Sustainable use and the laws regulating trade in threatened species in South Africa: lessons from the USA

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ABSTRACT

This study focuses on sustainable use of threatened or endangered species in the international trade context. Escalating levels of illegal trade in threatened species are of major concern globally and undermines regulatory frameworks that seek to ensure the sustainable use of species for present and future generations. This study investigates the extent to which South African legislation provides for sustainable use and trade in species and how legislation could be strengthened. The study is theoretically underpinned by the concept of sustainable use and its passage through time in 'soft' law and consequent adoption by international law and Conventions, including those to which South Africa is a party. The latter includes the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on Biological Diversity (CBD). While commitments to CITES and the CBD are reflected in South Africa's domestic legislation, sustainable use remains an ambitious ideal. A comparative analysis of legislation, relevant case law and literature of the United States of America with that of South Africa, revealed that while the National Environmental Management Biodiversity Act is more contemporary and its Norms and Standards allow for responsive mechanisms to emergency situations, strengthening in key areas would further enhance sustainable use.

Recommendations for strengthening the management dimension of South African law include adhering to statutory time-frames, considering a collaborative approach in the public participation process, and improving the Biodiversity Management Plans for species by increasing the emphasis on species recovery in the wild. This requires long term commitment and specific financial resources, while also developing clear criteria for measuring improvement in the threat status of species over time.

The challenge for South Africa remains effective enforcement and legislative compliance in ensuring that sustainable use of species is not undermined. South Africa's penalty provisions are stringent, but consistency in application by the judiciary is recommended. Building on the strength of the penalty provisions, it is further recommended that South Africa adopts provisions along the lines of the US Lacey Act for extraterritorial enforcement of foreign law for sustainable use and trade in threatened or endangered species.

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DEDICATION

I dedicate this thesis to my children, Marcy, Brandon, Mikhial and Enrico.

I also dedicate it to the future generations who will be the future custodians of our plant and animal species in the wild.

Genesis 1: 26 - Then God said, "Let us make mankind in our image, in our likeness, so that they may rule over the fish in the sea and the birds in the sky, over the livestock and all the wild animals, and over all the creatures that move along the ground."

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CHAPTER 1

1. Introduction

According to the latest Global Biodiversity Outlook, species are generally moving closer to extinction, with amphibians and fish showing the greatest declines.[1] It is further estimated that globally about 80 percent of people in developing countries rely on medicinal plants for health and well-being, in addition to the high reliance on animal species as a source of protein in their diet.[2] The human dependence on plant and animal species, coupled with anthropogenic changes to the environment constitute major threats to the survival of species. According to the International Union for the Conservation of Nature (IUCN) the loss of biodiversity[3] is in a major crisis with unsustainable levels of species utilisation, amongst others, as a driver of biodiversity loss.[4]

The red list index which shows trends in species abundance over time indicates a continuing downward trajectory in species as a result of unsustainable levels of use, amongst others, placing species at risk of extinction.[5] Unsustainable levels of use and trade poses significant threats to the survival of species in the wild. The focus of this comparative study is on the laws of sustainable use in threatened and endangered species in South Africa and the United States of America (hereafter referred to as the 'US') in the international trade context. This study does not cover trade in non-threatened commercial species, which are covered by different international conventions and domestic law that promotes sustainable use of commercial fish stocks and sustainable management of forests.

In addition to legal trade, some species are at risk of extinction due to illegal poaching activities in order to supply species and derivatives that are in demand by consumers, often through the 'black-market'. This illegal wildlife trade may have irreversible effects on the species and its ecosystem. Illegal trade in species undermines legal regimes internationally as well as domestically and therefore undermines species conservation efforts, thereby placing

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[1] Secretariat of the Convention on Biological Diversity (2014). *Global Biodiversity Outlook 4.* Montréal, 155 pages. This report is a mid-term review of the Strategic Plan for Biodiversity 2011-2020 available at https://www.cbd.int/gbo/gbo4/publication/gbo4-en.pdf , accessed on 10 April 2017.

[2] *Ibid.*

[3] Biodiversity means the variety of animals, plants, their habitats and their genes available at http://www.iucn.org/what/tpas/biodiversity/, accessed on 23 August 2012.

[4] About the biodiversity crisis, available at http://www.iucn.org/what/tpas/biodiversity,/ accessed on 23 August 2012.

[5] *Global Biodiversity Outlook 4.* See above (note) 1.

species at greater risk of extinction.[6] In terms of a 2009 Global Financial Integrity survey ranking various illicit markets, wildlife crime was ranked fifth, following illicit markets for drugs, counterfeiting, humans and oil.[7] Therefore, the cumulative effect of both legal and illegal trade in wildlife is a huge concern to the survival of species in the wild. While legal trade in species is a regulated practice, it must be in line with sustainable use principles to ensure that species are not traded into extinction. Sustainable use of species within their ecological limits is critical to ensuring the long-term survival of species for current and future generations, so that they too may enjoy the socio-economic benefits of the species.[8]

In 1987 the concept of sustainable development was coined in the Brundtland Report which stated that development was sustainable if it meets the needs of the present generation without compromising the ability of future generations to meet their needs.[9] Furthermore, the concept of sustainable development also took account of the inter-relatedness between the social, economic and ecological limitations for development.[10] The term 'sustainable use' was derived from sustainable development and has been widely adopted in international law as well as in national legislation.

There are varied opinions on the use of the term 'sustainable use'. Much confusion exists when the terms 'conservation through use' also referred to as 'sustainable use' are used interchangeably and therefore the definitions remain a topic for debate.[11] In fact, debate concerning definitions and the application of terms like 'conservation' and 'sustainable use' abound.[12] Some view the definition in the Brundtland Report to be too vague and open to many interpretations depending on the context. This has spawned much contestation, even to the point where alternative terminology is proposed, such as 'ecological sustainability'.[13] The

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[6] Transnational Environmental Crime – a common crime in need of better enforcement. UNEP Global Environmental Alert Service (GEAS). January 2013, available at http://www.unep.org/geas/, accessed on 17 July 2013.

[7] In fact, illicit markets for wildlife, timber and fishing were ranked 5th, 6th and 7th respectively. See above (note) 6.

[8] Cooney, R. Sustainable use: Concepts, Ambiguities, Challenges. IUCN, Species Survival Commission (2007) available at http://cmsdata.iucn.org/downloads/whiteoakmtgfinalbackgroundjuly07.pdf, accessed on 24 August 2013.

[9] Our Common Future: Report of the World Commission on Environment and Development (1987) 247.

[10] *Ibid.*

[11] Redford KH and BD Richter 'Conservation of Biodiversity in a World of Use' (1999) *Conservation Biology* 13(6): 1246-56.

[12] Salwasser H 'Sustainability needs more than better Science' (1993) 3 *Ecological Applications* 4:587-9. Holling CS 'Investing in Research for Sustainability' (1993) 3 *Ecological Applications* 4:552-5. Ludwig D, Hilborn, R and C Walters 'Uncertainty, Resource Exploitation and Conservation: Lessons from history' (1993) 3 *Ecological Applications* 4:547-9.

[13] Callicott JB and K Mumford 'Ecological Sustainability as a Conservation Concept' (1997) 11 *Conservation Biology* 1:32-40.

latter term is meant to facilitate biological conservation in an attempt to elicit an improved response to the challenges faced in conservation.[14] Some proponents of the sustainable use concept tend to focus more on the intergenerational equity aspect of sustainability, while they fail to fully contextualise the concept.[15] Others claim that sustainable use invariably alters the environment or ecosystem in some way and therefore may not be considered as conservation through use.[16] The latter school of thought generally holds a protectionist view to conservation where they argue that conservation can be achieved through the establishment of protected areas to the exclusion of any human interactions. It has also been argued that the protectionist approach to species conservation may be fitting in some instances, but not in all, as it depends on the extent of threat being faced by the species.[17] These various perspectives of sustainable use of species illustrate the need to develop a clear understanding of sustainable use of species in the context of this study.

Furthermore, trade in species is driven by socio-economic considerations and invariably results in the extractive use of species or parts or derivatives of species.[18] However, in order to derive long-term socio-economic benefits from trade, the species involved in trade should be used in an ecologically sustainable manner. Human dependence on both plant and animal species for survival makes sustainable use a reasonable approach in striving for survival of species in the wild. The relationship between humans and other species will be examined more closely in this thesis. Sustainable use of species is therefore a central theme and will form the theoretical basis of this thesis. Sustainable use will also be considered in the international and national contexts in the chapters subsequent to the chapter on the theoretical basis of sustainable use. However, such contexts are briefly considered in order to frame the rationale for this thesis.

1.1 The international regulatory response to trade in biodiversity

'Our common future' (Brundtland Report), highlighted a grave concern regarding the threats to our natural environment, including the loss of species, threats to ecosystems and biological

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[14] *Ibid.*
[15] Jim MacNeill. Brundtland revisited. 4 February 2013, available at http://opencanada.org/features/the-think-tank/essays/brundtland-revisited/, accessed on 16 August 2013. Jim MacNeill was the Secretary General of the Brundtland Commission and he stated that one of his regrets was that while intergenerational equity was an important component of sustainable development, it could not be seen in isolation.
[16] Robinson JG 'The Limits to Caring: Sustainable Living and the Loss of Biodiversity' (1993) *Conservation Biology* 7(1): 20-28.
[17] *Ibid.*
[18] Extractive use is when the species is removed from the wild population. The species could be used for *ex-situ* purposes (animal breeding, plant propagation, display, food, medicine, hunting trophy, etc.). Cooney R (2007).

diversity. Consequently, the international response to threats to biodiversity included the development of the Convention on Biological Diversity (CBD) which makes provision for the conservation of biological diversity and sustainable use of biological resources, while allowing for access and sharing of benefits derived from such resources.[19] An important principle of the CBD is that it recognises the sovereign right of States to utilise their resources as well as a State's responsibility not to cause harm or damages to other States or areas beyond their national jurisdiction. The Convention provides for, *inter alia, in-situ* conservation[20] of species through various tools like establishing protected areas, managing and regulating the use of species, promoting protection of habitats and ecosystems that are essential for maintenance of viable populations, as well as rehabilitating degraded ecosystems that will support the recovery of threatened species. Furthermore, the Convention also provides for *ex-situ* conservation[21] to complement *in-situ* conservation. The Convention encourages Contracting Parties to develop policies and domestic legislation that promotes, amongst others, the sustainable use of biological diversity.[22] Sustainable use of biological resources features strongly in the preamble to the CBD Convention. Furthermore, several articles in the Convention provide for, amongst others, sustainable use of biological diversity, including through cooperation, development of plans, strategies and measures for conservation and sustainable use, monitoring biodiversity particularly where there are opportunities for sustainable use, sustainable use of components of biodiversity, research and training and transfer of technology.[23] In developing the CBD Convention, much consideration was also given to, complementing existing Conventions like the Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973) as well as the Convention on the Conservation of Migratory Species of Wild Animals (1979).[24] The CBD is the most contemporary international convention not only for the sustainable use of species,

[19] CBD Articles 1 and 2, where 'Biological resources' includes genetic resources, organisms or parts thereof, populations or any other biotic component of ecosystems with actual or potential use or value for humanity. Available at http://www.cbd.int/, accessed on 10 May 2013.
[20] The CBD Article 2 states that '*in-situ* conservation' means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings.
[21] According to Article 2 of the CBD, '*ex-situ* conservation' means the conservation of components of biological diversity outside of their natural habitats. *Ex-situ* conservation could be used in captive breeding or artificial propagation operations for subsequent release of the species back into the wild.
[22] Article 2 of the CBD Convention defines 'sustainable use' as the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.
[23] Available at http://www.cbd.int/doc/legal/cbd-en.pdf, accessed on 10 July 2013.
[24] See the report of the ad-hoc Working Group of Experts on Biological Diversity (1989) available at http://www.cbd.int/doc/meetings/iccbd/bdewg-01/official/bdewg-01-03-en.pdf, accessed on 27 August 2013.

but also for the sustainable use of all components of biodiversity, including genetic resources. South Africa is a Party to the Convention since 1995.[25]

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) of 1973 specifically regulates international trade in species. The CITES Convention recognises that cooperation between States may be necessary for the protection of wild plant and animal species from overexploitation due to international trade. CITES makes provision for species to be listed on three Appendices. Appendix I lists species that are threatened with extinction and are affected by international trade, while Appendix II lists those species that are not yet threatened with extinction but may become so were it not for strict regulation of international trade. Appendix III allows for a State to unilaterally list a species which is under its national jurisdiction and which may require cooperation from other States in regulating the trade of the listed species.[26] South Africa is a Party to the CITES Convention since 1975. State Parties are compelled to develop domestic legislation in fulfilment of their international obligations. Conserving species that are threatened by trade would consequently hold much value for biodiversity conservation. While the CITES Convention predates the Brundtland Report and the emergence of the concept of sustainable use, the preamble to the Convention contains several elements of the concept of sustainable use. The elements include inter-generational equity, the awareness of the socio-economic value of wild fauna and flora as well as recognising the ecological need to guard against over-exploitation through trade in species.[27] Therefore, the inter-relatedness of the ecological and socio-economic considerations as well as the opportunities for future generations[28] are indeed reflected in the CITES Convention text.

In summary, the abovementioned international Conventions viz. the CBD and CITES have species conservation as a common thread through the text of the Conventions. Sustainable use of species is considered to be an important conservation tool and it's an approach widely adopted by international law.[29] The World Conservation Strategy intimated that conservation included preservation, maintenance, sustainable use, restoration as well as

[25] Available at http://www.cbd.int/convention/parties/list/, accessed on 10 July 2013.
[26] Available at http://www.cites.org/eng/disc/E-Text.pdf, accessed on 10 May 2013.
[27] *Ibid*.
[28] See above (notes) 8 and 9.
[29] Hutton, J and N Leader-Williams 'Sustainable use and incentive-driven conservation: realigning human and conservation interests' (2003) *Oryx* 37(2): 215-226.

enhancement of the environment.[30] Most notably, the CBD, which emerged subsequent to the Brundtland Report, appears to be closely aligned to certain recommendations emanating from the Report, such as conservation of biological diversity and sustainable use of biological resources, which are two major objectives of the CBD.[31] International law influences and shapes national law, especially because Parties to such law are obliged to implement relevant provisions domestically.

1.2 The national regulatory response to trade in species

1.2.1 The South African response

In terms of biological diversity, no less than 17 countries hold up to two-thirds of the world's species within their borders.[32] These so called megadiverse countries have a huge responsibility for ensuring the persistence of biological diversity for current and future generations. South Africa is one of the 17 megadiverse countries in the world.[33] Interestingly, the US is also a megadiverse country.

South Africa is the third most biodiverse country in the world and has not been immune to the increasing threat of species extinction as a result of illicit trade in species from the wild. While legal trade in species may be considered sustainable, the implication of the cumulative effect of legal and illegal trade will invariably result in over-exploitation of species. Given the precious species South Africa has as a megadiverse country, what has the national response been to the loss of species? Various legislative instruments have been developed at a national level to manage and regulate the sustainable use of species in trade. First and foremost, the Constitution of the Republic of South Africa Act 108 of 1996 makes provision for the environment in the Bill of Rights.[34] Constitutionally, South Africa is compelled to develop legislation to promote conservation. Consequently, South Africa has a

[30] IUCN/UNEP/WWF. *World Conservation Strategy: Living Resource Conservation for Sustainable Development* (1980).
[31] Article 1 of CBD.
[32] Megadiverse countries are those countries that play host to more than two thirds of the Earth's species. Seventeen countries have been identified as megadiverse. Criteria for megadiverse status include, number of species, degree of endemism at species level as well as higher taxonomic levels. Mittermeier RA, Gil PR and Mittermeier CG *Megadiversity: Earth's Biologically Wealthiest Nations* (1997) Conservation International.
[33] *Ibid*.
[34] The Bill of Rights section 24 states that 'Everyone has the right: (a) to an environment that is not harmful to their health or well-being; and (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that: (i) prevent pollution and ecological degradation; (ii) promote conservation; and (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.' Constitution of the Republic of South Africa 1996, as amended.

suite of national legislation that governs the conservation of species including, but not limited to, the National Environmental Management Act (NEMA),[35] the National Environmental Management Biodiversity Act (NEMBA)[36] and its associated Threatened or Protected Species Regulations.[37] In addition, as a Party to the CITES Convention[38] South Africa was compelled to develop national CITES Regulations to give effect to the Convention in domestic law.[39] The CITES Regulations forms part of the suite of NEMBA Regulations. One of the objectives of NEMBA is to provide for the sustainable use of biological resources.[40] The NEMBA has been in force for over 10 years and it is the Department of Environmental Affairs' intention to review NEMBA.[41] It should be acknowledged that the Constitution of the Republic of South Africa allows for concurrent competence for environmental matters and therefore national as well as provincial laws for the conservation of species are in force.[42] Since the focus of this study is on sustainable use and trade in the international context, South Africa's national legislation will be considered. Regrettably, despite national and international laws, the threat of species extinction looms larger than ever before.

1.2.2 The US response

Since the US is part of this comparative study, it is critical to also briefly consider its position in the context of sustainable use and trade in species. The US was quite instrumental in convening a conference in Washington DC in February 1973 culminating in the adoption of an international convention for regulation of wildlife trade and in 1974 the US was the first Party to sign the CITES Convention regulating international trade in endangered species.[43] However, while the US has signed the CBD, it is not yet a Party to the Convention. The US has Federal and State legislation, which is akin to the National and Provincial legislation respectively in South Africa. Similarly, for purposes of this study only the Federal legislation

[35] National Environmental Management Act No. 107 of 1998. GG 19519 No. 1540 of 27 November 1998, as amended.
[36] National Environmental Management Biodiversity Act No. 10 of 2004. GN 700 GG 26436 of 7 June 2004, as amended.
[37] NEMBA: Threatened or Protected Species Regulations of 2007 GG 29657 GN R152 (as amended).
[38] South Africa ratified the CITES Convention in 1975. See CITES membership at http://www.cites.org/eng/disc/parties/index.php, accessed on 9 May 2013.
[39] NEMBA: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Regulations of 2010 GG 33002 GN R173 (as amended).
[40] NEMBA Section 2(a)(ii).
[41] As evidenced by an advertised bid available at https://www.environment.gov.za/sites/default/files/tenders/tender1230.pdf, accessed on 15 May 2013.
[42] The Constitution, Schedule 4: Functional areas of concurrent national and provincial legislative competence on the environment and nature conservation, excluding national parks, national botanical gardens and marine resources. The latter three areas are exclusively national competence.
[43] Trade measures in multilateral environmental agreements. A report by IUCN – The World Conservation Union on the Effectiveness of Trade Measures Contained in the CITES. Prepared for the Economics, Trade and Environment Unit, UNEP. IUCN Report (09/11/00).

for species conservation will be considered in the US context. Subsequent to the US convening the international conference which gave rise to the CITES Convention text, the Endangered Species Act for the conservation of species was signed into law in 1973.[44] However, more than seven decades prior to CITES, the US Lacey Act of 1900,[45] often referred to as the long arm of the law, provided for protection of wildlife, including fish and plants, by prohibiting the trade in wildlife taken, possessed or transported, in contravention of legislation of federal, state and foreign laws. Since the Lacey Act and the ESA both predate the Brundtland Report and the notion of sustainable development, the concept of sustainable use is not explicit in the legislation but may be inferred. Elements of sustainable use in the legislation are evident through the recognition of the socio-economic reliance on species, including through trade, as well as the need to conserve species. The US, not unlike South Africa, has faced various challenges with regard to species conservation and species in trade and therefore the US legislative responses to curtail unsustainable use of species may hold useful lessons for South Africa. In addition, according to the CITES database, the US is one of South Africa's top ten trading partners in wildlife.[46]

This study will examine South Africa's approach to species conservation and sustainable use and consider responsiveness to emergency situations when a species is under pressure resulting from unsustainable use, including high levels of trade or poaching. The listing of threatened species under TOPS as well as CITES will be analysed and whether such listings and the regulatory provisions ensure sustainable use of species in trade. Furthermore, with wildlife crime becoming increasingly organised, responsive laws that allow for expedient international cooperation is highly desirable. The current legal regime supports a very lengthy process for international cooperation which does not bode well for saving species from the brink of extinction. The US Lacey Act's provisions in support of foreign wildlife law may go a long way in facilitating expedient international cooperation and could augment efforts employed by the CITES community, when applied by CITES Parties. The Lacey Act has demonstrated its effectiveness in dealing with transnational environmental crime, most notably in the Bengis case linked to Hout Bay Fishing, a former South African fishing

[44] Endangered Species Act of 1973, 16 USC §1531 – 1543, as amended.
[45] The Lacey Act of 1900, 16 USC 3371-3378, as amended.
[46] South Africa's top ten trading partners available at http://cites-dashboards.unep-wcmc.org/national?id=ZA, accessed on 18 July 2013.

company.[47] This comparative study will consider the environmental laws for conservation of and trade in endangered species in the US, identifying lessons learnt for threatened species in South Africa,[48] with a view to strengthening South African laws for sustainable use and trade in species.

1.3 Rationale and aims of the study

The cumulative impacts of legal trade coupled to escalating levels of illegal trade in threatened species are of major concern nationally as well as internationally. Law-makers have a very important role to play in developing pragmatic laws for the sustainable use of threatened species. In addition, the Multilateral Environmental Agreements (MEA) to which South Africa is a party and which are relevant to species conservation and management provide important platforms for international cooperation and influence the development and improvements in domestic law. MEAs that are particularly important in the context of this study include CITES and the CBD.

Given the increasing threat to species as a result of unsustainable use and trade, amongst others, an analysis of the South African laws for sustainable use of species is judicious. Consequently, the null hypothesis for this study is that South African legislation is inadequate for the sustainable use of threatened species in trade. This null hypothesis will be considered as the basis of this study, with relevant research questions.

Considering that the US is a megadiverse country, a member of CITES and one of South Africa's top ten wildlife trading partners, a comparative analysis of their relevant legislation is considered prudent. In addition, the US through the ESA of 1973 has enjoyed much success in protecting threatened species as well as the habitat required to ensure long term survival of species. The US has good examples of saving species from the brink of extinction, through initiatives like reintroducing the black-footed ferret and the California condor back into the wild after successfully breeding them in captivity. In addition, the brown

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[47] *United States of America v Arnold Maurice Bengis, Jeffrey Noll and David Bengis*. 19 December 2006. Docket no. S1 03 Cr 308 (LAK) (AJP) and *United States v Arnold Maurice Bengis, Jeffrey Noll and David Bengis*, Case number 07-4895, 1-15 (2d Circ. 2011).

[48] In terms of the International Union for Conservation of Nature (IUCN), threatened species are those species that are at risk of extinction and may be categorized as critically endangered, endangered or vulnerable. See IUCN red list categories and criteria, available at http://www.iucnredlist.org/documents/redlist_cats_crit_en.pdf, accessed on 27 August 2012. In the South African context, threatened species are those species which are listed as threatened or protected in terms of the National Environmental Management Biodiversity Act 2004 section 56(1).

pelican was delisted after successful recovery under the protection of the ESA.[49] The ESA allows for emergency listing of species requiring urgent conservation action. Furthermore, the Lacey Act prohibits interstate commerce or trade of species that have been obtained through illegal means. The Lacey Act provides the US with legislative powers within areas under its national jurisdiction and also extends those powers to species protected under foreign law. Species requiring protection in foreign countries may also be listed under the ESA. This enables the US to provide relevant support to the foreign country to assist in species recovery efforts, should such support be agreed.

South Africa's domestic legislation that promotes species conservation and sustainable use, the NEMBA, provides for the listing of species as critically endangered, endangered, vulnerable or species of high conservation value or national importance that require protection. However, NEMBA appears to lack a provision for emergency listing of species. Arguably responsive mechanisms in legislation to address emergency situations would be highly advantageous to ensuring sustainable use and trade in threatened species. Since South Africa does not operate in a vacuum, the regional context is as critically important as the international one. In the regional context of the Southern African Development Community (SADC), mechanisms exist for regional cooperation and law enforcement regarding wildlife.[50] However, the effectiveness of such regional mechanisms needs to be considered in the current climate of ever-increasing incidences of poaching. Therefore, extraterritorial provisions may greatly facilitate increased regional and international cooperation, particularly in combating illegal wildlife trade. The potential for increased cooperation with, *inter alia*, SADC countries and the CITES community through extraterritorial provisions will be closely examined.

1.4 Methodology

The research methodology relies predominantly on qualitative research to analyse the provisions for sustainable use and trade in species in terms of international law, particularly the CBD and CITES, together with relevant national law. Prior to considering the specific national contexts, various theoretical framings are considered based on literature, particularly in framing the tenet of this thesis in sustainable use. Theories that have emerged based on

[49] Endangered Species Act 40th anniversary – protecting imperilled plants and animals since 1973, available at http://www.fws.gov/endangered/esa40/, accessed on 20 July 2013.
[50] SADC Protocol on Wildlife Conservation and Law Enforcement of 1999, in force since 30 November 2003 available at http://www.sadc.int/files/4813/7042/6186/Wildlife_Conservation.pdf, accessed on 22 November 2016.

psychological and philosophical principles are considered in the context of the relationship between humans and sustainable use of wild species of fauna and flora. Such theories include Maslow's hierarchy of needs,[51] the values placed in species[52] as well as the utilitarian approach advanced by hedonists Bentham and Mill.[53] In addition, 'soft' law instruments relevant to sustainable use of species are explored and their influence on the development of international 'hard' law instruments subsequently ratified by State Parties. In fulfilling their international commitments State Parties incorporate their international law obligations into national legislation. The international commitments made by the US and South Africa and their implementation of those at federal level i.e. CITES, amongst others are also important considerations in the context of threatened or endangered species.

Since the US is one of South Africa's top ten trading partners, it's a megadiverse country and it has demonstrated success in implementing legislation for protection of endangered species since 1973 and shows strong leadership at CITES, it is considered to be a useful benchmark for comparative purposes of this study. A comparative analysis is useful when considering differences and similarities between South Africa and the US and it is the ideal methodology for identifying lessons learnt.[54] The comparative analysis of current national legislation in South Africa and the US is based on an analysis of primary sources, such as the legislation and relevant case law. The US and South Africa have several precedent setting cases that will be analysed in subsequent chapters. Secondary sources from peer-reviewed publications and relevant literature will also be considered. In addition, information will be gathered from various authorities' websites. The primary, secondary and authority sources are reflected in footnotes and the bibliography provided in this thesis. Much of the information for the desk-top, secondary research could be sourced from various libraries, online journals and internet sources.

To augment the various sources of information and develop greater understanding of the implementation of the laws, a study visit was undertaken to the US during 2014. The study visit focussed on developing a deeper understanding of the implementation and

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[51] Maslow AH 'A Theory of Human Motivation' (1943) 50 *Psychological Review* 4:370-96.
[52] King, Ralph T. 'The Future of Wildlife in Forest Land Use' (1948) 46 *Journal of Forestry* 282. Stephen R Kellert 'Social and Perceptual Factors in Endangered Species Management' (1985) 49 *Journal of Wildlife Management* 528. Holmes Ralston 'Values in Nature' (1981) 3 *Environmental Ethics* 113-28.
[53] HLA Hart 'Bentham's Principle of Utility and Theory of Penal Law' (1996) in JH Burns and HLA Hart (ed.) *The Collected Works of Jeremy Bentham: An Introduction to the Principles of Morals and Legislation*. DG Brown 'What is Mill's Principle of Utility' (1997) in David Lyons (ed.) *Mill's Utilitarianism: Critical Essays*.
[54] Jennifer Mason *Qualitative Researching* 2nd ed (2002).

strengths and weaknesses of the federal legislation, particularly the ESA and Lacey Act in order to compare these with the relevant South African legislation. In particular, the comparison focuses on three dimensions, the management, compliance and enforcement and extraterritoriality as a subset of the compliance and enforcement dimensions. It is argued that these dimensions are critical elements in realising the ideal of sustainable use that underpins international trade in threatened species. Therefore each dimension is considered through the sustainable use lens.

1.4.1 Research design

Research design is the logical plan or "blueprint" for research.[55] According to Yin

> the logic involves the links among the research questions, the data to be collected, and the strategies for analysing the data – so that a study's findings will address the intended research questions.

The research design for this study is based on qualitative information derived from primary legal (legislation and case law) and secondary sources as well as semi-structured interviews to clarify issues of implementation, particularly in the US, in response to research questions posed at the outset of the study. This design is selected based primarily on the context of this study,[56] steeped in environmental law and specifically for sustainable use and trade in endangered or threatened species for the US and South Africa. This study thus also applied a comparative analysis of descriptive or explanatory findings. Findings from the semi-structured interviews, such as the strengths of the US legislation, guided the focus of in-depth analysis of legislative tools and thus the research design also embraced an iterative approach. The benefit of the qualitative research approach is that it allows for the development of in-depth understanding of the relevant legislation in the context of the US and South Africa through engaging literature on relevant law as well as precedent setting case law which provide interpretation of the law. In terms of the US, it was particularly important to understand the implementation of the relevant law through the experiences of law makers and implementers of the law in the US context in order to identify strengths and key lessons that could be learnt and this understanding was advanced through the interview process.[57] The interview process was not used in the qualitative study of South Africa, as a wealth of

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[55] Robert K Yin *Qualitative Research From Start to Finish* (2011).
[56] John W Cresswell *Research Design: Qualitative, Quantitative and Mixed Approaches* 4th ed. (2014).
[57] Mason argues that qualitative research 'has an unrivalled capacity to constitute compelling arguments about how things work in particular contexts' and 'the strategic significance of context, and of the particular, in the development of our understandings and explanations of the social world.' Jennifer Mason *Qualitative Researching* 2nd ed (2002).

documentary resources including relevant precedent setting case law is easily accessible on threatened or protected species and as a South African, with over 20 years in the environment sector and a Masters in marine and environmental law, the context of South Africa is understood by the researcher. For these reasons the described qualitative research design was employed in developing an informed response to the research questions of this study. While the structure of the sections that ensue generally follow the structure advanced by Bryman,[58] consideration is also given to ethical and research limitations of this study.

1.4.2 Research questions

The main research question is: What are the lessons learnt from the US for sustainable use of threatened species in trade that would be valuable for strengthening South African legislation?

The following subsidiary questions are also relevant to inform the responses to the main research question:

- To what extent do South Africa's environmental laws provide for sustainable use of threatened species in trade?
- To what extent do South Africa's environmental laws deal with emergency situations resulting from trade?
- To what extent have threatened species in foreign countries benefitted from listing under the ESA in the US?
- What is the utility of the Lacey Act's extraterritoriality provisions for wildlife conservation?

The abovementioned research questions will be contemplated, particularly in chapters three, four and five of this thesis.

