.
- Milgroom, Jessica/Marja Spierenburg, 2008: Induced volition: Resettlement from the Limpopo National Park, Mozambique. In: *Journal of Contemporary African Studies* 26, 435-448. <<http://dx.doi.org/10.1080/02589000802482021>>
- Milledge, S. A. H., 2007: Illegal killing of African rhinos and horn trade, 2000-2005: the era of resurgent markets and emerging organized crime. In: *Pachyderm*, 96-107.
- Miller, Jody, 2005: *The status of qualitative research in criminology*. Workshop on interdisciplinary standards for systemic qualitative research, Michele Lamont. Arlington, Virginia.
- Milliken, T./R.H. Emslie/B. Talukdar, 2009: *African and Asian rhinoceroses – Status, conservation and trade*. Geneva, Switzerland: CITES Secretariat.
- Milliken, Tom, 2014: *Illegal trade in ivory and rhino horn: An assessment report to improve law enforcement under the Wildlife TRAPS Project* USAID and TRAFFIC.
- Milliken, Tom, et al., 1993: *The decline of the black rhino in Zimbabwe: Implications for future rhino conservation*. Cambridge: TRAFFIC International.
- Milliken, Tom/Jo Shaw, 2012: *The South Africa–Viet Nam rhino horn trade nexus: A deadly combination of institutional lapses, corrupt wildlife industry professionals and Asian crime syndicates*. Johannesburg, South Africa: TRAFFIC.
- Mintz, Sidney, 1985: *Sweetness and power: The place of sugar in modern history*. New York: Penguin.
- Mngoma, Nosipho, 16 May 2013: Cash boost to help save rhinos. In: *IOL Daily News*. <<http://www.iol.co.za/dailynews/news/cash-boost-to-help-to-save-rhinos-1.1516724-.UzTjkrW-2So>>
- Mofson, Phyllis, 2000: Zimbabwe and CITES: Influencing the international regime. In: Jon Hutton/Barnabas Dickson (eds.), *Endangered Species threatened convention: The past, present and future of CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora*. London: Earthscan Publications Ltd, 107–122.
- Molewa, Edna, 2011: *Question No. 2464 for written reply: National Assembly*, National Assembly of South Africa. Cape Town: HANSARD.
- Molewa, Edna, 2012a: *Internal question No. 21 NW2325E*, National Assembly of South Africa. Cape Town: HANSARD. <https://www.environment.gov.za/sites/default/files/question1936_exportation_of_rhinos_to_vietnam.pdf>.
- Molewa, Edna, 2012b: *Internal question paper No. 9 NW1067E*, National Assembly of South Africa. Cape Town: HANSARD. <<https://www.environment.gov.za/sites/default/files/question889.pdf>>.
- Molewa, Edna, 2014: *Parliamentary question No. 786 NW873E*, National Assembly of South Africa. Cape Town: HANSARD. <<http://www.politicsweb.co.za/politicsweb/view/politicsweb/en/page71654/page71651?oid=689074&sn=Detail&pid=71651>>.

- Molewa, Edna, 2015: *Minister Edna Molewa highlights progress in the war against poaching*. Pretoria, South Africa: Department of Environmental Affairs.
<https://www.environment.gov.za/mediarelease/molewa_onwaragainstpoaching> (10 May 2015).
- Molewa, Edna, 2016: *Minister Edna Molewa highlights progress in the fight against rhino poaching*. Pretoria: Department of Environmental Affairs (21 January 2016).
- Momberg, Elanor, 2009: Poachers play dirty to get what they want. In: *Independent Online*.
<<http://www.iol.co.za/news/south-africa/poachers-play-dirty-to-get-what-they-want-1.450221>>
- Montesh, Moses, 2013: *Rhino poaching: A new form of organised crime*: UNISA.
<<http://www.unisa.ac.za/claw/news/wp-content/uploads/2013/04/rhion-poaching-for-profit.pdf>> (20 May 2014).
- Moreto, William D./Ronald V. Clarke, 2014: Script analysis of the transnational illegal market in endangered species: Dream and reality. In: Benoit Leclerc/Richard Wortley (eds.), *Cognition and crime: Offender decision making and script analyses*. London: Routledge, 209–220.
- Moreto, William D., et al., 2014: Law enforcement monitoring in Uganda: The utility of official data and time/distance-based ranger efficiency measures. In: A. M. Lemieux (ed.) *Situational prevention of poaching* Oxford: Routledge, 82–101.
- Morselli, Carlo, 2001: Structuring Mr. Nice: Entrepreneurial opportunities and brokerage positioning in the cannabis trade. In: *Crime, Law and Social Change* 35, 203-244.
- Morselli, Carlo, 2008: *Inside Criminal Networks*: Springer.
<<https://encrypted.google.com/books?id=g1gsQXALksUC>>
- Morselli, Carlo/Cynthia Giguère/Katia Petit, 2007: The efficiency/security trade-off in criminal networks. In: *Social Networks* 29, 143-153.
<<http://www.sciencedirect.com/science/article/pii/S0378873306000268>>
- Mould, R.F., 1996: *Mould's medical anecdotes: Omnibus edition*. New York: Taylor & Francis.
<<http://books.google.co.za/books?id=ag6OunNxHrMC>>
- Mouton, Hildegard/JP de Villiers, 2012: *A prologue to estimating the intent of a potential rhino poacher*. Pretoria: Council for Scientific and Industrial Research.
<http://researchspace.csr.co.za/dspace/bitstream/10204/6384/1/Mouton1_2012.pdf>.
- Moyle, Brendan, 2009: The black market in China for tiger products. In: *Global Crime* 10, 124-143.
- Moyle, Brendan, 2013: Conservation that's more than skin-deep: alligator farming. In: *Biodiversity and Conservation*, 1-15. <<http://dx.doi.org/10.1007/s10531-013-0501-9>>
- Msimang, Mavuso, 2012: *Rhino issue manager: Final report*. Pretoria: Department of Environmental Affairs.
- Muleya, Thupeyo, 2014: Fake rhino horn lands man in trouble In: *The Herald*, 14 July 2014.
- Murphree, Marshall, 2013: Foreword. In: Jens A. Andersson, et al. (eds.), *Transfrontier conservation areas*. London: Routledge, XV–XX.
- Murthy, Dhiraj, 2008: Digital ethnography: An examination of the use of new technologies for social research. In: *Sociology* 42, 837-855.
<<http://soc.sagepub.com/content/42/5/837.abstract>>
- Muth, Robert M., 1998: The persistence of poaching in advanced industrial society: Meanings and motivations—An introductory comment. In: *Society & Natural Resources* 11, 5-7.
<<http://dx.doi.org/10.1080/08941929809381057>>

