

The Relationship Between the Illegal Trade in Wildlife and Human Security

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Security Studies



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Declaration

I Megan Howell hereby declare that the dissertation titled '**The Relationship Between the Illegal Trade in Wildlife and Human Security**', has not been submitted by me at this university or any other institution for the requirements of any other qualification, that it is my own work and that all material utilised within this research has been duly acknowledge accordingly.

Ethics Statement

The author, whose name appears on the title of this dissertation, has obtained, for the research described in this work, the applicable research ethics approval. The author declares that she has observed the ethical standards required in terms of the University of Pretoria's Code of ethics for researchers and the Policy guidelines for responsible research.

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Abstract

Over the past few decades, the illegal trade in wildlife has significantly increased, making it one of the most profitable transnational organised crimes globally. Whilst this illicit activity has gained traction within the international security agenda, mainstream crimes such as terrorism and weapon/drug trafficking continuously overshadow this threat in terms of security prioritisations within the national security agenda of states. The objective of this study is to examine how the illegal trade in wildlife poses a direct threat to human security in order to emphasise the importance of prioritizing this illicit activity as a fundamental challenge to the security of the state and its individuals. Using a systematic research approach to conduct this study, the paper commences by introducing the key theoretical concepts used throughout the paper, followed by analysing the three central driving forces behind the illegal trade in wildlife. By examining these drivers, the study is able to demonstrate the influences behind the expansion of this illicit activity, highlight the interlinkages between the various domains and underline the consequential effects of the illegal wildlife trade on national, human, and environmental security. South Africa is subsequently used as a case study, to explain how a country's economic, political, and environmental setting largely determines the presence of illegal wildlife syndicates. The last section of the paper summarises the central findings of the research, followed by providing a number of recommendations that can be used to address/prevent the challenges influencing this activity. The paper concludes by discussing how the objective of the study was achieved and suggests a way forward in terms of enhancing regional and global collaborations in order to combat the illegal trade in wildlife.

Key Words: *illegal wildlife trade, human security, governance, transnational organised crime, globalisation, environmental security, securitisation, pandemic, national security, threat.*

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List of Abbreviations and Acronyms

ANC	African National Congress
ASEAN	Association of Southeast Asian Nations
AU	African Union
CAR	Central African Republic
CITES	The Convention on International Trade in Endangered Species of Wild Fauna and Flora
CPI	Corruption Perceptions Index
CSOs	Civil Society Organisations
DRC	Democratic Republic of the Congo
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
INTERPOL	International Criminal Police Organisation
IOs	International Organisations
IPZ	Intensive Protection Zone
KNP	Kruger National Park
LAR	Lord's Resistance Army
LEAP	Law Enforcement and Anti-poaching Strategy
MLRA	Marine Living Resources Act
NEMBA	National Environmental Management: Biodiversity Act
NEMPAA	National Environmental Management: Protected Areas Act
NGOs	Non-Governmental Organisations
NISCWT	National Integrated Strategy to Combat Wildlife Trafficking
NWCRU	National Wildlife Crime Reaction Unit
SADC	Southern African Development Community
SAMLIT	South African Anti-Money Laundering Integrated Task
SANParks	South African National Parks
SAPS	South African Police Service
SARS	Severe Acute Respiratory Syndrome
TM	Traditional Medicine
TCM	Traditional Chinese Medicine
TOC	Transnational Organised Crime
TOPS	Threatened or Protected Species Regulations
USA	United States of America

UN	United Nations
UNCAC	United Nations Convention against Corruption
UNEP	United Nations Environment Programme
UNODC	United Nations Office on Drugs and Crime
UNSC	United Nations Security Council
UNTOC	United Nations Convention against Transnational Organised Crime
WGI	World Governance Indicators
WHO	World Health Organisation
WEF	World Economic Forum

Chapter One: Introduction, Formulation and Methodology

1.1 Introduction

This chapter will provide the foundation of the study, by introducing the research topic which examines the relationship between the illegal trade in wildlife and human security. The chapter commences by underlining the formulation of the research problem, followed by highlighting the central objective of the paper. It continues by discussing the methodology employed within this research and concludes by providing a brief demarcation of each chapter.

1.2 Research Problem and Formulation

Over the past few centuries, the dynamics of globalisation has created the opportunity for criminal organisations to increase at an unfathomable rate. Consequently, transnational organised crime (TOC) has spread globally, infiltrating various domains of society (Passas 2001: 27-28). The illegal trade in wildlife ranks as one of the most profitable criminal activities, generating an income of approximately USD 23 billion annually (Holmes & Davies 2016). The illegal trade in wildlife is essentially based on the high demand of consumers for wildlife and their by-products. Since most of the illegally trafficked wildlife is endangered or on the verge of extinction, the value of these species subsequently rises according to their demand and rarity (Rowe 2011: 101-103).

Criminal syndicates working within the field of illegal wildlife trafficking, are generally composed of numerous actors (kingpins, middlemen, poachers, couriers) which operate at various levels (Milliken & Shaw 2012: 78). As this is a highly profitable criminal activity, it often involves the use of violence, weaponry, advanced technology, and corruption, thus posing a serious threat to both human security and national governance (Williams & Vlassis 2001: 1-2). Human security is a multifaceted concept which can be interpreted in various ways according to different disciplines (Gazizullin 2016). In principle it centres the individual as the referent object to security, unlike the traditional approaches to security such as realism, which prioritises the state as the referent object (Schmidt 2016: 88-89). Fundamentally,

human security is based around the notion that people should have the freedom from fear, thus, it is vital for the state to secure human security by eliminating or preventing threats that directly pose a danger to the livelihoods of a population (Gomez *et.al* 2013: 1-2; Tanaka 2015).

According to Williams and Vlassis, the emergence of TOC is equally a “symptom and result” of globalisation and the continuous shift in international relations (Williams & Vlassis 2001: 1). In essence, globalisation can be defined as the process of global interconnectedness, where people, money, ideas, and values move across national borders (Hurrell & Woods 1995: 447). Consequently, TOC has exploited the globalisation of open economies and the advancement in technologies, to establish powerful interconnected networks linked to various criminal activities such as money laundering and a wide range of trafficking (drugs, weapons, humans, and wildlife) (Sabatino 2016: 61; Fedotov & Scanlon 2013).

Globalisation has inherently created many new opportunities for criminal syndicates to establish multiple facilities in numerous countries, allowing them to acquire, manufacture and distribute illicit goods more easily, which has maximised their profits and reduced their expenditures (Forest 2020). One of the greatest prospects globalisation has offered within the criminal domain is the numerous opportunities for intersections between terrorist networks and TOC, particularly in terms of financial and operational relationships (Forest 2020; Walker & Reitano 2019). The expanding intersection between TOC and terrorist networks has largely contributed to the erosion of state capacity in many regions within the developing world (Shaw & Mahadevan 2018: 1; United Nations 2020).

The relationship between national security and the illegal trade in wildlife is continuously studied and is growing in importance as a specific research area (Wyatt 2013: 130-131; Lagrone & Busby 2015). Importantly, although emerging literature is currently examining the linkages between human security and illegal trade in wildlife, it tends to centre its focus on a specific theoretical approach. (Duffy 2016: 109-11). Accordingly, there is a need to broaden the literature to incorporate diverse theoretical approaches that emphasise the direct linkages between human security and the illegal trade in wildlife.

In 2013, former UN Secretary-General Ban Ki-moon stated that poaching and its linkages to other criminal activities posed a great threat to sustainable peace and security in many regions such as Central Africa (Haenlein & Smith 2016: 2). The illicit trade in wildlife has increased, as the demand for endangered species is growing at a rapid rate (McKie 2019). The trafficking of environmental resources such as wildlife, accounts as a pivotal challenge for many developing countries, as “under-resourced” governments lack the ability to control what comes in and out of its borders (UNODC 2010: 149-150). According to the World Economic Forum (WEF), the illegal trade in wildlife accounts for approximately USD 23 billion annually, making it one of the most profitable TOCs globally (Lehmacher 2016).

TOCs consist of numerous actors, all of which play different roles at various levels to ensure the collection, logistics and sale of certain referent objects, in this case wildlife and their by-products (Wyatt & Kushner 2014:3-4). Thus, it is important to note that many actors involved within illicit wildlife trafficking form part of larger international criminal organizations, which all pose direct threats to human security (Steyn 2015). Corrupt officials, poachers, terrorist groups such as al-Shabaab in Somalia and militants linked to al-Qaida in Bangladesh, can be identified as some of the actors that pose as direct threats to human security (Wyatt & Kushner 2014: 5-7).

Furthermore, the increasing presence of biosecurity risks linked to the illegal trade in wildlife is another factor that threatens human security. The introduction of wildlife to foreign environments, not only threatens native species through the dispersal of dangerous diseases but can essentially transmit animal diseases to humans (Roos 2004). Countless amounts of scientific research argues that human consumption of “exotic” bushmeat such as bats, pangolins, and civets are likely the origins behind the SARS-CoV, Ebola and SARS-CoV-2 outbreaks (Woodward 2020; Martin 2020; Jandu 2020). Many conservationists and academics argue that in order to prevent future health pandemics, countries such as China and Vietnam need to end the licit trade in wildlife, specifically in local food markets where species are sold for meat consumption (Nuwer 2020; Greenfield 2020; Brown 2020).

Some of the fundamental reasons for wildlife trafficking, is linked to the popular demand for wildlife by-products used in traditional medicine, as status or cultural symbols and the human

consumption of “luxury” bush meat (Wyler & Sheikh 2013: 7-11). Although treaties such as the “Convention on International Trade in Endangered Species of Wild Fauna and Flora” (CITES) exist, the ongoing challenge lies within the domestic policies of countries and how they implement their own legislation regarding the trade in wildlife (Brown & Swails 2005: 1-2). The illicit trade in wildlife can be identified as a non-traditional security threat, as it directly endangers the wellbeing of individuals. Scholars such as Sollund and Stretesky, argue that policy “loopholes” continuously enable the illicit trade in wildlife, which weakens policy measures aimed at preventing this illegal activity from occurring in the first place (Sollund 2019: 10-11).

Due to the increasing presence of TOCs and the high profitable earnings of these activities, the illegal trade in wildlife will continue to pose a direct threat to human security. This will negatively affect a spectrum of dimensions, including the political, cultural, economic, social, and geographical landscapes (Laws 2017: 3-5). Therefore, the enhancement in detecting syndicates, increasing political will through firmer policies and intensifying security presence at check points (customs and borders), whilst identifying and removing corrupt officials are all possible suggestions in decreasing this type of criminal activity (Batt *et al.* 2017: 34-36).

1.4 Methodology

This research paper will principally employ a systematic research approach to collect and analyse various primary (government and international organisations) and secondary (research publications, media articles and peer reviewed literature) resources. Qualitative research will be used to identify and compare multiple sources, gain a better understanding of the various theoretical concepts and approaches frequently used throughout the paper and lastly enable me to identify the gaps within the literature.

Regarding the theoretical framing of the research, this dissertation’s main objective is to identify how the illegal trade in wildlife poses a direct threat to human security. Accordingly, this paper will use different critical security approaches such as securitisation, human and environmental security, which prioritise referent objects other than the state. Hierarchical pyramids will be employed to demonstrate the interlinkages between the various domains

and highlight how the illegal trade in wildlife occurs at various levels and involves multiple actors.

1.5 Research Structure

Chapter One: Introduction, Formulation and Methodology

This chapter provides the foundation of the study, by introducing the research topic which examines the relationship between the illegal trade in wildlife and human security. It commences by underlining the formulation of the research problem, followed by highlighting the principal objective of this paper. It continues by addressing the methodology used throughout the research and concludes by providing a brief demarcation of each chapter.

Chapter Two: Framing of the Study

This chapter identifies and defines the key theoretical security approaches employed within this study and highlights the literature linking human security to the illegal trade in wildlife. It begins by defining the general concept of security, followed by analysing the progression of national security over the past few decades, and how shifts in the international security environment compelled states to re-examine their national security agenda and broaden it accordingly. The chapter continues by discussing environmental security and emphasises the dependency of states and societies on the environment and the resources it provides. A background of governance is then given, followed by a contextual analysis of transnational organised crime. The chapter concludes by analysing the literature linking human security to the illegal trade in wildlife and highlights the principal arguments and limitations within this literature.

Chapter Three: The Driving Forces Behind the Illegal Trade in Wildlife

This chapter explores the various driving forces behind the illegal trade in wildlife and emphasises the interlinkages between these domains and how they have consequential impacts on one another. A diagram (Figure 2) consisting of two hierarchical pyramids is introduced and employed throughout this chapter, to demonstrate these interlinkages and emphasise how the illegal trade in wildlife occurs at various levels and involves multiple actors. The chapter commences by identifying the first driver and highlights how the demand

for endangered wildlife is closely related to economic, cultural, medicinal, and traditional factors. The chapter continues by analysing the environment as another influential driver, specifically, how the availability and location of resources influences the illegal trade in wildlife. The last section of this chapter identifies governance as the third fundamental driver, in which numerous indicators are used to substantiate why this specific driver contributes to the illegal trade in wildlife.

Chapter Four: South Africa: A Case Study in the Illegal Wildlife Trade

This chapter uses South Africa as a case study to examine the illegal wildlife trade within its borders. It commences by providing a brief overview of South Africa's transformation since 1994 and continues by analysing the various dimensions influencing the illegal wildlife trade within the country. The first dimension, namely the economy, highlights how South Africa's current socio-economic challenges in terms of poverty, inequality, unemployment, and corruption, contribute to the rise of organised crime within the country. The chapter continues by analysing the second dimension, which emphasises how the country's environment directly effects the illegal trade in wildlife, through its geographic location, availability of resources and porous borders. Through the use of numerous indicators and examples, the last section of this chapter illustrates how South Africa's quality of governance ultimately influences the illegal trade in wildlife within its territory.

Chapter Five: Conclusion

This chapter summarises the principal findings of the study and provides recommendations that can be used to address/combat the illegal trade in wildlife and the numerous threats it poses to the state, its citizens, and the environment. The chapter commenced by highlighting the relevance of the study, followed by providing a brief overview of the research structure. It continued by summarising the principal findings of the study and provided a number of recommendations that could be utilised to address and prevent this illicit activity from occurring at a national, regional, and global level. The chapter concluded by emphasising the importance of prioritising the illegal trade in wildlife as an imminent threat to human, national and environmental security, due to the existing and future consequences it poses.

Chapter Two: Framing of the Study

2.1 Introduction

Chapter two identifies and defines the key theoretical security approaches employed within this study and highlights the literature linking human security to the illegal trade in wildlife, in order to provide a foundational basis on the theme, underline the current arguments made and identify gaps/limits within it.

2.2 Security and its Progression in a Changing World

Security is one of the key concepts used throughout this research, due to its ambiguity it is important to note that this study will base its central focus on human, environmental, and national security specifically. The concept of security is contested amongst scholars in various fields, due to its subjectivity and lack of coherence (Görne 2012: 1-2; Baldwin 1997: 10). Whilst there is no concrete definition for security, it can broadly be identified as a state of safety and the "absence of threats to acquired values" (Wolfers 1952: 485). Therefore, the notion of protecting values from current and future threats plays an important role in understanding security (Wolfers 1952: 484-489; Leffer 1990: 143; Peoples & Williams 2008:5).

Within the field of security studies, the concept of security has continuously evolved in relation to the referent object (Peoples & Williams 2010: 4-7; Buzan 1983: 13-14). Various shifts in the security environment over the past few decades, such as the end of the Cold War and the increasing occurrence of terror attacks such as 9/11, has resulted in the emergence of several critical approaches within security studies (Bauch 2005: 10; Wasi 2003: 35-36). Many of these new approaches have emphasised the importance of broadening the security agenda to encompass other significant sectors, which were previously overlooked by the traditional approaches in security (Gazizullin 2016: 1-2; Peoples & Williams 2010: 9). The emergence of the securitisation theory developed by the Copenhagen School can be identified as one of the most significant approaches within critical security studies, as it explains how certain political, environmental, economic, and societal issues are securitised by decision makers based on the notion that these issues directly threaten certain referent objects, and thus need to be addressed as a top priority when making/implementing policies

(Eroukhmanoff 2018). The significance of this theory is that it emphasises the contextual nature of security and threats and highlights how security issues vary globally based on the threat they pose to a state's vital interests and how decision makers frame these threats in order to make them a priority (Eroukhmanoff 2018). This theory will be used later on in the study to demonstrate the significance of securitising certain issues such as the illegal trade in wildlife and the outcomes it has generated.

The following section of this chapter will provide a more comprehensive understanding of the three central security approaches used throughout the dissertation, namely: national, human, and environmental security.