1.4.3 Selection of informants and collection of relevant data

The US has two federal agencies tasked with implementing the ESA, viz. the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA-NMFS) and the Department of the Interior's Fish and Wildlife Service (USFWS). The study visit was therefore to the offices of NOAA-NMFS and USFWS in Washington DC, Silver Spring Maryland and Falls Church Virginia. The researcher identified the informants or

[58] Bryman advanced the following structure: research questions; selection of study site and subjects; collection of relevant data; interpretation of data; conceptual and theoretical work; and writing up findings and conclusions. Alan Bryman *Social Research Methods* (2012).

interviewees through a professional contact she met during her attendance of various CITES meetings. The contact who is an official of NOAA-NMFS served as the 'gatekeeper' by arranging access to officials who agreed to participate in the study.[59] The interviewees were therefore selected based on referrals received from the 'gatekeeper'. The sample used in the study visit was specific and consisted of senior officials responsible for law making, regulation and implementation of the legislation in NOAA-NMFS and USFWS.

The qualitative data collection during the study visit took the form of semi-structured face-to-face interviews with various officials in NOAA-NMFS and USFWS. The sample size was limited to those officials who were available at the time of the study visit and willing to participate in the study and could therefore also be described as opportunistic. Bryman describes opportunistic sampling as;

> capitalizing on opportunities to collect data from certain individuals, contact with whom is largely unforeseen but who may provide data relevant to the research question.[60]

The sample size (N) consisted of five interviewees who provided informed consent, while there were an additional four officials that provided useful discussions but were not part of the sample size of consenting interviewees. Nonetheless, their insights were appreciated in understanding the context within which they work in the US. The five consenting interviewees were asked the same set of open-ended questions, with follow up questions that sought to clarify their responses, where necessary. This form of data collection provides information filtered through the views and opinions of the interviewees.[61] For purposes of this study it was important to understand the interpretation and meaning of the relevant laws by the interviewees or participants in the study, as they play a pivotal role in its implementation at federal-level in the US.

Each semi-structured interview commenced with the researcher asking the interviewee to explain their specific role and responsibilities in the organisation. In addition, interviewees were also asked to describe the administrative tasks associated with discharging their duties. Interviewees were asked about what they considered to be strengths and weaknesses in the ESA and/or Lacey Act, as relevant to their expertise. They provided insights into the benefits of listing foreign species on the ESA and the application of the extraterritoriality provisions of the Lacey Act. Interviewees were also asked to describe inter-

[59] A 'gatekeeper' is described as someone with the formal or informal authority to control access to a site. W Lawrence Neuman *Social Research Methods: Qualitative and Quantitative Approaches* 3rd ed (1997).
[60] Alan Bryman *Social Research Methods* (2012).
[61] *Ibid*.

agency cooperation in terms of implementing the ESA and the Lacey Act. There were follow up questions to clarify initial responses, but the researcher tried to keep the interviews conversational as far as possible. In concluding the interviews, the interviewees were asked whether they wished to bring any other sources of information or any matters relevant to this study to the researcher's attention. This assisted the researcher in identifying key sources of information and other important legislative instruments relevant to endangered species and the US approach to international law.

The information gathered during the abovementioned interviews, particularly relating to the strengths and weaknesses of the ESA were compared with NEMBA of South Africa and where NEMBA was lacking, recommendations are made for strengthening the law based on the lessons learnt from the US. The information gathered in the US study shaped the structure of each chapter in this thesis focusing on three dimensions, viz. the management dimension; the compliance and enforcement dimension; and the extraterritoriality dimension for regulating trade in threatened species. Strengths in the management dimension of the US were evident in the listing of endangered species, the consultation and public participation processes followed and the species recovery plans developed for listed species. Similarly the listing process for threatened species in South Africa was considered and how the process could be improved based on lessons learnt from the US application of ESA and case law. The strength in the compliance and enforcement dimension related particularly to the Lacey Act as a reinforcement of state, federal, tribal and foreign law for wildlife. A further strength of the Lacey Act is demonstrated in the extraterritoriality dimension and its extraterritorial reach in enforcing foreign law for wildlife. Lessons learnt from case law relevant to the Lacey Act were considered with a view to the potential application of Lacey Act provisions in the South African context.

1.4.4 Interpretation of data

The information gleaned from the semi-structured interviews were captured in relevant sections of chapter three wherever they best reflected the views expressed by the interviewees participating in the study. Since information was also gathered through desktop research and review of literature, wherever there was congruence between the findings of various scholars and the responses by interviewees to questions, such congruence was emphasised. In this way the findings in literature were either corroborated or augmented by the interviewees, as the case may be.

The writing up of findings is based on the literature considered in this thesis together with the responses by participants in the study. One of the five interviewees provided a review of chapter three which contained qualitative data of the US interviews as well as analysis of case law and analysis of relevant literature. Due to the heavy work load and commitments of the other participants they indicated that they were satisfied with the one reviewer. The reviewer participant validated the interpretation of information gathered, to some extent.

1.4.5 Ethical considerations

Prior to undertaking the study visit to the US, an application for Ethical Clearance was made to the Research Ethics Committee of the Law Faculty at UCT to undertake the semi-structured interviews. Approval was granted for the interview questions as well as the information and consent form. The researcher provided information on her background, the research topic and the research questions. The researcher indicated that the main objective of the interviews are to develop an improved understanding of the implementation of the relevant US laws as they relate to sustainable use and trade in endangered species and lessons learnt, with a view to potentially strengthening South African legislation.

Ethics clearance was granted with effect from 18 September 2014 and was valid for 12 months. The approved information and consent form were subsequently provided to the NOAA-NMFS and USFWS officials in advance of the interviews. Each of the interviewees completed and signed a consent form voluntarily and all five agreed to audio recording of the face-to-face interviews. The opinions of the interviewees were captured as an expression of their own views on implementation of the relevant laws, with anonymity to their identity. Their responses are reflected as interviewee one to five so that responses are not directly attributable to the particular participant. The participants in the study are relatively senior public officials and maintaining anonymity would not influence the ultimate conclusions of this study.

1.4.6 Research limitations

The availability of government officials to participate in the study proved limiting, even though some officials were willing to discuss the research, four of them were not willing to sign the consent form and therefore information and views they provided could not be used in this study. In addition, another four officials were also approached but they felt that their colleagues who indicated they would participate would provide the necessary information for

the study and that their participation would be superfluous. For purposes of this study, while the sample size was limited to five consenting participants, sufficient information was gathered to improve the researchers understanding of the application of the ESA and Lacey Act. A study participant, now a retired government official with extensive experience in CITES and the ESA, reviewed chapter three which contained the information gathered from the semi-structured interviews, provided confirmation of the interpretation of the information, as he corrected possible misunderstandings. Time did not permit the inclusion of civil society organisations as part of the interview process and it should be noted that they may present a different perspective to that of the government officials interviewed in this study.

1.5 Structure of thesis

This first chapter is the introductory chapter to this thesis and sets the scene for the study by briefly considering the problem of over-exploitation of species and the need for sustainable use as the central theme for this thesis. This chapter presents the rationale for the study, the research questions and the methodology employed in the study. Consideration is also given to ethical matters and limitations in the study.

The second chapter considers sustainable use as the theoretical basis for trade in species. This chapter includes an analysis of the evolutionary process of the sustainable use concept in ‘soft’ law and its subsequent adoption in ‘hard’ law instruments such as CITES and the CBD. In addition, the relationship between humans and other species is considered from a philosophical and psychological perspective, including the hierarchy of needs, the utilitarian approach to species as well as the values that humans place in species. The researcher tenders a working definition for sustainable use for purposes of this study, which is reflected in subsequent chapters.

The third chapter contains an analysis of the US legislation, including the international laws that are legally binding on the US and how these have been incorporated into their domestic federal legislation like the ESA and the Lacey Act. Relevant case law and literature are analysed to provide greater insight into the application and interpretation of the ESA and the Lacey Act. Case law relating to South African species was considered amongst others. The responses to the semi-structured interviews as part of the qualitative research approach employed in this study are captured in this chapter, providing a deeper understanding of the US context and implementation of legislation. Important lessons learnt

from the US with a view to potentially strengthen the South African legislation is identified in this chapter.

The fourth chapter contains the analysis of the relevant South African legislation and regulations, i.e. NEMBA, TOPS and CITES Regulations, as well as the relevant case law. Information gathered from chapter three are reflected for comparative purposes as appropriate in this chapter, especially in terms of the relevant lessons learnt from the US. Strengths and weaknesses in the South African legislation as well as gaps are identified and how they could potentially be remedied when considering the lessons learnt from the US.

The fifth chapter considers the feasibility of applying some of the lessons learnt in the US to the South African legislation, with a view to strengthening the legislation related to sustainable use and trade in threatened species. This final chapter provides specific recommendations for law makers in South Africa to consider, including recommendations for each of the three dimensions of management; compliance and enforcement; and extraterritoriality by South Africa, as lessons learnt from the US Lacey Act.

A bibliography of all information sources cited is included at the end of this thesis.

CHAPTER 2

Examining the Concept of Sustainable use in International Trade in Species

2.1 Introduction

Globally biodiversity is threatened predominantly by habitat loss or degradation, invasive alien species and over-exploitation.[62] In terms of over-exploitation of natural resources, this includes the extractive use of natural resources and living resources through processes like mining and hunting or fishing, respectively. The loss of species due to over-exploitation could have severe consequences on the very ecosystems and ecological processes that humanity depends on for life on Earth.[63] In fact humans would be directly affected by the lack of wild living resources for food, medicines, other derivatives as well as the aesthetic value that species offer in the form of a non-consumptive use like eco-tourism. The various uses of wild species offers important livelihood options, particularly to those communities that live in close proximity to the species.[64] Such communities may rely on wild species for their daily needs of food, medicine, clothing, cultural rituals and eco-tourism. In addition to the rural community use of species for subsistence purposes, species could also be harvested commercially by users that do not necessarily live in close proximity to the resources.[65] According to the United Nations Food and Agricultural Organisation (FAO) timber and seafood constitute the highest value and volume of species traded. In 2009, the value of such trade was estimated at USD100 billion for fish and USD200 billion for timber.[66] It is critical that species use be undertaken within the productive capacity of the species and ecosystems and that such use would maintain viable population levels.[67]

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[62] Secretariat of the Convention on Biological Diversity (2010) 'Global Biodiversity Outlook 3' Montréal, at 94 available at http://www.cbd.int/gbo3, accessed on 8 May 2013.
[63] *Ibid*.
[64] Rosie Cooney 'Sustainable use: Concepts, Ambiguities, Challenges' (2007) *IUCN, Species Survival Commission*, available at http://cmsdata.iucn.org/downloads/whiteoakmtgfinalbackgroundjuly07.pdf, accessed on 24 August 2013.
[65] Secretariat of the Convention on Biological Diversity (2004) 'Addis Ababa Principles and Guidelines for Sustainable Use of Biodiversity' Montréal, at 21 available at http://www.cbd.int/doc/publications/addis-gdl-en.pdf, accessed on 15 June 2014.
[66] In providing a context, the total value of tea, coffee and spices traded in 2009 were estimated at U$24.3 billion. Therefore, seafood and timber trade values exceeded these commodities by an order of magnitude. TRAFFIC 'Wildlife trade. What is it?' available at http://www.traffic.org/trade/, accessed on 12 July 2015.
[67] International Union for the Conservation of Nature and Natural Resources (1980) 'The World Conservation Strategy: Living Resource Conservation for Sustainable Development' available at http://www.a21italy.it/medias/688-wcs-004.pdf, accessed on 12 May 2014.

This chapter provides the theoretical basis for this thesis on sustainable use and trade in species. As an introduction to this chapter, the origins of the term sustainable use and the theoretical basis for sustainable use as grounded in international law will be explored. The basic relationship that exists between humans and species from a psychological and philosophical perspective will be considered. The findings of various scholars in psychology and philosophy will be explored briefly in formulating the basic understanding of the relationship between humans and other species. This will also provide insights into how use of species has evolved over time and the challenge of over-exploitation and unsustainable use of species. Once a basic understanding of the normative use of species has been developed, the translation into the development of law for sustainable use and trade in species will be explored. International law has been shaped by 'soft' law instruments over time which has subsequently become codified in legally-binding 'hard' law instruments, such as treaties and conventions.[68] Specific international conventions that provide for sustainable use and trade in threatened or endangered species will be considered, most notably the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on Biological Diversity (CBD).

2.2 Defining sustainable use

Sustainable use is considered to be the use of species in a manner that would not compromise future generations from the benefits and opportunities that species would afford them.[69] In terms of building an understanding of the term 'sustainable use' each word in the term is considered in its own right. According to the etymology of 'sustainable' the word used in 1610 was 'bearable' from *sustain* with *able.* It was further confirmed from 1845 through the idea of 'defensible' and from 1965 with the meaning 'capable of being continued at a certain level.' 'Sustainable growth' is recorded from 1965.[70] The word 'use' means 'employ for a purpose' or 'make use of'.[71] Therefore, when considered together, the term sustainable use of species would have the meaning of making use of species for various purposes in a manner that ensures that they are capable of being continued at a certain level.

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[68] Lyster states that 'soft' law consists predominantly of recommendations and declarations made at international conferences and that they are not legally enforceable. However, they do not have the legal powers of a convention or treaty that may be considered as rules and referred to as 'hard' law. Simon Lyster 'Basic Principles of International Wildlife Law' in *International Wildlife Law: An analysis of international treaties concerned with the conservation of wildlife* (1985).

[69] *Ibid*.

[70] Etymology of sustainable available at http://www.etymonline.com/index.php?term=sustainable, accessed on 10 June 2015.

[71] Etymology of use available at http://www.etymonline.com/index.php?term=use, accessed on 10 June 2015.

According to the Oxford Dictionary the English definition for sustainable is 'able to be maintained at a certain rate or level' or 'conserving an ecological balance by avoiding depletion of natural resources'.[72] While the dictionary definition speaks to maintaining a certain level and not depleting the resource, it is rather narrow in that it does not include a time horizon that takes account of intergenerational equity. Intergenerational equity, is explained as:

> The present generation has a right to use and enjoy the resources of the Earth but is under an obligation to take into account the long term impact of its activities and to sustain the resource base and the global environment for the benefit of future generations of humankind. In this context, "benefit" is given its broadest meaning as including, *inter alia*, economic, environmental, social and intrinsic gain.[73]

A minimum viable population size[74] is required in order for present and future generations[75] to benefit from the species. Such level of viability will differ from species to species and requires the setting of target population sizes, but is nonetheless a prerequisite for sustainability. The Brundtland Commission Report, discussed in greater detail later in this chapter, presents a definition for 'sustainable development', which is defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.[76] While, in terms of international law, the Convention on Biological Diversity defines sustainable use as

> the use of components of biological diversity in a way and at a rate that does not lead to the long term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of current and future generations.[77]

In considering the abovementioned definitions of sustainable use of species in the context of this thesis, both above definitions appropriately take account of the needs of current and future generations, which is important in terms of introducing the temporal

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[72] Dictionary definition of sustainable available at http://www.oxforddictionaries.com/definition/english/sustainable, accessed on 10 June 2015.
[73] Nicholas A Robinson and Lal Kurukulasuriya Training Manual on International Environmental Law (2006) available at http://digitalcommons.pace.edu/lawfaculty/791/, accessed on 20 April 2017.
[74] According to Shaffer 'a minimum viable population for any given species in any given habitat is the smallest isolated population having a 99% chance of remaining extant for 1000 years despite the foreseeable effects of demographic, environmental, and genetic stochasticity and natural catastrophes.' Mark L. Shaffer 'Minimum Population Sizes for Species Conservation' (1981) 31 *BioScience* 2:131-4.
[75] In the Philippines Supreme Court case of *Minors Oposa* (*Oposa et al. v Fulgencio S. Factoran, Jr. et al*. GR No. 101083), July 30, 1993 the right of future generations was argued and the Court recognised the obligation of each generation to the next for ensuring a healthy environment. In this case the concern was largely over the rapid increase in deforestation in the Philippines.
[76] United Nations Report of the World Commission on Environment and Development, *Our Common Future* (1987) available at http://conspect.nl/pdf/Our_Common_Future-Brundtland_Report_1987.pdf, accessed on 16 August 2013.
[77] Article 2. Convention on Biological Diversity. United Nations 1992. Available at http://www.cbd.int/convention/text/, accessed on 8 May 2013.

element of sustainability. Furthermore, in the case of species it is critical that the level of use or exploitation rate is kept within the biological boundaries of the species in order to avoid long term declines or complete extinction, thereby maintaining species viability in the context of risk of overexploitation. Considering the temporal element and an acceptable or precautionary exploitation level of species, the following working definition of sustainable use is proffered for this thesis; '*use of species at a rate that maintains viable population levels for the benefit of present and future generations*.' While the working definition is tendered, the historic development of the concept will be explored in greater detail in this chapter.

Sustainable use of species includes extractive and non-extractive use, with eco-tourism being an example of the latter and trade an example of the former.[78] Trade in species by its very nature requires the extractive use and species are thus removed from the natural population, whether such removal is by lethal means or not. The challenge is that while the use of species may be sustainable when regulated by countries like South Africa and the US which allow legal trade in certain species and products, illegal use and illegal trade also occurs. Thus, the cumulative impacts of legal as well as illegal use through poaching activities result in the over-exploitation and unsustainable use of species.[79] The poaching[80] of species like the rhinoceros and African elephant has grown exponentially.[81] The illegal killing and unsustainable extractive use of species places such species at great risk of extinction.[82] Reckless human behaviour is therefore directly responsible for the decimation of species, if such unsustainable levels of use continue.

2.3 Human interrelatedness with other species

Humans have been using species since time immemorial as a source of food, clothing, shelter, fire for heat and cooking, medicines, etc. To assist in developing a deeper

[78] Extractive use is when the species is removed from the wild population. The species could be used for *ex-situ* purposes (animal breeding, plant propagation, display, food, medicine, hunting trophy, etc.). See above (note) 64.

[79] Dilys Roe, Teresa Mulliken, Simon Milledge, Josephine Mremi, Simon Mosha and Maryanne Grieg-Gran. *Making a Killing or Making a Living? Wildlife trade, trade controls and rural livelihoods.* (2002) Biodiversity and Livelihoods Issues No. 6. IIED and TRAFFIC.

[80] Poaching is defined as 'the illegal shooting, trapping or taking of game or fish from private or public property' available at http://legal-dictionary.thefreedictionary.com/Poaching, accessed on 26 June 2014.

[81] Press release, Geneva 13 June 2014. Available at http://www.cites.org/eng/elephant_poaching_and_ivory_smuggling_figures_for_2013_released, Department of Environmental Affairs Media Release on rhino poaching as at 30 June 2014 available at https://www.environment.gov.za/mediarelease/stakeholderparticipation_rhinotrade, accessed on 6 July 2014.

[82] Express news available at http://www.express.co.uk/news/nature/552490/Save-The-Rhino-says-rhinos-could-become-extinct-in-just-over-10-years-time, accessed on 10 June 2015.

understanding of what drives human use of species, human psychology will briefly be considered and framed in the context of species use. The psychology scholar, Abraham Maslow was interested in understanding what motivates people. Through his work, Maslow developed a hierarchy of needs,[83] as follows:[84]

1. Physical needs which are the most basic needs for human survival. Such needs include air, water, food, warmth, sleep, sex and shelter. It is argued that the use of species (plants and animals) for food, warmth (fires) and shelter (building material like timber and fibre for clothes) would form part of these basic needs. In terms of the need for food, the hunter-gatherer is acknowledged for reliance on food from the wild.[85]

2. Once the physical needs are satisfied, the need for safety is considered as the next most basic need, which relates to human behaviour. Safety includes personal security, financial security through jobs/secure income streams, health and well-being and a 'safety net' for health and well-being, through medical insurance, law and order, etc. In this context species could be used for livelihoods such as the sale of species or parts thereof or eco-tourism all of which may provide job security. Species are also used for medicinal purposes through extracting compounds or bioprospecting as well as herbal and other natural alternatives in support of good health.

3. Love and sense of belonging expresses the need for social interaction, affection and intimacy. Humans are known to develop love and affection for their domestic pets and the old adage of 'man's best friend' in reference to the domestic dog springs to mind, where dogs are known for their loyalty and companionship to humans.[86]

4. The esteem need arises once physical and safety needs have been satisfied. The esteem need represents the need for recognition, feeling respected and valued. This may also be translated through self-esteem, self-respect and prestige needs. These are manifested in professions and hobbies that humans engage in. Examples of

[83] Maslow AH 'A Theory of Human Motivation' (1943) 50 *Psychological Review* 4:370-96.
[84] It should be noted that Maslow's hierarchy of needs makes no reference to linkages to species apart from experiments conducted with animals therefore the linkages in the context of this thesis are inferred by the researcher.
[85] Hunter-gatherer is defined as 'a member of a culture in which food is obtained by hunting, fishing and foraging rather than by agriculture or animal husbandry' available at https://www.merriam-webster.com/dictionary/hunter-gatherer, accessed on 30 June 2015.
[86] It is said that Frederick the Great of Prussia first coined the phrase of 'man's best friend' available at https://en.wikipedia.org/wiki/Man%27s_best_friend_(phrase), accessed on 30 June 2015.

professions that are linked to species may include conservationists, professional hunters, environmental lawyers, nature tour guides, game rangers, bird watchers, wildlife photographers, wildlife traders, wildlife breeders, etc. While hobbies might include gardening, horse-back riding, dog showing, etc.

5. The need for self-actualisation to achieve goals and reach ones full potential follows on from the esteem need. It could be argued that in terms of the application to species, the professions mentioned above could also be manifested in self-actualisation and the desire for fulfilment, when one achieves goals and realises ones full potential in a profession through using talents.

6. The need for self-transcendence relates to having a higher goal outside of oneself in altruism and spirituality.[87] In terms of species, some cultures have a spiritual connection with various species, e.g. aboriginal religion and culture,[88] Hinduism elephant-faced deity Ganesh(a),[89] Modjadji cycads associated with the rain queen Modjadji,[90] etc. In terms of transcendence this would also include helping others achieve self-actualisation and again could apply in the context of mentorship in the fields of conservation and other fields related to species e.g. veterinary science, etc.

Maslow's original hierarchy of needs was later expanded to include cognitive,[91] aesthetic[92] and transcendence needs.[93] In keeping with the examples proffered in the abovementioned hierarchy of needs, the cognitive need could apply to various scientific disciplines that relate to species and the environment, while the aesthetic needs could be explained through the enjoyment of eco-tourism as well as photography and other artistic expression that include animal and plant species. While these human needs and its connectedness to species may be somewhat simplistic relative to Maslow's hierarchy of needs, it could be entirely plausible even if one only considers the most basic of these needs.

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[87] Altruism means to be unselfish or self-sacrificing and caring for others and is associated with humanitarianism. http://en.wikipedia.org/wiki/Maslow%27s_hierarchy_of_needs or http://www.simplypsychology.org/maslow.html, accessed on 5 May 2015.

[88] Indigenous spirituality available at http://www.australianstogether.org.au/stories/detail/indigenous-spirituality, accessed on 5 May 2015.

[89] Ganesha the beloved elephant-headed Hindu god available at http://www.religionfacts.com/hinduism/beings/ganesha, accessed on 5 May 2015.

[90] Modjadji Cycad Reserve, Limpopo available at http://www.southafrica.net/za/en/articles/entry/article-southafrica.net-modjadji-cycad-reserve, accessed on 5 May 2015.

[91] Knowledge, intelligence, understanding, curiosity and exploration.

[92] Appreciation of beauty.

[93] Helping others achieve self-actualisation. Abraham H Maslow *Motivation and Personality* 3rd ed (1970) Longman. Maslow AH *Religions, values and peak experiences* (1970) EIF Williams (ed) The Viking Press.

All humans require food and medicines for survival and both food and medicines are predominantly derived from various species and genetic diversity. This in turn reflects that the survival of humankind is dependent on survival of other species, whether domesticated (agriculture or aquaculture) or wild. Sustainable use of species is therefore inextricably linked to human survival.

Related to the sustainable use of species is the value that humans place in species. In terms of trade[94] in species, value would translate into the economic value of species. However, for purposes of relating to values in general, research by King (1947),[95] Kellert (1980)[96] and Ralston (1981)[97] suggest that there are seven values for species, which include:

1. Naturalistic or outdoor recreational value through enjoying the outdoors by camping, hiking, bird watching, whale watching, etc.
2. Ecological value realised through the roles species play in ecological processes and functioning, e.g. reef building coral species, dung beetles, etc.
3. Moral or existence value which is considered to be the inherent right of the species to exist.
4. Scientific value realised in advancing knowledge through research to improve the understanding of species and ecosystems.
5. Aesthetic value relating to the physical attractiveness of the species and its uniqueness, unusualness, e.g. birds, beetles, amphibians, reptiles, plants, etc.
6. Cultural, symbolic and historic value viewed as related humanistic value such as emotional or spiritual attachment to charismatic species e.g. elephant, panda bear, rhinoceros, cycads, etc.
7. Utilitarian value refers to the benefits that can be derived from the use of the species e.g. food, furniture, fibres (wool, cotton), medicines, etc.

Therefore it could be argued that human association with species is related to satisfying the basic and higher needs inherent in humans (Maslow). In addition, as a social construct, species have also been assigned values, which are not only manifested in terms of economic value, but would include collecting species from the wild or observing them in the wild

[94] In this context trade means the buying, selling or exchanging of goods as a commercial transaction available at http://www.merriam-webster.com/dictionary/trade, accessed on 10 June 2015.
[95] King, Ralph T. 'The Future of Wildlife in Forest Land Use' (1948) 46 *Journal of Forestry* 282.
[96] Stephen R Kellert 'Social and Perceptual Factors in Endangered Species Management' (1985) 49 *Journal of Wildlife Management* 528.
[97] Holmes Ralston 'Values in Nature' (1981) 3 *Environmental Ethics* 113-28.

through eco-tourism activities because of their aesthetic value (beauty, uniqueness and rarity).[98] However, collectors of species may proudly display their collections and feel a sense of accomplishment, which relates to their self-esteem and self-actualisation, depending on the extent, completeness and uniqueness of their collection. All of the above may be strong motivators for acquiring species and could result in trade in species. However, it may be worthwhile to briefly explore the philosophy underlying the utilitarian value to develop a more comprehensive understanding of the philosophy behind the use of species.

The concept of utilitarianism as articulated by the philosophers Bentham and Mill states that an action is right if it tends to promote happiness and wrong if it produces the opposite of happiness. Such happiness is not only relevant to the person performing the action, but is also relevant to everyone affected by it.[99] They believe that the morally right action will produce the maximum good and that our actions have consequences. It is stated that utilitarianism differs from ethical theories that make the rightness or wrongness of an act dependent on the motivation of the person performing the action. According to Mill, acts should be classified as morally right or wrong only if the consequences are of such significance that a person would wish to see the agent compelled to act differently or in the preferred or more socially acceptable manner.[100] In assessing the consequences of actions, utilitarianism draws on some theory of intrinsic (core or natural) value: something is held to be good in itself (existence value) and all other values are believed to derive their worth relative to this intrinsic good as a means to an end.[101] Mill argues that the discourse of the principle of morals would be premised on the basis that 'humans would act in a way that the rule on which they act could be adopted as law by all rational beings.'[102] The law referred to in this context is a societally accepted norm. The term utilitarianism has also been used in the context of utility, but Mill warns that when used in this context that the pleasures derived from the beauty, ornament or

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[98] The work of Angulo *et. al.* established that people place a higher value on the rarity of a species. They postulate that with rarity the economic value increases and the drive to collect the last remaining individuals, which they call the Allee effect (AAE). The rarity of the species and the Allee effect therefore has serious implications for the conservation and survival of species. Elena Angulo, Anne-Laure Deves, Michel Saint Jalmes and Frank Courchamp 'Fatal attraction: rare species in the spotlight' (2008) *Proc. R Soc. B.* doi:10.1098/rspb.2008.1475 1-7.

[99] J Driver 'The History of Utilitarianism' (2009) available at http://plato.stanford.edu/entries/utilitarianism-history/#JerBen accessed on 25 April 2015.

[100] Mill, John Stuart *Utilitarianism* (1998) Roger Crisp (ed).

[101] According to J Driver, Bentham and Mill were hedonists *i.e.* they analysed happiness as a balance of pleasure and pain and believed that these feelings alone are of intrinsic value and disvalue. Utilitarians also assume that it is possible to compare the intrinsic values produced by two alternative actions and to estimate which would have better consequences. See above (note) 99.

[102] John Stuart Mill 'Utilitarianism' (2008) available at http://www.earlymoderntexts.com/assets/pdfs/mill1863.pdf accessed on 25 April 2015.

amusement should not be ignored.[103] In the latter context this would be particularly relevant to eco-tourism and non-extractive use of species. Admittedly societal norms may be context specific when it comes to the sustainable use of species. In societies that rely on regular subsistence through the use of wild plants and animals, hunting for any species of animal may be acceptable, while in other societies that are not reliant on food from the wild, hunting of certain charismatic species may be frowned upon or perceived to be morally reprehensible. Be that as it may, in considering the theory advanced by Mill and Bentham of doing good or taking the right actions, as subjective as these terms may be, sustainable use is based on good principles or rules that if adhered to would be for the greater good of the survival of the species and humankind. Conversely, if the good principles or rules of sustainable use are not adhered to, then this could lead to the demise of the species and it would curtail the long term benefits to humankind, thereby having negative consequences for all concerned.

The philosophical and psychological aspects considered above are foundational and the willingness of the world to do what is considered right is often reflected in 'soft' and 'hard' law instruments. This applies not only to environmental matters generally, but particularly in terms of the sustainable use of species. The principles or rules contained in 'soft' and 'hard' law instruments have evolved based on a combination of factors, including the psychological motivations behind their use (Malsow's theory), the value systems that apply to species (King, Kellert and Ralston) as well as utilitarianism (Bentham and Mill).

The translation of the philosophical and psychological views into 'soft' and 'hard' law will be considered further in the context of international law, including the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on Biological Diversity (CBD).

In the context of trade in threatened species, since international trade in effect eliminates the geographic boundaries of our plant or animal species, they become resources that are theoretically accessible to the world. As a result, international agreements and conventions call for collective negotiations on the management actions and the use of species

[103] Beauty and ornamental speaks to the aesthetic value as mentioned previously. Mill further states that the term utility derived from utilitarianism is often incorrectly used in the narrow sense. In modern lexicon the word utility could also mean usefulness, value, benefit, worth, etc.'

in a manner consistent with the principles of sustainability. The failure to do so could result in a tragedy of the commons,[104] but failure is not an option for the present generation.