- Muth, Robert M./John F. Bowe, 1998: Illegal harvest of renewable natural resources in North America: Toward a typology of the motivations for poaching. In: *Society & Natural Resources* 11, 9-24. <<http://dx.doi.org/10.1080/08941929809381058>>
- Nadal, Alejandro, 2015: *The economics of legal wildlife trade: pitfalls and perspectives*. Wildlife in Crisis: Markets, responses and solutions. University of Cape Town, Cape Town (19 May 2015).
- Nadal, Alejandro/Francisco Aguayo, 2014: *Leonardo's sailors: A review of the economic analysis of wildlife trade*The Leverhulme Centre for the Study of Value.
- Nadelmann, E. A., 1990: Case for Legalization. In: David Boaz (ed.) *From Crisis in Drug Prohibition*. 13-43.
- Naidoo, L., 2005: The effects of game farms on socio-economic rights. In: ECARP (ed.) *Advancing positive land rights and sustainable livelihoods for rural communities*. Grahamstown.
- Narayan, U. , 1999: *Dislocating cultures, identities, traditions, and Third World feminism*. New York: Routledge.
- National Prosecuting Authority, 2011: *Die Staat teen Dawid Jacobus Groenewald en 10 ander: Akte van Beskuldiging*, Musina Regional Court.
- Natural–History–Conservation.com, 2015: *Making replicas of rhino horns and attaching them to taxidermy specimens on display at the Powell-Cotton Museum, Quex Park*. <<http://www.natural-history-conservation.com/quexpark.htm>>.
- Navsa, ADP/JJA Wallis/JJA Swain, 2014: *Lemthongthai versus the State (849/2013) [2014] ZASCA 131 (25 September 2014)*. Case No. 849/2013, The Supreme Court of Appeal of South Africa. <http://www.justice.gov.za/sca/judgments/sca_2014/sca2014-131.pdf>.
- Naylor, R. T., 2004: The underworld of ivory. In: *Crime, Law and Social Change* 42, 261-295.
- Naylor, R.T., 2004 (b): *Wages of crime: Black markets, illegal finance and the underworld economy*. Vol. revised edition. Montreal: McGill Queens's University Press.
- Nefale, Mukondeleli Michael 2002: *The politics of land in Levubu, Northern Province c. 1935–1998*. Cape Town: University of Cape Town. <http://uctscholar.uct.ac.za/PDF/104136_Nefale_MM.pdf>
- Nellemann, Christian , et al., 2014: *The environmental crime crisis – Threats to sustainable development from illegal exploitation and trade in wildlife and forest resources. A UNEP Rapid Response Assessment*. Nairobi: United Nations Environment Programme and GRID-Arendal, Nairobi and Arendal. <<http://www.unep.org/unea/docs/RRCrimecrisis.pdf>>
- New Era, 2015: Namibia: 60 rhinos poached. In: *New Era*, 12 May 2015. <<http://allafrica.com/stories/201505121541.html>>
- Nichols, A., 2011: *Ctesias: On India*. London: Bloomsbury Academic Publishing.
- Nijman, V., 2010: An overview of international wildlife trade from Southeast Asia. In: *Biodiversity and Conservation* 19, 1101-1114.
- Nijman, Vincent/Chris R. Shepherd, 2014: Emergence of Mong La on the Myanmar–China border as a global hub for the international trade in ivory and elephant parts. In: *Biological Conservation* 179, 17-22. <<http://www.sciencedirect.com/science/article/pii/S0006320714002985>>
- Nijman, Vincent/Chris R. Shepherd, 2015: Trade in tigers and other wild cats in Mong La and Tachilek, Myanmar – A tale of two border towns. In: *Biological Conservation* 182, 1-7. <<http://www.sciencedirect.com/science/article/pii/S0006320714004121>>

- Njini, Felix, 13 October 2014: Namibia opts to dehorn its rhinos as it battles poachers. In: *Bloomberg*. <<http://www.bloomberg.com/news/2014-10-13/namibian-government-dehorns-rhinos-as-poaching-threat-escalates.html>>
- Nordstrom, Carolyn, 2007: *Global outlaws: Crime, money, and power in the contemporary world*. Vol. 16. Berkley: University of California Press.
- Norfolk, S. , 2004: *Examining access to natural resources and linkages to sustainable development: A case study of Mozambique*. Rome, Italy: Food and Agriculture Organisation of the United Nations.
- Nowell, Kristin, 2012a: *Rhinoceroses: Assessment of rhino horn in traditional medicine*TRAFFIC.
- Nowell, Kristin, 2012b: *Wildlife crime scorecard: Assessing compliance with and enforcement of CITES commitments for tigers, rhinos and elephants*World Wide Fund for Nature. <Available at: http://www.wwf.org.uk/news_feed.cfm?unewsid=6133>
- Odendahl, Teresa /Aileen M. Shaw, 2001: Interviewing elites. In: Jaber F. Gubrium/James A. Holstein (eds.), *Handbook of interview research*. London: SAGE Publications, 299–316.
- Olivier, John, 2011: *Police statement*. Bramley Police Station (13 May 2011).
- Orenstein, Ronald, 2013: *Ivory, horn and blood*. Buffalo: Firefly Books.
- Orkin, M./Community Agency for Social Enquiry, 1989: *Sanctions against apartheid*. Cape Town: New Africa Books. <<http://books.google.co.za/books?id=oK7WfNm-3HgC>>
- Ouzman, Sven, 2001: Seeing is deceiving: rock art and the non-visual. In: *World Archaeology* 33, 237–256.
- Paoli, Letizia, 2001: Criminal fraternities or criminal enterprises. In: P. Williams/D. Vlassis (eds.), *Combatting transnational crime: Concepts, activities and responses*. London: Frank Cass.
- Paoli, Letizia, 2002: The paradoxes of organized crime. In: *Crime, Law, And Social Change* 37, 51-97.
- Paoli, Letizia/Peter Reuter/Victoria Greenfield, 2009: *The world heroin market: Can supply be cut?* Oxford: Oxford University Press.
- Parker, J.T., 2013: *The mythic Chinese unicorn*: FriesenPress. <<http://chinese-unicorn.com/title/>>
- Parker, S./M. Wolok, 1992: *The status of poaching in the US: Are we protecting our wildlife?* Alburquerque: Center for Wildlife, University of New Mexico.
- Parliamentary Monitoring Group, 2011: *Land and tenure rights for farm dwellers and workers: Meeting with rural development/land reform stakeholders and deputy minister*, Rural Development and Land Reform. Cape Town. <<http://www.pmg.org.za/report/20110316-meeting-stakeholders-rural-development-land-reform-focusing-evidence->>.
- Parry, Marc, 2015: Conflict over sociologist's narrative puts spotlight on ethnography. In: *The Chronicle of Higher Education*. <<https://chronicle.com/article/Conflict-Over-Sociologist-s/230883/>>
- Patton, Felix, 2011: *The medicinal value of rhino horn – a quest for the truth*. First available at the Rhino Resource Centre. <http://www.rhinoresourcecenter.com/pdf_files/132/1323815303.pdf>.
- Paul, Kari, 2014: African rhinos to be airlifted to save them from extinction. In: *Mashable*, 13 August 2014. <<http://mashable.com/2014/08/13/south-africa-airlift-rhinos/>>
- Peace Parks Foundation, 6 January 2014: *Limpopo National Park special anti-poaching unit deployed*. <<http://www.peaceparks.org/news.php?pid=1365&mid=1371>>