2.2.1 The Progression of National Security

Traditionally, the concept of state security was centred around a political realism approach, which fundamentally prioritised the state as the "referent object" of security (Hama 2017: 2-3). According to Buzan, this state centric approach meant that states principally focused on military threats challenging both their territory and sovereignty (Buzan 1983: 10). Wolfers makes a similar argument, asserting that the traditional concept of security for states meant the ultimate protection and preservation of their national core values (Wolfers 1952: 492). In principle, realism places the sovereignty of a nation at the top of a state's hierarchic values (Wolfers 1952: 493; Cusack & Stoll 1994: 34). As a result, the security and power of a state was strongly based on its military capabilities, and ability to deter external threats (Lipmann 1943: 51; Leffer 1990: 146). Consequently, a state's foreign policy was usually determined by its national security interests (Wolfers 1952: 481).

This state centric approach was criticised due to its narrow definition of security (Wasi 2003: 36). Many scholars argued that a state could face numerous threats to its sovereignty originating from entities other than external military threats (Kerr 2003: 6-7; Krause & Williams 1996: 233-234; Myers 1993: 31). The shift in the security environment after the Cold War as mentioned above, resulted in the emergence of several critical approaches which largely contributed to the development of literature within security studies (Peoples & Williams 2015: 7; Bauch 2005: 12-13).

Importantly, many of these new critical approaches such as securitisation, critical theory, and human security prioritised humans/individuals as the referent object to security (Newman 2010: 78; Trombetta 2008: 593; Watson 2011: 3-4). The changing security environment meant that states had to broaden their security agenda, to respond to a spectrum of challenges deriving from emerging threats (Buzan 1997: 6; Krause & Williams 1996: 230). The broadened security agenda of states implied that most countries had to reprioritise their national interests and ensure the stability of their social, economic, and political institutions, in order to preserve and protect their sovereignty and position within the international order (Wasi 2003: 36; Cox 1992: 176-177; Mazarr et al. 2016:8-9).

The concept of national security has therefore expanded to incorporate a multitude of threats other than military (Baldwin 1997:15-16). Notably, it is important for states broadening their national security agenda, to employ some form of analytical framework to identify existential threats and the consequences they could have on their national interests (Peoples & Williams 2015: 76-77). Once states have prioritised their threats based on an analytical risk guideline, it is easier for them to subsequently alter their national security policies accordingly (Schmidt 2016: 189-190; Leffer 1990: 143). As a result, the continuous change in the security environment has made states more flexible in amending their national security policies according to the evolving challenges threatening their national interests (Fjäder 2014: 17-18).

National security thus plays a fundamental role in providing a deeper understanding of how states form and modify their national security policies, based on current and emerging threats challenging their national interests. Importantly, this paper will analyse how national security policies centred around TOC and the environment prevent or promote the illegal trade in wildlife based on numerous factors such as a state's economic, political, social, and environmental state.

2.2.2 The Emergence of Human Security

Human security is a multifaceted concept which can be interpreted in various ways according to different schools of thought (Gazizullin 2016; Paris 2001: 92). Newman defines human security as the “freedom from want” and “freedom from fear”, where freedoms and rights are associated to the essential needs of individuals (Newman 2010: 78). Whilst Watson

asserts that human security is centred around the concept of “human life and dignity”, he goes on to suggest that the discourse of human security fundamentally “prioritises human life over the interests of states” (Watson 2011: 5). Paris argues that although the concept of human security varies, the underlining notion centres around the “welfare of ordinary people” (Paris 2001:87). In essence, human security identifies the individual as the referent object of security.

The end of the Cold-War era emphasised the need to reevaluate and broaden the security agenda of states, in order to consider a spectrum of emerging non-traditional threats such as terrorism, environmental degradation, infectious diseases, resource scarcity, transnational crime, irregular migration and other significant challenges such as poverty, human rights violations, and genocides (Bauch 2005: 11; Gazizullin 2016: 2; Paris 2001: 91). States responded to the shifting security environment, by moving away from the traditional state centric approach and adopted a broader national security agenda, which placed a lot more value on the safety and security of its individuals and groups (Paris 2001: 97; Hampson 2008: 231).

Although states have reprioritised their security agenda to encompass a spectrum of threats, it is important to note that states continuously employ the concept of security as a political instrument (McDonald 2002: 289; Watson 2011: 4-5). This entails that whilst the security of the individual has gained prominence within the national security agenda of states, nations continue to utilise security as a political instrument to ensure stability and legitimize their actions within the international arena (Hassan 2015: 92; McDonald 2002:289-290). The emergence of a broader national security agenda has subsequently resulted in states strengthening their cooperation amongst each other within international institutions such as the UN, in order to reinforce international laws pertaining to human security (Hampson 2008: 230; Martin 1990: 519-520). Due to the abundance of both traditional and non-traditional threats challenging the security of humans globally, member states of numerous international institutions have signed multiple treaties and conventions to prevent and minimise such threats from posing even greater insecurity (Martin 1990: 520).

Whilst joint operations through law enforcement agencies such as the International Criminal Police Organisation (Interpol) have succeeded in immobilising and preventing numerous transnational criminal organisations from operating, the expansion of criminal syndicates and the increasing demand for illicit goods such as weaponry, drugs, fauna and flora continues to undermine their efforts in reducing security threats to both the state and individuals (Schultze 2016: 3; INTERPOL 2020; Ahmed 2017: 357-358). Therefore, it is imperative for states to critically analyse the root causes of these threats and the long-term consequences they may impose if they continue to develop at a national, regional, and global level (Hampson 2008: 238). Importantly, states need to continue working together in terms of sharing information, enforcing international laws, and strengthening cooperation between governments and non-governmental organisations (NGOs) to address the growing threats challenging the survival and welfare of societies (Acharya 2001: 449; United Nations 2017).

Although human security has become a salient feature of a broadened national security agenda, which prioritises the safety of the individual from numerous threats, it is important to understand that this approach cannot wholly replace the traditional concept of state security (Acharya 2001: 456; Gray 2011: 39). This is based on the argument that external military threats still exist and continue to challenge the sovereignty of states (Buzan 1983: 167-170, 485; Williams 2008: 169). As a result, states need to continue ensuring the safety of their territory through military and economic capabilities (Buzan 1983: 167-170; 485; Williams 2008: 169; Gray 2011: 39). It is thus, imperative for states to employ a 'balanced' national security agenda, that firstly ensures the safety and wellbeing of its citizens, but equally continues to ensure the security of its sovereignty and territory (Acharya 2001: 456-457; Liotta 2002: 486-487; Gray 2011: 39-40).

Human security plays an essential role within this research, as it emphasises how the illegal trade in wildlife and the activities associated with it, directly threatens the livelihoods and wellbeing of society. The growing presence of this type of TOC in states, greatly impacts the security of individuals and communities in terms of expanding criminal activities, the increasing possibility of biosecurity risks, escalating violence and corruption.

2.2.3 Environmental Security

Environmental security is one of the largest transnational challenges to date (Zurlini & Müller 2008: 1351). Similarly, to both national and human security, the concept itself is highly ambiguous and can be interpreted in various ways (Barnett 2009; Zurlini & Müller 2008: 1350-1351). The environment, in terms of physical, chemical, and biological components is a fundamental necessity in sustaining human life (Barnett 2009). Therefore, environmental security evolves around the global environmental change and the relationship between mankind and ecosystems (Zurlini & Müller 2008: 1351). In essence, environmental security can be defined as the protection and conservation of the environment and vital interests of the state and individuals, from threats endangering ecosystems, biodiversity, and the survival of humankind (The Security Council of the Russian Federation 1996: 5).

Although environmental security was a topic of discussion amongst scholars during the 1970's, it only gained significant attention by the end of the Cold War era in the late 1980's, when states broadened their national security agenda to integrate emerging non-traditional threats (Dalby 2008: 261). Global environmental change became an important topic of discussion within the political agenda of many states, as the consequences linked to it significantly affected the core interests and the security of states and their citizens (Zurlini & Müller 2008: 1350). These consequences included environmental degradation, resource depletion, biological threats, political and economic instability, migratory changes, and food insecurity (Butler 2018: 2-3; Graeger 1996: 115).

One of the greatest concerns amongst states regarding climate change and security was and still is, the possibility of conflict over inadequate resources (Dehghan 2020; Humphreys 2012: 1080-1081; Dalby 2008: 262). The continuous change in the environment is inevitable, due to the growing global population, increasing demand for natural resources and the escalating environmental degradation of ecosystems (Li 2020; Hood & Li 2019). Whilst some states have the capability of protecting their resources through strategic investments, technological advancement and defence mechanisms, the larger consequences of climate change go beyond the capabilities of individual states (Dalby 2008: 271; Elliot et al. 2018).

Although states have understood the importance of working together in order to slow down and prevent further environmental degradation through international treaties such as the Paris Agreement “COP 21” and the Kyoto Protocol, a lot more cooperation, commitment and re-enforcement of international regulations is required (Worland 2018; Kolb & Stebbins 2019). The relationship between human and environmental security is inseparable, hence, the ongoing detriment of the environment and its ecosystems will have catastrophic consequences for current and future generations globally (Dlulane 2020). Importantly, the human dimension of a changing environment encompasses both the adaption and contribution of societies to these changes (Brauch 2005: 12). These processes continually pose many questions for the social, cultural, ethical, economic, and spiritual domains of society and how each influences the changing environment (Brauch 2005: 12-13). This has created a dilemma, on the one hand, states, NGOs, and societies have increasingly placed more value on securing the environment, whilst on the other hand, the increasing demand for resources, land and the protection of national interests has led to ongoing environmental degradation (Cronin 2009: 63; Greenfield 2020). Therefore, the notion of sustainability has become vitally important in the literature of environmental security studies, as it not only incentivises states and communities to protect and preserve their current biodiversities to continue benefiting from natural resources but promotes the continuous development of sustainable approaches that seek to ensure social, economic, and environmental stability for future generations (Keskinen *et al.* 2019:1-2).

With the expanding consequences of climate change on both human and national security globally, it is plausible to argue that environmental security has become one of the main international security priorities of the 21st century. Environmental security plays an essential role in substantiating the objective of this research, as it validates the ongoing security threats that the illegal trade in wildlife and the activities linked to it has on human security, political and economic stability, and environmental degradation. As a result, governments, NGOs, and communities need to combine their efforts in preventing the expansion of these illicit activities, through the enforcement of environmental regulations, community awareness, intelligence sharing, law enforcement and conservation.

2.2.4. The Significance of Governance

Having analysed the progression of security in this evolving environment, it is important to note the following. Firstly, the concept of governance plays a significant role within this research as it is one of the foundations guiding and regulating human activities through various systems, to maximise both public and national interests (Keping 2018: 3; Sharma 2018: 2). In the field of political science, the traditional concept of governance can generally be defined as the “process of political administration” which commonly centres around the management of public resources and political affairs (Keping 2018: 3). Simply put, governance is the “exercise of sovereign power by the state” (Sharma 2018: 2).

According to the Worldwide Governance Indicators (WGI), six indicators can be employed in order to examine the quality of governance within a state, these include: political stability and absence of violence, rule of law, regulatory quality, government effectiveness, voice and accountability, and control of corruption (Kaufmann *et al.* 2010: 2). These indicators are important to note for the following chapter of this research, as they play a significant role in elaborating the driving forces behind the illegal trade in wildlife.

Furthermore, it is valuable to mention that with the emergence of various disciplines, the concept of governance has ultimately shifted to incorporate a number of new actors and institutions deriving from several spheres such as civil society organisations (CSOs), the private sector and international organisations (IOs) (Jang *et al.* 2016: 1-2). Consequently, governments have externalised their authority to allocate power to other institutions; this has allowed these actors to assume more responsibilities which were once solely undertaken by the state (Mlambo *et al.* 2019: 1-2; Verma 2016: 53-55).

Importantly, whilst states continue to have the majority of authority in the implementation and regulation of policies, it is possible to identify the increasing influence of CSOs, IOs and the private sector in the formulation and decision-making process (Verma 2016: 53; Strickland 2018). Although the influence of various actors within the policy making process has several positive attributes such as the increase in civic participation, legitimacy, knowledge sharing and funding, it also introduces numerous challenges such as diverging values, interests, and ideologies amongst these actors (Popoola 2016:47-48; Verma 2016: 53-54). As a result, the

involvement of different actors within the policy process has greatly affected the governance of states and their prioritisation of public policies and political affairs (Diprose et al. 2019: 223-225; Tortajada 2016: 266-267; Hale 2020: 205-206).

In particular, the growing security threats challenging the stability and security of many states such as transnational criminal activities and climate change has considerably affected the governance of states, as the externalisation of power, specifically in terms of global governance has fundamentally influenced the political agenda of many countries with regard to international treaties and the amendment of national policies (As 2018: 2; White 2020: 71-73; Bernstein & Cashore 2012: 590-591). This will be elaborated on when analysing the influential role some of these actors have on the policy formulation regarding the illegal trade in wildlife.

2.3 Transnational Organised Crime and the Literature Linking Human Security to the Illegal Trade in Wildlife

2.3.1 Transnational Organised Crime

In order to analyse the literature linking human security to the illegal trade in wildlife, it is important to have a general understanding of TOC and the multiple activities that occur within this domain, and how they often interlink or support one another. Moreover, in terms of national, human, and environmental security, it is valuable to emphasise the abundance of threats these activities generate towards the stability, economy and security of the state and its individuals. Thus, this section has the objective of providing a brief contextual analysis of TOC.

TOC can be defined as a group of individuals operating at an international level, who have the capability and capacity of committing serious crimes on a regular basis, with the objective of acquiring influence, monetary and commercial gains (Bergeron 2013: 6). This form of activity involves components of planning and coordination, flexibility, systematic violence, and the exploitation of transnational commerce (Miraglia *et al.* 2012: 4; Bergeron 2013:6; Ahmed 2017:357). The advancement in communications, technology and the global political

economy has significantly altered the presence of TOC and the way it operates globally (Miraglia *et al.* 2012: 4-5; World Bank 2019). Over the past few decades, the presence of TOC has drastically increased due to numerous factors such as: growing inequality, fragile states, increasing demand for illicit goods, religious and political motivations, conflict, and porous borders (Kraft, 2016: 3-4; Idris 2019: 2-3; Ahmed 2017: 364).

Whilst it is difficult to identify all forms of TOC due to the growing activities and actors involved, it can commonly be categorised into three broad groups (Cockayne 2007:2; UNODC 2018). The first can be identified as the provision of illicit goods, these include: drug, weaponry, and wildlife trafficking, in addition to counterfeiting (UNODC 2018). The trafficking of the products mentioned above, threatens the security of individuals, states, and the environment, as it increases the possibility of violence, crime, instability, and additionally has consequential impacts on a state's economy, natural resources, and healthcare system (Alusa 2007; Demombynes 2011: 1; Lagrone 2015). The next group can be categorised as the provision of illicit services which include, human trafficking and various types of slavery such as sexual exploitation, forced labour and child soldiers (Bigo & Vogelstein 2019; UNDOC 2018). These forms of criminal activities are a gross violation of human rights and directly threaten the security and livelihoods of individuals (Bigo & Vogelstein 2019). The last group of TOC can be identified as the infiltration of businesses and governments which includes money laundering, fraud, corruption, racketeering and cybercrime (UNODC 2018; David 2012: 1-3). These threaten the economic, security and political stability of states, whilst also targeting the security of individuals and businesses (Aluko & Bagheri 2012: 442-443; Poushter & Huang 2019).

Furthermore, it is important to mention that the size, scope, and influence of these activities differ vastly according to the type of criminal organisation involved and their varying levels of operation (Wyatt *et al.* 2020: 352-353). The global expansion of TOC has resulted in criminal networks broadening their agenda to increase their financial gain, this has consequently resulted in the interlinkages of various illicit activities (Depois 2013; Avis 2017:2). Although the international community has demonstrated its political will in combatting the ongoing challenges caused by TOC through international conventions such as the UN Convention Against Transnational Organised Crime and multilateral security efforts such as Interpol,

transnational criminal networks continue to grow exponentially, thus new strategies and guidelines need to be implemented swiftly.

2.3.2 Human Security and the Illegal Trade in Wildlife

The literature analysing the relationship between national security and the illegal trade in wildlife is growing in importance as a specific research area over the past few decades, due to the increasing presence of transnational criminal networks involved in the illegal trade in wildlife, in both developed and developing states (Lagrone & Busby 2015; Massé & Margulies 2020: 1-2). Importantly, the growing emergence of the illegal trade in wildlife largely affects the security of both the state and its citizens (Wyatt 2013: 130-132).