2.4 Approaches to sustainable use

The discourse concerning the concept of sustainable use still rages. Conservationists may hold a preservationist view which entails fences around parks for species viewing only or eco-tourism,[105] while others may support an incentive-driven conservation approach which provides a motivating factor for sustainable use. Some encourage conservation through use that may satisfy various needs.[106] The concept is used in a variety of contexts and therefore takes on various meanings.[107] It has been argued that the term sustainable use can also be motivated by different objectives and can therefore be the outcome of a management approach.[108] Sustainable use has been described in the contexts of direct extractive use of resources and indirect, non-consumptive or non-extractive use of resources. In the latter case, the resources are considered to be of value for ecotourism activities and proponents of this management approach are also described as preservationists.[109] Preservationists are of the view that humans pose the greatest threat to the extinction of wild resources.[110] On the other hand, contemporary proponents of consumptive or extractive use of living resources recognise that communities that are within close proximity to these resources need access to the resources for their livelihoods, food and provision of jobs (linked to Maslow's hierarchy of needs as described above), which is aligned to the view of humans-in-ecosystems. This

[104] Hardin, Garrett 'The Tragedy of the Commons' (1968) *Science* 162:1243-48. Tragedy of the Commons is defined as 'An economic problem in which every individual tries to reap the greatest benefit from a given resource. As the demand for the resource overwhelms the supply, every individual who consumes an additional unit directly harms others who can no longer enjoy the benefit. Generally, the resource of interest is easily available to all individuals.' available at http://www.investopedia.com/terms/t/tragedy-of-the-commons.asp, accessed on 23 May 2014.

[105] Preservationists contest the use of species. Duffy R *Killing for Conservation. Wildlife Policy in Zimbabwe*. (2000).

[106] Cooney Rosie 'Sustainable use: Concepts, Ambiguities, Challenges'(2007) Paper prepared as background for the meeting of the IUCN Species Survival Commission's Sustainable Use Specialist Group Strategic Planning Meeting 10-13 July 2007, White Oak Plantation, Florida. Available at http://cmsdata.iucn.org/downloads/whiteoakmtgfinalbackgroundjuly07.pdf, accessed on 12 February 2014.

[107] *Ibid.*

[108] *Ibid.*

[109] Velázquez, Octavio and Stringer also argue that the preservationist's policy is the legacy of colonial conservation approaches. They further describe the preservationist approach as the archetype of humans-and-ecosystems, where humans are seen as separate from the ecosystems and not part of the ecosystems. This approach relies on fenced protected areas. Velázquez Gomar, José Octavio and Lindsey C Stringer 'Moving towards sustainability? An analysis of CITES' Conservation Policies' (2011) 21 *Environmental Policy and Governance* 240-58.

[110] Barnabos Dickson 'Global Regulation and Communal Management' In John Hutton and Barnabos Dickson (eds).*Endangered Species. Threatened Convention: The Past, Present and Future of CITES* (2000) 161-77.

approach acknowledges that humans form an integral part of the ecosystem.[111] Given the interrelatedness between humans and other species as described above, indeed humans are part of the ecosystem, as they rely on various parts of the ecosystems to support life and well-being.

Consequently, the use of living resources, in terms of the examples described relevant to Maslow's hierarchy of needs, would be a pragmatic approach, provided that such resources are used sustainably and within their limits of reproducing and maintaining populations to ensure their long term viability. However, once a population reaches a point where the viability is perilously threatened, then the resource should be managed in a manner that will ensure the rebuilding of the resource. This would indeed be for the greater good of present and future generations of humans as well as for the good of the species concerned (Mill and Bentham). The latter management approach may very well include a non-consumptive approach for a specific period of time to allow resource recovery, but this too is of considerable value to humans and other species (King, Kellert and Ralston). The case for sustainable use of biodiversity has been eloquently captured in the report of the joint review on the state of knowledge on biodiversity by the CBD and the World Health Organisation:

> We hope this joint report will be able to help policy makers to recognise the intrinsic value of biodiversity and its role as a critical foundation for sustainable development and human health and well-being.[112]

The next section looks at how the process of sustainable use evolved and the outcomes of various international processes that were subsequently codified in law. This section is subdivided into two parts, the first being the background to the theory of sustainable use through 'soft' law and the second part the codification into 'hard' law.

2.5 Background to development of the theory of sustainable use

The concept of sustainable development and sustainable use has been informed by many scholars and pieces of work over a protracted period of time. It should be noted that while 'sustainable development' is not equivalent to 'sustainable use' the development of 'sustainable use' was framed within the concept of sustainable development. Therefore, it is important to consider both, while highlighting the sustainable use principles and aspects.

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[111] WM Adams *Green Development: Environment and Sustainability in the Third World* 2nd ed (2009).
[112] Dr Maria Neira, Foreword by the Director of Public Health, Environmental and Social Determinants of Health, WHO in WHO and Secretariat of the CBD *Connecting Global Priorities: Biodiversity and Human Health: A State of Knowledge Review* (2015).

Several 'soft' law instruments consisting of declarations and recommendations express the desired norms for sustainable use.[113] Some of these 'soft' law instruments are discussed below.

2.5.1 Stockholm Declaration of 1972

The first-ever United Nations Conference on the Human Environment (UNCHE) took place in Stockholm in June 1972, culminating in the Stockholm Declaration which recognised that environmental protection was essential to human well-being.[114] While the Stockholm Declaration did not explicitly refer to sustainable use or sustainable development, it certainly had elements embedded in some of its principles. Principles 1[115] and 2[116] reflect the importance of protection of the environment and its resources for present and future generations. Furthermore, principles 3 and 4 refer to the need to maintain renewable resources and that the conservation of nature and wildlife is important for planning economic development.[117] However, the notion of sustainable development and use could be gleaned from reference to the conservation of the environment for present and future generations, maintenance of renewable resources, including wildlife for economic development, without explicitly mentioning sustainable use or development. These principles were further elaborated in subsequent Human and Environment Conferences, mentioned later in this chapter.

It should be noted that the Stockholm Declaration emanated from the first conference which expressed concerns about the deteriorating state of the environment and that protection of the environment and improving the quality of life were strongly linked to economic and social development.[118] In terms of principle 8, it could be argued that this was the emergence of the concept of sustainable development, although not articulated as such. In particular, the

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[113] Simon Lyster *International Wildlife Law: An Analysis of International Treaties concerned with the Conservation of Wildlife* (1985).

[114] Stockholm Declaration. Declaration of the United Nations Conference on the Human Environment 1972. available at http://staging.unep.org/Documents.Multilingual/Default.Print.asp?DocumentID=97&ArticleID=1503&l=en, accessed on 18 May 2017.

[115] Principle 1 of the Stockholm Declaration states that 'man has the fundamental right to freedom … and he bears a solemn responsibility to protect and improve the environment for present and future generations…'. *Ibid*.

[116] Principle 2 of the Stockholm Declaration states that The natural resources of the earth, including the air, water, land, flora and fauna especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.' *Ibid*.

[117] Stockholm Declaration.

[118] Principle 8 states that 'Economic and social development is essential for ensuring a favourable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life'. See above (note)114.

need to conserve the environment for present and future generations introduces the concept of inter-generational equity, whereby the right of future generations to enjoy the environment and natural resources must be safeguarded by the present generation.[119]

2.5.2 World Conservation Strategy of 1980

In 1980 through a collaborative effort the International Union for the Conservation of Nature, the United Nations Environment Programme and the World Wide Fund for Nature developed the World Conservation Strategy (hereafter the 'Strategy'). The Strategy recognises the contribution of conservation of living resources to the survival of humanity and sustainable development.[120] The Strategy has three objectives, including; maintaining essential ecological processes and life sustaining systems; preserving genetic diversity; and ensuring sustainable utilisation of species and ecosystems.[121] The Strategy also recognises the need to utilise living resources and ecosystems within the Earth's carrying capacity through the integration of conservation and sustainable development.[122]

Interestingly, the Strategy makes the link between human uses in terms of human needs, as previously described through Maslow's hierarchy of needs and the need for maintaining life sustaining ecosystems on Earth. The Strategy defines conservation as 'the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations.'[123] The Strategy further explains that conservation should be viewed in a positive light as it is inclusive of preservation, maintenance, sustainable utilisation, restoration as well as the improvement of the natural environment.[124] This introduces a broad context for the framing of the sustainable use discourse, as it includes the polarised views of preservation and restoration. The latter is often associated with rebuilding a population of species thereby restoring it to viable population levels. In addition, the Strategy distinguishes between living or biotic resources as those being renewable, such as

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[119] UNEP 'Chapter 3: Principles and Concepts of International Environmental Law' in *Training Manual on International Environmental Law*. pp. 24-26.
[120] IUCN-UNEP-WWF The World Conservation Strategy (1980) Available at http://www.a21italy.it/medias/688-wcs-004.pdf, accessed on 12 May 2014.
[121] *Ibid.*
[122] *Ibid*.
[123] Collins English Dictionary defines conservation as protection, preservation and careful management of natural resources and the environment. The American Heritage dictionary defines conservation as the protection, preservation, management or restoration of wildlife and of natural resources such as forests, soil and water. Available at http://www.thefreedictionary.com/conservation, accessed on 16 May 2014.
[124] See above (note) 120.

plants, animals and micro-organisms, while the non-living or abiotic resources are the components essential to the survival of living resources, such as soil, water, nutrients, etc. The Strategy identifies various obstacles to achieving conservation and also suggests ways of overcoming the challenges.

Since conservation was the central theme of the Strategy, it was critical to carefully construct a definition for conservation. The definition is broad and somewhat bold in that it seems to include all manner of interaction with the environment, its living and non-living resources. However, the value of such an inclusive definition is that it allows for a range of management approaches, including divergent approaches.

Furthermore, the Strategy incorporates the principles of intergenerational equity in the definition of conservation and specifically, the needs and aspirations of future generations. In the context of the Strategy, there is no doubt that the needs and aspirations of future generations include the improvement in the standard of living, particularly for the rural poor.[125] The Strategy also introduces a moral contention that 'we have not inherited the earth from our parents we have borrowed it from our children'.[126] This view reinforces the principle of intergenerational equity in the context of sustainable use of the environment and pronounces a justification for sustainable use, but also indirectly plays on the moral aspect in terms of guilt[127] of borrowing the earth 'from our children'. This confers with the cause and effect or consequences of our actions as espoused by Mill and Bentham's utilitarian theory.

The Strategy provides guidelines to policy makers, conservationists and development practitioners for achieving conservation and management of living resources. It suggests several national priority actions as well as recommending certain international actions required to facilitate the achievement of the Strategy objectives.[128]

In terms of sustainable use of species and ecosystems, the Strategy confirms the human dependence on species and ecosystems through, e.g. fishing, subsistence, recreational,

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[125] *Ibid.* The Strategy highlighted the need to break the vicious cycle of poverty resulting in ecological degradation which in turn leads to more poverty. It was argued that this vicious cycle could only be broken through sustainable development, with conservation being a key part of such development.
[126] *Ibid.*
[127] In this context guilt means 'responsibility for a crime or knowing you have done something bad or wrong' or 'a bad feeling caused by knowing or thinking that you have done something bad or wrong' as defined at http://www.merriam-webster.com/dictionary/guilt, accessed on 20 June 2015. Causing species to go extinct through unsustainable levels of use may indeed result in a feeling of guilt as a consequence of having done something wrong (Mill and Bentham).
[128] See above (note) 120.

pharmaceutics, wood products, grazing land, watersheds, dams, etc.[129] The Strategy indicates the need for judicious planning and management for the use of species and ecosystems in order to ensure that the objectives of sustainable utilisation are realised. It tenders an excellent analogy that sustainable use would be akin to spending the interest, while retaining the capital.[130] The growing threats to overfishing and over-exploitation of wildlife are elucidated together with growing populations and its demand for animal protein and the use of wildlife not only for meat and other products, but also for an emerging tourism market. The Strategy also acknowledges that the expanding markets are largely in the developed countries, while the developing countries are effectively providing the goods in the form of its natural resources.[131] This is also evident in the increasing international trade in species and the unfortunate growing illegal trade as well. The latter would result in a greater threat of over-exploitation and concomitant threat of species extinction. The Strategy therefore warns of the results and risks of ongoing unsustainable use practices, while providing some indication of how such risks could be mitigated. The Strategy could therefore be regarded as critical of the status quo, but also constructive in its contribution to the sustainable use discourse.

As the first of its kind, the Strategy attempts to provide practical guidelines for dealing with the challenges being encountered within sustainable use and conservation. In the case of species conservation, a decision-support system is devised for determining the basis a decision-maker would accord priority for conservation action for a particular species. Furthermore, the Strategy complements the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and encourages CITES members to take measures to enforce the provisions of the Convention, including through listing those species that are not yet listed, but are potentially threatened by trade.[132] French acknowledges that the Strategy is rather innovative in that it outlined the relationship between conservation and development.[133] The Strategy is a laudable first attempt at entrenching the concept of environmental conservation and sustainable use (development), with an approach of 'conservation through sustainable development'.

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[129] Maslow's hierarchy of needs is relevant.
[130] *Ibid.*
[131] *Ibid.*
[132] *Ibid.* The CITES Convention text does not explicitly reflect sustainable use, but it could be inferred in that the Convention seeks to mitigate the risk of species extinction as a result of international trade. CITES text available at http://www.cites.org/sites/default/files/eng/disc/E-Text.pdf, accessed on 10 May 2013.
[133] D French 'Sustainable development and biological diversity' in *International Law and Policy of Sustainable Development* (2005).

2.5.3 The Brundtland Report of 1987

Up to this point, the sustainable development (use) discourse was fragmented and was dealt with in a piecemeal approach. In 1987, the Brundtland Commission on Environment and Development produced the Brundtland report, Our Common Future (hereafter 'Brundtland Report'), which defined sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.[134] The Brundtland Report was based on the theme of commonality and considered the common concerns, challenges and endeavours as they related to the environment and development,[135] all in an effort to avoid a tragedy of the commons.[136]

MacNeil argues that, firstly, the Brundtland Report articulates that sustainable development would be achieved through living within nature's limits and ensuring that the natural environment that supports life is not jeopardised.[137] Secondly, it indicates that development could be sustainable if consumption levels[138] are within the bounds of ecological possibility to which all could aspire.[139] Similar to the World Conservation Strategy of 1980, the report also warns of ecological collapse if humanity continues on the development path it was on at that time. MacNeil argues that it is regrettable that the only definition in the report taken up by the politicians is that which demonstrates the need for inter-generational equity.[140] Flowing from this, it could be assumed that one of the reasons for the uptake of intergenerational equity in the context of sustainable development is because it resonated with the audience at the time. It may also have been one of the more plausible justifications for ensuring that development should be sustainable. However, MacNeil admits that it could not have been the only motive,[141] as the present generation would also derive benefits from sustainable development.

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[134] United Nations Report of the World Commission on Environment and Development, *Our Common Future* (1987) available at http://conspect.nl/pdf/Our_Common_Future-Brundtland_Report_1987.pdf, accessed on 16 August 2013.
[135] *Ibid.*
[136] See above (note) 104.
[137] Jim MacNeil was the lead author of the Brundtland Commission's Report 'Our Common Future' see Essay: Brundtland revisited by Jim MacNeil, February, 4, 2013 available at http://opencanada.org/features/the-think-tank/essays/brundtland-revisited/, accessed on 16 August 2013.
[138] This appears to focus on human behaviour insofar as consumption patterns are concerned.
[139] See above (note) 137.
[140] *Ibid*. The Report also states that development would be sustainable if 'it did not endanger the natural systems that support life on earth – the atmosphere, the waters, the soils and the living beings'.
[141] *Ibid*.

In terms of the sustainable use of species, the Brundtland Report acknowledges that the planet is losing its species at an unprecedented rate and that diversity of species is essential for proper ecosystem functioning. The Brundtland Report also indicates that the first priority should be ensconcing the challenge of threatened species and ecosystems onto political agendas and developing an international species convention.[142] In terms of the latter, the international response was undoubtedly the Convention on Biological Diversity (CBD) of 1992. The Brundtland Report further stressed that species loss or extinctions will result in limiting economic options for future generations. Similar to the World Conservation Strategy, the Brundtland Report also expounds the link between conservation and development at the international level.[143]

In essence, the sustainable development concept articulated through the Brundtland Report provides important principles for the sustainable use of species, especially with regard to use that takes account of the environment, economic and social aspects as well as ambitions of the current and future generations.[144] The Brundtland Report went so far as to establish a relationship between sustainable development and species conservation, similar to the approach followed by the World Conservation Strategy. However, the main difference between the Strategy and the Brundtland Report was that the former focussed on the conservation aspect, while the latter focussed on the broader concept of sustainable development. When read together, these documents make a substantial contribution to the sustainable use discourse and therefore the value of the documents should not be viewed in isolation of each other.

2.5.4 Caring for the Earth, 1991

Caring for the Earth - A Strategy for Sustainable Living, 1991 was a successor to the World Conservation Strategy of 1980.[145] Caring for the Earth builds on the Strategy and represents a call for societal change in behaviour in order to ensure sustainable living.[146] Caring for the Earth makes an ethical plea to society (hence the word 'caring'), to action sustainable living.

[142] See above (note) 134.
[143] See above (note) 133133.
[144] The Brundtland Report states that 'Development tends to simplify ecosystems and to reduce their diversity of species and species, once extinct, are not renewable. The loss of plant and animal species can greatly limit the options of future generations; so sustainable development requires the conservation of plant and animal species.' See above (note) 134.
[145] See above (note) 120.
[146] IUCN/UNEP/WWF 'Caring for the Earth: A Strategy for Sustainable Living' (1991)

It also reiterates the need for an integration of conservation and development actions.[147] The document is divided into three parts: Part I sets out the principles for sustainable living; Part II describes how to translate the principles into action; and Part III explains the need for implementation and follow up or monitoring of actions.[148] The document also succinctly states that the terms sustainable development and sustainable use could not be used interchangeably, as the latter concerned the sustainable use of renewable resources only. This singular concern meant the use of those resources at a rate within their capability for renewal.[149] This was an important distinction at a time when there were varying views on sustainable development and its use in various contexts. In this context, sustainable use is being interpreted as the use of the ecosystem and species within its carrying capacity, while recognising varying limits throughout the biosphere, ecosystems, species and genetic resources.[150] In this context it is useful to reflect on the working definition previously proffered where sustainable use means '*use of species at a rate that maintains viable population levels for the benefit of present and future generations*.' Viable population levels are implicit in the 'varying limits' espoused in the document.

The authors also articulate the link between sustainable use and conservation. However, Robinson argues strongly that conservation and development are oversimplified in Caring for the Earth, through the lack of acknowledgment of the discord that is ever-present in achieving a sustainable society.[151] He argues that the danger in this latter approach is that development would continue under the assumption that conservation is part of sustainable development and that consequently we could lose species and genetic diversity without being fully aware of such losses, until it is too late.[152] Robinson also contends that 'Caring for the Earth' places too great a prominence on sustainable use as the only approach to conservation. He states that while it might have been the prevailing approach, it certainly is not the only one.[153]

In supporting Robinson's view, it is argued that sustainable use is a narrow view, while conservation is inclusive of management of human use of the planet for current and future

[147] *Ibid*. This could be the bringing together of the World Conservation Strategy and the Brundtland Report, thereby realising the combined value of the two documents.
[148] *Ibid*.
[149] *Ibid*.
[150] *Ibid*.
[151] Caring for the Earth viewed a sustainable society, conservation and development as compatible, while the World Conservation Strategy perceived it as separate, but mutually reinforcing. John G Robinson 'The Limits to Caring: Sustainable Living and the Loss of Biodiversity' (1993) 7 *Conservation Biology* 20-8.
[152] *Ibid*.
[153] *Ibid*.

generations, with preservation, maintenance, sustainable use, restoration as well as the improvement of the natural environment being part of such conservation.[154] However, the terms 'conservation' and 'sustainable use' should each be used in context, so as not to confuse the meaning of each term. Furthermore, sustainable development should not assume that species are being used sustainably and these two terms should therefore also not be used interchangeably. Interchangeable use of the terms may have the unintended consequence of placing the species at risk of extinction under the guise of sustainable development. Sustainable development should therefore not become a perverse incentive for sustainable use of species.

2.5.5 United Nations Conference on Environment and Development, Rio 1992

Five years after the Brundtland Report, the United Nations General Assembly were keen to measure progress in terms of sustainable development. Consequently, the United Nations Conference on the Environment and Development (or Earth Summit) was held in Rio de Janeiro, Brazil in 1992. The objectives of the conference were to build on the optimism of the work and outcomes of the Brundtland Report in response to environmental challenges and to foster agreement on critical international treaties.[155]

Major outcomes of the Earth Summit included three international environmental agreements, the Rio Declaration and Agenda 21.[156] The Rio Declaration is a reflection of the political intent and commitment of governments at the time, while Agenda 21 is a voluntary, non-binding action plan for sustainable development. The three international environmental agreements ushered in during the Earth Summit included the opening for signature of the Convention on Biological Diversity (CBD) on 5 June 1992 and the United Nations Framework Convention on Climate Change (UNFCCC)[157] as well as support for a set of Principles of Forest Management.[158] The focus of this section will be on the Rio Declaration and Agenda 21 as major milestones of the Earth Summit that are of relevance to this thesis. The Convention on Biological Diversity is discussed later in this chapter.

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[154] This view also supports the World Conservation Strategy definition of conservation.
[155] Rio Earth Summit available at http://www.sustainable-environment.org.uk/Action/Earth_Summit.php, accessed on 23 December 2014.
[156] World Summit on Sustainable Development available at http://www.un.org/en/development/devagenda/sustainable.shtml, accessed on 23 December 2014.
[157] While these two Conventions were opened for signature at the Earth Summit, much of the negotiations and the work that went into their development took place during other international meetings held prior to the June 1992 Conference. Marc Pallemaerts 'International Environmental Law in the Age of Sustainable Development: A critical assessment of the UNCED process' (1995-1996) 15 *Journal of Law and Commerce* 623-76.
[158] See above (note) 156.

The Rio Declaration sought to reaffirm and enhance its predecessor, the Stockholm Declaration of 1972.[159] The declaration contains no less than 27 agreed-upon principles for the environment and development, but most importantly reflects the rights and responsibilities of people in relation to the environment and development.[160] While the declaration recognises the integral and interdependent nature of Earth, Principle 1 further acknowledges that human health and wellbeing are linked to nature.[161] The developmental and environmental needs of current and future generations are contained in Principle 3. This principle of inter-generational equity is also contained in Principles 1and 2 of the Stockholm Declaration[162] as well as being reflected in the World Conservation Strategy of 1980. Principle 4 of the Rio Declaration elaborates on sustainable development and environmental protection and that the two are integral in the development process.[163] This link between sustainable development and environmental protection is also conveyed in the World Conservation Strategy of 1980.

Principle 12 of the Rio Declaration highlights the need for States to cooperate to ensure that economic growth and sustainable development do not result in environmental degradation, while trade policy measures for environmental reasons should not result in discriminatory or subjective restrictions in international trade.[164] This latter principle is particularly important as it may be applicable to species in trade. Perhaps the greatest outcome from the Earth Summit insofar as its contribution to the sustainable use discourse is concerned, is evident in the signing of the CBD and UNFCCC as well as relevant aspects of Agenda 21. The CBD Convention text elaborates on sustainable use as well as conservation.[165]

Agenda 21 presents a comprehensive programme of action striving towards sustainable development, with 40 detailed chapters. The programme of action focuses on the social and economic dimensions, conservation and management of resources used in

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[159] United Nations General Assembly 'Report of the United Nations Conference on Environment and Development' (1992). A/CONF 151/26 (Vol.1) available at http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm, accessed on 16 August 2014.
[160] *Ibid.*
[161] *Ibid.* 'Human beings …are entitled to a healthy and productive life in harmony with nature'.
[162] Principle 1 articulates the importance of environmental quality to health and well-being and identified the responsibility to protect the environment for present and future generations. While, principle 2 refers to the need to conserve the ecosystems for present and future generations through careful planning and management. See above (note) 114.
[163] See above (note) 159159.
[164] *Ibid.*
[165] To be discussed later in this chapter.

development, strengthening the role of major groups and the concomitant means of implementation of Agenda 21.[166] It is recognised that the latter half of Agenda 21 provides mechanisms to achieving sustainability through strengthening various role players and international collaboration as well as providing for the implementation of the various chapters. However, the chapters that are most relevant to species use and species in trade are on changing consumption patterns (chapter 4), conservation of biological diversity (chapter 15) and protection of oceans and seas and rational use of living resources (chapter 17).[167]

These chapters relate firstly to the unsustainable use of natural resources and the need to change consumption patterns so that they are more aligned to the productivity of natural systems. However, the content of chapter 4 focuses on energy, transportation and waste, with economic instruments and technology transfer as mechanisms for changing consumption behaviour. Changing behaviour is with a view to reducing environmental stress resulting from unsustainable patterns of consumption.[168] In the case of species, firstly it would be use of species at a rate that maintains species at viable population levels that benefit present and future generations.[169] Secondly, the need for sustainable use of biological resources in ensuring conservation of biological diversity is critical as humans derive valuable ecosystem services from biodiversity, including; food, medicine, timber for shelter and furniture, clothes and beauty (spiritual nourishment).[170] The loss of biodiversity and species was of concern at the time of the Earth Summit and continues to be of concern today.[171]

Similarly, unsustainable use of fish resources remains a concern to the loss of biodiversity in aquatic ecosystems. The use of aquatic living resources (chapter 17) should also be undertaken in a sustainable manner and illegal, unreported and unregulated (IUU) fishing is recognised as a major challenge in the marine environment. Unsustainable fishing levels also results in loss of biodiversity. Under the auspices of the United Nations Food and Agriculture Organisation (FAO), the Earth Summit resulted in a response by the international community

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[166] Agenda 21 available at http://www.sustainable-environment.org.uk/Action/Agenda_21.php, accessed on 16 August 2014.
[167] *Ibid.*
[168] *Ibid.*
[169] Working definition of sustainable use as proffered by the author of this thesis.
[170] *Ibid.*
[171] According to the CBD, Biodiversity Outlook of 2014, biodiversity loss continues even though there have been positive steps taken towards reducing loss. The extrapolations of current biodiversity loss show a continuing downward trend at least up to 2020. The continuing trend could be ascribed to a possible time lag in positive actions being taken and the visible outcomes that suggest improvements. Secretariat of the Convention on Biological Diversity 'Global Biodiversity Outlook 4' (2014) 155 pages. Available at https://www.cbd.int/gbo/gbo4/publication/gbo4-en.pdf, accessed on 24 December 2014.

to the challenge of IUU fishing through formulating an International Plan of Action (IPOA) to Prevent Deter and Eliminate IUU Fishing.[172] The IPOA is an important 'soft' law tool in addressing the unsustainable use of fish resources as a result of IUU fishing. An important objective of the IPOA-IUU in this context is 'the maintenance of consistency with the conservation and long term sustainable use of fish stocks and the protection of the environment'.[173] The practice of IUU fishing therefore undermines the principle of sustainable use of fish resources and reaches markets at a fraction of the cost of legally caught fish. This means that illegally caught fish have an unfair advantage over legally caught fish, which is sold to recover costs for the full value chain, including any legal and administrative costs.[174] This has far-reaching implications not only for trade, but also for the long term sustainability of fish resources that support livelihoods. Sustainable use of living resources is therefore fundamental to supporting sustainable livelihoods.

2.5.6 World Summit for Sustainable Development, 2002

The World Summit for Sustainable Development (WSSD) of 2002 was the successor to the 1992 Rio Conference (Earth Summit), which culminated in the Rio Declaration and Agenda 21 (mentioned above). The WSSD is also referred to as Rio+10 (10 years after the Rio Conference) or Earth Summit 2002.[175] The WSSD was mandated to implement existing commitments, such as those made in Rio and the Millennium Development Goals.[176] As has become customary of these environment and development conferences, a major outcome of the WSSD was the Johannesburg Declaration, which is a political declaration[177] reaffirming the commitments made in Stockholm (1972) and Rio (1992) as well as the United Nations Millennium Declaration. In addition, other major outcomes of the WSSD were the Plan of Implementation[178] and 'type 2' partnerships for sustainable development.[179] The Plan of

[172] FAO Fisheries Department. Implementation of the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. FAO Technical Guidelines for Responsible Fisheries. No. 9 Rome, FAO (2002) available at ftp://ftp.fao.org/docrep/fao/005/y3536e/y3536e00.pdf, accessed on 20 June 2015.
[173] *Ibid*.
[174] *Ibid*.
[175] World Summit on Sustainable Development available at https://sustainabledevelopment.un.org/milesstones/wssd, accessed on 16 December 2014.
[176] La Vina, Antonio GM, Gretchen Hoff and Anne Marie DeRose 'The outcomes of Johannesburg: Assessing the World Summit on Sustainable Development' (2003) 23 *SAIS Review* 53-70.
[177] The Declaration and the Plan of Implementation were considered 'type 1' outcomes. Johannesburg Declaration on Sustainable Development. 4 September 2002 available at http://www.un-documents.net/jburgdec.htm, accessed on 16 December 2014.
[178] Plan of Implementation of the World Summit on Sustainable Development available at http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf, accessed on 16 December 2014.

Implementation set out programmes of action consisting of 11 chapters, covering amongst others; poverty eradication; changing patterns of consumption and production; protection of natural resources as the foundation of economic and social development; health; and regional initiatives.[180] Prior to the WSSD, the then Secretary-General of the United Nations, Kofi Annan, identified the following priority areas; water and sanitation; energy; health; agriculture; and biodiversity protection and ecosystems management, which became known as the WEHAB initiatives.[181]

While there are negative sentiments about the WSSD Von Frantzius is of the view that one of the important achievements of the Plan of Implementation was improved integration of social and economic considerations in sustainable development.[182] Paragraph 5 of the 2002 Johannesburg Declaration on Sustainable Development confirms this by stating that 'we assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development (economic development, social development and environmental protection) at the local, national, regional and global levels.'[183]

The Plan set out programmes of action with agreed upon targets. The target for biodiversity and ecosystem management was to reduce the rate of loss of biodiversity by 2010, through supporting the Convention on Biological Diversity (CBD). The latter included promoting the sustainable use of biological resources, which should also take account of the protection of endangered species.[184] In addition, the coastal and ocean resources received much attention, with targets like the sustainable use and conservation of marine living resources and efforts to rebuild fish stocks by 2015. Furthermore, various actions for eliminating IUU fishing were also emphasised.[185] Directing financial and technical support to

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[179] Partnerships and collaborative initiatives between stakeholders, government and civil society. Ina Von Frantzius 'World Summit on Sustainable Development Johannesburg 2002: A Critical Analysis and Assessment of the Outcomes' (2004) 13 *Environmental Politics* 467-73.
[180] See above (note) 178.
[181] See above (note) 179.
[182] La Vina *et al*. were of the view that the lack of new commitments and innovative solutions were weaknesses of the Plan of Implementation of the WSSD. See above (note) 176. In addition, Von Frantzius criticised the outcomes as 'merely a repetition of previously made commitments' see above (note) 179.
[183] Johannesburg Declaration on Sustainable Development.
[184] Promoting sustainable tourism that included the non-consumptive use of natural resources for cultural, ecological, educational and economic benefits to communities was included under the umbrella of sustainable use. See paragraph 43 of the Plan of Implementation – see above (note) 178. Promoting the CBD and the Convention's provisions for sustainable use of biological diversity was considered as critical to poverty eradication, planet, human well-being and human livelihoods. In this context reference was made to sustainable tourism, as a cross cutting issue. See paragraph 44 of the Plan of Implementation – above note178.
[185] These included eliminating subsidies and over-capacity of fishing fleets, as these were contributors to IUU fishing. Countries were called upon to urgently develop national plans of action in response to the United Nations Food and Agriculture Organisation's International Plan of Action to combat Illegal Unreported and

developing countries and countries with economies in transition was considered important in supporting conservation efforts, particularly in countries facing poverty challenges.[186]

Kaziell and McNeil argue that the relationship between biodiversity, poverty reduction and sustainable livelihoods suggests alternatives and safety for people.[187] They further believe that biodiversity is an abstract concept and therefore has been difficult to translate to concrete benefits for poverty reduction. They state that humans interact with biodiversity and ecosystems on a daily basis, without realising it and making the connection to biodiversity.[188] Humans may realise the importance and benefits of biodiversity, including species and ecosystems, when it has disappeared. By illustration, access to various species allows people choices for livelihoods, including responding to market demands for various species at different times, provided they are used sustainably.