- Peace Parks Foundation, 2014a: *Background*.
<<http://www.peaceparks.org/tfca.php?pid=19&mid=1005>>
- Peace Parks Foundation, 2014b: *Could a fence between Kruger and Limpopo National Parks stop rhino poaching?*, Peace Parks Foundation.
<<http://www.peaceparks.org/story.php?pid=1318&mid=1330>>.
- Peace Parks Foundation, 2014c: *Current status*.
<<http://www.peaceparks.org/programme.php?pid=25&mid=1009>>
- Peace Parks Foundation, 2014d: *Limpopo National Park issues 2013 revenue sharing cheque to park communities*, 9 June 2014.
<<http://www.peaceparks.co.za/news.php?pid=1365&mid=1410>>
- Peace Parks Foundation, 2014e: *Limpopo National Park special anti-poaching unit deployed*.
<<http://www.peaceparks.co.za/news.php?pid=1365&mid=1371&lid=1009>>
- Pearce, Fred, 2003: Rhino rescue plan decimates Asian antelopes. In: *New Scientist*.
<<http://www.newscientist.com/article/dn3376-rhino-rescue-plan-decimates-asian-antelopes.html> - .U_xDm0g0MZ4>
- Pienaar, Daan J./A. J. Hall–Martin/P. M. Hitchens, 1991: Horn growth rates of free-ranging white and black rhinoceros. In: *Koedoe* 34, 97–105.
- Pires, Stephen/Ronald V. Clarke, 2012: Are parrots CRAVED? An analysis of parrot poaching in Mexico. In: *Journal of Research in Crime and Delinquency* 49, 122-146.
<<http://jrc.sagepub.com/content/49/1/122.abstract>>
- Pires, Stephen F., 2014: The heterogeneity of illicit parrot markets: An analysis of seven neo–tropical open–air markets. In: *European Journal on Criminal Policy and Research*, 1-16.
<<http://dx.doi.org/10.1007/s10610-014-9246-6>>
- Player, Ian, 2013: *The white rhino saga*. Cape Town: Jonathan Ball Publishers.
- Polanyi, M /CM Arensberg/HW Pearson, 1957: *Trade and market in the early empires*. Glencoe, Illinois: Free Press.
- Polsky, Ned, 1967: *Hustlers, beats and others*. New York: Anchor Books.
- Portes, Alejandro, 2010: *Economic Sociology*. Princeton: Princeton University Press.
- Portes, Alejandro/William Haller, 2005: The informal economy. In: N. Smelser/R. Swedberg (eds.), *Handbook of economic sociology*. New York: Russel Sage Foundation, 403-425.
- Professional Hunters' Association of South Africa, 9 December 2014: *Revenue from hunting tourists breaks R1 billion mark*. <<http://www.phasa.co.za/what-is-in-the-news/phasea-press-release/item/570-revenue-from-hunting-tourists-breaks-r1-billion-mark.html>>.
- Prothero, D.R./R.M. Schoch, 2002: *Horns, tusks, and flippers: The evolution of hoofed mammals*. Baltimore: Johns Hopkins University Press.
<<http://books.google.co.za/books?id=kWpQX-sfsLgC>>
- Pryce, Ken, 1979: *Endless pressure: A study of West Indian life-styles in Bristol*. London: Penguin Books.
- PSI/Vietnam, Research and Metrics, 2015: *Rhino horn use among urban high-income men in Hanoi and Ho Chi Minh City, Vietnam*. Summary Report. Hanoi, Vietnam: TRAFFIC and PSI/Vietnam.
- Quack, Sigrid, 2009: 'Global' markets in theory and history: Towards a comparative analysis. In: *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 126-142.
<<http://ssrn.com/abstract=2121294>>
- Rabinow, Paul, 1977: *Reflections on fieldwork in Morocco*. Berkley: University of California Press. <<http://books.google.co.za/books?id=L0Xpj6gSY6gC>>

- Rademeyer, Julian, 2012: *Killing for profit: Exposing the illegal rhino horn trade*. Cape Town: Zebra Press.
- Rademeyer, Julian, 2014a: 'Groenewald gang' trial postponed. Killing for Profit. <<http://killingforprofit.com/2014/07/21/the-groenewald-gang-on-trial-2/>>.
- Rademeyer, Julian, 2014b: *Untouchable? Wildlife crime kingpin Vixay Keosavang*: Environmental Investigation Agency. <<http://eia-international.org/vixay-keosavang-an-untouchable-kingpin-of-wildlife-crime>> (18 February 2014).
- Rademeyer, Julian, 2015: North Korean diplomat expelled from SA for rhino horn trafficking. In: *News24*, 23 December 2015. <<http://www.news24.com/SouthAfrica/News/exclusive-north-korean-diplomat-expelled-from-sa-for-rhino-horn-trafficking-20151223>>
- Radin, Margaret Jane, 1996: *Contested Commodities*. Cambridge, Massachusetts: Harvard University Press.
- Raemaekers, Serge, et al., 2011: Review of the causes of the rise of the illegal South African abalone fishery and consequent closure of the rights-based fishery. In: *Ocean & Coastal Management* 54, 433-445. <<http://www.sciencedirect.com/science/article/pii/S0964569111000251>>
- Raghuram, Parvati/Clare Madge, 2006: Towards a method for postcolonial development geography? Possibilities and challenges. In: *Singapore Journal of Tropical Geography* 27, 270-288. <<http://dx.doi.org/10.1111/j.1467-9493.2006.00262.x>>
- Ramsay, Scott, 2014: *Swaziland showing Africa how to save rhinos – Interview with Ted Reilly*. Year in the Wild Blog. <<http://www.yearinthewild.com/swaziland-showing-africa-how-to-save-rhinos-interview-with-ted-reilly-part-1/>>.
- Ramutsindela, M., 2007: *Transfrontier Conservation in Africa: At the Confluence of Capital, Politics and Nature*: CABI. <<https://encrypted.google.com/books?id=6ya2XwyH-moC>>
- Ramutsindela, Maano, 2006: *Parks and people in postcolonial societies: Experiences in southern Africa*. New York: Kluwer Academic Publishers. <<http://books.google.co.za/books?id=t3GddWAjGbMC>>
- Raymond, Janice G/Janice G Raymond, 2004: Ten Reasons for Not Legalizing Prostitution and a Legal Response to the Demand for Prostitution. In: *Journal Of Trauma Practice* 2, 315-332.
- Reeve, Ros/Stephen Ellis, 1995: An insider's account of the South African security forces' role in the ivory trade. In: *Journal of Contemporary African Studies* 13, 227-243. <<http://dx.doi.org/10.1080/02589009508729574>>
- Reeve, Rosalind, 2002: *Policing international trade in endangered species*, Sustainable Development Programme. London: Earthscan Publications Ltd.
- Reeve, Rosalind, 2006: Wildlife trade, sanctions and compliance: lessons from the CITES regime. In: *International Affairs* 82, 881-897. <<http://dx.doi.org/10.1111/j.1468-2346.2006.00576.x>>
- Reilly, B., 2014: *Game ranching in South Africa* Wildlife Society. <<http://news.wildlife.org/twp/game-ranching-in-south-africa/>>
- Reinstein, Dorine, 21 August 2014: SANParks involved in rhino controversy In: *The Southern African Tourism Update*. <<http://www.tourismupdate.co.za/home/detail?articleId=73793&useOldId=true>>
- Republic of Mozambique, 2013: *Conservations Areas Act*, Assembly of the Republic. Maputo.
- Republic of South Africa, 1996: *Constitution of the Republic of South Africa*. Republic of South Africa. <<http://www.thehda.co.za/uploads/images/unpan005172.pdf>>.

- Republic of South Africa, 2013: *Rhino conservation, the illegal killing and hunting of rhinoceros in South Africa and comments on the proposal submitted by Kenya to place a zero quota for the export of hunting trophies of white rhinoceros*. Sixteenth meeting of the Conference of Parties. Bangkok, Thailand. <<http://www.cites.org/eng/cop/16/inf/E-CoP16i-38.pdf>>.
- Reuter, Peter, 1983: *Disorganized Crime the Economics of the Visible Hand*. Cambridge, Massachusetts: The MIT Press.
- Reuter, Peter, 1985: *The organization of illegal markets : An economic analysis*, NIJ research report. Washington, D.C.: National Institute of Justice, US Department of Justice.
- Reuter, Peter, 1987: Fact, fancy, and organized Crime. In: *The Public Interest* 53, 45-67.
- Reuter, Peter, 2009: Systemic violence in drug markets. In: *Crime, Law and Social Change* 52, 275-284. <<http://dx.doi.org/10.1007/s10611-009-9197-x>>
- Reuter, Peter/John Haaga, 1989: *The organization of high-level drug markets: An exploratory study*. Santa Monica, California: The Rand Corporation.
- Reuter, Peter/Harold A Pollack, 2012: Good markets make bad neighbors. In: *Criminology & Public Policy* 11, 211-220.
- Richardson, Sue/Miriam McMullan, 2007: Research ethics in the UK: What can sociology learn from health? In: *Sociology* 41, 1115-1132. <<http://soc.sagepub.com/content/41/6/1115.abstract>>
- Ripple, William J., et al., 2015: *Collapse of the world's largest herbivores*. Vol. 1. <<http://advances.sciencemag.org/advances/1/4/e1400103.full.pdf>>
- Robinson, Laura /Jeremy Schulz, 2009: New avenues for sociological inquiry: Evolving forms of ethnographic practice. In: *Sociology* 43.
- Roosevelt, Theodore, 1910: *African game trails: An account of the African wanderings of an American hunter-naturalist*. New York: St. Martin's Press.
- Rose-Greenland, Fiona/Tracey Heatherington, 2014: Norms and illegality in the social margins. In: *Journal of Modern Italian Studies* 19, 505-513. <<http://dx.doi.org/10.1080/1354571X.2014.962251>>
- Rubin, H.J./I.S. Rubin, 2012: *Qualitative interviewing: The art of hearing data*. 3rd. Auflage. London: SAGE Publications.
- Ruggiero, Vincenzo, 1996: War Markets: Corporate and Organized Criminals in Europe. In: *Social & Legal Studies* 5.
- Said, Edward W., 1979: *Orientalism*. New York: Vintage Books. <<http://books.google.de/books?id=zvJ3YwOkZAYC>>
- Sand, Peter H., 1997: Commodity or taboo? International regulation of trade in endangered species *Yearbook of International Co-operation on Environment and Development*. 19–36. <http://fni.no/YBICED/97_01_sand.pdf>
- Sandberg, Sveinung, 2008: Black drug dealers in a white welfare state. In: *British Journal of Criminology* 48, 604-619.
- Sandberg, Sveinung, 2012: The importance of culture for cannabis markets. In: *British Journal of Criminology*.
- Sandberg, Sveinung/Heith Copes, 2013: Speaking with ethnographers: The challenges of researching drug dealers and offenders. In: *Journal Of Drug Issues* 43, 176–197. <<http://jod.sagepub.com/content/43/2/176.abstract>>
- SANParks, 9 July 2012: *Revised zoning system – Kruger National Park*. <http://www.sanparks.org/parks/kruger/news.php?id=55218?PHPSESSID=p3dhcmvds_gj1fohog0q0dkeer7>