As previously mentioned in the first chapter, although emerging literature within security studies has examined the linkages between human security and the illegal trade in wildlife, it has usually centred its research around a specific theoretical approach. Consequently, there is a need to broaden the literature relating to human security and the illegal trade in wildlife in order to integrate diverse theoretical approaches that analyse and underline the direct linkages between human security and the illegal trade in wildlife. This section will thus analyse the literature linking human security and the illegal trade in wildlife, to underline the current arguments made and identify gaps/limits within it.

The illegal trade in wildlife (fauna and flora) has gained prominent attention amongst states and IOs, due to the increasing security consequences it generates at a national, regional, and global level (Rosen 2020). The UN and other IOs such as the African Union (AU) and the Southern African Development Community (SADC) have implemented various treaties and conventions over the past few decades which include: CITES, the Arusha Declaration on Regional Conservation and Combating Wildlife & Environmental Crime, the Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora and the Protocol on Wildlife Conservation and Law Enforcement, which all have similar objectives of conserving the environment, decreasing the illegal trade in wildlife and enforcing international regulations on wildlife trade (Fobar 2019; Price 2017: 2-7).

Although the implementation of these conventions has assisted states in combatting the illegal trade in wildlife, this activity has drastically increased annually due to the growing demand for wildlife and its by-products (Neme 2017; Rosen 2020; Lawson & Vines 2014: 5-6). Granted this activity has gained considerable attention within the international security agenda, scholars such as Wyatt and Warchol argue that mainstream crimes such as terrorism and the trafficking of drugs and weaponry continuously overshadow the illegal trade in wildlife, in terms of security prioritisations within the national security agenda of states (Wyatt 2013: 130; Warchol 2013: 379-380).

Whilst terrorist attacks and the procurement of weaponry and drugs largely affects the national security and stability of states, the illegal trade in wildlife has equally, if not more consequential effects on the security of the state, its environment, and the wellbeing of its citizens (Kolby 2020; Gupta 2020: 1-2; Brown 2018). This can be substantiated by analysing the current impacts this activity has on the political, economic, cultural, health, environmental and social domains of the state, which all influence human security in some way or another (Rosen 2020). Furthermore, whilst many of these conventions examine the linkages between human security and the illegal trade in wildlife, they are generally centred around an environmental security approach (Price 2017: 2-7). Authors such as Uhm, Nurse and Wyatt substantiate this argument by stating that although research investigating the illegal trade in wildlife has increased over the past few decades, research specifically investigating the various criminal networks involved within this activity is missing (Wyatt *et al.* 2020: 350).

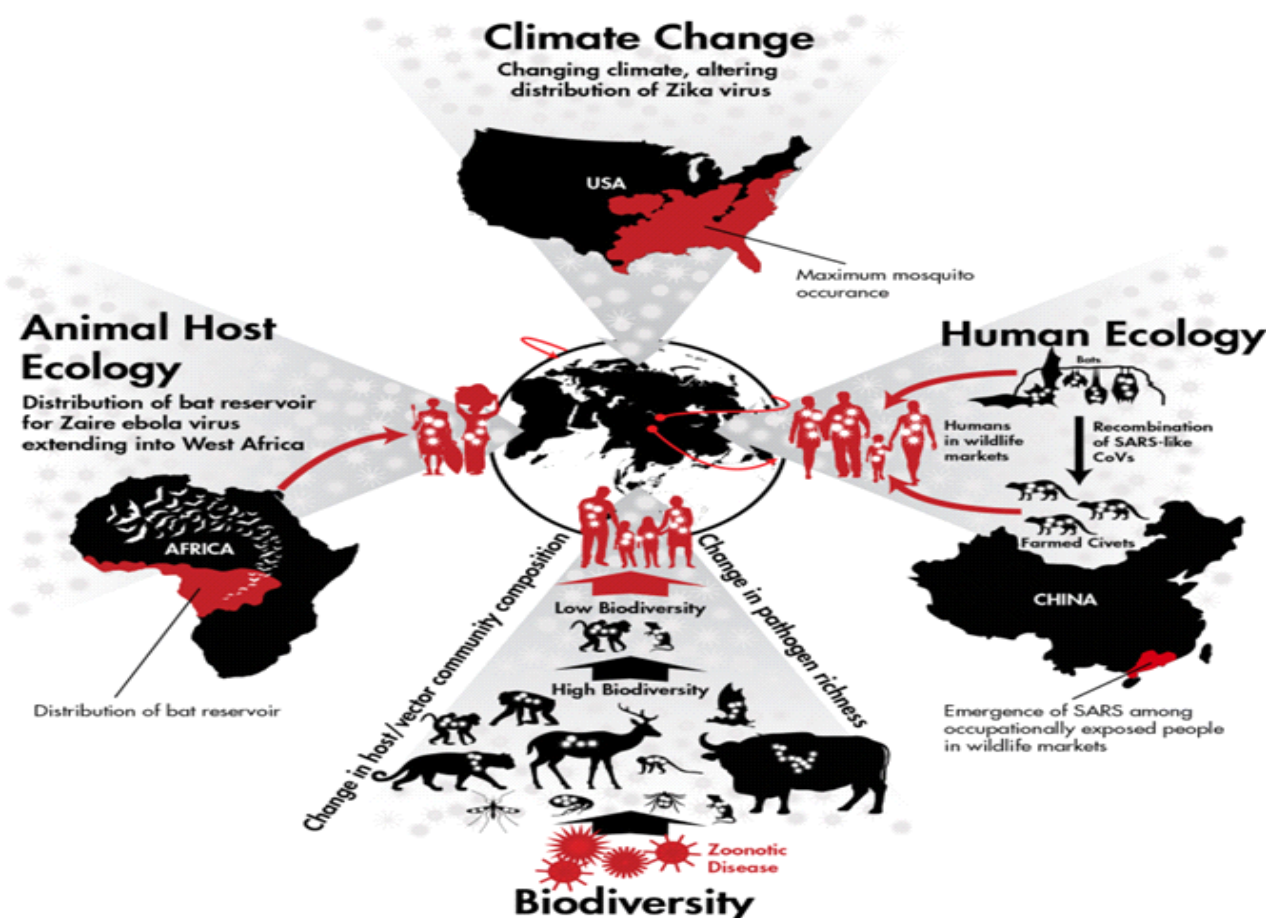
The growing presence of criminal syndicates linked to the illegal trade in wildlife in many countries, poses numerous threats to the security of the state and its national interests (Lagrone 2015). Firstly, this form of activity increases the presence of violence to acquire wildlife and its by-products through means of intimidation, assault, and murder (Picarelli 2008: 463). Moreover, it affects the sovereignty of a state and undermines its authority, by bribing corrupt officials, escaping the rule of law, and subsidising other criminal activities, thus, ultimately reducing the quality of governance within the state (Picarelli 2008: 463-464; World Wildlife Fund for Nature 2012).

The expansion of the illegal trade in wildlife has considerably impacted the environmental security of many states, as the increasing demand for endangered wildlife has threatened the existence of numerous species (Duffy 2016: 114-115). Over the past ten years, it is estimated that over a million pangolins have been trafficked globally, making it the most smuggled mammal in the world (Rosen 2019; Nuwer 2020). In 2018 around 769 rhinos were poached for their horns in South Africa, whilst an average of 5,600 plants were confiscated annually by the US Fish and Wildlife Service over the past couple of years (Africa 2019; O’Brein 2015). Furthermore, in the last two decades, it is estimated that poaching syndicates having illegally trafficked over 96 million abalone to Hong Kong (De Greef 2018).

These statistics only represent a small percentile of the illegally trafficked wildlife; however, these numbers emphasise the increasing demand for certain species and explains why the illegal trade in wildlife ranks as one of the most profitable criminal activities globally (Holmes & Davies 2016).

Additionally, the procurement, transportation and introduction of fauna and flora from one environment to the other, also poses numerous ecological challenges to foreign habitats (Garcia & Trullas 2017). One of the greatest threats linked to the illegal trade in wildlife is the increasing risk of spreading zoonotic pathogens through the introduction of species in new environments and the consumption of “exotic” meat (Attwood & Hajat 2020: 3116-3117). It is believed that emerging infectious diseases such as: the severe acute respiratory syndrome (SARS) outbreak of 2002, the Ebola outbreak of 2014 and the present SARS-CoV-2 outbreak, all originated from the consumption of bushmeat (hunting) and “exotic” meat (wet-markets) (Webster 2004: 234; Hogenboom 2014; Woodward 2020; Murez 2021). Figure 1 depicts the relationship between mankind, wildlife, and the environment and emphasizes how this relationship leads to the spread of zoonotic diseases.

Figure 1: The relationship between mankind and ecosystems



Source: Smiley Evans, T. et al. 2020 in EcoHealth.

Taking into consideration the numerous consequences generated at a global level by the current SARS-CoV-2 outbreak such as: the ongoing death rate exceeding 4.5 million; an estimated USD 28 trillion in lost output in 2020 alone; the loss of around 255 million full-time jobs between 2020 and 2021; and an additional 88 to 115 million people being pushed into extreme poverty by 2021, it is credible to argue that the introduction of zoonotic pathogens in various environments has colossal consequences on both national and human security (Ives *et al.* 2021; Jones *et al.* 2021; Flemming 2021 ; Elliot 2020; World Bank 2020). The death toll generated by this pandemic, has significantly surpassed any other fatalities generated by a national security threat such a terrorism, which remains a priority concern for many states. This directly supports the argument that states need to address the illegal trade in wildlife as an imminent security concern.

After briefly analysing the literature linking human security to the illegal trade in wildlife, it is possible to identify the central arguments and limitations within this field. Firstly, although the illegal trade in wildlife is gaining traction within the security agenda of states, it is continuously overshadowed by “more prominent threats” such as terrorism (Wyatt 2013: 130; Warchol 2013: 379-380). However, after examining the colossal impacts of SARS-CoV-2 globally, it is more likely that states will reprioritise their national security agenda in the near future in order to consider potential new outbreaks, thus placing more attention on activities possibly generating this type of threat.

Another limitation is that most international treaties and conventions apply an environmental security approach, when they should apply a multi-dimensional approach that considers numerous factors (Wyatt *et al.* 2020: 350). Importantly, states and IOs cannot employ a universal approach in combatting the illegal trade in wildlife, as each region will differ in terms of political and economic stability, security, and environment. Accordingly, new strategies need to be considered both internationally and domestically, to identify the most beneficial and effective approach according to the current environment of each state or region.

2.4 Conclusion

The objective of this chapter was to identify and define the key theoretical concepts shaping the following chapters of this research and highlight the literature linking human security and the illegal trade in wildlife. It began by discussing the expansion of security over the past few decades, and how the national security agenda of many states has broadened since the emergence of non-traditional threats after the Cold War era. It highlighted the overall shift of national security from a traditional state centric approach to one centred around human security. The chapter continued by discussing environmental security, emphasizing the dependency of states and societies on the environment and the resources it provides. A conceptual background of governance was provided, followed by a brief contextual analysis of TOC. Lastly, having analysed the literature linking human security to the illegal trade in wildlife, several key arguments and limitations were identified.

Chapter Three: The Driving Forces Behind the Illegal Trade in Wildlife

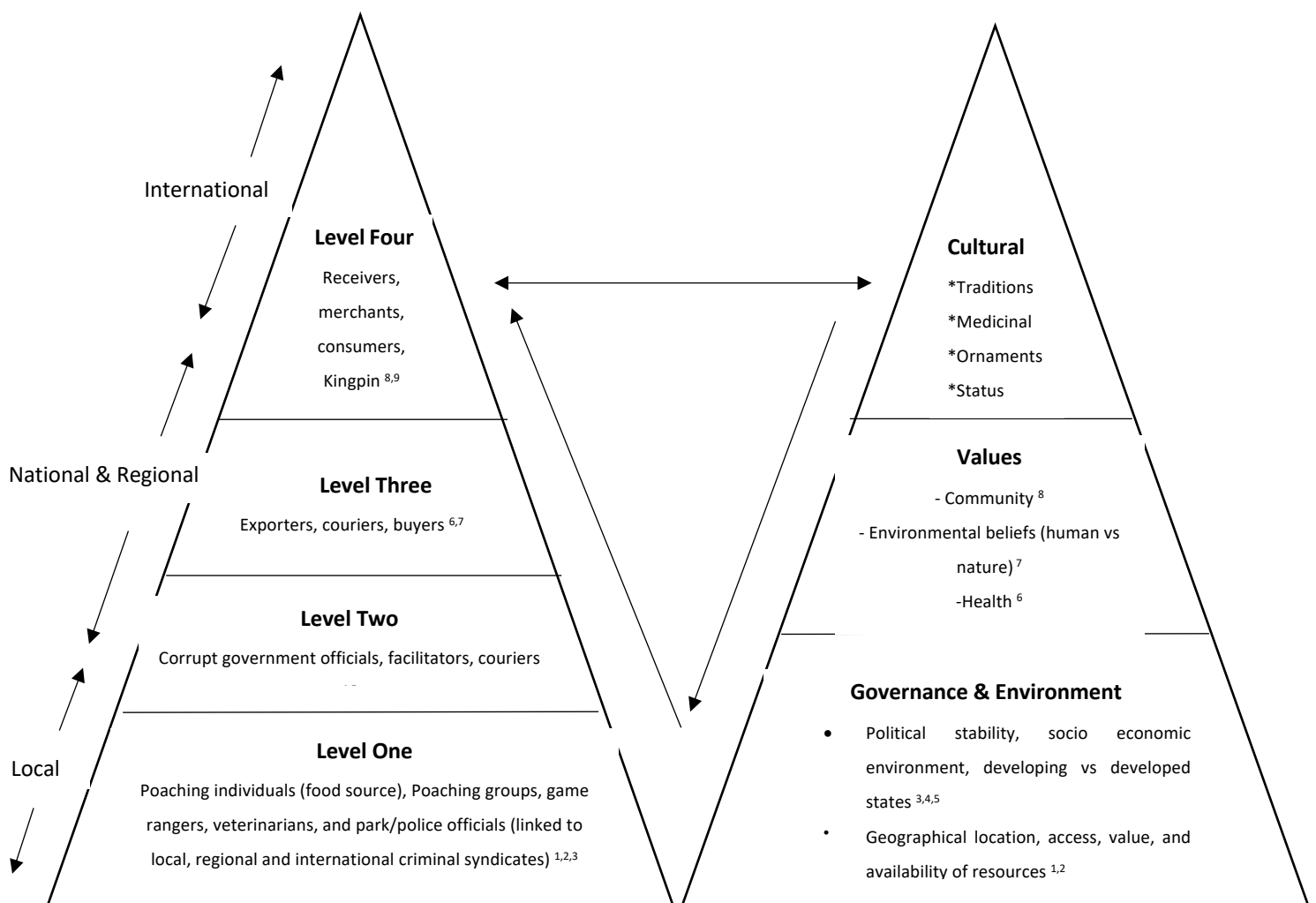
3.1 Introduction

Chapter three explores the central driving forces behind the illegal trade in wildlife and emphasises the interlinkages between these domains and how they have consequential impacts on one another. Figure 2 (attached below) consists of two hierarchical pyramids that will be used throughout this chapter, in order to highlight these linkages and demonstrate how the illegal trade in wildlife occurs at various levels and involves multiple actors.

Figure 2: Hierarchical Pyramids Demonstrating the Interlinkages Between the Various Domains

1. Pyramid A: Actors and Regions

2. Pyramid B: Cultural, Values, Environment



Source: Pyramids created by author using multiple sources which have been referenced in the bibliography.

3.2 Human Behaviour

Human behaviour can be defined as the manner in which humans act and interact, importantly, cognition can be identified as one of the principal theories within this field as it argues that human behaviour is largely determined by an individual's thoughts, personal motivations, and inner judgement (Benitez 2021). Generally, human behaviour can be categorised into different groups based on various influences such as: emotions, values, beliefs, cultures, personalities, and interests (Armstrong 2018; Benitez 2021).

Therefore, human behaviour can be identified as one of the central driving forces behind the illegal trade in wildlife, based on the various influences driving individuals and/or groups to act in a certain way. Whilst other central driving forces such as the environment and governance influence the illegal trade in wildlife (which will be addressed later on in this chapter), this section will specifically analyse how greed, opportunity, cultural values and social status all play a pivotal role in influencing individuals/groups to participate in this specific illegal activity.

3.2.1 Greed and Opportunity

The concept of greed is often associated with the desire for something, usually power or wealth, accordingly when opportunities present themselves, individuals take advantage of them to enhance their livelihoods or positions (Seuntjens 2016:10-11). Since, the illegal trade in wildlife is such a lucrative criminal activity, it presents numerous opportunities to the various actors involved (Lehmacher 2016). Pyramid A in Figure 2 illustrates that poachers and lower tiered actors often participate in this illicit activity due to their poor economic situation (Duffy *et al.* 2016:15-16). Whereas higher tiered actors involved participate for numerous reasons including gaining influential power over governments/institutions, fund other illicit activities, increase their profits and participate in cultural practices (Avis 2017:3; Price 2017: 2-3). As long as opportunities centred around financial gains and influence are present within this illicit activity, the illegal trade in wildlife will continue to grow and encompass numerous actors at various levels.