In terms of market demands and consequent trade issues at the WSSD, trade is seen as an important vehicle for economic growth, with the latter providing resources to reduce poverty. However, Halle and Borregaard contend that trade contributes to sustainable development when the trade policies, social and environmental policies are in 'harmony and mutually supportive'.[189] They are of the view that trade liberalisation policies often undermine social and environmental policies resulting in discord between development and the environment, as trade is considered a higher priority.[190] They hypothesise that this is largely as a result of trade being generally reflecting a limited view of current commercial concerns only.[191] This has important implications for trade in species, especially where such trade also provides important livelihoods to communities and where the sustainable use of species for trade could facilitate poverty alleviation. Halle and Borregaard effectively substituted trade for economic considerations in the sustainable development context and therefore if there is harmonisation in trade, social and environmental policies, then sustainable development could be realised.

Unregulated Fishing (IPOA-IUU) by 2004 and the International Plan of Action for the Management of Fishing Capacity by 2005. These were considered critical as the plans of action would effectively enable the management of sustainable fisheries. See paragraphs 31 to 32 of the Plan of Implementation. See above (note) 178.

[186] *Ibid.*

[187] Izabella Kaziell and Charles McNeill 'Poverty Reduction Through Conservation and Sustainable Use of Biodiversity in Tom Bigg (ed) *Survival for a Small Planet: The Sustainable Development Agenda* (2004) 247-257.

[188] *Ibid.*

[189] Mark Halle and Nicola Borregaard 'The Trade and Environment Agenda Post-Johannesburg in Tom Bigg (ed) *Survival for a Small Planet: The Sustainable Development Agenda* (2004) 32-45.

[190] *Ibid.*

[191] *Ibid.*

Halle and Borregaard concluded that the WSSD had lofty goals and ideals and it fell short of meeting the expectations of many.[192] However, having fallen short of the goals creates opportunities for follow up and creativity or innovation, particularly in terms of trade and sustainable development.[193] Notwithstanding the achievements and disappointments of WSSD, the environmental community subsequently continued to develop useful guidelines for sustainable use, particularly through the CBD and other international biodiversity-related forums.

2.5.7 Addis Ababa Principles and Guidelines, 2004

The Plan of Implementation of the WSSD recognises sustainable use as a management tool for alleviating poverty and consequently for sustainable development. In response, Decision VII/12 of the CBD adopted the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity (AAPG).[194] This is the first guide on sustainable use of biodiversity adopted by the CBD and is therefore important to acknowledge in the sustainable use discourse. Guidelines and manuals have become a common tool widely used by organisations to facilitate standardisation of approaches on particular matters. Guidelines are used in financial management,[195] criminal intelligence,[196] prosecution,[197] for general sentencing,[198] best practice in law,[199] the International Bar Association for the legal profession,[200] etc. These guidelines demonstrate the value of guidelines as a tool for use in communicating developed standards and approaches across many disciplines. In this context the AAPG is a tool providing a framework for conservation and sustainable use to inform governments, civil society and other stakeholders on policies, laws and regulations, resource management, socio-economic considerations, research and education. The AAPG is similar to the World

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[192] *Ibid*. The view that WSSD failed to meet expectations is shared by La Vina and Von Frantzius - see above (note) 182.
[193] See above (note) 189.
[194] CBD Decision VII/12 available at http://www.cbd.int/doc/decisions/cop-07/cop-07-dec-12-en.pdf, accessed on 15 June 2014.
[195] Finance Operations Policies and Guidelines available at http://www.uct.ac.za/services/financial/policiesguides/, accessed on 2 July 2015.
[196] Criminal Intelligence Manual for Analysts available at https://www.unodc.org/documents/organized-crime/Law-Enforcement/Criminal_Intelligence_for_Analysts.pdf, accessed on 2 July 2015.
[197] Prosecution Policy and Guidance available at http://www.cps.gov.uk/prosecution_policy_and_guidance.html, accessed on 2 July 2015.
[198] Sentencing guidelines: South Africa available at http://www.loc.gov/law/help/sentencing-guidelines/southafrica.php, accessed on 2 July 2015.
[199] Criminal Justice Act Best Practices Manual available at http://www.fedcourt.gov.au/law-and-practice/practice-documents/practice-notes/cm/, accessed on 2 March 2017.
[200] International Bar Association Guidelines available at http://www.ibanet.org/ENews_Archive/IBA_27October_2010_Arbitration_Clauses_Guidelines.aspx, accessed on 2 July 2015.

Conservation Strategy in that it also sought to provide guidelines to decision makers. The AAPG provides fourteen interdependent principles which should be considered together, but it is recognised that they may not apply equally in all instances.[201] The principles in practice apply to both consumptive and non-consumptive use of biodiversity.[202]

The AAPG has been adopted in various contexts, including for the sustainable use of wetlands under the Ramsar Convention. Bridgewater argues that the CBD and AAPG provide guidance on interventions between drivers of change and ecosystems. The Ramsar Convention subsequently adopted a definition that links wise use, ecological character, the ecosystem approach and sustainable use.[203] Similarly, the European Charter on Hunting and Biodiversity has also drawn on the AAPG together with CBD provisions.[204] The Charter includes but is not limited to, sustainable hunting, hunting tourism and international regulation of wildlife trade.[205]

While evidence suggests that the AAPG has been considered in policies and applications, Butchart is of the view that good progress has certainly been made in defining sustainable use[206] and guiding it but that measuring progress in achieving sustainable use remains trying.[207] Similarly the discourse of sustainable development and the challenges in realising it continue to plague decision makers the world over.

2.5.8 Rio +20 and 'The future we want' 2012

In 1992 global leaders and decision makers convened in Rio for the Earth Summit, where the landmark Rio Declaration and the signing of international agreements like the CBD, the UNFCCC; and Agenda 21 were concluded. More recently, in 2012, global leaders once again converged in Rio to assess progress on commitments made 20 years ago, hence Rio +20.[208]

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[201] Addis Ababa Principles and Guidelines available at http://www.cbd.int/doc/publications/addis-gdl-en.pdf, accessed on 15 June 2014.
[202] *Ibid*.
[203] 'Wise use of wetlands implies the sustainable use of wetland ecosystem goods and services, including especially water, for the benefit of biological diversity and human well-being through maintenance of their ecological character by implementing an ecosystem approach.' Peter Bridgewater 'New Context for the Ramsar Convention: Wetlands in a Changing World (2008) '17 *RECIEL* 100-6.
[204] Scott Brainherd 'Convention on the Conservation of European Wildlife and Natural Habitats. European Charter on Hunting and Biodiversity' (2007) available at http://www1.nina.no/lcie_new/pdf/634991504714143702_Hunting_Charter[1].pdf, accessed on 8 April 2015.
[205] *Ibid*.
[206] The AAPG uses the CBDs definition of sustainable use, but also provides information on the underlying conditions for sustainable use. *Ibid.*
[207] Stuart HM Butchart 'Red List Indices to measure the sustainability of species use and impacts of invasive alien species' (2008) 18 *Bird Conservation International* S245-S262.
[208] United Nations Conference on Sustainable Development available at https://sustainabledevelopment.un.org/rio20.html, accessed on 2 July 2015.

The other objectives of the conference were to address new and emerging challenges and gaps to implementation of outcomes of previous conferences on sustainable development. A key outcome of Rio +20 was the document 'The future we want'.[209] Amongst others, the conference committed to initiating a process for developing action-orientated sustainable development goals (SDGs) to reflect the development agenda beyond 2015. A transparent and inclusive intergovernmental process was initiated through an open working group mandated by the 2012 conference.[210] SDGs relevant to this thesis include goal 14 to 'conserve and sustainably use the oceans, seas and marine resources for sustainable development' and goal 15 to 'protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss'.[211] In particular, the actions in the marine environment call for sustainable use of marine resources (goal 14) including through effective regulation of fishing and with an end to overfishing, IUU fishing and destructive fishing practices. Action also calls for the implementation of 'science-based management plans' to restore depleted fish stocks in the shortest time possible.[212] The actions required for the marine resources are certainly not new and have been bandied about in many international meetings for many years, including various Regional Fisheries Management Organisations as evidenced by lists of vessels that are presumed to be engaging in IUU fishing and the FAO International Plan of Action - IUU fishing of 2001.[213] The fact that the same appeal is being made at the international conference demonstrates the failure to deliver on these initiatives thus far, which is concerning and begs the question whether there is genuine political will for full implementation and compliance after these conferences.

For terrestrial ecosystems, goal 15 actions include amongst others, ending poaching and trafficking of protected species by addressing the supply and demand sides of illegal wildlife products (markets). In addition, there's also a call to enhance global efforts in the

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[209] UNGA Resolution A/Res/66/288 of 2012 available at http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E, accessed on 2 July 2015.
[210] Report of the Open Working Group of the General Assembly on Sustainable Development Goals available at http://www.un.org/ga/search/view_doc.asp?symbol=A/68/970&Lang=E, accessed on 8 July 2015.
[211] Open Working Group Proposal for Sustainable Development Goals available at https://sustainabledevelopment.un.org/content/documents/1579SDGs%20Proposal.pdf, accessed on 8 July 2015.
[212] *Ibid.*
[213] About RFMOs available at http://www.fao.org/fishery/topic/166304/en and combined IUU vessel lists available at http://iuu-vessels.org/iuu, also see FAO IPOA- IUU fishing available at http://www.fao.org/docrep/003/y1224e/y1224e00.htm, accessed on 21 March 2017.

fight against poaching of protected species, including by building capacity in local communities in pursuit of sustainable livelihoods.[214]

In the context of trade in species, the UN conference recognised that:

> the important role of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, an international agreement that stands at the intersection between trade, the environment and development, promotes the conservation and sustainable use of biodiversity, should contribute to tangible benefits for local people and ensure that no species entering into international trade is threatened with extinction. We recognize the economic, social and environmental impacts of illicit trafficking in wildlife, where firm and strengthened action needs to be taken on both the supply and demand sides. In this regard, we emphasize the importance of effective international cooperation among relevant multilateral environmental agreements and international organizations. We further stress the importance of basing the listing of species on agreed criteria.[215]

The significance of the above recognition is that CITES is seen as the international agreement at the nexus of trade, the environment and development. CITES is seen as promoting sustainable use and conservation, where conservation is the broader context and includes sustainable use. Such use is also seen as being beneficial for local communities. CITES Parties are therefore in a rather unique position to take on multifaceted approaches in ensuring that trade in species is sustainable and does not result in the extinction of species. Once again, the international community is called upon to cooperate on matters of illicit trade in wildlife products. The CITES is considered in greater detail in the next section of this chapter that deals with 'hard' law.

From the above 'soft' law instruments, it could be concluded that the intention and aspirations of sustainable use has been reflected by the international community 'soft' law instruments since the 1970s. The commitment to sustainable use can be followed through the passage of time and so too its complexities and challenges. The latter is evident in the fact that the same challenges of unsustainable use levels are recognised in illegal wildlife trade as well as IUU fishing, up to and beyond Rio+20. The scourge of poaching marine and terrestrial species continues to plague the global community. The 'soft' law principle of sustainable development incorporated the principle of intergenerational equity and sustainable use was derived from these principles. However, as previously discussed scholars have cautioned about using sustainable development and sustainable use interchangeably, as the former assumes that species may not be subjected to high risk of extinction, but this is not the case. Therefore, the term sustainable use became widely used explicitly in the context of

[214] See above (note) 211.
[215] United Nations General Assembly 'The future we want' (2012) A/RES/66/288 para 203.

renewable living resources, while also recognising that living resources were part of ecosystems and therefore required healthy functioning ecosystems for long term survival. However, humankind's use of species in the wild continues to elude sustainable use, even though the international community expresses ongoing commitment to implement sustainable use e.g. 'The Future We Want' and the Sustainable Development Goals.[216] Based on the development of the soft law instruments discussed above, it appears that there is a progressive sharpening of focus, as the principles started out as broad expressions of the will of the international community, but have evolved into very clear measurable targets or goals, as seen in the SDGs. The significance of the 'soft' law instruments is their ability to foster greater collaboration between government and non-government stakeholders. The 'soft' law instruments discussed appear to be repetitive in nature and often recall, acknowledge or reinforce what was stated in preceding instruments, which facilitates a progressive 'common international understanding' of norms.[217] Such 'soft' law norms have subsequently been incorporated into international 'hard' law. Although 'soft' law is not legally binding or enforceable, it is nevertheless extremely valuable in shaping the future of legally binding agreements and conventions. The analysis of 'soft' law is a growing discourse in international law.[218] As contended by Chinkin;

> To ignore soft law instruments obviously is to ignore a major force in predicting such future behaviour…Even the expectation that a State will ignore an instrument of soft law is of course an important indicator of future behaviour; it provides a framework for expectations and for predictability.[219]

Although the status of the 'soft' law instruments is not of legal force, they nonetheless remain an important part of the history in development of international law and cannot be ignored. They demonstrate the progression of international will as first expressed in declarations and statements to the actual legal commitments subsequently made by State Parties to international treaties and conventions. In the context of this thesis, the 'hard' law instruments that embrace the 'soft' law principle of sustainable use for long term survival of species in the wild will be considered in the next section.

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[216] SDG 14 calls for effective regulation of fisheries and an end to overfishing and IUU fishing. While SDG 15 calls for urgent action to halt biodiversity loss and end poaching and illegal trade in wild fauna and flora, available at http://www.un.org/sustainabledevelopment/biodiversity/, accessed on 10 June 2015.
[217] Pierre-Marie Dupuy 'Soft Law and the International Law of the Environment' (1991) 12 *International Law of the Environment* 420-35.
[218] Handl 'A Hard Look at Soft Law' (1988) 82 *American Society of International Law Proceedings* 371.
[219] Christine Chinkin in 'A Hard Look at Soft Law' *Ibid*.

2.6 International law on sustainable use and trade in species

This section describes the 'hard' law instruments such as Multilateral Environmental Agreements (MEAs) or treaties that provide for mandatory regulations with regard to sustainable use. These 'hard' law instruments, unlike the abovementioned 'soft' law instruments, are legally binding. This section focuses on CITES and the CBD and their relationship.

2.6.1 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) of 1973

The CITES Convention is the only international agreement for the regulation of international trade[220] in endangered or threatened plants and animals in the wild. The CITES Convention text was initially drafted by the World Conservation Union (IUCN) following a 1963 meeting of its members.[221] The Convention was subsequently signed in Washington DC on 3 March 1973, with the US as its first signatory. The Convention came into force on 1 July 1975 and as at 23 April 2017 had a total of 183 Parties.[222] This level of membership could be considered as substantive by world standards. CITES recognises wild species of fauna and flora as irreplaceable parts of the natural systems (ecosystems), with uses ranging from recreational, cultural, aesthetic, to economic and scientific.[223] The Convention further recognises that States are best placed to protect their species, but that international cooperation could also help prevent overexploitation of species used in international trade.[224]

CITES provides a framework for members to develop their national laws that include the use of permits and certificates to regulate the trade in species. Through its fundamental principles, CITES employs criteria for listing species on three Appendices.[225] An Appendix I

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[220] CITES Article I defines trade as 'export, re-export, import and introduction from the sea' available at http://www.cites.org/eng/disc/what.php, accessed on 10 May 2013. According to the Merriam Webster dictionary trade means the 'buying, selling or exchanging of goods as a commercial transaction' available at http://www.merriam-webster.com/dictionary/trade, accessed on 10 June 2015. The CITES definition is thus very specific to the regulatory permits/documents issued by the Management Authorities as provided for by the Convention Articles III to VI.

[221] CITES Convention text available at http://www.cites.org/eng/disc/what.php, accessed on 10 May 2013.

[222] See https://cites.org/eng/disc/parties/index.php, accessed on 23 April 2017. To put this membership into perspective, the United Nations membership in 2011 stands at 193 member states available at http://www.un.org/en/members/growth.shtml, while the WTO membership as at 26 April 2015 stands at 161 members available at https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm, accessed on 10 June 2015.

[223] CITES Convention text preamble available at http://www.cites.org/sites/default/files/eng/disc/E-Text.pdf, accessed on 10 May 2013.

[224] *Ibid.*

[225] Article II.

listing includes species threatened with extinction and may be affected by trade. These species should only be traded under exceptional circumstances and should be 'particularly strictly' regulated in order that trade does not further endanger their survival in the wild. An Appendix II listing seeks to regulate the trade of wild species that are not yet threatened with extinction, but may become so if trade is not strictly regulated to 'avoid utilisation incompatible with their survival'. Appendix III species listings are based on a unilateral decision by a State to list a species within its jurisdiction which requires the cooperation of other Parties to control trade.[226] There are currently about 5 600 animal species and about 30 000 plant species listed on CITES Appendices.[227]

CITES decisions that govern the regulation of trade in wild species are made through the Conference of the Parties (CoP), including the listing of species.[228] The CoP meets at least once every two years.[229] Decisions to amend Appendices I and II are taken by a two-thirds majority of Parties present and voting.[230] The CITES Secretariat administers the day-to-day functions as delegated by the CoP and also convenes, arranges and supports all CITES meetings.

CITES requires Parties to take measures to enforce the Convention's provisions, including prohibitions of trade where required. [231] However, the Convention recognises the sovereign rights of Parties to adopt stricter domestic measures for trade or prohibitions.[232] Examples of Parties adopting stricter domestic measures include the US, Japan and the European Union (EU) Member States that require import permits for some or all Appendix II listed species,[233] when CITES only requires an export permit.[234] Therefore, the Management Authorities of any CITES Parties trading Appendix II specimens or products with the US, Japan and the EU Member States has to issue the export permit, while the receiving country

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[226] *Ibid.*
[227] Available at http://www.cites.org/eng/disc/species.php, accessed on 13 April 2015.
[228] Article XV on amendments to Appendices I and II, is particularly relevant.
[229] Article XI.
[230] Article XV states that 'Parties present and voting' means Parties present and casting an affirmative or negative vote. Parties abstaining from voting shall not be counted among the two-thirds required for adopting an amendment. Amendments adopted by a two-thirds majority vote come into force 90 days after the meeting, except for Parties that made a reservation in accordance with Article XV paragraph 3.
[231] Where trade in specimens violates the convention, such enforcement includes measures to penalise trade, or possession of such species or both as well as confiscation and returning the specimens to the State of export. Article VIII 1(a) and (b).
[232] Article XIV.
[233] Marceil Yeater and Juan Vasquez 'Demystifying the Relationship Between CITES and the WTO' (2001) 10 *RECIEL* 271-76.
[234] Article IV (2).

has to issue the import permit prior to the actual export of the specimen.[235] This additional administrative process could result in time delays in the actual export of the specimen. It is uncertain as to whether the implementation of stricter domestic measures impacts survival of species in the wild.

The CITES Convention does not have a definition for sustainable use and the text was developed before the term 'sustainable development' or 'sustainable use' became widely accepted. While the CITES Convention does not explicitly refer to sustainable use, the use of language like 'avoid utilisation incompatible with their survival' is akin to language like 'avoid unsustainable exploitation' which could be argued is the very intention of sustainable use. The CITES strategic vision 'confirms the recognition by the Parties that sustainable trade in wild fauna and flora can make a major contribution to achieving the broader objectives of sustainable development and biodiversity conservation'.[236] At the sixteenth meeting of the Conference of the Parties held in March 2013, the Parties agreed to extend the 2008-2013 strategic vision to 2020, through the inclusion of the Aichi Biodiversity targets, notwithstanding the US objections to the inclusion of the targets.[237] The strategic vision of CITES now reads as:

> Conserve biodiversity and contribute to its *sustainable use* by ensuring that *no species of wild* fauna or flora *becomes or remains subject to unsustainable exploitation* through international trade, thereby contributing to the significant reduction of the rate of biodiversity loss and making a significant contribution towards achieving the relevant Aichi Biodiversity Targets.

The strategic vision of CITES makes references to sustainable use (emphasised in italics above), which has been a relatively recent admission for CITES. Embracing the concept of sustainable use in the CITES context could go a long way to ensuring that international trade does not result in the extinction of species. In this respect proponents of sustainable use argue that CITES decisions affect the potential for local communities to

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[235] South Africa exports reptiles to Japan, the US and EU Member States (France, Germany, Belgium, Switzerland and the UK), which are among the top 10 importers of reptiles. The US and Germany are among the top 10 importers of mammals from South Africa. While the US, Belgium, Germany, Ireland and the Netherlands are among the top 10 importers of plants from South Africa. Information available on the CITES Trade Data Dashboards available at http://cites-dashboards.unep-wcmc.org/national?id=ZA, accessed on 10 July 2015.

[236] CITES Strategic vision: 2008-2020 available at http://dev.cites.org/sites/default/files/eng/res/16/E-Res-16-03.pdf, accessed on 30 August 2013.

[237] *Ibid*. CITES CoP16 decision to incorporate Aichi targets. It should be noted that the US is not a party to the CBD and hence opposed the inclusion of the CBDs Aichi targets in this CITES decision, available at http://www.cites.org/sites/default/files/common/cop/16/sum/E-CoP16-Com-II-Rec-03.pdf, accessed on 30 August 2013.

derive livelihoods from species listed on CITES Appendices.[238] Local communities may use wild species for subsistence purposes including, fish, timber, mammals, birds, medicinal plants, reptiles, etc. In addition, they may trade the excess of their subsistence activities e.g. through wood carvings, cultural and decorative items, musical instruments, clothing, building materials, medicinal uses, etc.[239] CITES Parties have been somewhat reluctant to embrace the relationship between sustainable use and livelihoods, which is evident from views that the criteria for listing of species should remain on biological and trade grounds and that including the impacts on livelihoods would simply dilute the scientific rigour of the listing criteria.[240]

However, it is argued that CITES Parties can no longer ignore the issue of livelihoods, especially after the CoP11proposal in 2000 to list Devil's claw on CITES Appendix II failed on the grounds of opposition by range States considering the issue of livelihoods.[241] CITES Parties then amended the Resolution Conf. 8.3 (Rev CoP13) on 'Recognition of benefits of trade in wildlife'.[242] The Resolution recognised that sustainable use of wildlife, whether consumptive or non-consumptive, offered; 'economically competitive land-use options'; conservation programmes should take account of the 'needs of local people and provide incentives for sustainable use'; 'over-utilisation is detrimental to conservation'; 'legal trade in species should not lead to increases in illegal trade'; etc.[243] Consequently, CITES Parties were also 'urged' to adopt the CBDs Addis Ababa principles and guidelines for sustainable use through Resolution Conf. 13.2 (Rev CoP14).[244] However, these Resolutions are non-legally binding and only provide 'long-standing guidance over periods of many years'.[245]

The issue of livelihoods was delegated to the CITES and livelihoods working group in 2008. Cooney and Abensperg-Traun view the adoption of Resolution Conf. 16.6 on CITES

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[238] Rosie Cooney and Max Abensperg-Traun 'Raising Local Community Voices: CITES, Livelihoods and Sustainable Use' (2013) *22 RECIEL* 301-10. Max Abensperg-Traun 'CITES, sustainable use of wild species and incentive-driven conservation in developing countries, with an emphasis on southern Africa' (2009) 142 *Biological Conservation* 948-63.

[239] Communities using species for subsistence purposes should also be allowed to trade in the excess, provided that such use is sustainable. Clem Tisdell, Hemanath Swarna Nantha and Clevo Wilson 'Biodiversity Conservation and Public Support for Sustainable Wildlife Harvesting: A Case Study '(2007) 3 *International Journal of Biodiversity Science and Management* 129-44.

[240] Cooney and Abensperg-Traun predict that the argument would be made for retention of scientific rigour and CITES conservation focus in opposition to incorporating social considerations like livelihoods. See above (note) 238.

[241] *Ibid.*

[242] Available at https://cites.org/sites/default/files/document/E-Res-08-03-R13.pdf, accessed on 21 March 2017.

[243] *Ibid.*

[244] Res. Conf. 13.2 available at https://cites.org/sites/default/files/document/E-Res-13-02-R14.pdf, accessed on 21 March 2017.

[245] CITES Resolutions available at https://cites.org/eng/res/index.php, accessed on 21 March 2017.

and livelihoods,[246] a product of the working group, as a significant step for CITES in terms of policy approaches.[247] Recognising the important role that local communities could play in custodianship of species could facilitate communities placing a greater importance in sustainability of the species for their continued use and benefit. This in turn may foster a shared responsibility for conservation and sustainable use by local communities and the State. With respect to local communities, given the challenges of poverty and the need to consider social, economic and ecological aspects, sustainable use is proposed as the most pragmatic approach to meet various needs, including but not limited to the basic needs of livelihoods. This need represents the need of safety and security that livelihoods offer in the context of Maslow's hierarchy of needs and is therefore fundamental to humans.[248] In addition, implicit in sustainable use are the benefits to present and future generations. It could therefore be argued that sustainable use offers hope to communities and to conservation.

Other critics of CITES argue that since rural communities rely on wildlife for their livelihoods, incentive-based conservation is critical to the success of sustainable use.[249] The Vicuňa has often been cited as a good example of the local communities benefiting from the sustainable use of a CITES listed species. Vicuňa (*Vicugna vicugna*), a wild South American camelid, was listed on CITES, with prohibitions in trade as a result of over-harvesting and illegal trade of wool and fibre. Subsequently, the trade restrictions were eased to allow sustainable use and the development of incentive-based conservation. Today many of the rural communities continue to benefit from the sustainably harvested and traded wool/fibre of the Vicuňa, while international trade is still regulated through CITES.[250]

Since many rural communities in developing countries rely on wildlife for subsistence and income generation,[251] the developing countries may carry a disproportionate burden for implementation and enforcement of CITES, particularly where the demand for species trade is predominantly with more developed countries and South-East Asia. This has serious consequences for conservation and sustainable use of species in developing countries. The

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[246] Res. Conf. 16.6 available at https://cites.org/sites/default/files/document/E-Res-16-06-R17.pdf, accessed on 21 March 2017.
[247] See above (note) 238.
[248] See section 2.3 above.
[249] Jon M Hutton and Nigel Leader-Williams 'Sustainable use and incentive-driven conservation: realigning human and conservation interests' (2003) 37*Oryx* 215-26.
[250] Rosie Cooney and Max Abensperg-Traun 'Raising Local Community Voices: CITES, Livelihoods and Sustainable Use' (2013) *22 RECIEL* 301-10.
[251] Income generation could be through consumptive (lethal) or non-consumptive use (tourism-based) of wildlife. Max Abensperg-Traun 'CITES, sustainable use of wild species and incentive-driven conservation in developing countries, with an emphasis on southern Africa' (2009) 142 *Biological Conservation* 948-63. Dilys Roe, *et al*. 'Making a Killing or Making a Living? Wildlife trade, trade controls and rural livelihoods' (2002) *Biodiversity and Livelihoods Issues No. 6*.

strength of CITES rests on the implementation and enforcement by the Parties to the Convention. Therefore, CITES Parties are required to implement the CITES measures through national laws and regulations. However, one of the greatest challenges faced by Parties is effective implementation and enforcement, resulting in sustainable use remaining an elusive concept to CITES.[252] In terms of implementation, CITES institutes trade sanctions or embargoes against State Parties to the Convention or non-Party States, specifically for breaches or persistent non-compliance with the Convention. The threat of trade sanctions is often a catalyst for compliance and therefore the trade sanctions are effectively the 'teeth' of CITES. Interestingly though, is the fact that over 90 per cent of the States targeted for trade sanctions by CITES are developing countries.[253] Sand argues that inadequate implementation is often as a result of poor administration and limited financial capacity.[254] However, with appropriate external technical assistance, developing countries are enabled to fully comply with the Convention.[255] Sand questions the fairness of CITES in its application of trade sanctions citing the fact that Japan, the second highest financial contributor to CITES after the US, has never been sanctioned after repeated non-compliance. Such non-compliance related to the lack of designating an independent Scientific Authority, non-reporting on catches of sei whales (Appendix I) for nine years (persistent non-compliance), with the subsequent illegal export of some of the whale meat to the US and Korean markets, while Appendix I species are 'not to be used for primarily commercial purposes.'[256] Sand further argues that such inconsistencies in application of trade sanctions could unfortunately result in the sanction system losing its credibility internationally, as it is perceived as being applied 'selectively'. Based on the information elucidated by Sand, the inequity of the application of trade sanctions under the purview of CITES cannot be disputed. For CITES to ensure that trade in species does not result in the extinction of species, the rules of CITES must be applied equitably to all Parties.

A further complication for CITES is the challenge of poaching and the survival of species in the wild. This was highlighted during the 2012 conference on sustainable

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[252] John L Garrison 'The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Debate Over Sustainable Use' (1994) 12 *Pace Environmental Law Review* 301-92.
[253] Peter H Sand 'Enforcing CITES: The Rise and Fall of Trade Sanctions' (2013) 22 *RECIEL* 251-63.
[254] *Ibid*.
[255] Willem Wijnstekers *The Evolution of CITES: A Reference to the Convention on International Trade in Endangered Species of Wild Fauna and Flora* 9th ed (2011) available at https://cites.org/common/resources/Evolution_of_CITES_9.pdf, accessed 9 April 2015.
[256] Rosie Cooney and Max Abensperg-Traun (2013) 22*RECIEL* 251-263. Also see Article III 3(c) regarding the specimen not being used for commercial purposes.

development as espoused in the resultant document 'The future we want'.[257] Poaching and illegal trade undermines the regulatory framework of species trade as well as the objectives of sustainable use. Particularly important is the need for international cooperation to deal effectively with the scourge of poaching and illicit trade in wildlife.