- SARPCCO, 2014: *Background*. <<http://sarpcco.org/index.php/members>>
- Satz, Debra, 2010: *Why some things should not be for sale*. Oxford: Oxford University Press.
- Savage, Mike/Roger Burrows, 2007: The Coming Crisis of Empirical Sociology. In: *Sociology* 41, 885-899. <<http://soc.sagepub.com/content/41/5/885.abstract>>
- Save the Rhino, 2014: *Rhino population figures*. <http://www.savetherhino.org/rhino_info/rhino_population_figures>.
- Saviano, Roberto, 2007: *Gomorra: A personal journey into the violent international empire of Naples' organized crime system*. New York: Farrar, Straus and Giroux. <<https://books.google.co.za/books?id=2OFYMBz1uGQC>>
- Saxton, Robert, 2007: *The future of the African rhinoceros: Its anything but black and white*. Michigan State University College: Animal Legal and Historical Center.
- Schack, Wilhelm, 2012: *Towards a strategic plan to halt rhino poaching*. RIM Talks. National Assembly, South Africa. <http://pmg-assets.s3-website-eu-west-1.amazonaws.com/docs/120126wilhelm-schack-sub_3.pdf> (26 January 2012).
- Schelling, Thomas C., 1967: Economics and criminal enterprise. In: *The Public Interest* 7, 61-78.
- Schelling, Thomas C., 1978: Economic analysis of organized crime *Readings in Criminology*. Peter Wickman and Phillip Whitten.
- Scheper-Hughes, N./L. Wacquant, 2002: *Commodifying Bodies*: SAGE Publications. <<https://encrypted.google.com/books?id=eQ8oiUCXNtYC>>
- Scheper-Hughes, Nancy, 2000: The global traffic in human organs. In: *Current Anthropology* 41, 191-211.
- Scheper-Hughes, Nancy, 2004: Parts unknown: Undercover ethnography of the organs-trafficking underworld. In: *Ethnography* 5, 29-73. <<http://eth.sagepub.com/content/5/1/29.abstract>>
- Scheyvens, R., 2014: *Development fieldwork: A practical guide*. London: SAGE Publications. <<http://books.google.de/books?id=xKw5AwAAQBAJ>>
- Schlosser, Jennifer A., 2008: Issues in interviewing inmates: Navigating the methodological landmines of prison research. In: *Qualitative Inquiry*. <<http://qix.sagepub.com/content/early/2008/06/27/1077800408318325.abstract>>
- Schmid, Jeanette, 2010: Reflections on and of Self in South Africa. In: *Qualitative Social Work* 9, 169-184. <<http://qsw.sagepub.com/content/9/2/169.abstract>>
- Schmidt-Soltau, Kai/Dan Brockington, 2007: Protected areas and resettlement: What scope for voluntary relocation? In: *World Development* 35, 2182-2202. <<http://www.sciencedirect.com/science/article/pii/S0305750X07001441>>
- Schneider, Friedrich and Ernste, Dominik, 2002: *The shadow economy*. Cambridge: Cambridge University Press.
- Schneider, Jacqueline L., 2012: *Sold into extinction: The global trade in endangered species*. Santa Barbara: Praeger. <<https://encrypted.google.com/books?id=Qz9Oa-BHkbsC>>
- Scholtz, Susan, 2012: *The survival of the rhino in South Africa, for South Africa – A critical approach*. South Africa: The Living Rhino.
- Schrader, Hanti, 2015: Anti-poaching experts wants national statistics on rhino poaching released. In: *The Lowvelder*. <<http://lowvelder.co.za/279143/anti-poaching-experts-wants-national-statistics-on-rhino-poaching-released/>>
- Schwellnus, Guido, 2012: *Qualitative text analysis*: Essex summer school.
- Scriven, Lisa/Theuns Eloff, 2003: Markets derived from nature tourism in South Africa and KwaZulu-Natal: A survey of the sale of live game. In: Bruce Aylward/Ernst Lutz (eds.),

- Nature tourism, conservation and development in KwaZulu–Natal*. Washington: The World Bank, 245–286.
- Sellar, John M., 2014a: *Is this the best we can do?* John Sellar's personal blog on Linked In. <<https://www.linkedin.com/pulse/article/20141016125602-185378273-is-this-really-the-best-we-can-do>>.
- Sellar, John M., 2014b: *Never mind the elephant – we need a policeman in the room*. Linked In. <<https://www.linkedin.com/pulse/article/20140623085456-185378273-never-mind-the-elfphant-we-need-a-policeman-in-the-room>>.
- Sellar, John M., 2014c: *Policing the trafficking of wildlife: Is there anything to learn from law enforcement responses to drug and firearms trafficking?* Geneva: The Global Initiative against Transnational Organized Crime.
- Sellar, John M., 2015: *What's happening in Kruger is so much more than poaching*. Linked In. <<https://www.linkedin.com/pulse/whats-happening-kruger-so-much-more-than-poaching-sellar-obe-frgs?trk=hp-feed-article-title>>.
- Sellar, John M. , 2008: *Written testimony to the U.S. House of Representatives, Committee on Natural Resources, regarding Poaching American Security: Impacts of Illegal Wildlife Trade*. Geneva: Secretariat of CITES.
- Shea, J., 2006: Applying evidence–based medicine to Chinese traditional medicine: Debate and Strategy. In: *Journal of Alternative and Complementary Medicine* 12, 255–263.
- Shelley, Louise, 2010: *Human Trafficking: A global perspective*. Cambridge: Cambridge University Press. <<https://books.google.co.za/books?id=XY8uJoYkNBsC>>
- Shengqing, Li/Zu Endong/Liu Lijun, 2011: Identification of rhinoceros horn and its substitutes. In: *Advanced Materials Research* 177, 636–639.
- Shepard, Odell, 1930: *Lore of the Unicorn*. <<http://www.sacred-texts.com/etc/lou/lou03.htm>>.
- Sherman, Lawrence W. , 1993: Defiance, deterrence, and irrelevance: A theory of the criminal sanction. In: *Journal of Research in Crime and Delinquency* 30, 445-473. <<http://jrc.sagepub.com/content/30/4/445.abstract>>
- Shoreman-Ouimet, Eleanor/Helen Kopnina, 2015: Reconciling ecological and social justice to promote biodiversity conservation. In: *Biological Conservation* 184, 320-326.
- Sickman, L.C.S./A.C. Soper, 1971: *The art and architecture of China*. New Haven: Yale University Press. <<http://books.google.co.za/books?id=IVS8QgAACAAJ>>
- Sidaway, James Derrick, 1992: In other worlds: On the politics of research by 'First World' geographers in the 'Third World'. In: *Area* 24, 403-408. <<http://www.jstor.org/stable/20003184>>
- Sieber, Joan E., *Planning ethically repsonsible research: A guide for students and internal review boards*. Newbury Park: SAGE Publications.
- Sieber, Joan E./Babara Stanley, 1988: Ethical and professional dimensions of socially sensitive research. In: *American Psychologist* 43, 49-55.
- Silk Road Drugs, 2014: *Could illegal sites like Silkroad be good for society*. Silk Road Drugs: How to find Silk Road and be safe. <<http://silkroaddrugs.org/>> (13 June 2014).
- Simon, Herbert A., 1972: Theories of bounded rationality. In: *Decision and organization* 1, 161-176.
- Simpson, Bob, 2006: 'You don't do fieldwork, fieldwork does you!': Between subjectivation and objectivation in anthropological fieldwork. In: Dick Hobbs/Richard Wright (eds.), *The Sage handbook of fieldwork*. London: SAGE Publications, 125–138.