3.2.2 Cultural Values and Beliefs

Culture encompasses diverse values, religious beliefs, traditions, languages, cuisine, medicine, and social standards, as a result, it influences the manner in which individuals and groups behave (Idang 2015: 98; Zimmermann 2017). Correspondingly, culture and the notion of community commonly interlink with one another, as human beings often associate or reside in areas where common values, beliefs and customs are shared and acknowledged (Zevallos 2013).

When analysing the two pyramids in Figure 2, it is possible to identify that cultural practices such as traditional medicine and symbolism are directly linked to the highest tiered actors who have the financial means to buy, sell or consume illicit wildlife and their by-products (Rosen 2020; Pinnock 2020). In many cases, wildlife and their derivatives are transported and smuggled out of their country of origin, as most of these higher tiered actors are located abroad (Maron 2021; Krishnasamy & Zavagli 2020: 10-11). Whilst illegal wildlife and their by-products are consumed and utilised by numerous cultures globally, Southeast Asia continues to be one of the greatest importers and consumers of these commodities for several reasons, which will be discussed in the subsequent section (Krishnasamy & Zavagli 2020: 10-11).

3.2.2.1 Traditional Medicine

The World Health Organisation (WHO) defines Traditional Medicine (TM) as “the sum total of knowledge, skill, and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness” (World Health Organisation 2013: 15). TM has been practiced for centuries and is embedded in the traditions of many cultures throughout the world. Although conventional medicine is the most commonly used medical approach globally, TM is widely practiced in many African and Asian countries (Zafra 2018; Mahomoodally 2013: 1-2).

TM centres its approach towards natural remedies and thus utilises the derivatives of plants and animals as fundamental ingredients within their treatments (Zafra 2018; Master 2019). The greatest concern around TM in terms of conservation, is the increasing use of endangered

species derivatives within treatments, specifically in Traditional Chinese Medicine (TCM) (Master 2019; Standaert 2020).

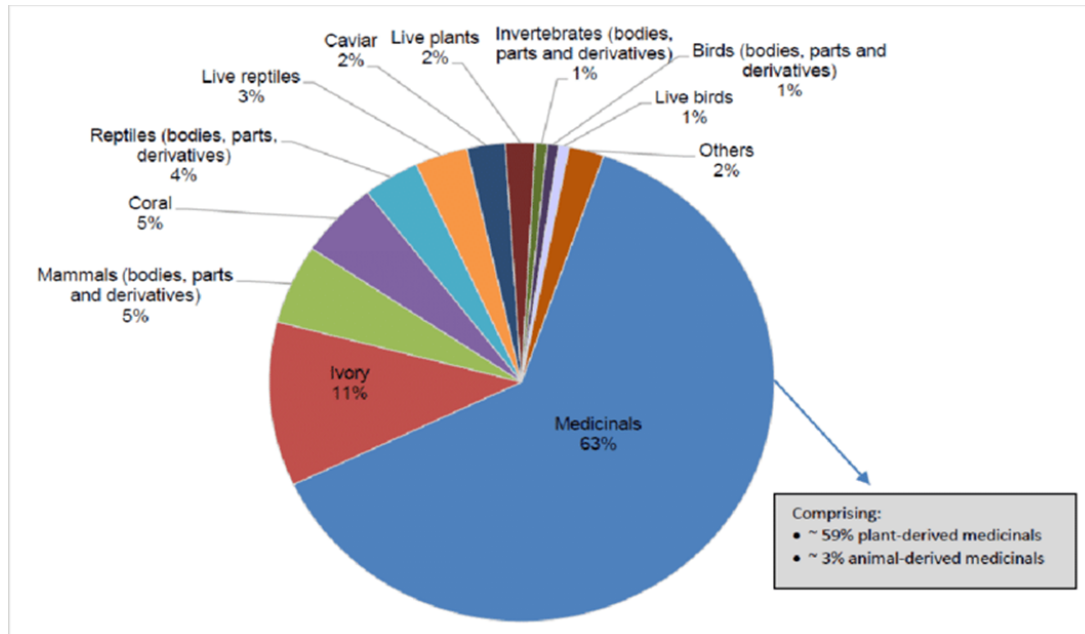
TCM which is practiced by many members of the Association of Southeast Asian Nations (ASEAN), utilises a range of ingredients originating from wildlife derivatives in many of its treatments (Ghai 2020; Hunt 2019). Importantly, some of these treatments require the derivatives from endangered species, for examples pangolin scales, rhino horns, tiger bones and bear bile are all key ingredients in numerous TCM treatments (Hall 2019; Wang *et al.* 2019; Cheung *et al.* 2021: 115-116). As the popularity of TCM expands within this region, the demand for certain wildlife and their derivatives will continue to grow. This essentially impacts the demand for endangered species and subsequently increases their value, which thus provides a greater incentive for criminal syndicates, poachers, middlemen and couriers to participate in the illegal wildlife trade (Zhu & Zhu 2020: 2-3; Master 2019).

Furthermore, due to the growing popularity of TCM, large pharmaceutical industries within this field are increasingly contributing to their countries economy, making them affluent role players within the wildlife trade, specifically in China (Xu & Xia 2019: 1-2; Watts 2020). Although the by-products of certain endangered species have officially been banned in China, other derivatives from endangered species such as pangolin scales and saiga horns are legally used in numerous TCM treatments, which are manufactured and made available by large pharmaceutical companies who have licences from the government to do so (Watts 2020; Master 2019; Nuwer 2020).

Moreover, whilst Southeast Asia is often identified as the largest consumer and importer of legal and illegal wildlife, it also functions as a source and exporter of diverse wildlife originating within the region (Krishnasamy & Zavagli 2020: 1). According to a recent publication by TRAFFIC, it is estimated that between 1998 and 2007, more than 180 million wild caught Asian frogs were exported annually from Indonesia to the United States of America (USA) and Europe (Krishnasamy & Zavagli 2020: 2). Whilst over 10 million reptile skins originating from Southeast Asia were exported during 2005-2013 (Krishnasamy & Zavagli 2020: 2). This is important to note as it indicates that the West also plays an influential role in driving the illegal trade in wildlife, and that this illicit activity is not specifically a third

world problem (Ruiz 2017). Figure 3 illustrates the various wildlife seizures within the European Union in 2015.

Figure 3: Wildlife seizures within the European Union in 2015



Source: Traffic 2016.

Furthermore, although an adequate portion of the wildlife trade within Southeast Asia is legal, the manner in which it is conducted is often illegal or unsustainable (Krishnasamy & Zavagli 2020: 2-3). Consequently, the parallel markets of legal and illegal wildlife trade often intertwine, creating a “grey zone” compiled of many loopholes, weak regulations, and lack of adequate law enforcement. This will further be discussed in the governance section of this chapter (Krishnasamy & Zavagli 2020: 3; Watts 2020; Shepard & Liu 2020).

3.2.2.2 Wildlife as a Food Source and Delicacy

Local markets selling fresh produce such as fruit and vegetables, wildlife and assorted ornaments can be found globally. Numerous factors such as culture, religion, geographic location, economic means, and the availability of products influences what is sold, consumed and in demand (Beech 2020; Kuo 2017). Food plays an important role within culture, accordingly the consumption of foods, specifically wildlife generally differs based on varying income levels and what is culturally accepted and accessible (Reuter 2016; Bryce 2019).

In Africa and Latin America, many rural communities heavily rely on “bushmeat” as a source of food and income, consequently wildlife is hunted or poached by many households within these regions (Villacis 2020; Reuter 2016). In the Congo Basin, it is estimated that approximately 4.5 million tons of bushmeat is extracted yearly, whilst in the Amazon region, approximately 900,000 tons of bushmeat is consumed annually (Reuter 2016; Villacis 2020; Cawthorn & Hoffman 2015: 909). Although the majority of bushmeat extracted in these regions is located in accessible land, the problem arises when the wildlife that is being hunted or poached is endangered or located in protected lands such as national parks and private reserves (Spira *et al.* 2021: 1-2; Abotsi *et al.* 2016: 403).

In this case, when examining the pyramids in Figure 2 (see page 22), it is possible to identify the linkage between poachers and the environment. On the one hand, poachers trespass protected and private property in order to obtain bushmeat, which they use to sustain their households; on the other hand, individuals poach or capture endangered wildlife in order to receive a percentile of the profits made by criminal syndicates involved in the illegal wildlife trade. Thus, the main incentive for these poachers is food security and/or financial gain (Cawthorn & Hoffman 2015: 909-910). In many cases the lower tiered actors, specifically the poachers involved within this activity, do the groundwork of the operations which often involves taking the greatest risks in terms of capturing the wildlife, bribing officials, inflicting violence and getting apprehended (Makoni 2021; Keir 2021).

The consumption of certain “exotic” meats in some countries and cultures is seen as a delicacy, therefore the demand for various species differs globally (González 2020). In many Asian countries, wet markets are widespread selling an expansive variety of fresh produce (Westcott & Wang 2020). Consumers frequent these markets on a daily basis, in order to purchase fruit and vegetables, wildlife and various delicacies including “exotic” meat (Westcott & Wang 2020).

In terms of conservation and health regulations, wet markets raise a number of challenges, the most significant being the transmission of zoonotic pathogens (Zhu & Zhu 2020: 1-2). Some of the species sold within these markets are classified as endangered, therefore they are often smuggled into the country illegally and thus evade important health examinations

(Alonso *et al.* 2020:258-259; FATF 2020: 11). This consequently increases the chances of zoonotic pathogens transferring from one species to another, due to the proximity of enclosures and unhygienic conditions within these markets (Maron 2020; Pavel & Engelke 2020).

Furthermore, as mentioned in the previous chapter (see page 19), there is also the possibility of direct animal to human transmission through the consumption of infected wildlife and lack of health regulations (Alonso *et al.* 2020:258-259; Brown 2020). In both cases, where the consequences of zoonotic pathogen outbreaks such as Human Immunodeficiency Virus (HIV), Ebola, Anthrax, SARS, and SARS-CoV-2 have extensively been examined, one can identify the colossal effects it has had on both human and environmental security (Brulliard 2020; Park 2016; Wambua 2020).

3.2.2.3 Cultural Ornaments, Pets and Symbols of Wealth

From selling jaguar cubs, yellow headed parrots, and squirrel monkeys in Mexico City's Sonara wildlife market, to the retailing of Burmese star tortoises and swamp francolins in the wildlife markets of Mumbai, to tiger cubs and pangolins in Vietnamese stalls, it is possible to identify another factor contributing to the illegal wildlife trade (Ford 2021; Mukherjee 2021; Humphrey 2020). This involves the selling of exotic species as pets, and wildlife derivatives as cultural ornaments such as jewellery, daggers, furniture and decoration (Ford 2021; Mukherjee 2021; Westcott & Wang 2020). The increasing demand for exotic pets and cultural ornaments is attributed to the expanding middle-income class, specifically in many Southeast Asian countries such as Vietnam, Singapore, Thailand, and Laos, who purchase exotic wildlife and their derivatives in order to have them as pets, and/or demonstrate a status of wealth (Vaughan 2012; World Wildlife Fund for Nature 2016; Mbzibain & Mohamed 2020; Fleishman 2009).

These markets contribute to the illegal trade in wildlife as they continuously sell a variety of endangered species (Suri 2020; Calder 2020). Furthermore, wildlife markets are responsible for the decimation of numerous species and habitats, and equally contribute to the likelihood of future pathogenic outbreaks due to the number and proximity of species deriving from diverse habitats sold within these markets (Alberts 2021; Calder 2020). Moreover, whilst

physical wildlife markets continue to exist, the advancement in technology has considerably influenced the trade in wildlife, in a sense that many endangered species are now sold online in 'virtual' black markets, making it more difficult for law enforcement agencies to track, prevent and seize various kinds of illicit wildlife and derivatives (Abano & Chaves 2021; Carrington 2018).

When analysing the pyramids in Figure 2, it is possible to recognize the evident correlation between the top tiered sections of each pyramid, particularly how the increase in consumers directly affects the demand of illegal wildlife in terms of TM, cultural ornaments, and status symbols. The increasing demand for illicit wildlife subsequently has a domino effect on the lower tiers, as it largely influences each domain, in a sense that the growing demand firstly incentivises criminal syndicates, poachers and the other actors involved in all four tiers to acquire, smuggle, and trade endangered species through innovative ways that continuously undermine current regulations and evade law enforcement agencies. This not only has consequential effects on the environment, but significantly influences the political and socio-economic stability of various states.

Therefore, as long as cultural practices and emerging trends involving the consumption and possession of illegal wildlife and their derivatives continues to operate, the demand for endangered species will continue to grow and further threaten the existence of numerous fauna and flora and increasingly threaten both state and human security.

3.3 Environment

The environment in terms of the natural world, greatly influences the illegal trade in wildlife for several reasons. Whilst several ecological factors contribute to this illicit activity, the geographic location and availability of resources can be identified as the central environmental drivers influencing the illegal wildlife trade.

As mentioned in the previous chapter, there is a prevalent relationship between mankind and ecosystems, in which the environment is a fundamental necessity in sustaining human life (Barnett 2009; Zurlini & Müller 2008: 1351). Consequently, as the world population continues

to grow, so does the demand for natural resources, this has fundamentally contributed to the degradation and depletion of many habitats, wildlife, and natural resources globally (Li 2020; Hood & Li 2019). Accordingly, the availability of resources largely depends on the existing quantity. The scarcer the resource the more difficult it is to obtain; this subsequently increases its demand and value.

When examining the illegal wildlife trade, it stands to reason that the increasing demand for specific species has fundamentally threatened their existence, meaning the availability of certain species is rapidly in decline, making them more valuable and sought after (Aisher 2016: 321-323). This can be substantiated by analysing the price of various endangered species and how their value has increased over the years based on their scarcity. For instance, the pangolin species is the world's most trafficked animal at present, with an estimated 1 million pangolins having been trafficked over the past decade (Parry 2020; Briggs 2017). Whilst the price of pangolin scales differs in each consumer country, the value of the species and its derivatives has substantially increased over the past few years (Prinsloo 2020: 9; Yee 2019). The increasing value of endangered species and their derivatives such as abalone, ivory and rhino horns over the past few decades are other examples also worth noting (Micu 2019; Suddason 2018; Carrington 2017).

Importantly, many endangered species such as pangolins, tigers, and saigas are endemic, meaning they can only be found in certain geographic locations (Isik 2011: 412). This fundamentally explains why poachers, criminal syndicates and other actors involved within the illegal wildlife trade, target specific regions where endemic species are found and consequently move to another region or species once the availability of certain species has been depleted (Omifolaji *et al.* 2020: 1-2). The pangolin species can once again be used as an example, where the four Asian species endemic to the continent are critically endangered due to the continuous poaching and growing regional demand for their meat and scales (Briggs 2017). Consequently, the rapid decline of these species in Asia has resulted in criminal syndicates and other actors involved in the illegal wildlife trade to move their operations to Africa, where the four other endemic pangolins species are located (Guynup 2018; Challender *et al.* 2020: 270-271).

Geographic location greatly influences the illegal wildlife trade in regard to accessibility, and transportation of trafficked species. Whilst the illegal trade in wildlife is a global phenomenon, it generally occurs in concentrated regions “hotspots” within each continent and has specific trafficking “routes” in terms of source, transit, and destination points to move species and/or their derivatives from one region to another (Clarke & Babic 2015: 63; Uhm *et al.* 2021: 11-13; Ibanga 2017: 1871).

When examining Pyramid A in Figure 2, it is possible to identify how the level one actors acquire the illicit wildlife locally (source), which is then handed over to the level two and three actors who operate at both national and regional levels (transit). The wildlife and/or its derivatives are then smuggled to their final destinations which are normally located abroad and reach the highest tiered actors (Ibanga 2017: 1869). Actors involved within this activity often take advantage of transnational parks and porous borders around the source country, which allows them to easily move wildlife and avoid inspections at certain checkpoints such as customs (Carsten 2019; Uprety *et al.* 2021:4-5). This section has thus emphasised how the geographic location and availability of endangered wildlife, influences where and how syndicates and actors involved within this activity operate in terms of acquiring and transporting illicit species and their derivatives.

3.4 Governance

The quality of governance largely determines the security of a state’s interests, people, and territory (Keping 2018: 3). As mentioned in the previous chapter, various indicators can be used to identify the quality of governance within a state. Accordingly, the objective of this section is to demonstrate how governance can be identified as an influential driver of the illegal wildlife trade, by examining some of its indicators/dimensions.