To advance the work of the Convention in combating illegal wildlife trade, CITES collaborates with the International Consortium on Combating Wildlife Crime (ICCWC).[258] In addition, CITES also collaborates with other MEAs on issues of mutual interest and has adopted a Resolution to cooperate with the Convention on Biological Diversity.[259] The Convention on Biological Diversity is discussed below.

2.6.2 Convention on Biological Diversity (CBD) of 1992

The Brundtland Report titled 'Our Common Future' highlighted the need for an international convention for the conservation of species and genetic resources which reflects principles of 'universal resources', with special reference to the fair and equitable sharing of benefits that nations should derive from their indigenous biological resources.[260] The United Nations Environment Programme (UNEP) Ad Hoc Working Group of Experts on Biological diversity prepared a draft of such a Convention[261] and in 1992 the Convention on Biological Diversity (CBD) was adopted at the Rio Earth Summit and subsequently came into force after the 30th ratification in December 1993. The Convention has a greater membership than CITES with 196 Parties.[262] South Africa is a member of the CBD, while the US is not. The objectives of the Convention include conservation and sustainable use of biological resources and the fair and equitable sharing of benefits resulting from genetic resources.[263] The Convention defines sustainable use as:

> the use of components of biological diversity in a way and at a rate that does not lead to the long term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of current and future generations.[264]

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[257] The relevant text relating to CITES is to be found in paragraph 203(2012) A/RES/66/288.
[258] Successful operation highlights growing international cooperation to combat wildlife crime – specifically Operation Cobra III Global Wildlife Enforcement available at https://cites.org/eng/news/pr/iccwc_press_release_cobra_III, accessed 8 July 2015.
[259] Res. Conf. 13.3 available at https://cites.org/eng/res/10/10-04R14.php, accessed on 13 April 2015.
[260] Report of World Commission on Environment and Development 'Our Common Future' (1987).
[261] History of the Convention on Biological Diversity available at http://www.cbd.int/history/, accessed on 14 June 2014.
[262] Available at https://www.cbd.int/information/parties.shtml, accessed on 21 March 2017.
[263] Article 1. Convention on Biological Diversity. United Nations 1992 available at http://www.cbd.int/convention/text/, accessed on 8 May 2013.
[264] Article 2. *Ibid*.

The working definition[265] proffered in the context of species use, viz. '*use of species at a rate that maintains viable population levels for the benefit of present and future generations*' aligns well with that of the CBD. The CBD definition embraced elements of the definition provided in the Brundtland Report, especially with regard to the rate not causing long term decline, as well as intergenerational equity. The Convention provides for *in-situ* as well as *ex-situ* conservation.[266] The latter is extremely useful if a species becomes threatened in its habitat, but can safely be relocated to an alternative site to ensure the survival of the species. Alternatively, *ex-situ* conservation could also apply in the case of artificial propagation and captive breeding facilities. This has proven extremely valuable in the range expansion of South African southern white rhino. In the 1950s and 1960s white rhino were close to extinction in the Imfolozi Game Reserve. [267] Rhinos were relocated from Imfolozi to other suitable habitat types throughout the country saving rhino from extinction. At the time of writing the rhino population of South Africa accounts for about 80 per cent of the African rhino population.[268] This demonstrates the value of *in-situ* as well as *ex-situ* breeding to allow species recovery to higher population levels. However, the South African rhino population is again under threat due to escalating levels of poaching for rhino horn, with high levels of poaching being unsustainable in the long term placing the species at risk of extinction.

Article 10 of the Convention has specific provisions for the sustainable use of components of biological diversity. The article advocates an integrated approach to conservation and sustainable use of biological resources in decision-making; adoption of measures to reduce and mitigate harmful impacts on biological resources; protection of customary practices for the use of biological resources in a manner consistent with conservation and sustainable use; provision of support for local populations to restore degraded biological resources and encourage cooperation between government role players and the private sector in an effort to ensure conservation and sustainable use of biological resources.[269] This Article provides Parties to the Convention with guidance on management

[265] Section 2.2 above.
[266] Article 8 on *in-situ* conservation, where *in-situ* conservation refers to conservation of biological resources within the ecosystems where they exist in their natural habitats e.g. protected areas, while *ex-situ* conservation in Article 9 refers to components of biological diversity outside their natural habitats.
[267] Hluhluwe-Imfolzi Park available at https://en.wikipedia.org/wiki/Hluhluwe%E2%80%93Imfolozi_Park, accessed on 8 July 2017.
[268] Richard H Emslie, Tom Milliken, Bibhab Talukdar, Susie Ellis, Keryn Adcock and Michael H Knight 'African and Asian Rhinoceroses – Status, conservation and trade' CoP17 Doc. 68 Annex 5 p3 available at https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-68-A5.pdf, accessed on 21 September 2016.
[269] Article 10 of the CBD available at: http://www.cbd.int/convention/text/, accessed on 14 June 2014.

approaches to the various uses of biological resources, while also alluding to remedial actions for restoration or rebuilding of resources, including through cooperation between government and the private sector.

In addition, it is noted that 'conservation' and 'sustainable use' are dealt with mutually throughout most of the text of the Convention. While sustainable use has been defined in the Convention text, the Convention remains silent on a definition for conservation. It could be assumed from the mutual use of the terms 'conservation' and 'sustainable use' that the two concepts are interlinked and sustainable use should be considered in the context of conservation of biological diversity, with the latter having a broader meaning. Furthermore, the Convention brings into focus the use of biological resources for the benefit of humanity.[270] The Convention provides for Parties to adopt socially and economically sound measures to incentivise conservation and sustainable use of biological resources.[271] Furthermore, the CBD has subsequently developed 'proposals for the design and implementation of incentive measures'.[272] This may bode well for detractors of CITES that argue that it lacks incentives for sustainable use.

In terms of incentivising sustainable use and conservation, Hutton and Leader-Williams argue that since wild living resources occurs in close proximity to human populations, it is essential to have an incentivised approach to the management of species and ecosystems.[273] The proviso, however challenging, would be that resource use should be biologically sustainable and that such use be aligned to a conservation strategy to the extent possible.[274] Admittedly, ensuring that living resources are used sustainably and in a manner that is consistent with conservation is easier said than done, as sustainable use of species has not been the order of the day in conservation. Humans continue to demand species for basic needs such as food, medicine, clothes, shelter, furniture, etc. While continuing to place a range of values from recreational, moral or existence values to scientific, aesthetic and cultural values in species.[275] This means that the demand for species in trade will continue in

[270] Provisions of Article 10 refer to local communities and to customary practices.
[271] Article 11 of the CBD.
[272] Secretariat of the Convention on Biological Diversity 'Proposals for the Design and Implementation of Incentive Measures' (2004) available at https://www.cbd.int/doc/publications/inc-brochure-01-en.pdf, accessed on 13 April 2015.
[273] Jon M Hutton and Nigel Leader-Williams 'Sustainable use and incentive-driven conservation: realigning human and conservation interests' (2003) 37 *Oryx*215-226.
[274] *Ibid*.
[275] See introduction to this chapter.

one form or another and sustainable use is thus critical to humans as well as plant and animal species.

The CBD has extremely noble and comprehensive objectives however, it lacks the 'teeth' of CITES which provides for trade sanctions as a means of enforcing compliance with provisions.[276] The threat of such trade sanctions is a strong motivating factor for Parties to implement and enforce CITES provisions and essentially gives CITES 'teeth'. The CBD is entirely dependent on the member States implementation through national legislation developed in the spirit of the Convention. The 'teeth' would effectively be in the national enforcement of CBD provisions as they appear in national legislation, with no 'teeth' at international level. However, the comprehensive and broad scope of the Convention may prove to be extremely challenging to fully implement and enforce. The challenges that biodiversity and species loss face as a result of unsustainable levels of use including escalating levels of wildlife crime, requires greater collaboration globally. It is indeed these areas of collaboration that are important to both CITES and CBD as they are complementary and mutually supportive. Through the Aichi targets,[277] both organisations will collaborate on the targets that are most relevant to CITES.

While South Africa is a member of the CBD as well as CITES, the US is not a Party to the CBD. The US was the first signatory to CITES and yet is not willing to sign and ratify the CBD for reasons relating to the provisions of 'access and benefit sharing' as well as the 'access to and transfer of technology' specifically as it relates to intellectual property rights.[278] This reluctance has largely been driven by the biotechnology industry in the US who rely heavily on the development of living modified organisms to be used in for example genetically modified (GM) agricultural crops. In development of the biotechnology, the intellectual property rights reside with the company that successfully develops the gene and they have strict conditions governing the use of the technology which includes protecting their intellectual property rights.[279] While the CBD acknowledges the need for 'protection of intellectual property rights' it does not provide clear mechanisms for such.[280] With the

[276] 'Thailand faces sanctions if it fails to stop ivory trade' available at https://www.worldwildlife.org/stories/thailand-faces-sanctions-if-it-fails-to-stop-ivory-trade, accessed 8 July 2015.
[277] CBD Aichi targets available at https://www.cbd.int/sp/targets/, accessed on 10 July 2015.
[278] Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997).
[279] *Ibid.*
[280] Article 16 (21) requires each Party to take appropriate legislative, administrative or policy measures for access to and transfer of technology, where such technology includes biotechnology, that is protected by patenting and other intellectual property rights. The responsibility therefore rests with Contracting Parties to the

extensive membership-base of the CBD, the US is definitely in the minority. It has been argued that the US would add more value and have more influence in the discourse on intellectual property rights within the CBD as a member of the Convention as opposed to remaining outside of the Convention and being a critic. As a result of the US not being Party to the CBD they would therefore not support the Aichi targets of the CBD, including within the context of the CITES strategic vision 2008-2020.

Since CITES has a narrow focus on trade in endangered species of wild fauna and flora, compared to the broader scope of CBD, it is reasonable that CITES collaborates with the CBD especially to uphold the principle of sustainable use of species as well as promote approaches to ensure the recovery of species as and when required. Critically important is how the objectives of these conventions are realised through Parties to the conventions.

2.7 Entrenching international law into national legislation

To ensure that Parties to the abovementioned international conventions implement their obligations, these obligations must be entrenched in domestic legislation. Koh describes this process of domesticating international law as follows:

> As transnational actors interact, they create patterns of behaviour that ripen into institutions, regimes, and transnational networks. Their interactions generate both general norms of external conduct (such as treaties) and specific interpretation of those norms in particular circumstances, which they in turn internalise into their domestic legal and political structures through executive action, legislation, and judicial decisions. Legal ideologies prevail among domestic decision makers and cause them to be affected by perceptions that their actions are, or will be seen as, unlawful. Domestic decision making becomes "enmeshed" with international legal norms, as institutional arrangements for the making and maintenance of an international commitment become entrenched in domestic legal and political processes.[281]

Keohane is of the view that 'institutional enmeshment increases the probability of compliance' with international commitment, where domestic decision making in relation to the international commitment is affected by institutional arrangements for implementing or maintaining the commitment.[282] Thus, compliance in respect of the 'soft' law and 'hard' law instruments discussed above requires institutional arrangements[283] that include appropriate

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Convention to ensure that intellectual property rights are protected in this context. The CBD further recognises that patents and intellectual property rights may have an influence on the implementation of the Convention (Article 21(5)).

[281] Harold Hongju Koh 'Why Do Nations Obey International Law' (1997) 106 *Yale Law Journal* 2599.

[282] Robert O Keohane 'Compliance with International Commitments: Politics Within A Framework of Law' (1992) 86 *Am. Soc'y Int'l L. Proc.* 176.

[283] Keohane *et al*. explains that 'institutions' also means 'persistent and connected sets of rules and practices that prescribe behavioural roles, constrain activity, and shape expectations.' These could be in the form of organisations, regimes or conventions. Robert O Keohane, Peter M Haas and Marc A Levy 'The Effectiveness

domestic legislative frameworks and institutions that give effect to the legislation. In the chapters that follow the institutional arrangements of the US and South Africa will be analysed.

In the context of this thesis, the national provisions for the US and South Africa will be considered through a sustainable use lens that focuses on the implementation of national legislation through the management dimension, compliance and enforcement dimensions and extraterritoriality as a subset of compliance and enforcement as described in Chapter one. The approach taken with management, compliance and enforcement, including extraterritoriality dimensions, is one that views these dimensions as essential for implementation of international commitments through domestic legislation.

Views on the relationship between enforcement and management in the context of natural resources are often quite divergent. For instance the Chayeses views enforcement as intimidating and bullying interventions with sanctions to force compliance with international law, but consider the management approach as a competing and preferred model for compliance with international law. [284] An alternative view is that enforcement and management are not viewed as competing mechanisms for compliance with international law, but may reinforce each other.[285] It is argued that enforcement works in a complementary way with the management approach to advance compliance with international law.[286] This latter approach of complementarity is adopted for this study, which considers the US and South Africa's implementation of national law in light of international commitments, particularly for sustainable use and trade in threatened species. The reasons for adopting the management, compliance and enforcement dimensions are discussed further below.

Management scholars view management as a problem-solving approach that supports interpretation of rules, transparency and capacity building.[287] In further unpacking the management approach, it is argued that problem-solving manifests itself in the development of various legislative tools with objectives that, in this context, support sustainable use and

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of International Institutions' in Peter M Haas, Robert O Keohane and Marc A Levy *(*ed) *Institutions for the Earth: Sources of Effective International Environmental Protection* (1993).

[284] Abram Chayes and Antonia Handler Chayes. *The New Sovereignty: Compliance with International Regulatory Agreements* (1995).

[285] Jonas Tallberg 'Paths to Compliance: Enforcement, Management and the European Union' (2002) 56 *International Organization* 3: 609-643.

[286] See Tallberg above (note) 285; Koh, Harold Hongju "Book Review: The New Sovereignty" (1997) *Faculty Scholarship Series*. Paper 2098.

[287] Abram Chayes and Antonia Handler Chayes. *The New Sovereignty: Compliance with International Regulatory Agreements* (1995).

conservation of species, e.g. Species Recovery Plans in the US and Biodiversity Management Plans for species in South Africa, as well as species lists for both countries, amongst others. With respect to rule interpretation it is argued that case law provides interpretation of various legal provisions where judgements effectively clarify those provisions for further implementation.[288] In terms of transparency, public participation processes and publication of policies and decisions or intentions, amongst others, best illustrate forms of transparency that is embedded in management.[289] As such, management is an important dimension of the environmental legal framework and critically important for sustainable use and trade in species.

Compliance with legislation is defined as 'a state of conformity or identity between an actor's behaviour and a specified rule'.[290] It can also be viewed as conformity to avoid punishment or embarrassment of Parties to a convention,[291] by internalising norms or rules in domestic legislation in order to maintain a good reputation.[292] In the context of environmental governance, Kotzé argues that institutions, whether organisations, regimes or conventions (see above), processes and tools collectively enable compliance and enforcement.[293] He views compliance and enforcement as essential to achieving sustainable governance. It is therefore argued that the management, compliance and enforcement dimensions collectively[294] are essential to ensuring that sustainable use underpins the trade of threatened species.

Furthermore, in considering extraterritoriality as a subset of the compliance and enforcement dimensions, the cooperation between States engaged in multilateral environmental agreements is to be considered. The dynamic between international

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[288] Abram Chayes 'The Role of the Judge in Public Law Litigation' (1976) 89 *Harvard Law Review* 7: 1281-1316. Case law will be considered in subsequent chapters.
[289] Public participation will be considered in subsequent chapters.
[290] Fisher, Roger *Improving Compliance with International Law* (1981) Charlottesville: University Press of Virginia. Mitchell, Ronald B *Intentional Oil Pollution at Sea: Environmental Policy and Treaty Compliance* (1984) Cambridge, MA: MIT Press.
[291] Such embarrassment is often achieved through 'naming and shaming' in the context of international conventions. See above (note) 285. Emilie M. Hafner-Burton, Miles Kahler and Alexander H Montgomery 'Network Analysis for International Relations' (2009) 63 *International Organization* 3: 559-92.
[292] See above (note) 285.
[293] LJ Kotzé 'Environmental Governance' chapter 5 in *Environmental Compliance and Enforcement in South Africa: Legal Perspectives* Alexander S Paterson and Louis J Kotzé (ed) (2009).
[294] Jonas Tallberg 'Paths to Compliance: Enforcement, Management and the European Union' (2002) 56 *International Organization* 3: 609-643. Raustiala and Victor acknowledge two schools of thought in compliance, that of management and enforcement that could both be used to address implementation challenges. Kal Raustiala and David Victor 'Conclusions' in *The Implementation and Effectiveness of International Environmental Commitments: Theory and Evidence* (1998) (ed) David G Victor, Kal Raustiala and Eugene B Skolnikoff.

commitments and its internalisation in domestic law is often described as an iterative process with the one informing the other based on practical experiences in the national contexts.[295] In fact, the feedback loop between international and domestic institutions (organisations, regimes or conventions) also allows for capacity building and shared learning at both international and national levels.[296] Slaughter and Burke-White argue that:

> New transnational threats have fundamentally changed the nature of governance and the necessary purposes of international law … international problems have domestic roots that an interstate legal system is often powerless to address. To offer an effective response to these new challenges, the international legal system must be able to influence the domestic policies of states and harness national institutions in pursuit of global objectives.[297]

It is therefore recognised that even though conventions have internationally agreed upon rules with environmental objectives, it is national decisions that shape its success through implementation of national law and through cooperation of States.[298] Such cooperation will be considered through a lens of extraterritoriality, where one state would enforce the law for sustainable use and trade in threatened species of another state outside of its territorial borders.[299] This approach followed by the US courts[300] through legislation like the Lacey Act will be explored in greater detail in the next chapter. Putnam argues that when US courts deal with legal claims that are extraterritorial to the US, they are in fact assuming the role of an international actor. She further argues that government agencies may initiate such legal claims on 'behalf of parties too weak or diffuse to protect their interests' which may be due to the party's ability or capacity to implement its laws.[301] Proponents of extraterritoriality argue that it is particularly useful for dealing with transnational crime through domestic legislation[302] e.g. the Lacey Act's application to foreign wildlife law and therefore the importation of illegally acquired wildlife would result in prosecution in the US. Kaczmarek and Newman argue that extraterritoriality allows global policy convergence and creates

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[295] Abram Chayes and Antonia Handler Chayes. *The New Sovereignty: Compliance with International Regulatory Agreements* (1995).
[296] *Ibid*.
[297] Anne-Marie Slaughter and William Burke-White 'The Future of International Law is Domestic (or, The European Way of Law)' (2006) 47 *Harvard International Law Journal* 2: 327-52.
[298] Robert O Keohane, Peter M Haas and Marc A Levy 'The Effectiveness of International Institutions' in Peter M Haas, Robert O Keohane and Marc A Levy *(*ed) *Institutions for the Earth: Sources of Effective International Environmental Protection* (1993).
[299] Tonya L Putnam 'Courts Without Borders: Domestic Sources of US Extraterritoriality in the Regulatory Sphere' (2009) 63 *International Organization* 3: 459-90.
[300] Koh argues that 'federal courts also "bring international law home" in countless other situations: when they weigh international law concerns in determining the extraterritorial reach of federal legislation.' Harold Hongju Koh 'Bringing International Law Home' (1998) 35 *Houston Law Review* 623-81.
[301] See above (note) 299.
[302] Sarah C Kaczmarek and Abraham L Newman 'The Long Arm of the Law: Extraterritoriality and the National Implementation of Foreign Bribery Legislation' (2011) 65 *International Organization* 4: 745-70.

opportunities for institutional innovative responses at national level. They found that extraterritorial action may cause the foreign State to improve or strengthen implementation of their relevant laws, while offending actors may reconsider their approach in their illegal activities, as the probability of punishment increases.[303] Therefore, extraterritoriality for enforcement may be a useful approach in addressing the challenge of illegal wildlife trade that threatens the survival of plant and animal species in the wild nationally as well as globally, especially since it closes a gap between national law enforcement and that of international.

The structure of subsequent chapters of this thesis will demonstrate how the national legislation of the US and South Africa have implemented the management, compliance and enforcement, and extraterritoriality dimensions in sustainable use and trade of threatened species.

2.8 Conclusion

The relationship between humans and other species has been considered in terms of Maslow's hierarchy of needs and indeed suggests that a fundamental relationship exists. However, the demise of species could lead to the demise of humans and so humans are dependent on other species for survival, health and well-being. It could further be argued that in terms of a utilitarian approach to the use of species, humans should strive for the best outcome for all. The best outcome for all would be to follow the principle of sustainable use of species which ensures benefits for current and future generations, while ensuring long term survival of the species. This would have positive outcomes for humans and species alike. It is also acknowledged that humans embrace various values in the context of species. In terms of this thesis the value and use of species in international trade is relevant and how such trade is regulated and managed to ensure sustainable use is the nub of this inquiry.

Sustainable use of species in international trade is critical if there is to be continued economic benefits of species trade for current and future generations. Therefore, elucidating and understanding the history, meaning and application of the concept of 'sustainable use' is critical to underpinning this research and discussions in the subsequent chapters of this thesis. Sustainable use undoubtedly will continue to be debated. Especially if one considers that sustainable use includes the extractive or consumptive use (removal of species/lethal use) as well as non-extractive or non-consumptive use (tourism-based), making for a broad and

[303] *Ibid.*

vibrant discourse. The definition of sustainable use as articulated by the CBD is extremely helpful[304] and accords well with the working definition of sustainable use proffered in this thesis. The principle of sustainable use emerged from various 'soft' law instruments and became an acceptable international norm. The principle was later adopted by international 'hard' law instruments that are legally binding on the Parties to various Conventions like the CBD and CITES.

Approaches to sustainable use and conservation in the context of the US and South Africa will be examined in the following two chapters respectively. Consideration will be given to how international law has shaped the development of national law for endangered or threatened species in the US and South Africa. In terms of trade in species, the implementation of CITES in the US and South Africa, as Parties to the Convention, will be examined more closely. In particular, possible provisions for strengthening the domestic legislation in South Africa for sustainable use and trade in species will be identified. The strength of international law is largely dependent on the Party's ability to implement and enforce such law domestically as well as the willingness of Parties to collaborate when faced with international challenges like illegal wildlife trade. The implementation of laws for trade in species will be considered and case law that facilitates an understanding of the interpretation of relevant law. The following chapter will focus on identifying important lessons learnt from the US in regulating trade in species in terms of the management dimension, compliance and enforcement dimension and extraterritoriality as a subset of the compliance and enforcement dimension.

[304] Article 2 CBD definition of sustainable use: 'the use of components of biological diversity in a way and at a rate that does not lead to the long term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of current and future generations.'

CHAPTER 3

Analysis of the laws relevant to trade in endangered species in the United States of America

3. Introduction

The United States of America (hereafter referred to as the 'US') is a federal republic consisting of 50 States. It has a population size of more than 320 million people. The country is culturally diverse and is also diverse in its climate, geography and wildlife.[305] The US is one of 17 megadiverse countries in the world. [306] The national parks and nature reserves are important for recreation, enjoyment, education and historic purposes.

From 2008 to 2012, the US was amongst the top ten wildlife importing countries globally and the major importer of mammals, reptiles, amphibians, invertebrates and corals, while they were the second largest importer of fish, orchids and cacti.[307] The US therefore has an important role to play in promoting sustainable use and trade in species of wild fauna and flora, since it is one of the largest importers of CITES species globally. The US is also one of the top ten wildlife trading nations with South Africa.[308]

As a top importer of wildlife,[309] including parts and derivatives, the US has not been unscathed by the illegal killing and trafficking in wildlife, as such products are also imported into the US under the guise of legal products.[310] The US recognises that wildlife trafficking

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[305] Wikipedia about 'United States' available at https://en.wikipedia.org/wiki/United_States, accessed on 12 July 2015.

[306] Megadiverse countries are those countries that play host to more than two thirds of the Earth's species. Seventeen countries have been identified as megadiverse. To meet the conditions for megadiverse status a country must have at least 5 000 endemic plant species and marine ecosystems within its borders. Mittermeier RA, Gil PR and Mittermeier CG *Megadiversity: Earth's Biologically Wealthiest Nations* (1997) Conservation International.

[307] CITES trade database – global imports available at http://cites-dashboards.unep-wcmc.org/global?id=Mammals, accessed on 12 July 2015.

[308] The US is a top 10 importer of mammals, reptiles, orchids, cacti and plants from South Africa available at http://cites-dashboards.unep-wcmc.org/national?id=ZA, accessed on 12 July 2015.

[309] It should be noted that the US uses the term 'wildlife' often and that the definition of wildlife is therefore important at this juncture. According to the Endangered Species Act (ESA) of 1973 'fish or wildlife' means any member of the animal kingdom, including without limitation any mammal, fish, bird (including any migratory, non-migratory, or endangered bird for which protection is also afforded by treaty or other international agreement), amphibian, reptile, mollusk, crustacean, arthropod or other invertebrate, and includes any part, product, egg, or offspring thereof, or the dead body or parts thereof.' Endangered Species Act of 1973, 16 USC §1531–1543, as amended. Section 3(8).

[310] As demonstrated through the latest 'ivory crush' of one ton of confiscated ivory in Times Square, New York on 19 June 2015. The message from the Fish and Wildlife Service is that the US will not tolerate illegal trade in

has soared into an international crisis which undermines conservation and sustainable use of wildlife, while also posing a threat to national security.[311] Furthermore, wildlife also serves to provide economic, social and environmental benefits to countries and potential benefits are lost through illegal wildlife trade. The US has therefore committed substantial resources to combating wildlife crime and has developed a strategy for combating wildlife trafficking.[312] The US is taking a leadership position on the matter, with the then President Obama making a firm commitment to combating wildlife trafficking through an Executive Order.[313] Similarly, a Presidential Task Force has been set up to combat illegal, unreported and unregulated (IUU) fishing and seafood fraud.[314] The real challenge with illegal trade is that it undermines all efforts of sustainable use and results in over-exploitation, with a loss of legitimate benefits to the species' country of origin. In the context of this thesis, it is appropriate to reflect on the working definition proffered for sustainable use in chapter 2. Sustainable use was defined in chapter 2 as '*use of species at a rate that maintains viable population levels for the benefit of present and future generations*'.

This chapter explores the relevant federal legislation of the US in managing and ensuring sustainable use of its species and specifically trade in endangered species. The scope of this thesis does not include legislation by the different states in the US and the focus is on federal legislation only. Since this forms part of a comparative study with South African law, it is critical to glean lessons learnt that could guide the strengthening of South African law and practice. In each section presented in this chapter an attempt is made to identify important lessons based on an analysis of the information and strengths identified through important case law and relevant literature. This analysis is augmented with interviews undertaken with various federal agency government officials in the US, particularly in respect of the Lacey Act[315] and the Endangered Species Act (ESA).[316] The latter was undertaken to amplify the

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wildlife available at http://www.fws.gov/le/elephant-ivory-crush.html and http://time.com/3928505/elephant-ivory-times-square/, accessed on 12 July 2015.

[311] US Fish and Wildlife Service has set up a web-page about wildlife trafficking available at http://www.fws.gov/international/wildlife-trafficking/, accessed on 12 July 2015.

[312] Strategy for wildlife trafficking available at https://obamawhitehouse.archives.gov/sites/default/files/docs/nationalstrategywildlifetrafficking.pdf, accessed on 21 March 2017.

[313] Federal Register 5 July 2013 Executive order 13648 – combating wildlife trafficking available at https://www.whitehouse.gov/the-press-office/2013/07/01/executive-order-combating-wildlife-trafficking, accessed on 12 July 2015.

[314] 'Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan for Implementing Task Force Recommendations' available at http://www.nmfs.noaa.gov/ia/iuu/taskforce.html, accessed on 13 July 2015.

[315] Lacey Act of 1900, 18 USC §42-43 16 USC §3371-3378, as amended.

[316] Endangered Species Act of 1973, 16 USC. §1531 – 1543, as amended.

desktop research of this study and highlight key legislative initiatives in sustainable use and trade of endangered species.[317] As part of the background to this chapter, an overview of the US international commitments to wildlife and its incorporation into domestic legislation will also be considered in brief.

3.1 Background to species conservation in the US

At the turn of the twentieth century the US experienced challenges with species becoming extinct or facing rapid decline in the wild. Public concerns awakened the need to develop laws and practices to prevent further extinction of species, including amongst others, as a result of domestic use and trade. The background that follows highlights some of the events that started the US on the path of sustainable use in trade of endangered species.

One of the earliest known examples of species extinction in the US was that of the passenger pigeon *Ectopistes migratorius*. In the 1800s it was estimated that there were billions of passenger pigeons in the US prior to the arrival of Europeans but, by 1914 the last passenger pigeon, known as 'Martha', died in the Cincinnati Zoo. Excessive hunting for food, feathers and use for medicinal qualities as well as large scale deforestation by European settlers, with resultant loss of habitat, coupled with disease, are believed to be responsible for its extinction.[318]

In addition, the American bison (also referred to as 'buffalo') almost experienced a similar fate in the late 1800s when wild herds were nearly wiped out by overzealous hunters during the time of American expansion towards the west. Apparent market demands for meat and buffalo hide by railroad workers were also responsible for massive declines in the bison population.[319] The American Bison Society was established in 1905 under the leadership of Hornaday. The Society established small herds of bison spread-out across the country, which not only preserved the populations but also facilitated the growth and expansion of the herds.[320] These efforts essentially saved the bison from the brink of extinction. Farrow argues that the challenge in the case of the passenger pigeon and the American bison was that they were both common property resources and that privatisation of the resource may have offered greater economic benefits to prevent its extinction. He further argues that based on the history of private stocks, the importance of minimum viable size cannot be over emphasised in

[317] The methodology used for the interviews is described in chapter one section 1.4.
[318] Jerome A Jackson and Bette JS Jackson 'Once upon a time in American Ornithology: Extinction: the Passenger Pigeon, Last Hopes, Letting Go' (2007) 119(4) *The Wilson Journal of Ornithology* 767-772.
[319] Scott Farrow 'Extinction and market forces: 2 case studies' (1995) 13 *Ecological Economics* 115-123.
[320] 'Bison Today' available at http://www.americanbison.si.edu/bison-today/, accessed on 22 June 2015.

attempts for resource recovery. The same would apply in case of the passenger pigeon and bison and it's recognised that each would have a different minimum viable population size. He concluded that extinction was a product of common property resource use and population reproductive characteristics, as a rationale for the extinction of the passenger pigeon and the near extinction of bison. In concurring with Farrow's views, if the privatisation approach was used as an alternative to the common property resource, there should be other natural resource alternatives to ensure economic viability for those reliant on the resource. Orderly access to wildlife and a viable population size are important considerations in underpinning sustainable use, but also in fostering recovery of wild plant and animal species. The latter is demonstrated through the American Bison Society's initiative to spread viable populations of bison throughout the land, which was not a federal initiative but a private sector one.[321] This effort also clearly demonstrates the need for scientific research to inform sustainable use levels as well as viable population levels for initiating species recovery efforts. The importance of viable population sizes is evident in a plethora of contemporary conservation practice.[322]

It can be argued that the extinction of the passenger pigeon was a case of a 'tragedy of the commons'[323] as there were many hunters/users of the passenger pigeon each trying to acquire the greatest self-benefit from the easily accessible pigeon, with no one taking responsibility for its long term survival. While this occurred in the terrestrial environment,

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[321] *Ibid*.