- Singh, Jerome Amir, 2008: Project Coast: Eugenics in apartheid South Africa. In: *Endeavour* 32, 5–9. <<http://www.sciencedirect.com/science/article/pii/S0160932708000057>>
- Singh, Sarinda, 2008: Contesting moralities: the politics of wildlife trade in Laos. In: *Journal of Political Ecology* 15, 1-20.
- Sissener, Tone Kristin, 2001: *Anthropological perspectives on corruption*. CMI Working Papers. Bergen: Chr. Michelsen Institute.
<<http://bora.cmi.no/dspace/bitstream/10202/209/1/WP2001-05.PDF>> (8 July 2015).
- Sitas, Ari, 2014: Rethinking Africa's sociological project. In: *Current Sociology* 62, 457-471.
<<http://csi.sagepub.com/content/62/4/457.abstract>>
- Skinner, Rod, 2016: Female rhino poachers will spend tonight in prison. In: *Ladysmith Gazette*, 11 March 2016. <<http://ladysmithgazette.co.za/56453/update-female-rhino-poachers-will-spend-tonight-in-prison/> - .VuVvHxH1UZy.facebook>
- Skocpol, Theda, 1977: *Wallerstein's world capitalist system: a theoretical and historical critique*: JSTOR.
- Smith, Andrew, 1838: *Illustrations of the zoology of South Africa*. London: Smith, Elder and Cornhill.
<<https://ia600306.us.archive.org/34/items/illustrationsofz14smit/illustrationsofz14smit.pdf>>
- Smith, David, 2013: South African minister backs legalisation of rhino horn trade. In: *The Guardian*. <<http://www.theguardian.com/environment/2013/mar/25/south-africa-rhino-horn-trade>>
- Smith, N. /S. Wilson, 2002: *Changing land use trends in the thicket biome: Pastoralism to game farming* Terrestrial Ecology Research Unit 38.
- Snee, Helene, 2008: *Web 2.0 as a social science research tool* ESCR Government Placement Scheme
- The British Library. <http://www.restore.ac.uk/orm/futures/Web_2.0_final_v3.pdf>
- Sonjica, Buyelwa 2010: *Internal question paper No. 31 NW3503E*, National Assembly of South Africa. Cape Town: HANSARD.
- South African History Online, 2014: *A land dispossession history 1600s–1990s*.
<<http://www.sahistory.org.za/control-1910-1948>>.
- South African Law Commission, 1990: *Acquisition and loss of ownership of game*. Working Paper 27, Project 27. Pretoria, South Africa:
<http://books.google.co.za/books?id=2HI_AQAAIAAJ>
- South African National Parks, 2010/ 2011: *Annual Report 2010/2011*. Pretoria.
<<http://www.sanparks.org/assets/docs/general/annual-report-2011.pdf>>.
- South African National Parks, 2011/2012: *Annual Report 2011/2012*. Pretoria.
<<http://www.sanparks.org/assets/docs/general/annual-report-2012.pdf>>.
- South African National Parks, 2012/2013: *Annual Report 2012/2013*. Pretoria.
<<http://www.sanparks.org/assets/docs/general/annual-report-2013.pdf>>.
- South African National Parks, 2013/2014: *Annual report 2013/2014*. Pretoria.
<<http://www.sanparks.org/assets/docs/general/annual-report-2014.pdf>>.
- South African Veterinary Council, 2010: *Green hunts*.
<http://www.savc.org.za/pdf_docs/Green_Hunts_vets_June_2010.pdf>.
- SouthAfrica.info, 2005: *'Green hunting' the Big Five*. 18 July 2005 18 July 2005.
<<http://www.southafrica.info/travel/wildlife/greenhuntin.htm>>.
- Speart, Jessica, 1994: The rhino chainsaw massacre; conservation movement against poaching of rhino horns. In: *Buzzworm's Earth Journals* 6.

- Spiereburg, Marja, 2011: The politics of the liminal and the liminoid in transfrontier conservation in southern Africa. In: *Anthropology Southern Africa* 34, 81-88.
- Spiereburg, Marja/Conrad Steenkamp/Harry Wels, 2006: Enclosing the local for the Global Commons: Community land rights in the Great Limpopo Transfrontier Conservation Area. In: *Conservation and Society* 6, 87–97.
- Spiereburg, Marja/Harry Wels, 2010: Conservative Philanthropists, Royalty and Business Elites in Nature Conservation in Southern Africa. In: *Antipode* 42, 647-670. <<http://dx.doi.org/10.1111/j.1467-8330.2010.00767.x>>
- Staff reporter for Canberra Times, 2011: Fake horns may save the rhino. In: *Canberra Times*, 20 November 2011.
- Staff reporter for Thanhnien News, 2012: Rhino horn theft just tip of the iceberg. In: *Thanhnien News*, 26 October 2012. <<http://www.thanhniennews.com/society/rhino-horn-theft-just-tip-of-iceberg-4703.html>>
- Standing, Andre, 2003: *Rival views of organized crime*. Pretoria, South Africa: Institute for Security Studies.
- Standing, Andre, 2006: *Organised crime: A study from the Cape Flats*. Pretoria, South Africa: Institute for Security Studies.
- Stein, Michael, 2006: Your place or mine: The geography of social research. In: Dick Hobbs/Richard Wright (eds.), *The Sage handbook of fieldwork*. London: SAGE Publications, 59–76.
- Steinberg, Jonny, 2004: *Nongoloza's Children: Western Cape prison gangs during and after apartheid*. Braamfontein: Centre for the Study of Violence and Reconciliation
- Steinberg, Jonny, 2005a: *The illicit abalone trade in South Africa*. Pretoria, South Africa: Institute for Security Studies.
- Steinberg, Jonny, 2005b: *The Number: One man's search for identity in the Cape underworld and prison gangs*. Cape Town: Jonathan Ball Publishers. <<https://books.google.co.za/books?id=7vwMGQAACAAJ>>
- Steiner, Philippe, 2003/5: Gifts of blood and organs: The market and "fictitious" commodities In: *Revue Française de Sociologie* 44, 147–162.
- Steiner, Philippe/Marie Trespeuch, 2013: Managing passion and constructing interest: Online gambling, human body parts and the market. In: *Revue Française de Sociologie* 54, 143–166.
- Steinhart, E.I., 2006: *Black poachers, white hunters: A social history of hunting in colonial Kenya*. Oxford: James Currey. <<http://books.google.co.za/books?id=xXaP-eY493cC>>
- Stoddard, Ed, 6 October 2014: South Africa's Kruger Park invites bids for rhinos. In: *Reuters*. <<http://www.reuters.com/article/2014/10/06/us-safrica-rhinos-idUSKCN0HV19Y20141006>>
- Stoller, Paul, 2015: Alice Goffman and the future of ethnography. In: *The Huffington Post Books*. <http://www.huffingtonpost.com/paul-stoller/alice-goffman-and-the-future-of-ethnography- b_7585614.html>
- Strauss, Anselm /Juliet Corbin, 1998: *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks: Sage Publishers.
- Sturgis, Patrick, 2011: Designing samples. In: Nigel Gilbert (ed.) *Researching social life*. London: Sage, 165–181.
- Sullivan Brennan, Deborah, 2014: Cane they clone a rhino?... Yes, but scientists aim to beat that standard with stem cells. In: *San Diego Union Tribune*, 21 December 2014.