3.4.1 Political Stability and Absence of Violence

Political stability and the absence of violence is a fundamental dimension of governance, as it indicates the current state of authority and the likelihood of political destabilisation (Kaufmann *et al.* 2010: 3). Whilst most states are affected by some form of organised crime, countries experiencing political instability or those with a higher probability of civil unrest,

generally encounter a greater influx of crime and violence (Cilliers 2017; Kraft 2016: 6). This can be substantiated by analysing the political situation of countries with high crime rates such as Venezuela, Brazil, and Papua New Guinea (Aburto & Garcia 2019; Biller 2019; Bizhan & Gorea 2021).

In general, developing countries experience a greater likelihood of political instability, due to challenging social and economic factors (Radulovic 2015). Poverty, inequality, and unemployment largely contribute to an increase in criminal activity, as people have to find alternative ways of earning an income (Cilliers & Aucoin 2016: 2-3; Anser *et al.* 2020:2-4). When analysing the economic situation of numerous “source” countries in terms of the illegal trade in wildlife it stands to reason that many of these states are classified as developing and face numerous socio-economic challenges (Obasi & Vivan 2016: 1050; Lawson & Vines 2014: 7). Nigeria and Brazil can both be classified as developing states, with many political and economic challenges, which have led to the growing prevalence of organised crime such as the illicit trade in wildlife, as many of these states are rich in fauna and flora (Global Initiative Against Transnational Organised Crime 2021: 154).

Notably, people living in lower economic thresholds and in close proximity to national parks, are often targeted by criminal syndicates to participate in the illegal wildlife trade with the incentive of economic gain (Obasi & Vivan 2016: 1050-1051). A good example of this can be identified as Chinese criminal syndicates recruiting people living in Masakhane - a township in the Western Cape (South Africa), to participate in the poaching of abalone which is an endangered marine mollusc that is largely consumed in East Asia as a delicacy (Grobler 2019; De Greef & Raemaekers 2014: 1).

Importantly, whilst political instability often increases the probability of criminal activities, it is valuable to note that organised crime can equally sponsor/advance political instability in a fragile state (Kraft 2016: 6; UNDOC 2010: 240-241). Publications commissioned by Interpol and the United Nations Environment Programme (UNEP), have continuously emphasised the linkages between wildlife trafficking and militia/terrorist groups (Nellemann *et al.* 2014: 4; CITES 2021). This can be supported by analysing how the illicit trade in various resources such as ivory, timber and charcoal has funded numerous militia groups such as: Janjaweed in Sudan

and Chad, the Lord's Resistance Army (LRA) in the Democratic Republic of Congo (DRC) and the Central African Republic (CAR), in addition to Al-Shabaab in Kenya (Avis 2017: 9-10). It is estimated that Al-Shabab earns between USD 38 million to USD 68 million a year from the illicit sales and taxation of charcoal, whilst in 2012 it was estimated that the Janjaweed militia poached between 300 to 600 elephants in Cameroon for their ivory (McNeish 2014; Haas 2021: 1341).

The analysis of this section demonstrates that political instability is a contributing factor to the increasing presence of TOC in fragile or unstable states, where criminal syndicates take advantage of the current political and socio-economic environment, to exploit communities, resources and influence political parties and officials. The growing presence of TOC in developing states directly threatens human security as it increases the likelihood of violence, civil unrest and disregards the rule of law.

3.4.2 Government Effectiveness and Regulatory Quality

Government effectiveness can be used as a valuable indicator when analysing the standard of a country's governance, as it measures the quality of policy formulation and implementation, public services, and the credibility of the government's commitment to stated policies (Kaufmann *et al.* 2010: 4). Whereas regulatory quality measures the capability of a government to formulate and implement appropriate policies and regulations (Kaufmann *et al.* 2010: 4). Simply put, government effectiveness and regulatory quality, measure the government's ability to efficiently formulate and implement applicable policies, and achieve set outcomes (Kaufmann *et al.* 2010: 4).

When analysing the literature regarding the illegal trade in wildlife, it is possible to identify that some of the greatest factors permitting the expansion of this illicit activity, are related to the regulatory quality and government effectiveness of many states. These include, the lack of/poor regulatory systems, weak legislation, limited law enforcement, and the absence of political will (Krishnasamy & Zavagli 2020: 21; UNODC 2020:12). When it comes to the illegal trade in wildlife, one of the fundamental challenges concerning regulatory systems, is that many countries lack the adequate resources and law enforcement capabilities needed to

effectively address the challenges pertaining to this activity (UNODC 2020: 12; Abotsi *et al.* 2016: 425).

Regarding sound legislation, although signatories of international conventions such as CITES are legally bound to its provisions, various challenges arise when parties have to adopt these laws into their national legislation (Lavorgna *et al.* 2018: 279). Firstly, many developing countries prioritise the enforcement of legislation they consider essential, which usually does not include those centred around wildlife trade (Abotsi *et al.* 2016: 12).

Moreover, because each country implements their own legislation regarding wildlife trade, it is generally not consistent amongst neighbouring countries (Price 2017: 9). Consequently, criminal syndicates and other actors involved within this illicit activity, tend to exploit countries where legislative and enforcement gaps regarding wildlife trade are more apparent (UNODC 2020: 12; Abotsi *et al.* 2016: 428-429). For example, in Tanzania penalties for the illegal trade in wildlife are a lot more severe than those in Kenya, accordingly poachers from Tanzania tend to cross the border into Kenya to commit these crimes (Price 2017: 9).

Furthermore, as mentioned in the previous chapter, the externalisation of authority in terms of governance has resulted in various actors influencing the policy formulation and implementation process of many states (Jang *et al.* 2016: 1-2; Mlambo *et al.* 2019: 1-2; Verma 2016: 53-55). Accordingly, the quality, prioritisation, and implementation of wildlife legislation in each country, is largely influenced by numerous actors other than the government (Diprose *et al.* 2019: 223-225; Niedzialkowski & Smoter 2021: 428-429). Each of the actors involved within this process, have diverging interests regarding the prioritisation and implementation of wildlife legislation. Therefore, the final outcome regarding the legislation will be beneficial to some, whilst a detriment to others.

Examples of this can be identified as:

- 1) CITES influence over South Africa's domestic trade in rhino horn, which resulted in the South African government placing a moratorium on the domestic trade in rhino horn from 2009 to 2017 (Stoddard 2017; Oberem 2019). The moratorium had significant consequences on South Africa's commercial rhino farming industry, as many rhino

owners could no longer afford the upkeep of these species, as previous income generated from the industry was completely eliminated (Oberem 2019).

- 2) The TCM pharmaceutical industry having access to China's national stockpile of pangolin scales, even though the trade and consumption of this species is banned in China at present (Alberts 2020).
- 3) The attempt of NGOs to manipulate "the science-based approach of CITES" with the objective of ensuring certain species become or remain listed on a certain appendix (Challender & MacMillan 2019: 91-92). For example, there was a lot of controversy behind CITES decision to move the African elephant from Appendix 2 to Appendix 1 in 1989, as many argued that the decision was largely influenced by NGOs such as the African Wildlife Foundation and the African Elefund, which resulted in their desired outcome (international ivory ban), even though several Southern African states were opposed to the suggestion as the elephant populations within their territories were adequately managed and growing in numbers (Challender & MacMillan 2019: 95-97).

3.4.3 Control of Corruption and Rule of Law

Control of corruption as a governance indicator has the objective of measuring to what degree public power is exercised with the sole incentive of personal gain. This indicator measures all forms of known corruption committed by various government officials, whether minor or substantial (Kaufman *et al.* 2010: 4)

Corruption can be identified as one of the fundamental drivers facilitating the illegal wildlife trade, as corrupt officials are generally involved in every phase of this illicit activity, which allows criminal syndicates to operate freely throughout the process and substantially benefit from this kind of association (Zain 2020: 1-2). Furthermore, corruption greatly undermines the rule of law as it weakens the authority of law enforcement and has consequential impacts on government effectiveness as it negatively affects the quality of public services as well as the allocation of resources (Martínez 2021: 5; Mijatović 2021). Importantly, corruption is more prevalent in developing countries, as people are more likely to participate in illicit activities due to higher rates of poverty and inequality, opportunities to make 'quick money' and lower risks of getting caught (Hope 2017: 1-2).

It is worth noting that corrupt officials involved within the illegal wildlife trade consist of a variety of actors including: police, politicians, judges, environmental department officials, veterinarians, rangers, customs officers, and even high ranking public officials (Kassa *et al.* 2019: 10-11). The process of corruption within the illegal wildlife trade, normally involves criminals bribing corrupt officials with the incentive of acquiring and smuggling illegal wildlife in and out the country, gaining access to information and national parks and obtaining fraudulent documentation such as CITES export permits and hunting licenses (Zain 2020:3; Kassa *et al.* 2019:10). An example of a high-ranking official involved in the illegal wildlife trade, is the former wildlife director and head of CITES Management Authority of Guinea, Mr. Ansoumane Doumbouya, who was arrested by INTERPOL in 2015 for corrupt and fraudulent actions in issuing CITES export permits (CITES 2021; Gorman 2015). Corruption will continue to play a fundamental role in facilitating the illegal wildlife trade, if governments continue to allow corrupt officials to operate, due to the lack of law enforcement, adequate resources, and weak governance (Krishnasamy & Zavagli 2020: 21; UNODC 2020:12).

The rule of law is a valuable indicator of good governance, as it essentially measures the independence and functioning of the judiciary, police, and other law enforcement agencies (Kaufman *et al.* 2010: 4). States with a weak rule of law, are usually prone to increased criminal activity, violence, corruption, and violation of human rights, due to weak judiciaries and inadequate law enforcement (UNDOC 2020). Weak rule of law not only undermines the sovereignty of a state, but continuously hinders the social and economic advancement of many developing states (UNODC 2013). Criminal syndicates involved in the illegal wildlife trade, continuously take advantage of countries with weak rule of law, as it is easier to bribe officials, acquire documentations to legalise their activities and gain access to markets and facilitate on-ground operations with a low probability of apprehension (Lawson & Vines 2014: 27; UNODC 2011: 7; Obasi & Vivan 2016:1051-1052).

After evaluating these indicators, it is evident that governance is an influential driver of the illegal trade in wildlife. In a sense that political and economic instability increases the likelihood of criminal activities such as wildlife crimes. Poor government effectiveness and weak regulatory quality lead to the inadequate implementation of legislation regarding the

illegal wildlife trade. Whilst, high levels of corruption and weak rule of law, undermine the sovereignty of the state and its ability to protect its people and resources.

3.5 Conclusion

This chapter provided the central driving forces behind the illegal trade in wildlife and emphasised the interlinkages between various domains and how they each had consequential impacts on one another. A diagram consisting of two hierarchical pyramids was used throughout the chapter to demonstrate these interlinkages. The chapter commenced by introducing human behaviour as the first driver, which essentially highlighted how the demand for endangered wildlife was closely related to economic, medicinal, cultural, and traditional factors. The chapter continued by identifying the environment as another influential driver, specifically how the availability and location of resources influenced this illicit activity. The last section of the chapter identified governance as a fundamental driver, in which numerous indicators were used to substantiate why this specific driver largely contributes to the illegal trade in wildlife.

Chapter Four: South Africa: A Case Study in the Illegal Wildlife Trade

4.1 Introduction

Chapter four uses South Africa as a case study and examines the illegal wildlife trafficking that occurs within its borders. This will be done by providing a brief overview of South Africa's transformation since 1994, followed by analysing the socio-economic, environmental, and political dimensions of the country, to demonstrate how current challenges within these domains attract this specific type of illicit activity within the country.

4.2 South Africa Over the Past Few Decades

From a white ruling minority government that institutionalised racial segregation and violated many human rights, to a democracy with one of the most progressive constitutions in the world, South Africa has experienced a great deal of change politically, socially, and economically since 1994 (Larson 2019; Campbell 2019; Bostock 2016: 2; Wizarat 1980: 84-85; Brauns & Stanton 2016: 23). Since its transition to democracy, South Africa has become an affluent leader within the continent, due to its economic development, availability of valuable resources and its influential political position in many IOs and forums such as the G20, BRICS, the UN Security Council (UNSC), and the AU (Adika 2020: 303-304; Schoeman *et al.* 2017; Singh 2021).

South Africa can be identified as a constitutional democracy, consisting of a three-tiered government system and independent judiciary (Republic of South Africa 1996: 21; Republic of South Africa 2021). Since 1994, the country has held six peaceful democratic elections, with the African National Congress (ANC) winning majority vote over the past few decades (Mohamed 2020). In terms of legislation regarding the equal treatment of all citizens, the establishment of South Africa's Constitution in 1996, specifically the Bill of Rights, has ensured that the rights of all its people are equally preserved, respected, and protected (The Republic of South Africa 1996: 5). Accordingly, all South African citizens are now entitled to fundamental rights such as freedom of speech, association, movement, and the opportunity to vote in elections (Republic of South Africa 1996: 7-8).

Furthermore, all citizens now have the right to access basic services such as healthcare, education, housing, information and food and water (The Republic of South Africa 1996: 5-12). Since 1994, the availability and accessibility to many of these services has significantly increased and developed, with visible improvements identified throughout each of these domains (National Planning Commission 2012: 24). For example, in terms of healthcare, one can identify a valuable decline in both HIV infections and still birth rates over the past two decades (Bostock 2016: 18-19). The decline in both these cases, indicates how the opportunity and accessibility to free healthcare, has influenced the livelihood of many previously disadvantaged people who faced numerous challenges during the Apartheid era in terms of healthcare accessibility and quality (Brauns & Stanton 2016: 26-28).

When examining the living conditions within South Africa, one can identify that access to formal housing has increased by approximately 130% since 1996, whilst household access to electricity has increased by around 228% within the same period (Bostock 2016: 10). The increase in both formal housing and access to electricity, demonstrates an improvement in the living conditions of many households since 1994 (Bostock 2016: 10-11).

In terms of the economy, the country has experienced considerable economic transformation since 1994, with the economy being 85% larger in 2015 compared to 1994 (Bostock 2016: 3). Various economic policies such as the Growth, Employment, and Redistribution (GEAR) and the Reconstruction and Development Plan (RDP), were implemented over the years with the objective of addressing and redressing the economic inequalities created by the Apartheid regime in addition to further developing the economy (Wehner 2000: 183-185). Income levels have improved over time, inflation rates have declined, the country's real per capita GDP has increased considerably since 1994, whilst social grants have been introduced with the objective of supporting the unemployed, disabled and economically disadvantaged (Bostock 2016: 3-5; Webb & Valley 2020; O' Donovan 2019).

Although South Africa has experienced radical transformation since 1994, it continues to face numerous political and socio-economic challenges at present, these will be addressed in the following section.

4.3 Dimensions Influencing the Illegal Wildlife Trade in South Africa

As discussed in the previous chapter, numerous drivers influence the illegal trade in wildlife. This section will consequently examine how South Africa's current socio-economic, political, and environmental dimensions, specifically the challenges within them, have fundamentally influenced the increasing presence of this illicit activity with the country.

4.3.1 Economy

Although South Africa has one of the largest economies in Africa, it continues to face numerous socio-economic challenges (Mlaba 2021). Corruption, inequality, poverty, unemployment, and violence in terms of crime, are all prevalent within the country and are increasingly threatening the security and stability of the state, as they proliferate the likelihood of civil unrest, weaken the rule of law, and largely contribute to the expansion of various criminal activities (Webster 2019; Mlaba 2021; Budhram & Geldenhuys 2018: 26-27; Lancaster 2021).

South Africa's growing unemployment rate over the past two decades has become a cumulative challenge within the country, as it significantly contributes to the state's growing poverty and income inequality levels, which are already substantially elevated (Bohlmann *et al.* 2021; World Bank 2018: xi). According to a recent publication by Statistics South Africa, the country has reached a record high unemployment rate of 36.2% at the beginning of 2021 (Statistics South Africa 2021; Smit 2021). It is estimated that approximately 7.2 million South Africans are currently unemployed, with youth unemployment (15-34 years) estimated to be around 46.3% in the first quarter of this year (Statistics South Africa 2021; Smit 2021).

Financial institutions such as the World Bank, utilize a Gini coefficient to measure the inequality variation in countries, accordingly a score between 0 and 1 is calculated, where "0" represents complete equality and "1" represents total inequality (Boyce 2021; Webster 2020). In 2015, South Africa had a Gini coefficient of 0.63, making it one of the most unequal countries in the world (World Bank 2021).

By 2019, South Africa had been ranked the most unequal country in the world, where the top 10% of South Africans in terms of income, owned approximately 70% of the country's wealth, leaving the remaining 30% to 90% of the population (Baker 2019; Greenwood 2018; Scott 2019).