[322] See for example: Beissinger SR and MI Westphal 'On the use of demographic models of population viability in endangered species management' (1998) 62 *Journal of Wildlife Management* 821–841. Clark JA, Hoekstra JM, Boersma PD and P Kareiva 'Improving US Endangered Species Act recovery plans: Key findings and recommendations of the SCB recovery plan project' (2002) 16 *Conservation Biology* 1510–1519. Flather CH, Hayward GD, Beissinger DR and PA Stephens 'Minimum viable populations: Is there a 'magic number' for conservation practitioners' (2011) 26 *Trends in Ecology and Evolution* 307–316. Morris WF, Bloch PL, Hudgens BR, Moyle LC and JR Stinchcombe 'Population viability analysis in endangered species recovery plans: Past use and future improvements' (2002) 12 *Ecological Applications* 708–712. Shaffer ML 'Minimum population sizes for species conservation' (1981) 31 *BioScience* 131–134. Shaffer ML and FB Samson 'Population size and extinction: A note on determining critical population sizes' (1985) 125 *American Naturalist* 144–152. Wolf S, Hartl B, Carroll C, Neel MC and DN Greenwald 'Beyond PVA: Why recovery under the Endangered Species Act is More than Population Viability' (2015) 65 *BioScience* 200-207. Zeigler SL, Che–Castaldo JP and MC Neel 'Actual and potential use of population viability analyses in recovery of plant species listed under the US Endangered Species Act' (2013) 27 *Conservation Biology* 1265–1278.

[323] Hardin, Garrett 'The Tragedy of the Commons' (1968) *Science* 162:1243-1248. Tragedy of the Commons is defined as 'an economic problem in which every individual tries to reap the greatest benefit from a given resource. As the demand for the resource overwhelms the supply, every individual who consumes an additional unit directly harms others who can no longer enjoy the benefit. Generally, the resource of interest is easily available to all individuals.'

the same risk to species in the commons is true for the marine environment and species on the high seas.[324]

The above example of the passenger pigeon and the American bison saw an upsurge in public concern for the conservation of wildlife in the US. Clearly such levels of over-exploitation would prove to be unsustainable for wildlife. In response to concerns about dwindling bird populations, the Lacey Act was introduced to US Congress by the Republican John F. Lacey and was signed into law by President McKinley on 25 May 1900.[325] Since wildlife trade was seen as an important part of commerce, the earliest federal laws for wildlife conservation were manifested in the 1900 Lacey Act for regulation of interstate commerce.[326] In addition, the Lacey Act sought to enforce state wildlife law at a federal level and was thus considered to serve as fortification to state wildlife law. Initially, wildlife law was a state competence and became a concurrent competence at federal level through the Lacey Act. Bean and Rowland describe the Lacey Act of 1900 as a 'cautious first step in the field of federal wildlife regulation.'[327]

Prior to 1900 states had exclusive competence over their wildlife. Therefore, at the turn of the twentieth century there was recognition in the US that state wildlife law needed to be supported and reinforced through federal legislative instruments. The federal law would also provide a national standard for the US. With trade in wildlife essentially being a commercial activity, the legislative instrument was to deal with interstate commerce in wildlife.[328] This was quite novel at the time and paved the way for the emergence of several legislative instruments for wildlife and the environment, including internationally. The next section considers the international commitments and obligations of the US in terms of species conservation and trade.

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[324] High seas are open to coastal and land-locked States, including amongst others, for the freedom of fishing, but with due regard to interests of other States. United Nations Convention on the Law of the Sea of 1982. Article 87.

[325] At the time, William McKinley (Republican) was serving as President, with Theodore Roosevelt as his running mate in the 1900 election. McKinley was re-elected for a second term on 6 November 1900 and the Lacey Act was signed during his second term of office. Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997).

[326] Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997).

[327] *Ibid*.

[328] In the US, the federal system has three areas of authority over states and these include; the power to make international treaties and legally bind states to such international agreements; power over property and wildlife on federal land, including national parks, military land and wildlife refuges; and power of commerce, which includes interstate commerce in wildlife. Interstate commerce includes the sale, import and transport of species from one state to another, where the law of the importing state prevails. Dean Lueck 'The Economic Nature of Wildlife Law' (1989) 18 *Journal of Legal Studies* 291-324.

3.2 The US and its international commitments to species conservation and species in trade

The US has several international legally binding agreements or conventions to which it is a Party. Each of these has certain obligations and implications for the US requiring that such obligations be enforced through the federal legislative framework. Below are some of the most important international commitments that are relevant to conservation and trade in species. However, the conventions mentioned below are by no means an exhaustive list of convention obligations for the US, but they are deemed to be most relevant to the objectives of this thesis as they have been incorporated into the ESA.

3.2.1 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) of 1973 and the US

As indicated in chapter 2 the CITES Convention text was initially drafted by the World Conservation Union (IUCN) following a 1963 meeting of its members.[329] However, the US Endangered Species Conservation Act of 1969[330] directed the Secretary of the Interior together with the Secretary of State to convene an international meeting for concluding a 'binding international convention for the conservation of endangered species'.[331] Hence, the US hosted the Plenipotentiary Conference of the Convention for International Trade in Endangered Species of Wild Fauna and Flora (CITES) in Washington DC from 12 February to 2 March 1973. The final text of CITES was ready for signature on 3 March 1973 and the US was the first signatory to CITES which is implemented through the ESA. The Convention came into force on 1 July 1975 and as at 1 April 2017 had a total of 183 Parties.[332] CITES is the only international convention that deals specifically with the regulation of trade in endangered species of wild plants and animals. As detailed in chapter 2 of this thesis, CITES seeks to ensure that species survival in the wild is not at risk due to international trade.

A legislative tool used to secure compliance by the US for trading partners that are party to international conventions is the 1971 law commonly called the 'Pelly Amendment'

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[329] Convention on International Trade in Endangered Species of Wild Fauna and Flora, 3 March 1973, 993 U.N.T.S. 243 (hereinafter CITES). Convention text available at http://www.cites.org/eng/disc/what.php accessed on 10 May 2013.
[330] Endangered Species Conservation Act of 1969 83 Stat.275, 16 USC 668cc–1 to 6.
[331] See above (note) 326.
[332] Available at https://cites.org/eng/disc/parties/index.php, accessed on 1April 2017. To put this membership into perspective, the United Nations membership in 2011 stands at 193 member states available at http://www.un.org/en/members/growth.shtml, while the WTO membership as at 26 April 2015 stands at 161 members available at https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm, accessed on 10 June 2015.

to the Fishermen's Protective Act of 1967.[333] The Pelly Amendment's objective was for trade sanctions to be brought against nations that 'diminished the effectiveness' of international fisheries conservation initially, but now has application beyond fisheries conventions. The President is authorised to direct the Secretary of Treasury to prohibit the importation of fish products from the country diminishing the effectiveness of the conservation measure or organisation.[334] The Pelly Amendment is also applicable to the US implementation of CITES. In 2014 the then President of the US, President Obama, certified that Iceland's international trade in whale meat was diminishing the effectiveness of CITES.[335] However, the actions taken against Iceland, including by repeatedly raising the US objection to Iceland's commercial whaling and trade in whale meat when attending relevant international meetings like CITES and International Whaling Commission, re-examining the US bilateral cooperation projects with Iceland, informing the officials of Iceland that the US continues to monitor their activities in terms of whaling and trade in whale meat have not resulted in a change in Iceland's position to continue to undertake commercial whaling and trade in whale meat.[336] However, in the Pelly Amendment certification of Taiwan for trade in rhino horn and tiger bones, that diminished the effectiveness of CITES, the threat of trade sanctions proved effective. Taiwan responded positively to the Pelly Amendment certification and when the reasons for the certification were no longer valid, the Secretary of the Interior terminated the certification of Taiwan.[337]

3.2.2 Wild Birds

The US and Great Britain, on behalf of Canada, concluded and signed a treaty to protect migratory birds between the two countries, recognizing them as international resources requiring joint protection. To implement and give effect to the treaty, the US Congress passed

[333] Fishermen's Protective Act of 1967, 22 USC (1971-1980) Pub. L. 90-482, as amended.
[334] Pelly Amendment to the Fishermen's Protective Act of 1967, 22 USC § 1978, was expanded to authorise the President to embargo wildlife products, including fish not previously covered, when the Secretary of the Interior or Commerce certifies that nationals of a foreign nation are engaging in trade or taking that diminishes the effectiveness of an international programme in force by the US for the conservation of endangered or threatened species available at http://www.fws.gov/international/laws-treaties-agreements/us-conservation-laws/pelly-amendment.html, accessed on 16 July 2015.
[335] Press Release: Interior Certifies that Iceland's Commercial Whaling Undermines International Wildlife Conservation available at https://www.fws.gov/news/ShowNews.cfm?ID=07B03A05-D0BA-0737-ECFADAFD5A84EEA2, accessed on 16 July 2015.
[336] Memorandum for the President on Actions Taken in Response to Pelly Certification of Iceland dated January 23, 2015 available at https://www.fws.gov/international/pdf/memo-response-to-pelly-certification-of-iceland.pdf, accessed on 16 July 2015.
[337] Federal Register available at https://www.federalregister.gov/documents/1997/04/30/97-11092/termination-of-the-pelly-amendment-certification-of-taiwan, accessed on 16 July 2015.

the federal Migratory Bird Treaty Act on 3 July 1918.[338] In addition, the US concluded similar (bilateral) treaties with Mexico, Japan and Russia (the Soviet Union at the time), which were incorporated into the Act through later amendments. The Act prohibited the following:

> pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention, unless such activity were permitted by regulations.[339]

The Secretary of the Interior was authorised to pass such regulations provided that it was consistent with the Convention. The Act therefore included the prohibitions on trade (sale and purchase, as well as transport and carriage) of migratory birds, unless regulations permitted such activities. It should be noted that while the Act was concerned with the protection of migratory bird species, in 1976 the treaty ratified between the US and Russia made provision for habitat protection that was critical to the survival of the relevant migratory bird species.[340] Amendments to the Migratory Bird Treaty Act included *inter alia*, the repeal of relevant sections that were covered by the Lacey Act insofar as commerce was concerned between the US and Mexico, specifically.[341]

3.2.3 Marine Mammals

In terms of marine mammals, seals, whales and polar bears were of particular importance initially in terms of trade and subsequently for conservation. In 1786 about 2 to 2.5 million North Pacific seals were discovered on Pribilof Island where they gathered during the breeding season. Pribilof Island is one of four volcanic islands off the mainland of Alaska. The seals became the mainstay of a lucrative fur industry for the Russian czar. However, in 1867 the US purchased Alaska from Russia and Russia no longer had access to the seal colonies on the island. At this time Russia, Japan and Great Britain started pelagic sealing, the term given to capturing fur seals in the open ocean.[342] The US led the development of an international Convention to manage the use of northern fur seals in order to avoid its

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[338] Migratory Bird Treaty Act of 1918, 16 USC § 703-712, as amended.
[339] *Ibid.*
[340] US Fish and Wildlife Service Laws Digest available at https://www.fws.gov/laws/lawsdigest/migtrea.html, accessed on 10 June 2015.
[341] *Ibid.* Section 10 of the 1969 Amendments to the Lacey Act prohibiting the shipment of wild game mammals or parts thereof.
[342] Pelagic sealing was seen as a wasteful form of sealing as it caused the indiscriminate deaths of pregnant or nursing females, which were not targeted on the islands. Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997).

extinction. By the time the North Pacific Fur Seals Convention of 1911 was signed, [343] the north Pacific fur seal population on Pribilof Island had been reduced from over 2 million to about 300 000. The Convention was one of the first international conventions for conservation and prohibited importing of sealskins, except for those that were marked as part of a government-supervised harvest. The Convention gave no indication of an acceptable level of harvest and each country could determine the level of seal harvest for the island under its national jurisdiction. However, by 1940, Japan withdrew from the Convention which was subsequently terminated. Following years of change and implementing different legislative measures for seals, the US subsequently determined a comprehensive policy for all marine mammals, through the Marine Mammal Protection Act of 1972.[344]

It is worth noting that prior to that the US became a Party to the Convention for the Regulation of Whaling. Commercial whaling was pursued by several nations harvesting on the highly migratory whales. The Convention regulated whaling by prohibiting the killing of calves or suckling whales, immature whales and female whales accompanied by calves or suckling whales, whereas a more general directive encouraged the 'fullest possible use' of whales that have been harvested. In 1946, the International Whaling Commission (IWC) was established. The IWC adopted the provisions of the earlier Convention but included provisions for designating whales as protected species, designating open and closed seasons or areas, specifying size limits, catch limits and harvesting methods. The US progressively reduced its interest in commercial whaling and subsequently called for a ban on commercial whaling by all nations.[345] During the 1972 United Nations Conference on the Human Environment in Stockholm, a proposal recommending a ten year moratorium on whaling was adopted. However, nations like Japan, Iceland, Korea, followed by Norway and Russia submitted proposals to the IWC for whaling in support of scientific research. The application and interpretation of the latter remains controversial to this day, with little to no enforcement and compliance measures in place.[346]

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[343] North Pacific Fur Seals Convention of 1911.
[344] Marine Mammal Protection Act of 1972 16 USC §1361-1407, amended.
[345] Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997).
[346] WWF 'Successes and Failures of the International Whaling Commission (IWC)'available at http://wwf.panda.org/what_we_do/endangered_species/cetaceans/cetaceans/iwc/iwc_successes_failures/, accessed on 3 August 2015.

In terms of the IWC, the US views the research whaling proposals and actions by Japan and Norway as diminishing the effectiveness of CITES[347] and Pelly Amendment certifications exist for both. However the relevant US President at the time has not directed the Secretary of the Treasury to prohibit imports from Japan and Norway.[348] The Pelly Amendment and its threat of trade sanctions previously proved to be sufficient to encourage compliance.[349] However, the effectiveness of the Pelly Amendment in the current IWC context has yet to be proven, as research whaling continues by a few nations and the US President has not implemented trade sanctions based on the Pelly Amendment certifications.

3.2.4 Ocean Fish

In terms of ocean fish resources, at least two international conventions have been incorporated into the ESA. The International Convention for the Northwest Atlantic Fisheries (ICNAF), subsequently replaced by the Northwest Atlantic Fisheries Organisation (NAFO), provides for consultation and the optimum use, rational management and conservation of fisheries in the Northwest Atlantic. [350] Since the NAFO commitments have been incorporated into the ESA, trade in species caught in the NAFO area are relevant.

Similarly, the International Convention for the High Seas Fisheries of the North Pacific Ocean (INPFC), as amended, Tokyo 1952, has also been incorporated into the ESA.[351] The INPFC was established specifically to promote conservation of Pacific salmon and steelhead trout in the North Pacific.[352] Therefore trade in these species are relevant to the ESA. The abovementioned international Conventions or Treaties sought to provide a regulatory framework for conservation of the relevant fish and wildlife, which are

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[347] CITES prohibits the commercial trade in whale meat, in this case it was minke whale meat exported from Norway to Japan. However, the challenge is that Norway and Japan submitted reservations to the protective listing of minke whales under CITES available at https://2001-2009.state.gov/p/eur/rls/fs/10226.htm, accessed on 3 August 2015.

[348] Pelly Amendment certification of Taiwan for trade in rhino horn and tiger bone proved effective in encouraging Taiwan's compliance with CITES provisions. Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997).

[349] Steve Charnovitz 'Environmental Trade Sanctions and the GATT: An Analysis of the Pelly Amendment on Foreign Environmental Practices' (1994) 9 *Am U J Intl L Poly* 751.

[350] Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, Ottawa, 1978. The US convened a conference in Washington DC in January 1949, which saw the development of the ICNAF which came into force on 3 July 1950. The Northwest Atlantic Fisheries Organisation (NAFO) replaced the 1949 ICNAF. See introduction to the Convention, available http://www.nafo.int/publications/frames/publications.html, accessed on 27 July 2015.

[351] The International Convention for the High Seas Fisheries of the North Pacific Ocean (as amended) Tokyo 1952-1992, later established the International North Pacific Anadromous Fisheries Commission (INPAFC).Signed initially by the US on 30 July 1952, but later replaced by the INPAFC which was signed by Canada, Japan, Russian Federation and the US in 1992 available at http://www.npafc.org/new/inpfc/INPFC%20_convention.pdf, accessed on 27 July 2015.

[352] Available at http://www.npafc.org/new/index.html, accessed on 24 March 2016.

predominantly animal species. Nonetheless, the objectives amongst others, seeks to avoid the over exploitation or unsustainable use of resources, through mitigating the risk of extinction. Therefore, the international objectives are largely to ensure sustainable use and conservation of fish and wildlife. The Conventions or Treaties have been enacted through specific domestic legislative instruments as well as being incorporated into the ESA, analysed below.

3.3 The US domestic legislative measures for trade in species

The US has a long history of legislation aimed at the conservation and use of fish and wildlife, and more recently plant species. The section that follows examines the relevant federal legislation applied to trade in species through the sustainable use lens. The analysis considers three dimensions, viz. the management; compliance and enforcement; and extraterritoriality dimensions. While the latter also entails compliance and enforcement, it is distinguished because of the extraterritorial reach of legislative instruments like the Lacey Act, in the context of the US as part of the global community with international commitments to regulate legal trade in species. In terms of the management dimension, the specific areas of interest are in the use of legislative tools for listing species and the subsequent efforts in managing the sustainable recovery of species, through the ESA provisions which incorporates CITES.

3.3.1 Management dimension

The main legislative instrument for management of species is the Endangered Species Act. This section considers the history of the Endangered Species Act (ESA) of 1973,[353] its application, successes and challenges. Case law and relevant literature will be considered to demonstrate the application and effectiveness of the ESA. Interviews with various US federal officials will also be reflected in this section. A description of the methodology of the semi-structured interviews is detailed in chapter one of this thesis.

3.3.1.1 Endangered Species Act

In summary, the ESA provides for the regulation of activities relating to species listed as endangered or threatened in terms of the Act as well as the protection of habitat of such species. It also prohibits certain activities with such species, while allowing limited exceptions. The Act incorporates various international commitments that are legally binding on the US, including for international trade in species. The ESA provides for permits to be

[353] Endangered Species Act of 1973 16 USC §1531-1544, as amended.

issued as well as for the development of recovery plans for species to ensure its long term survival. The Act further provides for enforcement and compliance as well as penalties for violations in terms of the Act. The ESA is enforced by Federal Agencies and sets a national standard, while still allowing for concurrent competence by states over their species in the wild.

The ESA is described by the US Supreme Court as 'the most comprehensive legislation for the preservation of endangered species ever enacted by any nation,'[354] while former Secretary of the Interior Bruce Babbitt describes it as 'undeniably the most innovative, wide-reaching, and successful environmental law which has been enacted in the last quarter century'[355] and Senator Graham describes it as the 'crown jewel of the nation's environmental laws'.[356] However, as much as there are protagonists singing the praises of the ESA, there are also antagonists who critique its weaknesses. The ideals of the ESA will be considered in the context of strengths, but the weaknesses will also be considered in this section. Important lessons from case law as well as relevant literature will also be deliberated.

The ESA was preceded by the Endangered Species Preservation Act passed by the US Congress in 1966 following concerns about the predicament of the whooping crane. The main aim of the Act was to authorise the Secretary of the Interior to list endangered species and to purchase land for the conservation of habitat of such species. The Secretary of the Interior was authorised to spend up to USD15 million per year for the purchase of habitat by the US Fish and Wildlife Service (USFWS). Federal Agencies that owned land were also encouraged to preserve endangered species habitat wherever possible.[357] Considering that habitat loss is the single greatest threat to continued existence of species,[358] the approach of protecting both species and habitat is sensible.

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[354] *Tennessee Valley Authority v Hill* 437 US 153, 180 (1978).
[355] Bruce Babbitt 'The Endangered Species Act and "Takings". A Call for Innovation Within the Terms of the Act' (1994)24 *Environmental Law* 355.
[356] Endangered Species Act amendments of 1993: Hearings on S. 921 Before Subcomm. On Clean Water, Fisheries & Wildlife of the Senate Comm. On Environment and Public Works, 103d Cong. 2 (1994) (statement of Sen. Graham) available at https://archive.org/stream/endangeredspecie199402unit/endangeredspecie199402unit_djvu.txt, accessed on 14 March 2016.
[357] Shannon Petersen 'Congress and Charismatic Megafauna: A Legislative History of the Endangered Species Act' (1999) 29 *Environmental Law* 463. Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997).
[358] David S Wilcove, David Rothstein, Jason Dubow, Ali Philips and Elizabeth Losos 'Quantifying Threats to Imperilled Species in the United States: Assessing the relative importance of habitat destruction, alien species, pollution, overexploitation and disease' (1998) 48(8) *BioScience* 607-615.

The Act also included the first ever listing of endangered and threatened species.[359] The Act applied to vertebrate native fish and wildlife species, however plants were not included. While the Act created the National Wildlife Refuge System, the 'taking' of species within the refuges was strictly prohibited. A shortcoming of the Act at the time was that the prohibition was limited to the refuges, which meant that endangered species outside of refuges had no protection. The Act made provision for voluntary inter-agency cooperation, which further weakened the Act as agencies were not compelled to work together. Due to some of these limitations, the Act was supplemented by the Endangered Species Conservation Act in 1969.[360]

The Endangered Species Conservation Act of 1969 was spurred on by public concern for whales at a time when commercial whaling was in force. The Act then expanded the purview of its predecessor by allowing the Secretary of the Interior to list foreign species 'in danger of worldwide extinction', while prohibiting the import of products derived from such species.[361] However, listing of foreign species required the cooperation of the Secretary of State for consultations with the foreign country where the species occurs. By 1970 eight species of whales were listed under the Act as threatened as a result of commercial harvesting of whales.[362] Nevertheless, at the time this listing was controversial as the Pentagon, US Department of Defence, opposed the listing of whales. It was reliant on sperm-whale oil for use in its submarines. However, regardless of protests from the Pentagon, the Secretary of the Interior listed the whales.[363]

Another important difference between the 1969 Act and its predecessor was that the definition of 'fish and wildlife' was expanded to not only apply to vertebrates, as in the 1966 Act, but now meant 'any wild mammal, fish, wild bird, amphibian, reptile, mollusc, or crustacean.' This had the effect of expanding the scope of application of the 1969 Act. The 1969 Act allowed a few exceptions from the general prohibitions, which included the

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[359] The list of endangered and threatened species was informed by the Red Book on Rare and Endangered Fish and Wildlife of the United States which was published in 1964. This was the first official federal document of species in the US that potentially faced extinction available at http://www.fws.gov/endangered/species/faq-first-species-listed.html, accessed on 24 July 2015.

[360] Shannon Petersen 'Congress and Charismatic Megafauna: A Legislative History of the Endangered Species Act' (1999) 29 *Environmental Law* 463.

[361] Congress intended for the activities of US nationals not to impact foreign species requiring greater protection. Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997).

[362] *Ibid*. It should be noted that the International Whaling Commission (IWC) had competence over whaling matters, but the US public had no confidence in the IWC managing sustainable use of whales. Therefore, the public pressure to list the eight whale species persisted in federal legislation.

[363] *Ibid*.

exceptions to import endangered fish and wildlife for zoological, educational, scientific purposes and for propagation or breeding in captivity for 'preservation' purposes. However, as with its predecessor, plants had no protection under the 1969 Act.[364]

The change in use of terminology in the title of the 1966 Act from 'preservation' to 'conservation' in 1969 is interesting to note. The term 'preservation' is an out-dated term, yet within three years the US adopted the more contemporary term of 'conservation', which is defined by the ESA of 1973 to mean 'to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary'.[365] It is further argued that the term conservation incorporated sustainable use as the intent was to prevent extinction of the species while allowing limited use under exceptional circumstances, however sustainable use is not explicitly mentioned. The term preservation was more restrictive and embraced a hands-off approach that sought to provide strict sanctuary for endangered species.

Another significant difference between the 1966 and the 1969 Act was that it directed the Secretary of the Interior to work towards a coordinated international effort for conserving wildlife. The Act directed the Secretary to 'seek the convening of an international ministerial meeting' in order to conclude 'a binding international convention on the conservation of endangered species'.[366] This resulted in the US convening the Plenipotentiary Conference on the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES) in Washington DC from 12 February to 2 March 1973 and the subsequent signing and entry into force of CITES.[367]

In the lead up to the ESA President Nixon in his Environment Message stated that the prevailing law:

> simply does not provide the kind of management tools needed to act early enough to save a vanishing species. In particular, existing laws do not generally allow the Federal Government to control shooting, trapping, or other taking of endangered species.[368]

This statement was made in the same year as the first-ever United Nations Conference on the Human Environment (UNCHE) that took place in Stockholm in June 1972,

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[364] *Ibid*.
[365] ESA Section 3(3).
[366] Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997).
[367] See section 3.2.1 above.
[368] Richard Nixon 'Special Message to the Congress Outlining the 1972 Environmental Program' February 8, 1972. Online by Gerhard Peters and John T. Woolley, *The American Presidency Project* available at http://www.presidency.ucsb.edu/ws/?pid=3731, accessed on 14 July 2015.

culminating in the Stockholm Declaration.[369] From President Nixon's speech it is evident that there were serious concerns regarding the use of species and lack of sufficient regulation for activities like shooting, trapping and taking of species.

On 28 December 1973, President Nixon signed the Endangered Species Act (ESA) of 1973 into law. Upon signing of the ESA, President Nixon stated that 'nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed.'[370] The 1973 ESA applies to species of fish, wildlife and plants.[371] While the ESA scope was broader than its predecessors of 1966 and 1969, the sentiment carried by the President's speech still reflected one of concern predominantly for animals.

The ESA of 1973 repealed its 1969 predecessor, the Endangered Species Conservation Act. In the preamble to the ESA, Congress found that in the US certain species of fish, wildlife and plants have been rendered extinct as a result of development and economic growth with little or no regard for conservation.[372] It is argued that such economic development with no regard for conservation was contrary to the notion of sustainable development, which included economic development that took account of social and ecological considerations.[373] Congress further noted that other species numbers have declined to levels where they face great risk of extinction and that these species 'are of aesthetic, ecological, educational, historical, recreational and scientific value to the Nation and its people.'[374] While it is noted that ecological value is mentioned, the values that Congress placed on these species were predominantly people-centred values for which there were benefits to people, as opposed to the altruistic existence value of species. However, some antagonists may argue that the ESA is opposed to economic development with too much emphasis on the aesthetic and moral justification for species protection.[375] Nevertheless the

[369] Stockholm Declaration. Declaration of the United Nations Conference on the Human Environment 1972 available at http://staging.unep.org/Documents.Multilingual/Default.Print.asp?DocumentID=97&ArticleID=1503&l=en, accessed on 18 May 2014.
[370] President Nixon's Statement on Signing of the Endangered Species Act of 1973, 374 Pub. Papers 1027-28 (Dec. 28, 1973).
[371] ESA Section 2(4).
[372] ESA Section 2(a) Findings.
[373] See chapter 2 of this thesis for a full discussion on sustainable development and sustainable use.
[374] See chapter 2 of this thesis for a discussion of the values that humans place on species.
[375] Zygmunt J.B. Plater 'The Embattled Social Utilities of the Endangered Species Act – A Noah Presumption and Caution Against Putting Gasmasks on Canaries in the Coalmine' (1997) 27 *Environmental Law* 845-876.

ESA regulatory processes provide for a utilitarian approach to species, which is discussed further below.[376]

As part of the international community Congress also acknowledged the US responsibilities for implementation of various international agreements. The ESA therefore incorporates the US obligations in terms of the Migratory Bird Treaty Act,[377] the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere,[378] the International Convention for the Northwest Atlantic Fisheries (ICNAF),[379] the International Convention for the High Seas Fisheries of the North Pacific Ocean (INPFC),[380] CITES[381] and other international agreements. The Migratory Bird Treaties, ICNAF, INPFC and CITES have been described earlier in this chapter.

3.3.1.2 Definitions

To understand the application of the ESA, certain definitions and sections of the Act will be examined.

The ESA defines endangered species to mean:

> any species which is in danger of extinction throughout all or a significant portion of its range other than a species of Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to man.[382]

While threatened species means:

> any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.[383]

It's been noted that the distinction between threatened and endangered species has largely been 'borrowed from the CITES' Appendices for species in being able to assign degrees of vulnerability and consequently appropriate levels of protection to species.[384] Therefore, based on the definitions above, endangered species in the context of the ESA have

[376] Regulatory tools like permits are provided for undertaking certain activities that directly or indirectly impact listed species. The ESA requires a conservation plan for exceptions for permits in terms of section 10(a)(2)(A).
[377] See above (note) 338.
[378] Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (1940) Washington, available at http://www.loc.gov/law/help/us-treaties/bevans/m-ust000003-0630.pdf, accessed on 27 July 2015.
[379] See above (note) 350.
[380] See above (note) 351.
[381] See above (note) 329.
[382] ESA Section 3(6).
[383] ESA Section 3(20).
[384] See above (note) 360.

a greater risk of extinction than threatened species. Understanding the differences between endangered or threatened species[385] is further espoused in the discussion on section 4 below which deals with determinations of threatened and endangered species as well as section 9 which contain the prohibited acts relating to listed species.

Another important definition for purposes of this study is that of 'take' which means:

> to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.[386]

The interpretation of the definition of 'take' has been of great interest and the reason for much controversy and litigation since the inception of the ESA.[387]

The ESA defines 'commercial activity' as

> All activities of industry and trade, including, but not limited to, the buying or selling of commodities and activities conducted for the purpose of facilitating such buying and selling: *Provided, however,* that it does not include exhibition of commodities by museums or similar cultural or historical organisations.

The above definition is particularly important for the context of trade in endangered species. In terms of sustainable use, the ESA fails to provide a definition, which is a major focus of this thesis. However, the ESA provides a definition for conservation in that:

> 'conserve', 'conserving' or 'conservation' mean to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary.

The above definition implies that conservation is effectively achieved when a species no longer requires the provisions and protections afforded by the ESA and are consequently removed from the species listing of the ESA. The listing of species is therefore the major tool that designates a certain level of protection to species and the regulatory process of listing species is considered in the section that follows.