- Swanepoel, Gerhard, 1998: The illegal trade in rhino horn: an example of an endangered species. In: *International Journal of Risk Security and Crime Prevention* 3, 207-220.
- Tagliatesta, Francesca, 2007: Iconography of the Unicorn from India to the Italian Middle Ages. In: *East and West* 57, 175–192.
- Talbot, J.M., 2004: *Grounds for agreement: The political economy of the coffee commodity chain*. Lanham: Rowman & Littlefield Publishers.
<<https://books.google.co.za/books?id=HVleAAAAQBAJ>>
- Tanner, Christopher, 2002: *Law-making in an African context: The 1997 Mozambican Land Law*FAO. <http://www.fao.org/fileadmin/user_upload/legal/docs/lpo26.pdf>
- Taylor, Andrew , et al., 2014: *The viability of legalising trade in rhino horn in South Africa*, Department of Environmental Affairs. Pretoria: Department of Environmental Affairs.
<<http://conservationaction.co.za/wp-content/uploads/2014/04/The-viability-of-legalising-trade-in-rhino-horn-in-South-Africa.pdf>>.
- Taylor, Andrew, et al., 2014: *The viability of legalising trade in rhino horn in South Africa*. Pretoria: Department of Environmental Affairs.
- Taylor, Jonathan, 2015: The stimulants of Prohibition: Illegality and new synthetic drugs. In: *Territory, Politics, Governance*, 1-21.
<<http://dx.doi.org/10.1080/21622671.2015.1053516>>
- The Economist, 2014: Press down, pop up; Prohibition and drugs. In: *The Economist*.
- The Grand Jury for the Middle District of Alabama, 2014: *Indictment: United States of America versus Dawie Jacobus Groenewald, Janneman George Groenewald, and Valinor Trading CC, d/b/a Out of Africa Adventurous Safaris*, The Grand Jury for the Middle District of Alabama.
<<https://www.fws.gov/southeast/news/pdf/RhinoIndictment.pdf?>>.
- The IUCN Red List of Threatened Species, 2014a: *Monodon monoceros*.
<<http://www.iucnredlist.org/details/13704/0>> (4 September 2014).
- The IUCN Red List of Threatened Species, 2014b: *Saiga tatarica*.
<<http://www.iucnredlist.org/details/19832/0>> (26 August 2014).
- The People's Republic of China, 1993: *Circular of the State Council on Banning the Trade of Rhinoceros Horn and Tiger Bone*, State Council.
<http://www.unodc.org/res/cld/document/circular-of-the-state-council-on-banning-the-trade-of-rhinoceros-horn-and-tiger-bone_html/Circular_of_the_State_Council_on_Banning_the_Trade_of_Rhinoceros_Horn_and_Tiger_Bone.pdf>.
- The Regional Division of Gauteng Kempton Park, 2012: *Charge sheet and plea: The State versus Chumlong Lemthongthai, Punpitak Chunchom, Marnus Steyl, Tool Sriton, Harry Claassens, Patrick Matthys, Oubene Frank Koba*.
- The World Bank, 2001: *OP 4.12 Involuntary Resettlement*<<http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTOPMANUAL/0,,contentMDK:20064610~menuPK:64701637~pagePK:64709096~piPK:64709108~theSitePK:502184,00.html>>
- Thomson, Allison, 16 August 2014: SANParks allegedly sold rhinos to hunting farms for 'safekeeping'. In: *Africa Geographic*. <<http://africageographic.com/blog/sanparks-allegedly-sold-rhinos-to-hunting-farms-for-safekeeping/>>
- Thoumi, Francisco E., 2003: *Illegal drugs, economy, and society in the Andes*. Baltimore: John Hopkins University Press. <<https://books.google.co.za/books?id=U2p8WYvPezAC>>

- Throop, P., 1998: *Hildegard von Bingen's Physica: The complete English translation of her classic work on health and healing*. Rochester, Vermont: Inner Traditions/Bear.
- Thunberg, C.P., 1793: *Travels in Europe, Africa, and Asia performed between the years 1770 and 1779*. Vol. 2. London: W. Richardson.
<<http://books.google.co.za/books?id=slsUAAAAQAAJ>>
- Topsell, Edward, 1658: *The history of four-footed beasts and serpents*. London: E. Cotes for G. Sawbridge.
- Transform Drug Policy Foundation, 2011: *The War on Drugs: Creating crime, enriching criminals*<<https://dl.dropboxusercontent.com/u/64663568/library/Crime-briefing.pdf>>
- Trung, Phung My/Dang Linh Huong, 2013: *Tears of rhino horn in South Africa*.
<http://www.vncreatures.net/e_news_19.php>.
- Truth and Reconciliation Commission, 1998: *Truth and Reconciliation Commission of South Africa Report*. South Africa: Truth and Reconciliation Commission.
<http://www.justice.gov.za/trc/report/finalreport/Volume_2.pdf>
- Tsing, Anna Lowenhaupt, 2005: *Friction: An ethnography of global connection*. Princeton: Princeton University Press.
- Tsoka, J./A.J. Levenberg, 2013: *Lemtongthai v S (A82/2013) [2013] ZAGPJHC 294; 2014 (1) SACR 495 (GJ) (30 August 2013) CASE No. A82/2013*, Johannesburg South Gauteng High Court. <<http://www.saflii.org/za/cases/ZAGPJHC/2013/294.html>>.
- U.S. Fish and Wildlife Service, 2014: *Operation Crash*.
<<https://www.fws.gov/home/feature/2014/3-31-14-Operation-Crash-Overview.pdf>>.
- Unicorns are real, they're just fat and gray and we call them rhinos, 2009: *Unicorns are real, they're just fat and gray and we call them rhinos*. Vol. 2012.
<<https://www.facebook.com/pages/Unicorns-are-real-theyre-just-fat-and-gray-and-we-call-them-rhinos/186077714115>>.
- United Nations Conference on Diplomatic Intercourse and Immunities, 1961: *Vienna Convention on Diplomatic Relations*, United Nations. Neue Hofburg, Vienna: United Nations Treaty Series. Vol. 7310.
<[https://treaties.un.org/doc/Publication/MTDSG/Volume I/Chapter III/III-3.en.pdf](https://treaties.un.org/doc/Publication/MTDSG/Volume%20I/Chapter%20III/III-3.en.pdf)>.
- United Nations Development Programme, 2013: *The rise of the south: Human progress in a diverse world*<http://www.undp.org/content/dam/undp/library/corporate/HDR/2013GlobalHDR/English/HDR2013_Report_English.pdf>
- United Nations General Assembly, 15 November 2000: *United Nations Convention against Transnational Organized Crime*. Adopted by General Assembly resolution 55/25, United Nations. <<http://www.unodc.org/unodc/en/treaties/CTOC/-Fulltext>>.
- United States District Court, 2013: *Joint factual statement in the case of the United States of America versus Zhifei Li*. Crim. Nos. 13–113 and 13–552. District of New Jersey: UNODC SHERLOC. <http://www.unodc.org/res/cld/case-law-doc/wildlifecrimetype/usa/2013/united_states_v_zhifei_li_html/USA-14.pdf>.
- UNODC, 2009: *Transnational trafficking and the rule of law in West Africa: A threat assessment*. Vienna, Austria: Policy Analysis and Research Branch.
- UNODC, 2010: *The Globalization of Crime: A Transnational Organized Crime Threat Assessment*. Vienna: UNODC.
- US Department of Justice, 2013: *Ringleader of international rhino smuggling conspiracy pleads guilty in New Jersey to wildlife trafficking crimes*.