One of South Africa's other greatest challenges in terms of economic development, is its inability to adequately address the rising level of poverty embedded within its roots. Although various economic strategies have been implemented over the past two decades, more than 50% of the country's population continues to live in poverty (Plagerson 2021; Mlaba 2020). Furthermore, the ongoing COVID-19 pandemic has had colossal impacts on the South African economy, which has subsequently resulted in increased poverty and unemployment levels within the country over the past two years (Nwosu & Oyenubi 2020; Naidu 2021).

Regarding criminality, South Africa has experienced decades of violent crimes, from murder, rape and riots to robberies, highjackings and assaults (Eagle 2015: 85-86; Lancaster 2021; Mlambo 2021). In recent years, South Africa has been ranked one of the most dangerous countries in the world, due to the increase in violence and murders (Statistics South Africa 2020; Head 2020). Between the period of 2019 to 2020, approximately 20 000 civilians were murdered, 1.2 million cases of housebreakings were reported, in addition to 1.1 million incidences of street robbery (Phakathi 2020; Statistics South Africa 2020).

According to ENACT's organised crime index, South Africa is ranked 10th out of the 54 African states in terms of criminality, due to its high scores for both criminal actors and markets (Mahlangu 2020). In September 2021, the Global Initiative Against Transnational Organised Crime, published its first Global Organised Crime Index that essentially ranks organised crime within countries based on three integral sections, which include analysing the scale, scope and impact of particular criminal markets, the influence and structure of criminal actors, as well as the extent and effectiveness of countries' resilience measures (Global Initiative Against Transnational Organised Crime 2021: 4). Based on these domains, the index consequently ranked South Africa 19th out of 193 countries, due to its high levels of organised crime and resilience to it (Global Initiative Against Transnational Organised Crime 2021: 106-107, 153; McCain 2021). In general, the most prominent criminal markets within South Africa,

are those related to narcotics, arms, non-renewable resources, and fauna (ENACT 2019: 2; Global Initiative Against Transnational Organised Crime 2021: 69, 154). The most noticeable actors within these markets are identified as organised criminal syndicates (local and foreign), gangs (mafia-style) and corrupt government officials (ENACT 2019: 3; Global Initiative Against Transnational Organised Crime 2021: 164).

When examining organised crime in South Africa, one can identify how international and local criminal networks exploit the country's current socio-economic and political vulnerabilities, in order to expand their establishment and influence (ENACT 2018: 4). Importantly, many of these syndicates are well connected across borders and are commonly involved in various illicit markets, allowing them to have significant influence over the political elite and criminal underworld (ENACT 2018: 4; Goredema & Goga 2014: 9-11).

In terms of the illegal wildlife trade in South Africa, criminal networks continuously target poor rural communities living in close proximity to endangered wildlife, with the objective of recruiting people to participate in this illicit activity (Haas & Ferreira 2016: 3; Obasi & Vivan 2016: 1050-1051). In many cases, the people recruited from these areas are used as lower tiered actors and are normally paid very little in comparison to the profits made (Shaw & Reitano 2013: 13; Hübschle & Shearing 2018:4). Although these syndicates exploit the economic situation of these communities and disregard their safety, many people within them continue to participate in this activity, as they largely depend on the income provided by these syndicates (Hübschle & Shearing 2018: 12; Shaw & Reitano 2013: 13). Consequently, a dependency cycle is established, and communities often protect those involved, thus undermining the rule of law, and increasing the likelihood of violence amongst community members and law enforcement agencies such as police and anti-poaching units (Hübschle & Shearing 2018: 5).

Having briefly examined South Africa's current socio-economic challenges, it is credible to argue that high rates of unemployment, poverty and inequality have consequently led to an increase in criminal activities, as civilians have explored alternative ways of earning an income. Accordingly, organised crime within South Africa will continue to flourish, as long as

these socio-economic challenges persist (Global Initiative Against Transnational Organised Crime 2021: 66-67).

4.3.2 South Africa's Environment

Geographically, South Africa is located at the southern tip of the continent, with its coastline surrounded by both the Indian and Atlantic Ocean (McGroarty 2015). It is bordered by multiple countries including, Namibia, Zimbabwe, Mozambique, and Botswana, and has another two nations landlocked within its territory, namely the Kingdom of Eswatini and the Kingdom of Lesotho (Kiprop 2018). Ecologically, South Africa is identified as one of the seventeen mega-diverse countries in the world by the UN's World Conservation Monitoring Centre, due to its abundance in biodiversity resources (Shackleton 2009: 91-92; Pariona 2021).

South Africa heavily relies on the wealth generated by its natural resources, as it largely contributes to the state's economy in terms of mining, agriculture, and tourism (Statistics South Africa 2021; Van Der Merwe 2018; Smith 2019). Due to the diversity of fauna and flora, many endemic and endangered species listed on the CITES appendices can be found within the country, these include fauna such as the Knysna seahorse, Southern banded eagle, Pickergill's Reedfrog, African elephant, riverine rabbit, cheetah, pangolin, African wild dog, Cape vulture, golden moles, rhinoceros, abalone, and flora such as the Kraaifontein spiderhead, *Freylinia Visseri* and various cycad species (Mueni 2019; Poulsen 2020; Thomas 2020). The availability and accessibility of many of these endangered species, has consequently turned South Africa into a haven for both local and international criminal syndicates involved within the illegal wildlife trade (Chakanga *et al.* 2016; Stein 2019).

For instance, it is estimated that over the past 20 years more than 96 million abalone have been harvested and trafficked out of South Africa's waters by local gangs and Chinese triads due to the availability of these species in the country (Grobler 2019; Evans 2018). Another example can be identified as the rhino species. At present South Africa is home to approximately 80% of the remaining rhino species globally, which equates to approximately 30 000 rhinos (Oberem 2019; Isilow 2020). It is estimated that 40% of South Africa's rhino population is privately owned, with the other 60% owned by the state (Balfour & Dziba 2021).

The growing demand for this species derivative, has resulted in the death of around 3,000 rhinos within the country over the past five years, with majority of the poaching incidents occurring within the Kruger National Park (KNP) (Save the Rhino 2021; Carnie 2021).

The availability of rhinos in South Africa compared to the rest of the world, has subsequently resulted in the cumulative presence of illegal wildlife networks within the country, ranging from local syndicates such as the “Boere Rhino Mafia” and “Out of Africa Adventurous Safaris” to international criminal syndicates such as “Hydra” (Rademeyer 2012: 102-104; Larson 2014; Hammer 2019).

Importantly, the increasing use of weaponry and violence by many wildlife poachers has led to the securitisation of these species in South Africa, where many private and state-owned farms have employed ‘militarised approaches’ to safeguard these species (Duffy *et al.* 2019: 67). Whilst many conservationists, NGOs and governments have endorsed this type of approach due to its efficacy in combatting the illegal trade in wildlife, it is important to note that this approach equally generates numerous challenges. The consequences of using a militarised approach in conservation include: the escalation of violence between poachers and law enforcement officials/rangers; the forceful displacement of communities within conservation zones, which likely influences their views towards conservation negatively; disregarding the underlying reasons for poaching, as this approach directly focuses on addressing the current threat (Duffy *et al.* 2021: 67-71).

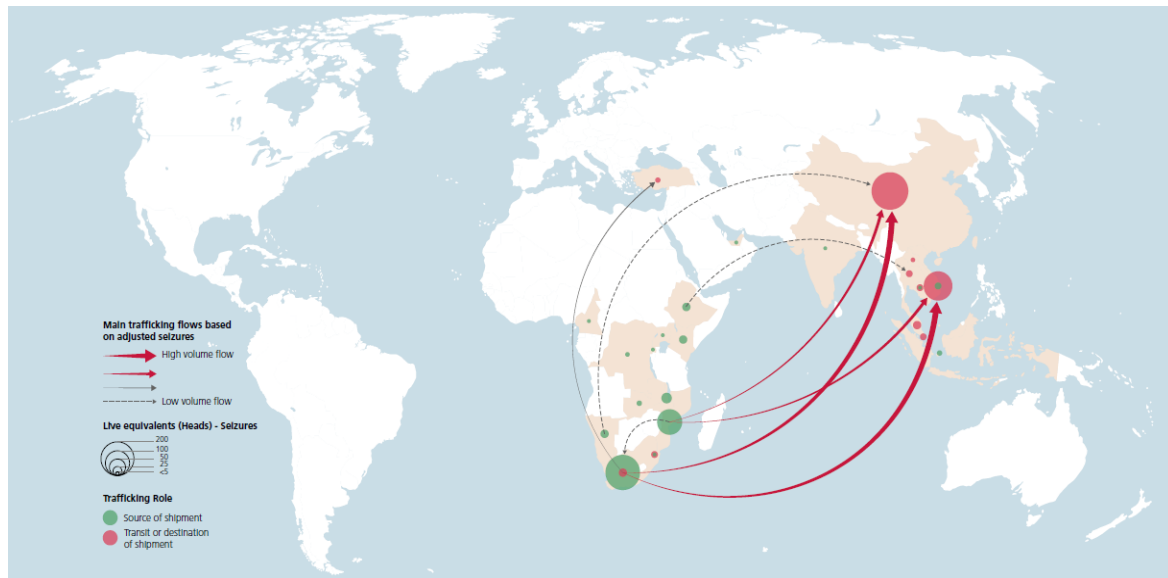
Although the country’s economic situation and availability of its endangered species has fundamentally driven the number of poaching incidences, South Africa’s location and porous borders are another factor that contribute to the expansion of this illicit activity within the country (Fenio 2014: 2; Mamokhere & Chauke 2020: 1-2). With over 53 land ports of entry, 6 of which are shared with neighbouring countries, South Africa continues to face multiple challenges in managing its border security, in terms of controlling what comes in and out of its territory (Mamokhere & Chauke 2020: 1-2; Statistics South Africa 2021). The increase in transborder criminal activities within the region, is greatly attributed to the deteriorating economic and political environment of many neighbouring countries around South Africa such as Zimbabwe and Mozambique, in addition to an increasing presence of corruption at

border posts and the lack of adequate resources (Moyo 2020; Nel 2019; Doormaal *et al.* 2018:8).

Over the past few decades, corruption has become a major problem at many South African border posts. Joint operations by law enforcement agencies such as the SAPS, Hawks and Crime Intelligence has led to the arrest of many border post officials who were found guilty of accepting bribes, and/or participating in various illicit activities (Republic of South Africa 2017). Examples of this include: the arrest of 18 government officials working at the Ficksburg border post in 2017, due to fraud and corruption; the arrest of 7 SANDF soldiers who accepted bribes from criminal syndicates operating at the Beitbridge border post in June 2021; the arrest of 6 immigration officials at the Lebombo port of entry, for illegally issuing official documents such as work permits and accepting bribes from undocumented migrants in order for them to gain entry into the country (Republic of South Africa 2017; McCain 2021; Maromo 2021). In terms of national security, the growing presence of corruption at many South African border posts is highly problematic as it undermines the rule of law and poses a number of security threats.

Criminal syndicates involved in the illicit wildlife trade, continue to exploit South Africa's porous borders to obtain and traffic endangered species out of the country to their next destination, which is usually a transit country such as Mozambique, Nigeria, Zambia, Laos, Qatar, Singapore, and Myanmar (Blum 2016: 10-11; Aung 2019; Moneron *et al.* 2017:5-6). In most cases these syndicates establish specific strategic trade routes and supply chains, which facilitate the easiest most affordable and undetectable movement of endangered species and their derivatives (Clarke & Babic 2016: 58-59). Figure 4 depicts the routes used by syndicates to traffic rhino horns from Sub-Saharan Africa to transit and/or destination countries between 2014 and 2018.

Figure 4: The trafficking routes of African Rhino Horns between 2014 and 2018



Source: UNDOC World WISE Database.

For example, illegal wildlife syndicates operating within the KNP, have established multiple trafficking routes within the Eastern region of the reserve, as it shares a 400km long border fence with Mozambique that lacks adequate fencing structures and permanent security personnel, allowing poachers to enter and exit the park more easily (Goba 2017; Serino 2015; Van Doormaal *et al.* 2018: 2-3). According to the Department of Agriculture, Forestry and Fisheries, more than 300 rhino poachers were apprehended within the park and its surrounding areas in 2015 alone, with majority of these poachers originating from rural communities bordering the park on both the South African and Mozambican side (Republic of South Africa 2016; Sanpath 2013). The apprehension of many foreign poachers over the years, emphasizes the extent of South Africa’s porous borders and how easy it is for illegal wildlife syndicates to facilitate cross border operations between South Africa and its neighbouring countries (Chakanga *et al.* 2016; De Klerk 2020).

Furthermore, the establishment of Transfrontier Conservation Areas between South Africa and its neighbouring countries such as the “Kgalagadi Transfrontier Park” (South Africa and Botswana), the “Great Limpopo Transfrontier Park” (South Africa, Zimbabwe and Mozambique), and the “Ai-Ais Richtersveld Transfrontier Park” (South Africa and Namibia), has created many other valuable access points for poaches and criminal syndicates

transporting illicit products in and out of South Africa, due to the lack of border fences and frequent patrols (Lubbe 2015; Schrader 2015).

Although South Africa's porous land borders pose majority of the challenges when it comes to controlling the illegal trade in wildlife, sea and air ports of entry are increasingly being used by organised crime syndicates to smuggle illicit wildlife out of the country (Moneron *et al.* 2017: 8; Roelf 2014). Once endangered species and their derivatives have been poached, couriers often conceal these illicit products and smuggle them within their luggage or large shipping containers (Nkanjeni 2017; Moneron *et al.* 2017: 5; Roelf 2014). Customs have seized multiple consignments of rhino horns and ivory at O.R Tambo International Airport (Johannesburg) over the past few decades, with the number of seizures increasing yearly (Pereira 2019; Magome 2021; Head 2021). Between July 2020 and February 2021, approximately 270 kilograms of rhino horn valued at over R 230 million have been seized at O.R. Tambo International Airport, with most of the couriers transporting multiple horns at a time, usually destined to Southeast Asia (Pereira 2019; Head 2021).

Similarly, the seizure of abalone within South Africa generally occurs at warehouses and seaports, where organised crime syndicates store and smuggle this endangered species into shipping containers, which are then placed onto large cargo ships travelling to transit or destination countries (Minaar *et al.* 2018: 13; Chambers 2017). Increased operations by law enforcement and environmental officials have led to significant seizures of this species over the past few years, with major busts including two seizures of abalone worth R 38 million (Table Bay Harbour and Paarden Island), the confiscation of more than 8.6 tonnes of abalone (Port Elizabeth Harbour), in addition to another 1.6 tonnes of abalone worth R2.6 million (Durban Harbour) (Chambers 2017; Wicks 2018; Okes *et al.* 2018:26-28).

The increasing seizures of abalone in South Africa (origin) and Hong Kong (destination), has resulted in syndicates altering their smuggling routes, by firstly transporting the illicit product to neighbouring countries such as Mozambique, Lesotho, and Eswatini, where cargo is less frequently monitored by customs and porous borders provide easy access points (Lau 2018: 56-57; De Greef & Raemaekers 2014: 1-20). The illicit product is then exported to its final

destination by air or sea, where customs in the destination country pay less attention to the cargo based on its country of “origin” (Lau 2018: 56-57; De Greef & Raemaekers 2014: 1-20). Figure 5 illustrates the routes used to smuggle this specific species out of South Africa.

Figure 5: The South African abalone trafficking routes



Source: Oxpeckers. 2017.

After examining South Africa’s environment in terms of geographic location, availability of endangered wildlife and the numerous challenges generated by these factors, it is plausible to argue that the country’s environment does indeed play an influential role in driving the illegal trade in wildlife within its territory.

4.3.3 Governance

Whilst South Africa’s current socio-economic and environmental dimensions significantly influence the illegal trade in wildlife within the country, it is important to note that the quality of governance within South Africa has an equally significant influence in driving this illicit activity, specifically with regard to regulatory quality, control of corruption, voice and

accountability, rule of law and government effectiveness. Accordingly, by analysing the quality of South Africa's governance through the indicators mentioned above and utilising a variety of examples, this section of the chapter emphasises how the quality of governance within the country has promoted the illegal trade in wildlife over the past few decades.