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[385] It should be noted that under the IUCN definitions threatened species include species that are critically endangered, endangered and vulnerable in terms of its threat status. IUCN 2012 *Guidelines for Application of IUCN Red List Criteria at Regional and National Levels: Version 4.0*. Gland, Switzerland and Cambridge, UK. IUCN.

[386] ESA Section 3(19).

[387] ESA Section 9 prohibits the 'taking' of listed species, with certain exceptions.

3.3.1.3 Listing of species under the ESA

Section 4 of the ESA makes provision generally for determinations, the basis for determinations, lists, protective regulations, similarity of appearance cases and recovery plans for species. Some of these subsections will be examined below.

In terms of section 4 the Secretary of the Interior shall by regulation determine whether a species is an endangered or a threatened species, based on the following factors;

(A) The present or threatened destruction, modification or curtailment of its habitat or range;
(B) overutilisation for commercial, recreational, scientific or educational purposes;
(C) disease or predation;
(D) the inadequacy of existing regulatory mechanisms; or
(E) other natural or manmade factors affecting its continued existence.[388]

It is acknowledged that habitat is a critical determining factor for listing species as endangered or threatened. Litigation and controversy abound in terms of the habitat protection provisions for endangered and threatened species.[389] Part of the controversy surrounding the take provision is its applicability to activities on publicly as well as privately owned land. Such activities may result in the direct 'taking' of species or indirect or incidental 'taking' on privately owned land.[390] Direct 'taking' of species through hunting, shooting, killing and trapping activities is generally prohibited, with limited exceptions.[391] There is little evidence of controversy over direct 'taking' of species, but such controversy is largely about the 'taking' of species as a result of development if such is proposed in critical habitat[392] of a listed species.[393] Nonetheless, development on privately owned land could also

[388] ESA Section 4(b)(1).
[389] *Tennessee Valley Authority v Hill* 437 US 153, 180 (1978). *Babbitt v Sweet Home Chapter of Communities for a Great Oregon,* 515 U.S. 687, 701 n.15 (1995). *Home Builders v Defenders of Wildlife* 35 *Ecology* L.Q. 291, 293 (2008). JB Ruhl 'The Endangered Species Act's Fall from Grace in the Supreme Court' (2012) 36 *Harvard Environmental Law Review* 487-532. Robert Innes, Stephen Polasky and Endangered Species Protection on Private Land (1998) 12(3) *Journal of Economic Perspectives* 35-52. Stuart L Somach 'What outrages me about the Endangered Species Act' (1994) 24 *Environmental Law* 801.
[390] Paul Bourdreaux 'Understanding "Take" in the Endangered Species Act' (2002) 34 *Arizona State Law Journal* 733-774. Bourdreaux also highlights the unintentional 'take' of species e.g. the removal of trees which would impact nesting owls that are listed under the ESA. He provides an interesting analysis and proposes a burden of proof of planned conduct that may harm listed species. He argues that this would give the ESA take prohibition the "bite" it needs.
[391] ESA Section 9 prohibitions.
[392] The ESA Section 3(5) defines critical habitat as 'specific areas within the geographical area occupied by the species at the time it is listed … on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; specific areas outside the geographical area occupied by the species … upon a determination by the Secretary (Interior) that such areas are essential to conservation of the species … Except in circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.'
[393] Michael C Blumm and George Kimbrell 'Flies, Spiders, Toads, Wolves and the Constitutionality of the Endangered Species Act's Take Provision' (2004) 34 *Environmental Law* 309-362.

result in the species being harassed or harmed. Ruhl concluded that the lesson learnt in the downfall of the ESA in the Supreme Court[394] was largely due to the regulation of resources on privately owned land with little regard to the cost-benefit and potential for inequitable distribution of costs and benefits between private land owner and the Federal Authority.[395] However, Babbitt argues that federal agencies have always strived to ensure that publicly owned land carries the greater burden for ensuring species protection.[396] He cites the case of the management plan for the Pacific Northwest spotted owl, which has stronger provisions for publicly owned land than for land privately owned by timber companies.[397] Babbitt calls for innovative ways of using the ESA to protect species and their habitat without necessarily causing 'undue economic hardship' for private land owners by allowing such innovative conservation schemes. For any development to proceed on federal or privately owned land the developers and land owners have to ensure that they avoid or mitigate destruction or adverse modification of critical habitat of threatened or endangered species as well as the 'take' of the species which may be due to the species being killed, harassed, harmed or wounded. While it is acknowledged that habitat protection under the ESA is critical to the long term survival of the species in the wild, habitat protection is not the focus of this study.

Since the focus of this thesis is on sustainable use and trade in endangered species, special attention to the factor for listing as a result of section 4(1)(b)(B) is warranted. Since reference is made to 'overutilisation' as a determining factor in listing of species, such listing would be to guard against unsustainable use and therefore conversely supports the sustainable use of species for 'commercial, recreational, scientific or educational purposes'. This is an important underpinning for trade in species and ensuring that such trade does not result in extinction of species listed as endangered or threatened under the ESA. This accords well with the intent of CITES.[398] Apart from 'disease and predation' the determining factors are predominantly related to a utilitarian approach to species.[399] In that context, it should however be noted that while the ESA does not refer explicitly to sustainable use, such is

[394] JB Ruhl 'The Endangered Species Act's Fall from Grace in the Supreme Court' (2012) 36 *Harvard Environmental Law Review* 487-532.
[395] *Ibid*.
[396] Bruce Babbitt 'The Endangered Species Act and "Takings": A Call for Innovation within the Terms of the Act' (1994) 24 *Environmental Law* 355-367.
[397] Ralph J. Gutierrez and Andrew B Carey, Tech. Eds. Ecology and Management of the Spotted Owl in the Pacific Northwest. Gen. Tech. Rep. PNW-185. (1985) Portland, OR: US Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station.
[398] See chapter 2 of this thesis for a detailed discussion of CITES and sustainable use.
[399] See chapter 2 of this thesis for detailed discussion on the utilitarian approach within the sustainable use context.

inferred in the context of avoiding 'overutilisation' of species. Determining whether a species is overutilised requires a scientific assessment and analysis of the population size, with trends over time. If 'take' is allowed, it is critically important that it occurs at an acceptable level in order that it does not result in population declines or a threat of extinction. The acceptable level of 'take' is manifested in quotas, catch limits and bag sizes, with the latter being particularly relevant to fish species.[400]

The foundation for determinations for listing according to the ESA is 'solely on the basis of the best scientific and commercial data available… after conducting a review of the status of the species and after taking into account those efforts…to protect such species'.[401] During the review of the status of the species, threats to species survival are identified and this may include unsustainable levels of use or overutilisation. The Secretary of the Interior must also consider species which require protection from unrestricted commerce by any foreign nation or any international agreement, including CITES, while also identifying species in danger of extinction in the foreseeable future.[402] Protection from unrestricted commerce essentially requires that such commerce be restricted or limited in some way.

The Department of Interior's US Fish and Wildlife Service (USFWS) and the Department of Commerce's National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) are the responsible federal agencies for implementing the ESA and listing species thereunder. The Act spells out the process to be followed for petitioning the listing of species and the requisite time-frames attached to such listing processes. Any person or organisation may submit a petition to list a species at any time. This allows an element of flexibility for responding urgently to species requiring immediate protection.

In terms of the process, the Secretary must within 90 days, to the extent practicable, make a finding indicating whether the petition presents substantial scientific or commercial information and that the petitioned action (listing or removal from list) may be warranted. If petition is warranted, then the Secretary shall commence a review of status of the candidate species and publish the findings in the Federal Register. Within 12 months after receiving the petition the Secretary shall make one of the following findings; the petition is not warranted

[400] AA Rosenberg, MJ Fogarty, MP Sissenwine, JR Beddington and JG Shepherd 'Achieving Sustainable Use of Renewable Resources' (1993) 262 *Science* 5135: 828-9.
[401] ESA Section 4(b)(1)(A)(a)(1).
[402] ESA section 4(b)(1)(B)(ii).

and publish the finding in the Federal Register; the petition is warranted and publish the finding together with proposed regulations in the Federal Register; or the petition is warranted but implementation of the action is prevented by pending proposals to determine whether the species is endangered or threatened. Negative findings may be subject to judicial review. During the process, comments are solicited from the public and public hearings may be held. These comments must be considered together with any new information that has become available in making a final determination on whether to list a species. Such final determination must be published in the Federal Register.[403] The recent District Court ruling in *Friends of Animals v Ashe* held that deadlines are mandatory in statutes and therefore adhering to the time-frames in the listing process is obligatory and not subject to discretion.[404]

In addition, when listing a species as threatened, the Secretary is required to issue protective regulations, as necessary and advisable, for the conservation of such species.[405] Regulations for endangered species may include prohibitions pursuant to section 9. Such regulations may not apply to taking of resident species of fish or wildlife, except if the state has a cooperative agreement in terms of section 6(c) of the ESA.[406] The Secretary may also treat any species as threatened or endangered if such species closely resembles in appearance, a listed species. This is particularly applicable when it is difficult for enforcement personnel to distinguish between such species and the listed species. This application of similarity in appearance has also largely been borrowed from the CITES Convention in its treatment of what is commonly referred to as the 'look-alike' species.[407] The Secretary of the Interior must publish the list of species determined to be endangered or threatened and the lists must be reviewed at least once every five years.[408]

In terms of the interviews conducted with federal officials, at least two interviewees out of five indicated that while the listing process is an essential part of the ESA, it is nonetheless a long, cumbersome and highly regulated process. Interviewee one added that the

[403] ESA section 4(b).
[404] *Friends of Animals v Ashe*. F.3d 2015WL 9286948 (D.C.Cir. Dec.22, 2015).
[405] ESA section 4 (d).
[406] *Ibid.*
[407] CITES Article II 2 states that 'Appendix II shall include: (a) all species which although are not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilisation incompatible with their survival; and (b) other species which must be subject to regulation in order that trade in specimens of certain species referred to in sub-paragraph (a) of this paragraph may be brought under effective control.'
[408] ESA section 4 (c) Lists.

strict time-frames for petitioning the listing of a species was challenging and exposed the federal agency to law suits, if time-frames were not met. The highly regulatory process in her view was onerous and could be considered a weakness of the ESA, as the listing of a species could take a long time.

This view is supported by critics who have coined the ESA as the 'pit bull of environmental laws' due to the lengthy regulatory processes.[409] Kass argues that delays in listing decisions could cause species extinctions. However, according to Doremus, the solely science determination is problematic as not all policy problems can be solved by science in the absence of appropriate societal debate on matters of conservation concern. [410] She argues that the legislature should separate the scientific decisions from other value judgements such as the groups (of species) which require protection, the acceptable level of extinction risk and the time-line for evaluating the extinction risk. She was further of the opinion that there are two types of pressure groups that exert influence on the listing process, namely, the pressure group of environmentalists who typically believe that the federal agencies are not doing enough to protect species while the other group of opponents believe that the ESA is extreme in protecting species. However, the scientific underpinning of the listing process is critically important as it allows for peer review and rigour in the process. This does not mean that societal debate is less important, but simply that such debate should also take account of the scientific justifications in the listing process and should form part of the public comment and hearings period. Scientific determinations would allow greater objectivity in the process thereby making decisions legally defensible. It should also be noted that scientific information changes over time and that the five-year reviews required for listed species allows for new information to be considered and influence further actions taken in terms of the continued listing of the species.

Ando offers a perspective on the timing to list a species being relative to the pressure group's influence on the process.[411] Since the process allows for public comment and public hearings which have to be considered as part of the determination process, delays in the

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[409] *Endangered Species Act Amendments of 1993: Hearings on S. 921 Before Subcomm. on Clean Water, Fisheries, & Wildlife of the Senate Comm. on Environmental and Pub. Works*, 103d Cong. 2 (1994) (statement of Senator Graham). Madeline June Kass 'Strategic dodging of ESA listing determinations' (2015) 29 *Natural Resources & Environment* 3:54.

[410] Holly Doremus 'Listing Decisions Under the Endangered Species Act: Why Better Science Isn't Always Better Policy' (1997) 75 *Washington University Law Review* 3:1029.

[411] Amy Whritenour Ando 'Waiting to be Protected Under the Endangered Species Act: The Political Economy of Regulatory Delay' (1999) 42 *The Journal of Law and Economics* 29.

listing process could also be influenced by various interest groups. Ando's analysis shows that interest groups have a significant influence on the time it takes to list a species and that delays in listing could potentially postpone costs and benefits associated with decisions to list species or delay the regulatory actions that need to be taken. While the ESA does not allow for trade-offs, she argues that the scientific decisions taken for listing do not happen in a 'political vacuum'.[412] To illustrate the time-frame potentially involved in listing, the petition from Wild Earth Guardians and Animal Friends to NOAA to list the scalloped hammerhead shark is a case in point. The petition was submitted on 14 August 2011. The comprehensive status review of scalloped hammerhead was eventually concluded and published on 5 April 2013, wherein six Distinct Population Segments (DPS) of scalloped hammerhead were identified. The determination was that listing of two of the DPS were not warranted at the time, while two other DPS were determined to be threatened and the remaining two were determined to be endangered. The final rule for the decision to list hammerhead sharks was published in the Federal Register on 3 July 2014, a month shy of three years after the petition was submitted.[413]

Given the mandatory time-frames in the listing process, if the petition to list the species proves to be justified in terms of the section 4(b)(1) factors for determination of listing, theoretically there should be no undue delays in the process. Such delays may result in law suits. However, if the petition to list proves to be unjustified and the process is subject to review, then the process may be longer. In terms of pressure groups, these will always be there advocating for listing or against listing, therefore objectivity in the listing process is critical to ensure its credibility and that the process can withstand legal review. The importance of adhering to legislated time-frames is a critical lesson for South Africa, particularly in light of threats of litigation. Furthermore, undue delays in cases where such listing proves justifiable may negatively impact the species survival.

The review of the listed species is also not without its challenges as in the case of *Florida Home Builders Association v Norton*, where the Secretary of the Interior failed to undertake the review due to budgetary and resource constraints. The Court held that the

[412] *Ibid.*
[413] Federal Register Vol .79 No.128, Thursday, July 3, 2014. Rules and Regulations. Department of Commerce available at http://www.cftc.gov/idc/groups/public/@lrfederalregister/documents/file/2014-15618a.pdf, accessed on 20 July 2016.

defendants should 'take up such constraints with Congress rather than let mandatory deadlines expire with inaction.'[414]

At the time of writing there are 2 328 species listed under the ESA, of which 675 are foreign species and 1 653 are domestic.[415] The listing of foreign species will also be considered later in the context of compliance and enforcement as it relates to extraterritoriality. Nonetheless, the number of species listed pursuant to section 4 of the Act makes for a costly and resource intensive review process on all listed species to be undertaken every five years. It should be noted that the review and listing process is ongoing as petitions to list species may be submitted at any time and therefore listing may occur at any time and consequently, the five year reviews too. This is an important lesson to be considered in the South African context, as ongoing listing and adhering to the five year review time-frame could be extremely onerous and may require additional dedicated resources to support these processes. Interviewee two, while admitting that the long and cumbersome listing process was challenging, also viewed the 'clear mechanisms' for listing of species as a strength of the ESA.

3.3.1.3.1 Public participation process

Admittedly, the process for determinations of listing a species as endangered or threatened is relatively long and includes a public participation process. While initial determinations are based solely on scientific information, following the public participation process the final decision may not rest entirely on the scientific findings only. This determination process by its very nature has to be a robust process, as the ESA makes provision for citizen suits in terms of section 11(g). This corroborates the comment made by interviewee one that if time-frames are not met then the agency may be subjected to law suits.[416] Working in an environment with a constant threat of litigation could be costly in terms of resources required to meet the listing and review provisions of the Act as well as being stressful to decision-makers to say the least. [417] However, the rigour and robustness of the listing process and public participation is an important lesson for South Africa, as this could mitigate the threat

[414] *Florida Home Builders Association v Norton*. 496 F.Supp.2d 1330 (M.D.Fla., 2007).
[415] USFWS Endangered Species information available at https://ecos.fws.gov/tess_public/reports/box-score-report, accessed on 16 June 2017.
[416] 'The United States is already the most litigious society in the world'. Paul H Rubin 'More money into bad suits' November 16, 2010 The New York Times available at http://www.nytimes.com/roomfordebate/2010/11/15/investing-in-someone-elses-lawsuit/more-money-into-bad-suits, accessed on 6 December 2016.
[417] List of law suits available at https://www.animallaw.info/cases/topic/endangered-species, accessed on 25 March 2016.

of litigation. The listing process through the comment period allows for input from various experts as a form of peer-review as well as comments by the public. The comment period therefore enhances the rigour of the listing process. While pleasing extreme conservationists would always be challenging, considering a diversity of views in the listing process would only add to its rigour.

3.3.1.4 Species recovery plans

The Secretary shall also develop and implement 'recovery plans' for listed endangered and threatened species, if such plans would advance the survival and conservation of the species.[418] The need for recovery plans is triggered by the listing of species under the ESA. Section 4(f) prescribes to some extent the general content of such recovery plans which includes, amongst others, the priority given to recovery of the species, especially where there is potential conflict in development or other economic activity that threatens such species; a description of site specific management actions; objective and measurable criteria for species recovery to the extent where it can be removed from the list; and estimates of the time required to achieve species recovery. Section 4 further provides for monitoring, reporting and the development of guidelines with respect to the entire listing process. However, the development of the recovery plans are discretionary for listed species, as they are only developed if they would advance the survival and conservation of the species. The recovery plans are thus not legally enforceable, but they are nevertheless an extremely valuable species management tool. Considering that nearly half of all the listed species at the time of writing have recovery plans, this may be indicative of the value that agencies place in them as a management tool.

In terms of strengths of the ESA, interviewees one, four and five all stated that one of the greatest strengths of the ESA is its ability to protect species thereby facilitating species recovery, as guided by the species recovery plans. Interviewee one further stated that the ESA 'halted or reversed species decline'.

Nevertheless, on the effectiveness of the ESA in aiding species recovery, critics abound. Criticism levelled at the number of species that show recovery as compared with the

[418] As at 16 June 2017, there are 1159 recovery plans for listed species, which constitutes almost 50 percent of all listed species. Available at https://ecos.fws.gov/tess_public/reports/box-score-report, accessed on 16 June 2017.

number of species listed, may be little cause for celebration.[419] Crouse *et al*. consider the requirement for recovery plans for all listed endangered and threatened species, unless it will not support recovery, to be burdensome. They acknowledge that while the recovery plans serve as guidance documents[420] to focus and organise actions for species recovery, nevertheless they are perceived as burdensome because they are resource intensive, including in the face of resource constraints and the time it takes to develop biologically defensible recovery plans against rigorous standards.[421] Others argue that without recovery plans certain species would be extinct today, such as, the brown pelican, the American alligator, the red wolf, the Arctic peregrine falcon, etc.[422] Taylor *et al*. argue that the ESA has proven its effectiveness in supporting the recovery of declining species.[423] While Suckling *et al*. conducted a study that showed '90 percent of species are recovering at the rate specified by their federal recovery plan' and that 'on average species recovered in 25 years'.[424] They therefore argue that many species have not been listed long enough to show recovery yet, but that the ESA has a 90 percent success rate of species recovery.[425] The conclusion of their study is similar to that of an analysis of federally protected species in the Northeast.[426] The study found that 93 percent of species were stabilised or improving since being listed or 82 percent were on target to meeting their recovery goals. Another example of the commitment to species recovery plans could be seen in the Black Footed Ferret Species Recovery Plan where the revised recovery plan of November 2013 acknowledges that efforts for recovery of the species have been underway for at least 29 years as the first recovery plan was developed in 1988.[427] While it is recognised that as with most plans, they could constantly be

[419] Holly Doremus and Joel E Pagel 'Why listing may be forever: perspectives of delisting under the U.S. Endangered Species Act' (2001) 15 *Conservation Biology* 1258-1268; Leah Gerber 'Delisting of species under the ESA' (2003) 17 *Conservation Biology* 651-652.
[420] National Marine Fisheries Service 'Interim Endangered and Threatened Species Recovery Planning Guidance version 1.3' (2010) NMFS. Silver Spring, Maryland.
[421] Deborah T. Crouse, Loyal A. Mehrhoff, Mary J. Parkin, Diane R. Elam and Linus Y. Chen 'Endangered Species Recovery and the SCB Study: A US Fish and Wildlife Service Perspective' (2002) 12 *Ecological Applications* 719-723.
[422] US Fish and Wildlife Service 'Endangered Species Act 40th Anniversary, protecting imperilled plants and animals since 1973' indicates that several species have been delisted as threatened or endangered as a result of protection under the ESA. In addition, certain species were reintroduced into the wild after being nearly extinct in the wild available at http://www.fws.gov/endangered/esa40/, accessed on 23 July 2013.
[423] Martin F.J. Taylor, Kieran F. Suckling and Jeffrey J. Rachlinkski 'The Effectiveness of the Endangered Species Act: A Quantitative Analysis' (2005) 55(4) *BioScience* 360-367.
[424] Kieran Suckling, Noah Greenwald and Tierra Curry 'On Time, On Target: How the Endangered Species Act is Saving America's Wildlife' (2012) Centre for Biological Diversity, Tucson, AZ.
[425] *Ibid*.
[426] Kieran Suckling 'Measuring the Success of the Endangered Species Act: Recovery Trends in the Northeastern United States' (2007) Centre for Biological Diversity, Tucson, AZ.
[427] While the first recovery plan was developed 29 years ago, the black footed ferret was first listed on the Endangered Species Protection Act of 1966, thereby providing 51 years of protection for the species at the time

improved,[428] the successes of the ESA listing and recovery of species is most notable, commendable and a valuable lesson.

The clear regulatory process for determining endangered and threatened species (section 4), coupled to the recovery guidelines provide some of the critical mechanisms required to conserve species to such an extent that their listing is no longer required. Down listing and delisting criteria as indicated in the Black Footed Ferret Recovery Plan are measurable and provide 'reasonable biological and logistically achievable criteria'.[429] Such criteria would be extremely valuable in considering species recovery in South Africa.

The ultimate signal of success is when a species is delisted from the ESA thereby no longer requiring federal protection. However, some scholars are of the view that species may become threatened or endangered again once delisted and they advocate the concept of 'conservation-reliant species'.[430] In fact the delisting of species from the ESA is not without its challenges. In the case of the proposed delisting of the Northern Rocky mountain grey wolf population segment, where the Court ordered the preliminary injunction to prevent delisting, concurring that the plaintiff, Defenders of Wildlife, had substantial merits in the case and that the wolves may suffer irreparable harm from delisting.[431]

The view of interviewees one, four and five that the recovery plans for listed species is one of the great strengths of the ESA is therefore supported. Lessons for South Africa from such recovery plans and the successes experienced to date under the ESA include that recovery may require a considerable period of investment in various activities to recover the species to the point where listing is no longer required however, measurable and objective criteria are critically important in determining whether that level of recovery is reached. Noting, that some delisted species may require continued management to avoid being listed

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of writing. Available at http://www.fws.gov/endangered/esa40/ accessed on 23 July 2013. Also see Black Footed Ferret Recovery Plan, Second Revision, November 2013 available at https://ecos.fws.gov/docs/recovery_plan/20131108%20BFF%202nd%20Rev.%20Final%20Recovery%20Plan.pdf, accessed on 22 March 2017.

[428] J Alan Clark, Jonathan M Hoekstra, P Dee Boersma and Peter Kareiva 'Improving U.S. Endangered Species Recovery Plans: Key Findings and Recommendations from the SCB Recovery Plan Project' (2002) 16 *Conservation Biology* 6:1510-9. Caitlin M Troyer and Leah R Gerber 'Assessing the impact of the U.S. Endangered Species Act recovery planning guidelines on managing threats for listed species' (2015) 29 *Conservation Biology* 5:1423-33.

[429] See Black Footed Ferret Recovery Plan, Second Revision, November 2013.

[430] 'Conservation-reliant species' are species that have been delisted from the ESA due to recovery, but may require species-specific management actions in order not to be at risk of extinction again. J Michael Scott, Dale D Goble, John A Wiens, David S Wilcove, Michael Bean and Timothy Male 'Recovery of Imperilled Species under the Endangered Species Act: The Need for a New Approach' (2005) 3 *Frontiers in Ecology and the Environment* 7:383-9.

[431] *Defenders of Wildlife v Hall* 565 F.Supp.2d 1160 (D.Mont. 2008).

again in future. It is also noted that species on average recover in 25 years, but this is largely dependent on the life history traits of the species.[432]

In the context of sustainable use, it is argued that management by way of the recovery plan, as the name suggests, is to rebuild or revitalise the species to a viable population level which will enable current and future generations to benefit from the species, whether directly or indirectly. Hence, the argument by some against delisting species, but rather in favour of continued management as 'conservation-reliant species'. This concept of 'conservation-reliant species' management would further support the sustainable use of such species and not merely halt or reverse the threat of extinction, an important lesson for South Africa.

However, the protection afforded to plant species under the ESA is concerning, as interviewees one, four and five all indicated independently that protection granted to listed plants was limited to federal land and that plants do not enjoy as much protection as animals under the ESA, unless the state also provided for plant protection. This sentiment is carried through the history of the ESA as recounted by Peterson[433] and is also reminiscent of the speech made by President Nixon on signing the ESA into law.[434] The limited protection that the ESA offers to listed plants therefore remains a concern for regulation of trade.

While permits are an important regulatory tool for managing species and allowing certain activities for listed species, they are not considered significantly different as a regulatory tool for purposes of this comparative study, as South African law also provides for the issuing of permits. However, it is interesting to note the USFWS vision for permits as a conservation tool.[435] Within this vision, the language used resonates well with sustainable use and is therefore noteworthy. The introduction to the vision states that

> Human demands on animals and plants can leave them vulnerable. Permits provide a means to balance use and conservation by tracking and regulating human activities that affect wildlife….Conversely many species became sustainably maintained through varying regulatory programs.[436]

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[432] Life history is an ecological term that refers to the life cycle and stages in the life of the species, such as, life expectancy, natural mortality, sexual maturity, especially as these relate to the survival strategy of the species. Available at http://science.jrank.org/pages/3924/Life-History.html, accessed on 10 June 2017.
[433] Shannon Petersen 'Congress and Charismatic Megafauna: A Legislative History of the Endangered Species Act'(1999) 29 *Environmental Law* 463.
[434] President Nixon stated that 'nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed.' President Nixon's Statement on Signing of the Endangered Species Act of 1973, 374 Pub. Papers 1027-28 (Dec. 28, 1973).
[435] USFWS 'Leaving a Lasting Legacy: Permits as a Conservation Tool' (2002) Department of Interior, Arlington VA.
[436] *Ibid*.

About the nations laws for wildlife the document states that

> The Nations wildlife laws embody a collective commitment to conserve wildlife. They maintain biodiversity of animals and plants for enjoyment of people today and all future generations.[437]

Up to now the concept of sustainable use of species has been largely inferred from the ESA however, this document which expresses the USFWS vision for permits as a conservation tool, explicitly refers to a 'balance between use and conservation' and the fact that many species have been sustainably maintained. In addition, the element of intergenerational equity is introduced through maintaining biodiversity 'for enjoyment of people today and all future generations'. It is contended that these reflect key elements of sustainable use, although it has not been that explicit in the text of the ESA. It is further argued that the vision also resonates with the working definition of sustainable use for this thesis.[438]

While the ESA is federal legislation implemented by federal agencies, its effectiveness is also dependent on interagency cooperation, especially when considering international trade in species as opposed to interstate commerce, which requires cooperation between federal agency and the state agencies.[439] The importance of interagency cooperation within the US as well as between the US and foreign States[440] involved in international trade in species is critical to the success of federal legislation like the ESA and the Lacey Act and is considered in the compliance and enforcement dimension which follows.

3.3.2 Compliance and enforcement dimension

International trade in species that are regulated requires effective compliance and enforcement to ensure that the regulatory tools deliver the desired effect e.g. in the case of CITES international trade should not place a species at risk of extinction. Apart from compliance and enforcement, good cooperation between federal agencies in the US and the relevant authorities in foreign States e.g. between State Parties to CITES, also greatly facilitate the implementation of regulatory provisions. In the context of international trade, States that are party to the CITES convention are encouraged to cooperate with each other to

[437] *Ibid.*
[438] 'Use of species at a rate that maintains viable population levels for the benefit of present and future generations'.
[439] ESA section 6 Cooperation with States.
[440] In this context foreign States are outside of the US territory over which the US has no jurisdiction.

achieve the objectives of the convention.[441] This is particularly important in addressing the common challenge of illegal wildlife trade. Illegal wildlife trade not only severely undermines the effectiveness of the CITES convention and national laws, but also the sustainable use of species and deprives the State of origin of accruing benefits from the species. The role that the US plays in combatting illegal wildlife trade within and outside of its territory will be examined more closely in the section that follows, as a subset of the compliance and enforcement dimension.

3.3.3 Extraterritoriality dimension

As part of the international community, sovereign States that engage in international trade in species also have a responsibility towards conservation of those species for the benefit of present and future generations. The US, as a party to international conventions for species, such as CITES, has incorporated its international obligations into domestic law like the ESA. However, the US has come under serious criticism for extending its compliance and enforcement of its domestic law beyond areas of national jurisdiction, including in terms of trade in species. Maier's criticism of the extraterritorial reach of certain US enforcement activities appropriately sums up the views shared by many critics. Maier states that

> The sharpest confrontations and the ones with the greatest potential for disrupting amicable political and economic relations, however, occur when the United States seeks to use its power over persons or entities before its courts or agencies to enforce its policies by requiring or prohibiting acts or omissions abroad that are contrary to the laws or policies of the foreign or territorial sovereign.[442]

However, if the laws and policies that the US seeks to enforce is to uphold its international commitments, while also being consistent with laws of the foreign State concerned, then such enforcement activity should be mutually beneficial.

In this section case law will be considered in demonstrating some of the merits and challenges in the extraterritorial reach of US law for wildlife, including in terms of species in foreign States beyond the jurisdiction of the US. Special attention will be given to enforcement of the Lacey Act, while the ESA is also briefly considered in this context.