- <<http://www.justice.gov/opa/pr/ringleader-international-rhino-smuggling-conspiracy-pleads-guilty-new-jersey-wildlife>> (19 December 2013).
- Uzzi, Brian 1997: Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness. In: *Administrative Science Quarterly* 42, 35-67.
- van Hoven, Wouter, 2015: Private game reserves in southern Africa. In: René van der Duim/Machiel Lamers/Jakomijn van Wijk (eds.), *Institutional arrangements for conservation, development and tourism in eastern and southern Africa*. Springer Netherlands, 101-118. <http://dx.doi.org/10.1007/978-94-017-9529-6_6>
- Van, Nguyen Dao Ngoc/Nguyen Tap, 2008: *An overview of the use of plants and animals in traditional medicine systems in Viet Nam*. Ha Noi, Viet Nam: TRAFFIC Southeast Asia, Greater Mekong Programme.
- Van Schendel, Willem/Itty Abraham, 2005: Introduction: The making of illicitness. In: Willem Van Schendel/Itty Abraham (eds.), *Illicit flows and criminal things: States, borders, and the other side of globalization*. Bloomington: Indiana University Press.
- van Sluis, Arie/Peter Marks/Victor Bekkers, 2011: Nodal policing in the Netherlands: Strategic and normative considerations on an evolving practice. In: *Policing*.<<http://policing.oxfordjournals.org/content/early/2011/09/14/police.par045.abstract>>
- van Sluis, Arie, et al., 2012: Nodal security in the ports of Rotterdam and Antwerp. In: H.J.M. Fenger/M. Fenger/V.J.J.M. Bekkers (eds.), *Beyond fragmentation and interconnectivity: Public governance and the search for connective capacity*. IOS Press. <<https://books.google.co.za/books?id=NhrvAgAAQBAJ>>
- Varese, Federico, 2011: *Mafias on the move*. Princeton: Princeton University Press.
- Varese, Frederico, 2006: The economics of the Camorra. In: *Global Crime* 7, 268-273.
- Varisco, Daniel Martin, 1989a: Beyond rhino horn – wildlife conservation for North Yemen. In: *Oryx* 23, 215–219.
- Varisco, Daniel Martin, 1989b: From rhino horns to dagger handles - a deadly business. In: *Animal Kingdom* 3, 44-49.
- Vasquez, Juan Carlos, 2003: Compliance and enforcement mechanisms of CITES. In: Sara Oldfield (ed.) *The trade in wildlife: Regulation for conservation*. London: Earthscan Publications Ltd, 63-69.
- Veblen, Thorstein, 1899: *The theory of the leisure class*. New York: Macmillan.
- Venkatesh, Sudhir Alladi, 2008: *Gang leader for a day: A rogue sociologist takes to the streets*. London: Penguin.
- Vietnam, 2013: *Illegal trade of rhinoceros horn in Vietnam*, CITES. <<http://www.cites.org/eng/cop/16/inf/E-CoP16i-24.pdf>>.
- Vietnam CITES Management Authority, 31 January 2014: *Report to the CITES Secretariat on Vietnam's compliance with Resolution 9.14 (Rev. CoP15) on the Conservation of and Trade in African and Asian Rhinoceroses*. Hanoi, Vietnam:
- Vigne, Lucy, 2013: Recent findings on the ivory and rhino-horn trade in Lao People's Democratic Republic. In: *Pachyderm*, 36–44.
- Vigne, Lucy /Esmond Martin, 2008: Yemen's attitudes towards rhino horn and jambiyas. In: *Pachyderm* 44, 45-53.
- Vigne, Lucy/Esmond Martin, 2013: Demand for rhino horn declines in Yemen. In: *Oryx* 47, 323-324. <<http://dx.doi.org/10.1017/S0030605313000446>>

- Vira, Varun/Thomas Ewing, 2014: *Ivory's curse: The militarization and professionalization of poaching in Africa* Born Free USA. <<http://a362a94f6d3f5f370057-c70bddd8faa4afe1b2ec557b907836d0.r4.cf1.rackcdn.com/Ivorys-Curse-2014.pdf>>
- Vleissentraal, 2014: *Algehele renoster uitverkoping namens Jan Pienaar, Kareeboombult/Hoopstad, Saterdag – 15 Maart 2014*. <[http://www.vleissentraal.co.za/admin/statistics/Jan Pienaar - Renoster Statistiek Mrt 2014.pdf](http://www.vleissentraal.co.za/admin/statistics/Jan_Pienaar_-_Renoster_Statistiek_Mrt_2014.pdf)>.
- von Essen, Erica/Michael P. Allen, 2015: Reconsidering illegal hunting as a crime of dissent: Implication for justice and deliberative uptake. In: *Criminal Law and Philosophy*, 1-16. <<http://dx.doi.org/10.1007/s11572-014-9364-8>>
- von Essen, Erica, et al., 2014: Deconstructing the poaching phenomenon: A review of typologies for understanding illegal hunting. In: *British Journal of Criminology*. <<http://bjc.oxfordjournals.org/content/early/2014/04/17/bjc.azu022.abstract>>
- von Meibom, S. , et al., 2010: *Saiga antelope trade: Global trends with a focus on Southeast Asia*. TRAFFIC project report to the CITES Secretariat.
- Wacquant, Loïc, 2002: The curious eclipse of prison ethnography in the age of mass incarceration. In: *Ethnography* 3, 371-397. <<http://eth.sagepub.com/content/3/4/371.abstract>>
- Walker, Clive/Anton Walker, 2012: *The rhino keepers*. Johannesburg: Jacana Media. <<http://books.google.co.za/books?id=QLxZalkDIG4C>>
- Wallerstein, Immanuel, 2011: *The modern world-system I: Capitalist agriculture and the origins of the European world-economy in the sixteenth century, with a new prologue*. Vol. 1. Berkley: University of California Press.
- Waquant, Loïc, 2002: Scrutinizing the street: Poverty, morality and the pitfalls of urban ethnography. In: *American Journal of Sociology* 107, 1468–1532.
- Warchol, Greg L. , 2004: The transnational illegal wildlife trade. In: *Criminal Justice Studies* 17, 57-73.
- Warchol, Greg L./Linda L. Zupan/Willie Clack, 2003: Transnational criminality: An analysis of the illegal wildlife market in southern Africa. In: *International Criminal Justice Review* 13.
- Weber, Max, [1921] 1972: Wesen, Voraussetzungen und Entfaltung der bürokratischen Herrschaft. In: Johannes Winkelmann (ed.) *Wirtschaft und Gesellschaft*. Tübingen: J.C.B Mohr (Paul Siebeck).
- Webster, E., 1981: Servants of apartheid? – A survey of social research into industry in South Africa. In: John Rex (ed.) *Apartheid and social research*. Paris: The Unesco Press, 85–114.
- Wehinger, Frank, 2011: *Illegale Märkte: Stand der sozialwissenschaftlichen Forschung*. Cologne, Germany: Max Planck Institute for the Study of Societies.
- Weiner-Levy, Naomi, 2009: When the hegemony studies the minority—An Israeli Jewish researcher studies Druze women: Transformations of power, alienation, and affinity in the field. In: *Qualitative Inquiry* 15, 721-739. <<http://qix.sagepub.com/content/15/4/721.abstract>>
- Weiß, Anja/Arnd-Michael Nohl, 2012: Fälle und Kontexte im Mehrebenenvergleich: Ein Vorschlag zur Überwindung des methodologischen Nationalismus in der Migrationsforschung. In: *Zeitschrift für Qualitative Forschung* 13, 55-75.
- Wellsmith, Melanie, 2011: Wildlife Crime: The Problems of Enforcement. In: *European Journal on Criminal Policy and Research* 17, 125-148.