4.3.3.1 Systemic Corruption, Rule of Law and Accountability

Every year, Transparency International releases a report known as the Corruption Perceptions Index (CPI), which indicates the perception of public sector corruption in 180 countries (Transparency International 2017; Lewis & Erasmus 2021). The report is based on a number of international surveys and assessments of corruption, conducted by various institutions specialised in business analysis and governance (Transparency International 2017). The index utilises a scale of 0 to 100 to rank countries, where 0 represents 'highly corrupt' and 100 represents 'very clean' (Transparency International 2019). Over the past few years, South Africa has continuously ranked in the category of countries with considerable corruption challenges, due to its inability to achieve an index score above 50 since 2012 (Mabuza 2021). The country's stagnant CPI score (42-45) over the past 9 years not only indicates the extent of corruption within the public sector but emphasises the government's inability in addressing such widespread corruption at present (Mabuza 2021; Majavu 2020).

From the corrupt and nepotistic presidency of Jacob Zuma (2009-2018), to the influential role of the Gupta family on state owned enterprises such as Eskom, Transnet and South African Airways, the continuous mismanagement of public funds (tenders) and the bribery of multiple government officials, it is understandable why corruption has become one of the country's greatest challenges over the past decade, especially if it can be found at such high levels of government (Ngqambela 2020; Pilling & Cotterill 2017; Arun 2019). The extent of South Africa's corruption in both public and private sectors is highly problematic as it not only undermines the rule of law and quality of governance within the country but has severe consequences on South Africa's economic development (Martínez 2021: 5; Mijatović 2021; Gossel 2017). Corruption within the country will continue to expand in all domains, as long as those committing such crimes are not held accountable and sentenced adequately.

As corruption is a systemic challenge in South Africa, it can generally be found in most spheres of the public and private sectors. As mentioned in the previous chapter (see page 35), when it comes to the illegal trade in wildlife, corrupt officials involved within this activity consist of multiple actors operating at varying levels (Kassa *et al.* 2019: 10-11). Accordingly, this section will provide several examples of corrupt officials implicated in the illegal wildlife trade within South Africa, to demonstrate how corruption within this specific activity drives the illegal wildlife trade within the country.

With regards to rhino poaching, corruption has played a pivotal role in decreasing the rhino population nationally over the past few decades, as actors with direct information and access to these species are often bribed by criminal syndicates to participate within this illicit activity, with the incentive of financial gain (Makoni 2021). Usually, in South Africa the corrupt actors implicated within this activity, consist of park officials (rangers, field guides, management), veterinarians, government and law enforcement officials, and members of the judiciary (Makoni 2021; Leithead 2018; Keir 2021).

Some of the most noteworthy examples include the following:

- The arrest of Rodney Landela (KNP regional manager) for his involvement in killing a white rhino in the KNP in 2016 (Keir 2021);
- The apprehension of two South African Police Service (SAPS) constables and a former South African National Parks (SANParks) field sergeant for their involvement in killing a rhino in the KNP in 2014 (Republic of South Africa 2014); and
- The ongoing investigation of KwaZulu Natal's former regional court president Eric Nzimande, who faces 112 counts of misconduct, which include his alleged involvement in several rhino poaching cases in the Zululand region, specifically those related to the alleged rhino kingpin Dumisani Gwala (Savides 2021).

Another significant example is that of diplomats such as Nguyen Khanh Toan (Vietnam-economic attaché) and Park Chol-jun (North Korea-political councillor), who used their diplomatic immunity and their embassy's diplomatic bags to smuggle rhino horns out of South Africa for several years until they were apprehended (Rademeyer 2012: 257; Pinnock 2016; Rademeyer 2015).

Similarly, to the corruption found in the illicit rhino horn trade, criminal syndicates involved in the illicit abalone trade bribe government and law enforcement officials to acquire and smuggle the abalone species out of the country (Chelin 2018). The illicit trade in abalone is often linked to drug trafficking, as a percentage of abalone is commonly paid for in drugs (Grobler 2019). Therefore, criminal syndicates involved within the abalone trade have an influential presence in more than one illicit market, allowing them to have affluent power in certain regions and continuously undermine the rule of law (Grobler 2019; Heinecken 2019).

An example of this is the influential Cape Town gang known as the 28's and its affiliated gangs, who run multiple drug syndicates and 'control' the harvesting of abalone across a specific region of the Cape coast (Grobler 2019). Government and law enforcement officials are bribed by these gangs to turn a blind eye, provide information on possible operations/seizures and arrest rival gang members that pose any threats to their illicit operations (Hyman & Jordan 2018; Chelin 2018). In March 2018, more than 9 officials from the Department of Agriculture, Forestry and Fisheries were arrested in Gansbaai, due to their alleged involvement in the illicit abalone trade (Hyman 2018). Whilst some of the highest officials within the Department such as Siphokazi Ndudane (deputy director-general) and Nazima Parker (chief financial officer) were suspended due to internal investigations that found them guilty of committing various counts of corruption and theft related to the illicit trade in abalone (Masondo 2019).

These examples clearly indicate that corruption is one of the greatest enablers driving the illegal trade in wildlife in South Africa and will continue to pose a direct threat to many endangered species within the country, as long as criminal syndicates carry on bribing government and law enforcement officials in order to continue their operations within this domain. Hence, it is imperative for countries to have an effective rule of law to ensure those found guilty of committing crimes such as corruption, are held accountable and are given adequate sentences, as it not only demonstrates an effective criminal justice system, but likely deters future offenders from committing crimes due to the severe consequences they might face.

When analysing the rule of law in South Africa using the data provided by the World Bank's WGI, it is apparent that the quality of this indicator has rapidly deteriorated over the past decade, with a 9.72% decrease in percentile rank from 59.24% (2010) to 49.52% (2020) (Dlamini 2019; Worldwide Governance Index 2020). The decline of South Africa's rule of law can be attributed to numerous incidents including state capture, lack of accountability and adequate sentences to those found guilty of committing serious crimes, ongoing corruption in all spheres of government and the judiciary, in addition to increasing civil unrest and violence (Logan & Nkomo 2021; Sibanda 2020; Smillie 2021; Dlamini 2019). Organised crime has consequently flourished within the country, as criminal syndicates have taken advantage of the deteriorating rule of law in terms of corruption and inadequate law enforcement (Global Initiative Against Transnational Organised Crime 2021: 102).

This can be substantiated when examining the illegal trade in wildlife within South Africa, with reference to the country's current prosecutorial capacity when it comes to combatting this illicit activity, corruption within the judiciary, and the lack of adequate law enforcement. (DLA Piper 2015: 355; Goredema & Goga 2014: 11-12; Naidoo 2019). For instance, with regard to the prosecution of wildlife offenders, many park officials, NGO's and conservationists argue that those apprehended do not get convicted due to the "laxity of the judiciary system" when it comes to wildlife crimes and/or influence of offenders on members of the judiciary (Sadike 2021; Rademeyer 2012: 147).

Alleged wildlife offenders such as Dawie Groenewald (illicit rhino operation), Petros Sidney Mabuza "Mr Big" (alleged rhino kingpin), Dumisani Gwala (alleged rhino kingpin) and Joseph Nyalunga "Big Joe" (former policemen and alleged rhino kingpin) have all been arrested multiple times due to their evident involvement within the illicit wildlife trade, however all of these offenders have yet to be convicted due to prolonged/postponed trials and the lack of witnesses prepared to testify in court (Janse Van Rensburg 2018; Pinnock 2021; Naidoo 2020). Consequently, all four men have been granted bail numerous times, which has allowed them to continue to operate within this illicit activity, whilst they await trial (Calitz 2021; Naidoo 2020; Pinnock 2021).

Moreover, another example of a suspicious case concerning a high ranking official within the judiciary, can be identified as the closure and reopening of one of South Africa's most effective courts in dealing with wildlife crimes. In 2019 Mpumalanga's Regional Court president Naomi Engelbrecht abruptly closed Skukuza Regional Court, which was one of the country's most effective courts in terms of prosecuting wildlife crimes having had a 99% conviction rate and a 100% success rate of opposing bail at the time (Bega 2021). Shortly after the court was closed, a lengthy battle between Ms. Engelbrecht and her superior Judge Francis Legodi ensued (Bega 2021). The outcome of this legal battle resulted in the reopening of Skukuza Regional Court earlier this year after Ms. Engelbrecht's request to move all of its cases to the Mhala Circuit Court was denied, and her application for leave to appeal a High Court's decision allowing this court to continue its operations was dismissed by the Constitutional Court (Bega 2021). Whilst Ms. Engelbrecht's dubious motives remain unclear, the time it took to reopen this court allowed many poaching syndicates to continue their operations within the region (Bega 2021).

Considering the challenges the country faces in terms of wildlife crimes, it is important for the government to shift its approach when tackling this illicit activity in order to address challenges like the ones mentioned above more effectively (Bega 2021). Changes need to be made in order to prosecute criminals more rapidly, implement harsher sentences, eradicate corruption within this domain, and improve border security (Richards 2021; DLA Piper 2015: 388).

4.3.3.2 Government Effectiveness and Regulatory Quality

Along with the control of corruption and rule of law, South Africa's government effectiveness and regulatory quality has experienced an overall decline over the past decade according to the most recent data provided by the WGI (Worldwide Governance Indicators 2020). With the country's percentile ranking dropping from 66.5% (2010) to 62.98% (2020) in terms of government effectiveness, and 62.98% (2010) to 59.62% (2020) in terms of regulatory quality (Worldwide Governance Indicators 2020). This is largely due to the decline in quality of public service delivery, the government's inability to address significant challenges such as poverty, unemployment and organised crime, the lack of policy formulation and implementation within specific domains, in addition to systemic corruption within the public sector (Tau 2021;

Mlaba 2021; Mabuza 2021). The overall reduction in government effectiveness and regulatory quality has had consequential impacts on South Africa as a whole.

When examining South Africa's regulatory quality and government effectiveness within the wildlife trade, it is possible to identify numerous challenges at the national, regional, and global level.

Firstly, in terms of regulatory quality, South Africa has a comprehensive range of wildlife legislation which includes:

- The National Environmental Management: Biodiversity Act 10 of 2004 (NEMBA), that provides an overall framework for wildlife protection in South Africa (DLA Piper 2015: 354; Price 2017:14);
- The National Environmental Management: Protected Areas Act 57 of 2003 (NEMPA) (Goosen & Blackmore 2019: 1);
- The Threatened or Protected Species Regulations (TOPS) (DLA Piper 2015: 355); and,
- The Marine Living Resources Act 18 of 1998 (MLRA) (DLA Piper 2015: 360).

Accordingly, in terms of regulatory quality, the challenges within South Africa's illegal wildlife trade at a national level do not necessarily lie within the country's wildlife legislation, but more within the application and enforcement of them (Price 2017: 14; DLA Piper 2015: 361). This can be validated by analysing the inability of the country's judiciary to prosecute some of the most well-known and high-ranking wildlife offenders, who have continuously been granted bail over the past few years (see pages 48 to 50).

Although, South Africa has taken various steps to address these regulatory challenges, such as: the drafting of the National Integrated Strategy to Combat Wildlife Trafficking (NISCWT); proposing the establishment of a task force composed of prosecutors specialised in wildlife legislation; the establishment of an interim National Wildlife Crime Reaction Unit (NWCPU); and the recent lengthy sentencing of several poachers, the country continues to lack the sufficient means (resources and law enforcement capacity) to address the growing

prevalence of wildlife syndicates within its territory (Republic of South Africa 2017: 25; Makhafola 2021; DLA Piper 2015: 384).

One of the main issues with South Africa's national wildlife legislation, is that its laws are not applied equally throughout the country, because all nine provinces have their own mandate and implementing authority charged with enforcing the law (DLA Piper 2015: 361; Jayanathan 2016: 44). This has led to the lack of co-operation amongst inter provincial departments when it comes to the illicit trade in wildlife (Pinnock 2018). It is thus important for South Africa to "harmonise" its national wildlife laws internally, to ensure that all provincial authorities apply the legislation equally when it comes to prosecutions and investigations of wildlife crimes (Jayanathan 2016: 44; Pinnock 2018).

In terms of regional legislation and frameworks, South Africa is signatory of many bilateral and multilateral environmental agreements, which include: a Memorandum of Understanding between South Africa and Mozambique in the field of Biodiversity, Conservation and Management; the SADC's "Protocol on Wildlife Conservation and Law Enforcement"; the "Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora"; the African Convention on the Conservation of Nature and Natural Resources (AU); the SADC's "Law Enforcement and Anti-poaching Strategy" (LEAP) and the AU's "African Strategy on Combatting Illegal Exploitation and Illegal Trade in Fauna and Flora in Africa" (Republic of South Africa 2014; Price 2017: 5-8) .

Whilst these agreements and strategies, provide the necessary requirements needed to combat the illegal trade in wildlife within the region, several challenges continuously arise with regards to co-operation, legislation, and enforcement (Price 2017:2).

Firstly, whilst the above-mentioned agreements should theoretically be applied to each country's legislation, their significance is solemnly considered at a national level, as signatories tend to prioritise their own legislation first (Price 2017: 2). This has subsequently led to the lack of co-operation and enforcement amongst member states, which has ultimately weakened regional efforts in combatting wildlife trade (Price 2017: 2). Accordingly,

there is a need for SADC /AU to reassess its current legislation and strategies in order to find alternatives that are easier and more realistic to follow.

Globally, South Africa has been a signatory of a wide range of international wildlife conventions such as, CITES, the Convention on Biological Diversity; and the Convention on the Conservation of Migratory Species of Wildlife (Republic of South Africa 2020). These international conventions have considerably influenced the country's national wildlife legislation and enabled South Africa to list many of its endangered species on the CITES Appendixes, which has given them additional protection through international regulatory systems (DLA Piper 2015: 360).

Although conventions such as CITES have played a significant role in regulating wildlife trade and protecting many endangered species over the years, it is increasingly evident that in some cases policy decisions within the organisation have been shaped by countries with influential power in the global arena in addition to affluent NGO's (Vegter 2016; Challender & MacMillan 2019: 90-91). For instance, although developing states generally possess most of the world's endangered population within their territories, many of their proposals when it comes to wildlife management and trade are rejected as they do not have the sufficient votes (power) to influence their agenda (Vegter 2016). This can be substantiated by using the recent example of Botswana, Namibia and Zimbabwe who requested CITES approval to allow them to sell their ivory stockpiles at an international level, the proposal was rejected by 101 votes to 23, thus preventing them from selling their stockpiles and earning an income that could be used in their conservation initiatives (Mwenda 2019).

As a leading political actor in the region, with some of the world's most valuable resources in terms of wildlife, it is important for South Africa to review its role within CITES, in order to identify the current and future consequences of policy decisions that directly affect its wildlife (rhino and ivory trade). Furthermore, the growing discontent towards CITES amongst several SADC members is important to note, as it could lead to their possible withdrawal from the convention in the near future, which could directly affect South Africa in terms of regional and global regulations (Nhongo 2019; Koro 2021).

Overall, although South Africa has intensified its efforts in protecting its endangered species through regional and global treaties, the establishment of intensive protection zone's (IPZ), armed forms of conservation, joint international wildlife seizures, and partnerships aimed at ensuring a consolidated approach to wildlife trafficking (e.g. collaboration between South African Banks and the South African Anti-Money Laundering Integrated Task Force (Samlit), criminal syndicates involved in the illicit wildlife trade will continue to target South Africa's endangered species due to its current socio-economic challenges, availability of fauna and flora, porous borders, growing corruption, and lack of adequate law enforcement (Chakanga *et al.* 2016; Greve 2014; Nanima 2016: 231-233; Dos Santos 2021).

Having analysed South Africa's quality of governance throughout this section by using the various WGI, it stands to reason that the country has experienced an evident deterioration in its overall governance. Table 1 summarises this deterioration over the past two decades.

Table 1: World Governance Indicators for South Africa from 2000 to 2020

Governance indicators	South Africa (percentile rank: 0 (lowest) to 100 (highest))			Variation (2000 and 2020)
	2000	2010	2020	
1. Rule of law	58.42	59.24	49.52	-8.90
2. Government effectiveness	76.41	66.51	62.98	-13.43
3. Regulatory quality	66.67	62.50	59.62	-7.05
4. Voice and accountability	70.65	67.30	70.05	-0.60
5. Control of corruption	74.11	62.38	59.13	-14.98
6. Political stability and absence of violence	37.57	45.02	40,57	-3.00

Source: Prepared by the author using World Governance Indicators data 2020 - World Bank.

As indicated throughout this chapter, the deteriorating quality of governance has ultimately led to the expansion of illegal wildlife syndicates within the country, which has directly threatened the security of the state and its environment.

4.4 Conclusion

This chapter used South Africa as a case study to examine the illegal wildlife trade within its borders. It commenced by providing a brief overview of South Africa's transformation since 1994, followed by analysing the various dimensions influencing the illegal wildlife trade within the country. The first dimension highlighted South Africa's current socio-economic challenges in terms of poverty, inequality, unemployment, and corruption, which all clearly contributed to the rise of organised crime within the country. The chapter continued by analysing the second dimension, which emphasised how the country's environment directly influenced the illegal trade in wildlife, through its geographic location, availability of resources and porous borders. Using numerous indicators and examples, the last section of this chapter illustrated how South Africa's quality of governance ultimately benefitted the illegal trade in wildlife within its territory.