- Welsh, David, 1981: Social research in a divided society: The case of South Africa. In: John Rex (ed.) *Apartheid and research*. Paris: The UNESCO Press, 27–44.
- Welz, Adam, 2012: *The dirty war against Africa's remaining rhinos*. environment360. http://e360.yale.edu/feature/the_dirty_war_against_africas_remaining_rhinos/2595/.
- Werksman, J./J. Cameron/P. Roderick, 2014: *Improving compliance with international environmental law*: Routledge. <http://books.google.de/books?id=VCWZAgAAQBAJ>
- Wester, Bryan, 2015: *Buying property in Mozambique*. Maputo, Mozambique. <http://propertymaputo.com/buying-property-in-mozambique/>.
- White, Harrison C., 1981: Where do markets come from? In: *American Journal of Sociology* 87, 517-547.
- Wijnsteker, Willem, 2003: *The evolution of CITES: A reference to the Convention on International Trade in Endangered Species of Wild Flora and Fauna*. Geneva: CITES Secretariat. <http://www.cites.org/eng/resources/pub/evolution.pdf>
- Williams, Phil, 1998: The Nature of Drug-Trafficking Networks. In: *Current History* 97, 154-159.
- Williamson, Oliver E., 1989: Transaction cost economics. In: *Handbook of industrial organization* 1.
- Willock, Anna, 2004: Administrative and monitoring implications of listing and down-listing of commercially-exploited aquatic species, including the implications of Annex 4 of Resolution Conf. 9.24. Paper presented at onference on FAO Expert Consultation on 'Implementation Issues Associated with Listing Commercially–exploited Aquatic Species on the CITES Appendices'. <http://www.cites.org/sites/default/files/eng/news/meetings/IFS-05/IFS05-TRAFFIC-paper.pdf>
- Wilson, Ken, 1992: Thinking about ethics of fieldwork. In: Stephen Devereux/John Hoddinott (eds.), *Fieldwork in developing countries*. New York: Harvester Wheatsheaf, 179–199.
- Wilson, Kenneth, 2005: Of diffusion and context: The bubbling up of community–based resource management in Mozambique in the 1990s. In: J.P. Brosius/A.L. Tsing/C. Zerner (eds.), *Communities and conservation: Histories and politics of community-based natural resource management*. Walnut Creek, California: AltaMira Press, 149–176. <http://books.google.co.za/books?id=tjBMLQuVsBEC>
- Windle, James/Graham Farrell, 2012: Popping the balloon effect: Assessing drug law enforcement in terms of displacement, diffusion, and the containment hypothesis. In: *Substance Use and Misuse* 47, 868-876.
- Winick, Steven, 2014: *Believing in unicorns*. <http://www.stevewinick.com/unicorns> (4 September 2014).
- Winnick, Seth, 2007: *Saigon insiders on Communist Party politics*. Wikileaks: Wikileaks. 14 February 2007 14 February 2007. https://www.wikileaks.org/plusd/cables/07HOCHIMINH CITY157_a.html (17 March 2015).
- Wisborg, Poul , et al., 2013: *Farm workers and farm dwellers in Limpopo, South Africa: Struggles over tenure, livelihoods and justice*. Cape Town: PLAAS. http://www.plaas.org.za/sites/default/files/publications-pdf/Farmdwellers_2013_web.pdf
- Witter, Rebecca, 2013: Elephant-induced displacement and the power of choice: Moral narratives about resettlement in Mozambique's Limpopo National Park. In: *Conservation and Society* 11, 406–419.

- Wodarski, Alicia, 2014: *Capturing marine wildlife preservation*. Michigan Journal of Environmental and Administrative Law. <<http://www.mjeal-online.org/capturing-marine-wildlife-preservation/>> (23 December 2014).
- Wolmer, William, 2003: Transboundary conservation: The politics of ecological integrity in the Great Limpopo Transfrontier Park. In: *Journal of Southern African Studies* 29, 261-278. <<http://www.jstor.org/stable/3557419>>
- Wolmer, William, 2005: Wilderness gained, wilderness lost: Wildlife management and land occupations in Zimbabwe's southeast lowveld. In: *Journal of Historical Geography* 31, 260-280. <<http://www.sciencedirect.com/science/article/pii/S0305748805000319>>
- Wong, Rebecca W. Y., 2015: A note on fieldwork in 'dangerous' circumstances: interviewing illegal tiger skin suppliers and traders in Lhasa. In: *International Journal of Social Research Methodology*, 1-8. <<http://dx.doi.org/10.1080/13645579.2015.1020187>>
- Wong, Rebecca W.Y., 2013: *The organisation of the illegal tiger parts trade in China*. Oxford: University of Oxford.
- World Health Organisation/International Medical Products Anti-Counterfeiting Taskforce, 2012: *Anti-counterfeit technologies for the protection of medicines*. Geneva, Switzerland: World Health Organisation. <<http://www.who.int/impact/events/IMPACT-ACTechnologiesv3LIS.pdf>>.
- Wray, Melissa, 2014: *Fence between the Park and Limpopo Nature Reserve: Kruger National Park*. <<http://www.krugerpark.co.za/krugerpark-times-3-1-kruger-fence-21861.html>>.
- WWF, 2015: *Nepal achieves 21 percent increase in rhino numbers and another year of zero poaching of rhinos*. <<https://www.worldwildlife.org/press-releases/nepal-achieves-21-percent-increase-in-rhino-numbers-and-another-year-of-zero-poaching-of-rhinos>> (5 May 2015).
- Wyatt, Tanya, 2009: Exploring the organization of Russia Far East's illegal wildlife trade: Two case studies of the illegal fur and illegal falcon trades. In: *Global Crime* 10, 144-154.
- Wyatt, Tanya, 2011: The illegal trade of raptors in the Russian Federation. In: *Contemporary Justice Review* 14, 103-123.
- Yang, Sam 2011: *A review of rhino horn*. Rhino Resource Centre: Franklin W. Olin College of Engineering. <http://www.rhinoresourcecenter.com/pdf_files/133/1331459082.pdf>
- Yin, Robert K., 1994: *Case study research: Design and methods*. Thousand Oaks: Sage Publications.
- York, Geoffrey, 2012: The return of the Golden Rhino. In: *The Globe and Mail*. <<http://www.theglobeandmail.com/news/world/the-return-of-the-golden-rhino/article545513/?page=all>>
- Zabyelina, Yuliya G., 2014: The "fishy" business: a qualitative analysis of the illicit market in black caviar. In: *Trends in Organized Crime*, 1-18. <<http://dx.doi.org/10.1007/s12117-014-9214-z>>
- Zak, Annie, 2015: Synthetic rhino horn maker: It's not cloning, exactly. In: *Puget Sound Business Journal*. <<http://www.bizjournals.com/seattle/print-edition/2015/02/06/synthetic-rhino-horn-maker-it-s-not-cloning.html?page=all>>
- Zelizer, Viviana, [1978] 1992: Human values and the market: The case of life insurance and death in 19th century America. In: Mark Granovetter/Richard Swedberg (eds.), *The sociology of economic life*. Boulder: Westview Press, 285-304.
- Zelizer, Viviana 1979: *Morals and markets: The development of life insurance in the United States*. New Brunswick: Transaction Books.

- Zelizer, Viviana A., [1985] 1994: *Pricing the priceless child*. Princeton: Princeton University Press.
- Zhang, Sheldon/Ko-Lin Chin, 2002: Enter the dragon: Inside Chinese human smuggling organizations In: *Criminology* 40, 737–768. <<http://dx.doi.org/10.1111/j.1745-9125.2002.tb00972.x>>
- Zhang, Sheldon X./Mark S. Gaylord, 1996: Bound for the Golden Mountain: The social organization of Chinese alien smuggling. In: *Crime, Law and Social Change* 25, 1-16. <<http://dx.doi.org/10.1007/BF00227364>>
- Zinn, Maxine Baca, 1979: Field research in minority communities: Ethical, methodological and political observations by an insider. In: *Social Problems* 27, 209-219. <<http://www.jstor.org/stable/800369>>
- Zukin, Sharon, 1993: *Landscapes of power: From Detroit to Disney World*. Los Angeles: University of California Press. <<https://books.google.co.za/books?id=YeelrCiy0n8C>>

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