Chapter Five: Conclusion

5.1 Introduction

The purpose of this chapter is to summarise the principal findings of the study and provide recommendations that can be used to address and prevent the illegal trade in wildlife and the numerous security threats it poses to the state, its citizens, and the environment. The chapter commences by highlighting the relevance of the study, followed by providing a brief overview of the research structure. It continues by summarising the principal findings of the study and provides a number of recommendations that can be utilised to address and prevent this illicit activity from occurring at a national, regional, and global level. The chapter concludes by emphasising the importance of prioritising the illegal trade in wildlife as an imminent threat to human, national and environmental security, due to the existing and future consequences it poses.

5.2 Relevance and Structure of the Study

Over the past few decades, TOC has become one of the greatest security threats globally, due to the number of challenges it poses to national, human, and environmental security. Whilst states have broadened their national security agendas to address many of these non-traditional security threats, economic and political drivers in combination with globalisation have made it inherently impossible for states to prevent these activities from occurring within their territories.

When analysing the literature provided in the preceding chapters, it is evident that the illegal trade in wildlife has become one of the most profitable criminal activities to date, yet it has continuously been overlooked by states as an imminent threat to their security. Accordingly, the objective of this study was to identify how the illegal trade in wildlife poses a direct threat to human security, in order to emphasise the importance of prioritising this illicit activity as a fundamental threat to the security of the state and its individuals, due to the existing and future consequences it poses.

Chapter one provided the foundation of the study, by introducing the research topic which essentially examined the relationship between the illegal trade in wildlife and human security. The chapter commenced by underlining the formulation of the research problem, followed by highlighting the central objective of the paper. It continued by discussing the methodology employed within this research and concluded by providing a brief demarcation of each chapter.

Chapter two identified and defined the key theoretical security approaches employed within this study and highlighted the literature linking human security to the illegal trade in wildlife. It began by analysing the conceptual evolution of security over the past few decades and examined how various shifts within the security environment after the Cold War, led to the emergence of several critical approaches within the field of security studies. These new approaches not only emphasised the need for states to re-examine their national security agendas in order to encompass non-traditional security threats, but also stressed the necessity of prioritising referent objects other than the state.

The chapter continued by introducing the principal security concepts used throughout the paper, namely: national, human, and environmental security, and proceeded by underlining each of their roles within the study. It followed by providing a conceptual background on governance, to highlight the relevance of this concept within the study and introduce the various governance indicators employed in chapters three and four. Subsequently, a contextual analysis of TOC was provided, to demonstrate the abundance of threats these activities generate towards the stability, economy and security of the state, its individuals, and the environment. The chapter concluded by analysing the literature linking human security to the illegal trade in wildlife and highlighted the principal arguments and limitations identified within this literature.

Chapter three identified the central driving forces behind the illegal trade in wildlife and emphasised the interlinkages between various domains and how they had consequential impacts on one another. A diagram consisting of two hierarchical pyramids was used throughout the chapter to demonstrate these interlinkages. Human behaviour was identified as the first principal driver influencing the illegal trade in wildlife, as the demand for

endangered species was closely related to economic, cultural, and medicinal factors. This section explored the various actors involved within this domain, their incentives for participating in this activity and the consequences generated by the illegal trade in wildlife.

The chapter proceeded by identifying the environment as another central driving force behind this illicit activity, as the geographical location, accessibility and availability of endangered wildlife has created specific hotspots in various regions. These hotspots have attracted many criminal syndicates involved within the illegal trade in wildlife, which has consequently led to the establishment of numerous trafficking routes as illustrated in Figures 4 and 5. The last part of the chapter identified governance as the third principal driver, where the indicators introduced in chapter two were used to demonstrate how the weak and/or declining quality of governance in terms of political instability and absence of violence, government effectiveness and regulatory quality, rule of law and control of corruption, has largely contributed to the expansion of criminal activities such as the illegal trade in wildlife in numerous countries.

Chapter four used South Africa as a case study to examine the illegal wildlife trade within its borders. It commenced by providing a brief overview of the country's transformation since 1994, followed by analysing a number of dimensions influencing the illegal trade in wildlife within its borders. South Africa's economy was identified as the first influential dimension, as its current socio-economic challenges concerning poverty, inequality and unemployment have substantially contributed to the expansion of organised crime within the country. The chapter continued by analysing the country's environment as another influential dimension, as its geographic location, porous borders and availability of endangered species has made it a haven for local and international wildlife syndicates. The last section of this chapter used the WGI as a foundation to illustrate how the country's deteriorating quality of governance has greatly benefited wildlife syndicates operating within the country.

Chapter five concluded the study by summarising the principal findings of the research and provided numerous recommendations that could be used to address/combat the illegal trade in wildlife. The chapter commenced by underlining the relevance of the study, followed by an overview of the research structure. It continued by underlining the principal findings of the

research, followed by providing possible recommendations to the challenges identified within the various domains influencing the expansion and operation of this illicit activity. The chapter concluded by emphasising the importance of prioritising the illegal trade in wildlife as an imminent threat to human, national and environmental security, due to the existing and future consequences it poses.

5.3 Principal Findings and Recommendations

Although the relationship between the illegal trade in wildlife and human security has become a relevant topic of research over the past few decades, it has only recently gained the necessary recognition it has continuously tried to achieve over the past three years due to the current SARS-CoV-2 outbreak and the colossal effects it has had on human and global security. This pandemic has played a fundamental role in broadening the literature within this field and has emphasised the need for states to re-examine and amend their national security policies in order to prioritise this illicit activity as an imminent threat to their national, human and environmental security. Based on the global extent of the illegal trade in wildlife, it is credible to argue that there is an increasing probability of future health pandemics that will continue to threaten the security of the state and its citizens.

Throughout the study, the analysis focused on three principal drivers influencing the illegal trade in wildlife, the first being human behaviour, the second environment and the third being governance. The first driver has played a significant role in expanding this illicit activity, as the growing demand for endangered wildlife has encouraged actors to increasingly participate in this organised crime due to the valuable profits it generates. The study found that the lower tiered actors generally participated in this illicit activity due to their poor economic situations; whilst the highest tiered actors participated to demonstrate their wealth, follow certain cultural practices, keep wildlife as pets, possess symbolic ornaments, and consume exotic meat as a delicacy.

Regarding cultural practices, the growing popularity of TCM in China and ASEAN countries has increasingly contributed to the poaching and trafficking of endangered species, as some of the treatments require illicit wildlife derivatives such as pangolin scales, bear bile, tiger bones

and rhino horns. Whilst many ASEAN countries have officially banned the use of these derivatives within their borders, black markets continue to supply many of them to citizens and TCM practitioners. Consequently, it is important for these states to not only enforce harsher penalties on wildlife perpetrators but establish/reassess collaboration initiatives amongst member states with the objective of creating/strengthening integrated channels of communication and intel regarding illicit wildlife operations within the region. Furthermore, it could be valuable for these states to engage with well-known and respected TCM practitioners when it comes to the formulation and adoption of legislation concerning the medical consumption of endangered wildlife, to have a general understanding of the practice and thus equally consider its values and beliefs when formulating the above legislation.

The growing demand for fauna and flora has led to the expansion of wet and wildlife markets globally. The study has illustrated how these markets pose several security challenges in terms of wildlife conservation and the wellbeing of individuals. Many of the species sold within these markets are endangered and have thus been smuggled into the country illegally, evading the required health examinations. Due to the nature of these markets with reference to inadequate sanitary standards, it is evident that the transmission of zoonotic pathogens is highly probable. It is argued that the consumption of infected species from these wet markets, is likely the cause behind numerous zoonotic pathogen outbreaks such as SARS-CoV-2. Although many countries have recently banned the sale and consumption of exotic wildlife since the ongoing pandemic, the demand for endangered species continues to drive the illegal wildlife trade globally. Moreover, whilst physical wildlife markets continue to exist, the advancement in technology has significantly influenced the illegal trade in wildlife as many endangered species are now sold online in 'virtual' black markets, making it difficult for law enforcement agencies to track and prevent. It is suggested that states reassess their current wildlife legislations to:

- 1) Amend or implement new laws pertaining to the consumption and trade of endangered species.
- 2) Identify any loopholes and grey zones that could be exploited by wildlife syndicates and consumers.
- 3) Ensure that their current legislation is compliant with international wildlife regulations to avoid possible penalties in the future.

Furthermore, it is imperative for states to address the likelihood of future zoonotic pandemics, by establishing national, regional, and global protocols that can be followed to prevent outbreaks from spreading. These could include:

- 1) Early warning systems, where states are legally required to alert countries on possible outbreaks occurring within their borders and implement immediate lockdowns, if necessary, to mitigate the spread of the outbreak.
- 2) The national, regional, and global ban of wildlife species exported from certain countries, if the required health examinations and regulations are not compliant with international standards.
- 3) The establishment of an integrated response team consisting of numerous countries, that is equipped with the necessary tools and authority to monitor, investigate, and isolate possible outbreaks.

Regarding the illegal wildlife trade on the Internet, it is important for states to establish new monitoring systems and regulations when it comes to virtual wildlife markets, as criminal syndicates have moved their operations to these markets to avoid detection and evade prosecution.

Having analysed the environment as an influential driver, the study found that a country's geographic location and availability of endangered species largely determined the presence of wildlife syndicates within its territory. For instance, developing states with porous borders and a variety of endangered species have continuously been targeted by wildlife syndicates as the lack of adequate border security and law enforcement, allows syndicates to access, traffic and smuggle illicit wildlife out of the country without facing serious consequences. Whilst it is difficult for developing states to address the challenges posed by its porous borders due to corruption and the lack of adequate resources and law enforcement capabilities, it is possible for states to decrease the operations of wildlife syndicates within their borders by:

- 1) Establishing a coherent and integrated regional approach in order to:
 - Have similar policies concerning wildlife crime and conservation
 - Work together to gather intelligence on regional wildlife syndicates
 - Increase seizures at border posts and establish mutual extradition agreements

- 2) Making wildlife crimes a serious criminal offence, thus increasing mandatory prison sentences, and ensuring culprits are prosecuted duly.
- 3) Strengthening the enforcement of existing wildlife legislation
- 4) Establishing educational campaigns in schools and rural communities, to demonstrate the numerous consequences generated by this illicit activity and emphasise the importance of wildlife conservation.

With reference to the third influential driver, the paper found that the quality of governance within a state substantially influenced the presence of criminal networks such as wildlife syndicates within its borders. In a sense that countries with stable economies, effective governments, strong rule of law, and lower levels of corruption, experienced less crime. Whilst countries with a deteriorating quality of governance, increasingly faced numerous challenges in combatting/preventing organised crime from operating within their borders.

The study illustrated how countries with growing socio-economic challenges such as poverty, inequality and unemployment faced greater levels of political instability and violence, which significantly increased the level of crime in the country and consequently undermined the rule of law. Criminal wildlife syndicates have continuously exploited the economic and political challenges of developing states to expand their operations and target people living in lower economic thresholds and in close proximity to endangered species, to participate in this illicit activity using money as an incentive. It is thus imperative for states to address these socio-economic challenges, as they fundamentally drive individuals to participate in organised crime as they see no alternative of earning an income.

Regarding government effectiveness and regulatory quality, the study found that whilst most states were signatories of international wildlife conventions such as CITES, many have still not implemented these regulations into their national legislation. This is likely due to the prioritisation of certain policies over others, as many developing states have limited resources and thus prioritise them accordingly. Moreover, the study found that the lack of political will in addressing the illicit wildlife trade also contributed to the expansion of this activity within states.

To ensure that states implement and adhere to international wildlife regulations, IOs such as CITES could reassess their current legislation in order to identify what can be altered or introduced to accommodate states with limited resources when it comes to the enforcement of wildlife legislation. In terms of enhancing political will, states could promote conservation leadership amongst government officials involved within the policy-making process by underlining the benefits and values of wildlife conservation.

As the last influential dimension of governance, the paper examined how the growing levels of corruption and deteriorating rule of law in many source and transit countries fundamentally facilitated the expansion of the illegal wildlife trade. Corrupt officials within this illicit activity consist of a number of actors operating at different levels, which essentially aid or allow wildlife syndicates to acquire and smuggle endangered species out of the source/transit country. The study found that corruption undermines the rule of law, as it weakens the authority of law enforcement and has significant impacts on government effectiveness. For states to reduce corruption within their borders it is suggested that they: increase anti-corruption measures linked to the illegal trade in wildlife, ensure transparency and accountability in both public and private sectors, and lastly reduce the opportunities for corruption.

Using South Africa as a case study, the research employed the WGI to examine the quality of governance within the country. The paper found that the ongoing deterioration of South Africa's governance over the past two decades has ultimately led to the expansion of illegal wildlife syndicates within the country.

South Africa's current socio-economic challenges have substantially influenced crime within the country, as people have found alternative ways of earning and income. The expansion of organised crime within South Africa has subsequently undermined the rule of law and increased the likelihood of violence and civil unrest. Due to the country's porous borders and availability of endangered species, South Africa has become a haven for wildlife syndicates. Moreover, the systemic corruption embedded within the public and private sectors, has greatly affected government effectiveness and rule of law within the country and will

continue to flourish as long as those committing such crimes are not held accountable and sentenced adequately.

At present, South Africa's current prosecutorial capacity in addressing wildlife crimes has been problematic, as known offenders have continuously been granted bail due to prolonged or postponed trials. After reviewing South Africa's regulatory quality and government effectiveness within the wildlife trade, the study found that whilst the country has adequate legislation in place, it lacks the sufficient means to apply and enforce them. Currently, the country's greatest challenge regarding wildlife legislation, is that the application of its national wildlife legislation is incoherent amongst its nine provinces, which has subsequently resulted in the lack of coordination amongst provincial departments.

Having analysed South Africa's government effectiveness and regulatory quality concerning the illegal trade in wildlife, the following suggestions can be used in order to enhance the challenges mentioned above.

- 1) In terms of national legislation, South Africa needs to harmonise its national wildlife laws internally to ensure all nine of its provinces apply it equally, and effectively coordinate with one another when it comes to investigations, prosecutions, and wildlife seizures.
- 2) South Africa can improve its law enforcement capabilities concerning wildlife crimes by:
 - Allocating more funds towards South African law enforcement agencies tasked with combatting wildlife crimes, to enhance their investigations and obtain the necessary resources required to conduct seizures and apprehend culprits.
 - Establishing a national task force composed of prosecutors specialised in wildlife crimes, as their familiarity with wildlife legislation will allow them to adequately prosecute criminals involved in this illicit activity and ensure they face sufficient sentencing.
 - Enhancing regional and global cooperation through transnational law enforcement agencies such as Interpol.

Lastly, the paper found that although South Africa has intensified its efforts in combatting the illegal trade in wildlife within its borders, wildlife syndicates will continue to expand their operations within the country due to its availability of endangered species, socio-economic challenges and deteriorating quality of governance. This activity will continue to threaten the livelihood of South Africans and will have severe consequences on the country's environment in the near future.

5.4 Conclusion

The objective of this study was to examine how the illegal trade in wildlife poses a direct threat to human security in order to emphasise the importance of prioritising this illicit activity as a fundamental challenge to the security of the state, its individuals and environment. By identifying and analysing the various security consequences of this illicit activity on the political, economic, social, health and environmental sectors of the state, the study was able to underline the severity of this threat at present and provide valuable recommendations in addressing/combating the illegal trade in wildlife at a national, regional, and global level.

Based on the drivers influencing this illicit activity, it is inevitable that the illegal trade in wildlife will continue to grow at a rapid rate. Whilst it is impossible for states to eradicate this threat completely, it is feasible for governments to reassess and amend their national security concerns to include this specific TOC as an imminent security threat. The national, regional, and global responses to the current SARS-CoV-2 pandemic could be used as a valuable lesson for many governments, as it has highlighted the current shortcoming of many states in responding to zoonotic outbreaks which are likely to occur in the near future due to the increasing consumption of exotic bushmeat and the introduction of foreign species in new environments. Moving forward, as the consequences generated by the illegal trade in wildlife continue to grow, it is also imperative for states to strengthen their collaborative efforts in combatting this illicit activity at both a regional and global level. To do so, regional and international treaties need to be amended, as many do not consider the varying environments of states, and consequently apply a one all approach to addressing the problem. In cases where numerous countries are involved, regional and global treaties need

to employ a multidimensional approach when addressing the illegal trade in wildlife, in order to consider the diverse political and economic environments of its member states and their resource availabilities.

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