In order to understand when a US statute may apply in foreign States the US Supreme Court judgement in the case of *Foley Bros. v Filardo*, is relevant. The Supreme Court held

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[441] Press release 'CITES marks 40 years of international cooperation and national action' available at https://cites.org/eng/cites_1975_2015, accessed on 15 July 2016.
[442] Harold G Maier 'Interest Balancing and Extraterritorial Jurisdiction' (1983) 31 *American Journal of Comparative Law* 579-597.

that three factors needed to be considered in determining whether a federal law had extraterritorial application; (1) whether the language of the statute provided an indication of congressional intent for extraterritoriality;[443] (2) whether there is a legislative history demonstrating congressional intent of extraterritorial application; and (3) whether administrative interpretation of the statute reveals congressional intent for extraterritoriality.[444]

The Eighth Circuit held in *Defenders of Wildlife v Lujan* that the ESA as a whole demonstrated congressional commitment to conservation efforts globally.[445] Considering that the ESA incorporates international commitments such as NEAFC, CITES, etc. as well as the fact that the ESA allows for listing of threatened and endangered species that are foreign and domestic, it could further be argued that there was intent for extraterritorial application. The ESA also provides for a consultation mechanism between the Secretary of the Interior, the Secretary of State and the foreign nation for listing foreign species as threatened or endangered. This is important to note should South Africa seek to similarly list foreign species as part of its international commitments to conservation of species in the wild. In addition, the ESA has made provision for funds to be used to

> Provide to a foreign country (with its consent) assistance in the development and management of programs in that country which the Secretary determines to be necessary or useful for the conservation of any endangered species or threatened species listed by the Secretary pursuant to section 4 of this Act. The President shall provide assistance … to foreign countries under this section under such terms and conditions as he deems appropriate.[446]

The abovementioned provision of the ESA indicates intent to provide support, including financial support to a foreign country for the conservation and management of a species listed under the ESA, as appropriate. However, interviewee three indicated that since 'there is no dedicated funding for all foreign listed species, the funding either materializes indirectly as a result of the enhancement requirement for the issuance of permits[447] (e.g. an importer provides monetary support to conservation programs as part of the activity associated with the import of specimens) or funding comes from some other US law and its

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[443] Precedent of intent was also set in the judgement of *Equal Employment Opportunity Commission v. Arabian American Oil Company* 499 U.S. 244, 248 (1991).
[444] *Foley Bros. Inc. v Filardo* 336 U.S. 281 (1949).
[445] *Defenders of Wildlife v Lujan* 911 F.2d 117 (8th Cir. 1990).
[446] ESA section 8(a).
[447] ESA section 7(h) for exemptions provides for the issuance of exemptions with mitigation and enhancement measures for the applicant. The cost of carrying out such measures is borne by the exemption applicant. Mitigation and enhancement measures include, but are not limited to, live propagation, transplantation, habitat acquisition and improvement.

associated funding mechanism e.g. African Elephant Conservation Act,[448] Asian Elephant Conservation Act,[449] Rhinoceros and Tiger Conservation Act,[450] etc.'

In terms of the interviews, interviewee two and three indicated that there are real benefits to foreign species listings under the ESA, including in terms of CITES. Foreign species listing under the ESA according to interviewee two had the added benefit of law enforcement beyond the borders of the foreign country.[451] The listing of foreign species, even though they may also be listed by CITES, provides greater protection for the species, particularly in terms of interstate commerce in the US. The intention of these provisions is also to ensure that US citizens not only comply with US legislation, but do not undermine the legislation for protection of species in foreign countries, especially through commercial activities such as imports. ESA therefore offers protection through enforcement actions for US indigenous species as well as foreign species listed pursuant to section 4. Listing of foreign species requires cooperation between the Secretary of the Interior and Secretary of State, who in turn needs to give notice to the foreign State of the intention to list the species under the ESA, while also inviting the foreign State to submit comment.

While this may not be enforcement and compliance of laws in such foreign country, it nonetheless shows intention to uphold species conservation and management principles of foreign countries, but not without consulting such foreign country. This could be described as a generous reinforcement in conservation programs for species of global concern, understandably with agreed upon terms and conditions as prescribed by the US. Continued support for such foreign species programs would therefore be contingent upon the extent to which the foreign country has met the terms and conditions associated with such support. It

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[448] African Elephant Conservation Act of 1989 16 USC 4201- 4202(8) The United States, as a party to CITES and a large market for worked ivory, shares responsibility for supporting and implementing measures to stop the illegal trade in African elephant ivory and to provide for the conservation of African elephant. 4203(1) to assist in the conservation and protection of the African elephant by supporting the conservation programs of African countries and the CITES Secretariat; and (2) to provide financial resources for those programs, available at https://www.fws.gov/international/wildlife-without-borders/multinational-speicies-conservation-acts-african-elephant.html, accessed on 15 June 2016.

[449] Asian Elephant Conservation Act of 1997 16 USC 4261 available at https://www.fws.gov/international/pdf/multinational-species-conservation-act-asian-elephant.pdf, accessed on 15 June 2016.

[450] Rhinoceros and Tiger Conservation Act of 1998 16 USC 5301-5306 available at https://www.fws.gov/le/USStatutes/RhinoTiger.pdf, accessed on 15 June 2016.

[451] Section 9(a)(1)(E) and (F). The 'law enforcement beyond the borders of the country' would apply to inspections carried out on imports into the US as well as exports from the US. The demonstration of such enforcement efforts was manifested in the ivory crush that took place in New York on 20 June 2015, when a ton of illegally poached ivory was destroyed in Times Square. The ivory was confiscated through enforcement efforts, as the US is not a range State for elephants available at http://edition.cnn.com/2015/06/20/us/times-square-ivory-crush/, accessed on 15 June 2016.

could be argued that such support has extraterritorial influence on the conservation and management programs of foreign listed species.

3.3.3.1 The Lacey Act

The Lacey Act was passed to deal specifically with illegal trade in wildlife and effectively serves as reinforcement of state laws for interstate and foreign commerce.[452] Anderson describes the Lacey Act as America's premier weapon in the fight against unlawful wildlife trafficking.[453] The Lacey Act's initial intent was to provide protection for domestic bird species in interstate and foreign commerce, while also addressing the problem of introducing exotic birds that posed a threat to domestic species. It also sought to deal with illegally harvested, transported and traded wildlife, with accurate labelling of shipments as another requisite.[454]

The Lacey Act has been amended several times, but most notably in 1969, 1981, 1988 and 2008. The 1969 amendments expanded the application of the Lacey Act to include amphibians, reptiles, mollusks and crustaceans. The 1981 amendments saw Congress removing the standard of 'willfully' violating from the statute, making 'knowingly' the new standard.[455] The amendments were in response to an increasing global trend in illegal trade in fish and wildlife.

In 1988 amendments specifically addressed the intent to falsify documents for the export, import, or transport of wildlife, fish, or plants. The felony provision of the Act was amended for convictions if a person knowingly imported or exported species or where the person was involved in the sale or purchase of wildlife, or fish, with a market value greater than USD350, if the actions were in violation of state, Tribal, federal or foreign law.[456]

The 2008 amendments to the Lacey Act extended its reach to include plant and plant products such as timber and paper, particularly from foreign plant species, resulting in a

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[452] Lacey Act of 1900, 18 USC §42-43 16 USC §3371-3378, as amended.
[453] Robert S Anderson 'The Lacey Act: America's Premier Weapon in the Fight Against Unlawful Wildlife Trafficking' (1995) 16 *Public Land and Resources Law Review* 27-85.
[454] *Ibid.*
[455] The standard of 'knowingly' has a direct bearing on the *mens rea* of the accused. *Mens re*a is 'latin for a guilty mind or criminal intent in committing the act.' It also means 'guilty mind, the term used to describe the mental element required to constitute a crime. Generally it requires that the accused meant or intended to do wrong or at least knew he was doing wrong. However the precise mental element varies from crime to crime' available at http://legal-dictionary.thefreedictionary.com/mens+rea, accessed on 5 January 2016.
[456] Rebecca F. Wisch 'Overview of the Lacey Act 16 USC §3371-3378' (2003) Animal Legal and Historical Centre, Michigan State University College of Law.

greater scope of application for species protection. The latter expansion in scope was in response to growing concerns about illegal logging. Under the new provisions importers of plants are required to declare detailed information on the plants for import. With regard to penalties, civil and criminal penalties for offences range from strict liability, forfeiture of goods and vessels to imprisonment of up to 5 years per offence.[457]

Various scholars viewed the 2008 Lacey Act amendments as too onerous however, oversight hearings on these amendments were held in 2013.[458] According to Marcus Asner[459] in his experience companies were able to comply with the 2008 amendments 'without an undue burden'. He further added that the 2008 amendments provided a 'tool in the fight against criminal organisations…' While Steve McCreary from Collings Guitars stated that the amendments promote 'integrity and commitment to legal procurement'.[460] Guertin argues that 'the plant amendments bring plants under the same standards as all wildlife species that have been protected by the Lacey Act for the last hundred years'.[461] The strength of the Lacey Act provisions will be examined through case law and relevant literature.

The Lacey Act is triggered when a state, Indian tribal or foreign wildlife law is contravened and therefore an underlying or predicate law violation is a pre-requisite for enforcing the Lacey Act.[462] The Lacey Act states that

> It is unlawful for any person-
>
> (1) To import, export, transport, sell, receive, acquire or purchase any fish or wildlife or plant taken, possessed, transported or sold in violation of any law, treaty or regulation of the United States or in violation of any Indian tribal law;
> (2) to import, export, transport, sell, receive, acquire or purchase in interstate or foreign commerce
> (A) any fish or wildlife taken, possessed, transported or sold in violation of any law or regulation of any state or in violation of any foreign law;
> (B) any plant taken, possessed, transported or sold in violation of any law or regulation of any state; or

[457] Francis G. Tanczos 'A New Crime: Possession of Wood – Remedying the Due Care Double Standard of the Revised Lacey Act' (2011) 42 *Rutgers Law Journal* 549-88.
[458] Oversight Hearing on "The 2008 Lacey Act Amendments". Hearing before the Sub-Committee on Fisheries, Wildlife, Oceans and Insular Affairs, 113th Congress. (2013) available at http://naturalresources.house.gov/calendar/eventsingle.aspx?EventID=332895, accessed on 7 February 2016.
[459] Marcus Asner, a former Assistant U.S. Attorney, successfully prosecuted Arnold Bengis and others under the Lacey Act provisions (case to be discussed later in this chapter).
[460] McCreary testimony available at http://naturalresources.house.gov/uploadedfiles/mccrearytestimony05-16-13.pdf, accessed on 7 February 2016.
[461] This view is substantiated by the testimony of Stephen Guertin, the then Deputy Director US Fish and Wildlife Service, Department of Interior available at http://naturalresources.house.gov/uploadedfiles/guertintestimony05-16-13.pdf, accessed on 7 February 2016.
[462] 16 USC §3372(a).

(C) any prohibited wildlife species (subject to subsection (e) of this section.[463]

In terms of false labelling offences, subsection (d) states that

> It is unlawful for any person to make or submit any false record, account, or label for, or any false identification of any fish, wildlife, or plant, which has been, or is intended to be –
>
> (1) imported, exported, transported, sold, purchased, or received from any foreign country; or
> (2) transported in interstate or foreign commerce.

The Lacey Act penalties and sanctions that provide for civil or criminal penalties also state that

(a) Civil penalties

(1) Any person who engages in conduct prohibited by any provision of this chapter … in the exercise of due care should know that the fish or wildlife or plants were taken, possessed, transported, or sold in violation of, or in a manner unlawful under, any underlying law, treaty or regulation, and any person who knowingly violates section 3372 (d) of this title, may be assessed a civil penalty by the Secretary of not more than $10,000 for each such violation: Provided, that when the violation involves fish or wildlife or plants with a market value of less than $350 and involves only the transportation, acquisition, or receipt of fish or wildlife or plants taken or possessed in violation of any law, treaty, or regulation of the United States, any Indian tribal law, any foreign law, or any law or regulation of any State, the penalty assessed shall not exceed the maximum provided of said law, treaty ore regulation, or $10, 000, whichever is less…

(d) Criminal penalties

(1) Any person who

(A) Knowingly imports or exports any fish or wildlife or plants in violation of any provision of this chapter …

(B) Violates any provision of this chapter … by knowingly engaging in conduct that involves the sale or purchase of, the offer or sale of purchase of, or the intent to sell or purchase fish or wildlife or plants with a market value in excess of $350 , knowing that the fish or wildlife or plants were taken, possessed, transported or sold in violation, or in a manner unlawful under any underlying law, treaty or regulation, shall be fined not more than $20, 000, or imprisoned for not more than five years, or both. Each violation shall be a separate offence and the offence shall be deemed to have been committed not only on the district where the violation first occurred, but also in any district in which the defendant may have taken or been in possession of the said fish or wildlife or plants.

(2) Any person who knowingly engages in conduct prohibited by any provision of this chapter …[464]

Based on the latest annual inflationary adjustments to penalties, the Lacey Act has a maximum monetary civil penalty of USD 25,409.[465] In terms of criminal penalties, for a

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[463] Lacey Act 18 USC §42-43. 16 USC §3371-3378.

[464] 16 USC §3372(d).

[465] Subpart D – Civil Monetary Penalty Inflation Adjustment [81 FR 41865, June 28, 2016, as amended at 82 FR 6308, Jan. 19, 2017] available at https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=5ca6452e71d05fc0075cedc549d406d1&ty=HTML&h=L&mc=true&n=pt50.1.11&r=PART, accessed on 25 March 2017.

misdemeanour[466] the penalty is USD 100,000 per individual and USD 200,000 for organisations, or maximum of one year imprisonment, or both, for each offense of the Lacey Act.[467] While for a felony criminal penalty[468] the maximum fine for a guilty individual is USD 250, 000 or USD 500,000 for organisations or twice the amount of the gross gain or loss, or imprisonment for not more than five years, or both, for each offence of the Lacey Act.[469] It is noted that the maximum penalty per offence of the ESA is USD 50,276.[470] These penalty provisions are important for comparative purposes with South African legislative penalties in the next chapter.

The abovementioned provisions are fundamental in considering enforcement of the Lacey Act. Proof of violation of a state or Indian tribal law requires close collaboration between the relevant state and federal agencies. While, proof of foreign law violations requires engaging with foreign countries on a bilateral basis, to establish the correct interpretation of the foreign law that is being contravened.

Case law will be used to illustrate the application of the Lacey Act in terms of reinforcing foreign wildlife law. Insofar as the Lacey Act relates to interstate commerce, while it is recognised that the Lacey Act reinforces state wildlife law[471] of greater relevance to this comparative study of federal law is the Lacey Act's application in the context of foreign law.

A case relevant to South Africa will be explored to illustrate the positive contribution that the Lacey Act has made to disrupting unsustainable use and illegal trade in foreign wildlife. In the case of *US v Bengis*[472] the defendants in the case, Arnold Bengis, Jeffrey Noll and David Bengis, pleaded guilty to conspiracy to commit smuggling and violating the Lacey

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[466] Misdemeanour means that 'government must show that the defendant "in the exercise of due care" should have known of the illegal nature of the plant, fish or wildlife in question, although not necessarily the specific law violated.' Lacey Act Frequently Asked Questions April 28, 2016 available at https://www.aphis.usda.gov/plant_health/lacey_act/downloads/faq.pdf, accessed on 25 March 2017.
[467] *Ibid.*
[468] *Ibid.* Felony means that 'government must show that the defendant knew or was generally aware of the illegal nature of the plant, fish or wildlife, although not necessarily the specific law violated. Felony violations in addition to a "knowing" scienter or *mens rea*, require either proof that the defendant knowingly imported or exported plants or wildlife or "knowingly" engaged in conduct during the offence that involved the sale or purchase, the offer for sale or purchase of, or the intent to sell or purchase plants or wildlife with a market value over $350.
[469] *Ibid.*
[470] 81 FR 41865, June 28, 2016, as amended at 82 FR 6308, Jan. 19, 2017 available https://www.aphis.usda.gov/plant_health/lacey_act/downloads/faq.pdf, accessed on 25 March 2017.
[471] Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997).
[472] *United States v Bengis* 03 Cr 308 (LAK) (S.D.N.Y. 2003).

Act in respect of trade in illegally harvested wildlife. The defendants engaged in overharvesting of the South African West Coast and South Coast rock lobster over the period 1987 to 2001. The fish were harvested through the fishing rights holding company, Hout Bay Fishing Industries Ltd, in quantities far exceeding the quotas permitted to the company.[473] The rock lobsters, together with Patagonian toothfish, were subsequently exported from South Africa to the US market through Icebrand Seafoods Inc. which processed, packed and marketed the rock lobster products.[474] In May 2001 South African authorities seized a consignment of illegally harvested rock lobsters and Patagonian toothfish and informed the US authorities that the consignment was destined for the US and that another consignment was on its way to the US. This consequently resulted in Arnold Bengis entering a plea of guilty with the South African authorities. As a result of the violation of the Marine Living Resources Act (MLRA)[475] and because Bengis' financial resources and presence outside of South Africa placed him 'beyond the reach of South African authorities', the focus of prosecution in South Africa was on the rights holding company Hout Bay Fishing, its operations manager, various west coast rock lobster fishermen involved in the scheme and the fourteen fishery control officers who were bribed during the elaborate scheme.[476] Upon Bengis' return to South Africa in April 2002 and his guilty plea, Hout Bay Fishing was fined ZAR12 million (South African rand) and forfeited two fishing vessels and the container of seized fish as part of the plea agreement with the South African government. This was a meagre fine[477] for contravening the MLRA over a period of 14 years, particularly because the rock lobster fisheries are extremely high value. South African authorities cooperated with the US in the investigation and prosecution for violating US law.[478]

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[473] The South African fishing industry is regulated by the Marine Living Resources Act 18 of 1998. The Act provides for the allocation of local fishing rights in terms of section 18 and the issuing of permits in terms of section 13 of the Act. In addition, under section 14 of the Act fishing seasons and quotas or total allowable catches or applied effort, or a combination thereof, also applied to the rock lobster fisheries. Therefore, Hout Bay Fishing had a permit issued by the Department, to harvest a certain quota of West Coast and South Coast rock lobster.

[474] Arnold Bengis had control over Icebrand Seafoods Inc. in Manhattan, while David Bengis was the President of Icebrand Seafood Inc. in Portland Maine available at http://www.justice.gov/usao-sdny/pr/officers-fishing-and-seafood-corporations-ordered-pay-nearly-225-million-south-africa, accessed 13 October 2015.

[475] Marine Living Resources Act No. 18 of 1998. GG 18930 of 27 May 1998.

[476] *US v Bengis et al*. S1 03 Crim. 0308 (LAK).

[477] Glazewski J. 'Current Legal Developments South Africa/United States' (2014) 29 *The International Journal of Marine and Coastal Law* 173-183.

[478] *Ibid*. The National Prosecuting Authority (NPA) of South Africa reported on the matter in its annual report of 2007-2008 and stated that 'other prominent matters in which international cooperation is instrumental include the Arnold Bengis/Hout Bay Fishing matter…'available at http://www.gov.za/sites/www.gov.za/files/npa-annual-rpt0708.pdf, accessed 12 February 2016.

In the US prosecution,[479] two of the defendants, Arnold Bengis and Jeffrey Noll, pleaded guilty to conspiracy to violate the Lacey Act and to commit smuggling of rock lobster that were illegally taken in South Africa, in that they had exceeded their legally allowed quota of rock lobster and then imported said fish into the US. The third defendant, David Bengis pleaded guilty to the conspiracy charge only.[480]

Arnold Bengis and Jeffrey Noll were sentenced to 46 and 30 months imprisonment respectively, while David Bengis was sentenced to 12 months imprisonment. The defendants collectively forfeited USD 13,3 million to the US. In the Southern District of New York, in ruling District Judge (DJ) Lewis Kaplan stated that 'Arnold Bengis showed an astonishing display of arrogance of wealth and power'. He also argued that Bengis's actions and efforts to conceal the overharvesting of rock lobster, by offloading the catch at night, bribing South African fishery control officers to 'look the other way', submitting falsified documents of catches and imports, were all evidence of intent to violate not only the MLRA which regulates fishing in South Africa, but also the Lacey Act of the US.[481] It is argued that this is a clear demonstration of *mens rea* or intent to violate the law, bringing the standard of 'knowingly' violating Lacey Act provisions into play.[482]

While the focus of this chapter is not on restitution per se, it is relevant to this seminal case in the South African and US context and is therefore briefly mentioned below. On January 29, 2007 Kaplan (DJ) adopted the report and recommendations made by Andrew Peck (MJ) 2006 WL 3735654 (S.D.N.Y. Dec.19, 2006) (Peck, MJ). In the judgement, Kaplan (DJ) agreed with the recommendations by Peck (MJ) that there were no grounds for restitution as the rock lobster taken illegally was not the property of South Africa[483] and declined to order restitution pursuant to the Mandatory Victims Restitution Act of 1986 (MVRA)[484] and the Victim and Witness Protection Act of 1982 (VWPA).[485] The US government consequently appealed the ruling on South Africa's behalf, arguing that South Africa had property interests in the rock lobsters harvested in its waters and that the government was denied the opportunity of seizure and sale of the rock lobster because of the

[479] *US v Bengis et al*. S1 03 Crim. 0308 (LAK).
[480] In terms of the Lacey Act a violation of foreign law as a predicate law (see above discussion) constitutes a violation of the Lacey Act.
[481] See above (note) 476.
[482] See above (note) 455.
[483] *US v Bengis* 03 Cr. 0308 (LAK), 2007 WL 241370, *1 (S.D.N.Y. Jan. 29, 2007).
[484] 18 USC § 3663 A. Where restitution is mandatory in cases when an offence is against property.
[485] 18 USC § 3663.

actions of the defendants and that South Africa could then be considered a victim in accordance with the MVRA and VWPA and should accordingly be entitled to restitution. The Court of Appeals held that South Africa had a property right to the illegally harvested rock lobster and was also a 'victim' of the defendants' illegal activities which were knowingly committed. The judgement stated that

> [L]obsters possessed in violation of the [South African] regulatory scheme do not become property of the possessors, rather they are subject to seizure and sale by the government of South Africa. Under this logic, the moment a fisherman pulls an illegally harvested lobster out of the sea, a property right to seize that lobster is vested in the government of South Africa. Evading seizure of overharvested lobsters thus deprives South Africa of an opportunity to sell those illegally captured lobsters at market price and retain the proceeds, representing an economic loss to South Africa each time an illegally harvested lobster goes unseized.[486]

The Appeals Court held that by smuggling the illegally harvested rock lobster out of South Africa, the South African authorities were denied the right to seize and sell the illegally acquired rock lobster, [487] thereby directly harming the South African government and making it eligible for restitution. In summary, the Appeals Court set aside the decision of the District Court and remanded the matter of the restitution amount (quantum) back to the District Court of New York.[488] In order to determine the just restitution amount, the South African government commissioned a report by the Ocean and Land Resources Assessment Consultancy (OLRAC) which specialises in predictive analytics in fisheries. In its report, OLRAC presented two methods for determining restitution. The first method considered the cost of restoring the rock lobster biomass to levels that it would have been at without the overharvesting by the defendants, while the second method focused on the market value of the overharvested rock lobster. The Court of Appeals adopted the second method used by OLRAC in determining the restitution amount, but the determination of the exact amount was remanded to the District Court to consider the market value amount of the overharvested rock lobster and subtract the amount already forfeited by the defendants to South Africa, while adding that the US government has discretion in transferring the funds to the South African government.[489] Subsequently, in concluding the judgement in June 2013, Kaplan (DJ) ordered the defendants to pay restitution in the amount of USD 22,446,720 to South Africa

[486] *US v Bengis*, 631 F.3d at 39.
[487] United States Court of Appeals for the second circuit, Docket No. 07-4895-cr.
[488] *Ibid*.
[489] *Ibid*.

for overharvesting of west coast rock lobster having taken account of amounts already forfeited to South Africa.[490]

Pickering argues that:

> Restitution for the foreign government could aid global enforcement of laws protecting wildlife and trees and encourage international cooperation. *Bengis* therefore demonstrates that the Lacey Act can help fight wildlife trafficking and illegal deforestation – provided of course, that the source country's own laws fit into the victim analysis set out by the Second Circuit in *Bengis*.[491]

In concluding on the *Bengis* matter, the restitution order is for 14 years of overharvesting and importing such fish into the US (1987 to 2001), where it was subsequently marketed. South African authorities made the first seizure of illegally harvested fish in May 2001 and at the time of writing the case continues in the US Courts. On 20 July 2017, Kaplan (DJ) ordered Bengis to pay restitution in the amount of USD 37 million (ZAR 483 million) effectively replacing the previously determined restitution amount because of Bengis's failure to pay the previously determined restitution amount.[492] Therefore, in terms of the outcome in recognising South Africa as a victim in the context of restitution, this case has been seminal not only to the US and South Africa, but globally. This has been a precedent setting case for the Lacey Act, with cooperation between the two countries undoubtedly being a major success factor. The *Bengis* case shows what can be achieved through strong laws, international cooperation and enforcement, backed by the judiciary. For any country trading in wildlife with the US, the Lacey Act serves as another checkpoint to ensure that such trade is indeed legitimate not only in terms of US law, but also in terms of the foreign country's relevant wildlife law. In terms of sustainable use, the overharvesting of rock lobster in South Africa was contrary to several objectives of the MLRA, most notably 'optimum utilisation and ecologically sustainable development' and 'the need to conserve marine living resources for both present and future generations'.[493] Therefore, Hout Bay Fishing's actions were not only in violation of the Lacey Act and the MLRA, but the overharvesting of rock lobster severely impacted South Africa's ability to meet the MLRA's objectives for sustainable use.

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[490] *Ibid*. Through 2 witnesses, the Court could not find sufficient evidence for the import of illegally harvested south coast rock lobster into the US. Therefore, judgement was specific to the overharvesting and import of west coast rock lobster.
[491] Grace Pickering '*Bengis* and the "Victim" of an Environmental Crime' (2011) 22 *Environmental Law in New York* 7:103-7.
[492] Times Live 'The man who destroyed the west coast rock lobster' 21 July 2017 available at https://www.timeslive.co.za/news/south-africa/2017-07-21-knock-on-door-and-handcuffs-in--future/ accessed on 23 July 2017.
[493] MLRA Section 2(a) and (b).

Detractors of the application of the Lacey Act to foreign wildlife law argue that the Lacey Act has introduced overcriminalisation[494] and that current application has veered from the initial intent of the Lacey Act in fighting interstate wildlife trafficking. Taczos is of the view that the Lacey Act now requires importers to play the role of 'supply-chain policemen' in order to avoid the threat of criminal prosecution.[495] In addition, Taczos further argues that the Lacey Act should not be used as a substitute for the lack of governance by foreign countries. However, if foreign countries have good governance in place, but the demand for the wildlife was driven by the US market, then Lacey Act serves as another important regulatory step for unscrupulous importers of wildlife into the US. This is especially important to ensure that wildlife trade is sustainable, as much of the regulation provided by foreign countries with good governance practices would be aligned to sustainable use and limits for harvesting of resources e.g. quotas. This is also true for CITES listed species, for which the US, amongst all other Parties, is obliged to take responsibility to ensure that international trade does not place the species at risk of extinction.

The Lacey Act's power to act as reinforcement of CITES listed species, the ESA and foreign law, is clearly illustrated in another case with roots in South Africa. Dawie and Janneman Groenewald,[496] two South African nationals and the owners of Out of Africa Adventurous Safaris were charged with conspiracy to sell illegal rhino hunts in South Africa to American hunters. [497] The hunters were duped into hunting for rhino that were said to be 'problem animals' and therefore no hunting trophies were involved, but the hunters could take pictures with the slain animal. However, no permits were obtained from the appropriate South African authorities for the hunt of rhino, a CITES listed species. It is further alleged that the rhino horns were removed and subsequently sold on the black market. It is further alleged that the funds for the illegal hunts were laundered through American bank accounts. The Groenewald's are accused of violating South African (foreign) law as well as the Lacey Act of the US. Recently, an Interpol task team arrested the Groenewald's in South Africa 'to

[494] Overcriminalisation is defined as the criminalisation of conduct that most people would not consider inherently wrongful or criminal available at http://www.cato.org/publications/congressional-testimony/overcriminalization-conductoverfederalization-criminal-law, accessed on 15 July 2016. C Jarrett Dieterle 'The Lacey Act: A Case Study in the Mechanics of Overcriminalisation' 102 *The Georgetown Law Journal* 1279-1306

[495] See above (note) 457.

[496] Alleged 'rhino horn syndicate kingpin' see 'Killing for Profit by Julian Rademeyer' available at http://killingforprofit.com/tag/dawie-groenewald/, accessed on 15 June 2016.

[497] *US v Dawie Jacobus Groenewald and Janneman George Groenewald* Indictment US District Court for the Middle District of Alabama Northern Division. 16 October 2014. The 18 count indictment for activities from 2005 to 2010 is available at https://www.justice.gov/opa/pr/owners-safari-company-indicted-illegal-rhino-hunts, accessed on 15 July 2016.

facilitate the US government's request for the brother's extradition to face charges there'.[498]The latter action demonstrates the importance of bilateral cooperation in addressing the scourge of illegal wildlife trade. Furthermore, in the context of high levels of rhino poaching which constitute unsustainable levels of use, there continues to be global concern that poaching could result in extinction of the African rhino. South Africa, in particular is putting in substantial national and bilateral efforts to ensure conservation and longterm sustainability of rhino.[499]

In another Lacey Act case, the owner of a Los Angeles-based furniture business, Kaven Company Inc., Kam Wing Chan, pleaded guilty to smuggling endangered abalone and *Totoaba* swim bladders.[500] *Totoaba* listed under CITES Appendix I as well as being listed as endangered under the ESA, thereby prohibiting the take, possession, sale, foreign commerce (import or export) of the species. In addition, these species are also endangered fish species in Mexico. Kam Wing Chan admitted to purchasing 37 pounds of dried abalone and 58 *Totoaba* swim bladders in violation of Mexican law and importing them into the US. The fish were subsequently exported to Chan's relatives in China. These commercial activities were all in violation of the ESA, Mexican law as well as the Lacey Act which prohibits foreign commerce of fish and wildlife taken in violation of a federal or foreign law. Through the Lacey Act provisions, the smuggled wildlife was forfeited. Furthermore, an order of restitution was made in favour of the government of Mexico in the total amount of USD 55,000 for the loss of the natural resource and fines totalling USD 14,500 were also paid.[501] The trade in Appendix I species like *Totoaba* 'must be subject to particularly strict regulation in order not to endanger further their survival'.[502] Therefore the illegal trade in *Totoaba* would undoubtedly have a negative impact on the long term survival of the species in the wild and could not be considered as sustainable use.

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[498] News 24 'Interpol arrest two Limpopo brothers for fraud, money laundering' available at http://www.news24.com/SouthAfrica/News/interpol-arrests-two-limpopo-brothers-for-fraud-money-laundering-20170622, accessed on 19 July 2017.
[499] Minister Edna Molewa media release available at https://www.environment.gov.za/mediarelease/molewa_highlightsprogress_againstrhinopoaching, accessed on 15 June 2016.
[500] *US v Kaven Company and Kam Wing Chan* 14-CR-3662-AJB.
[501] Department of Justice, US Attorney's Office, Southern District of California 'Furniture Company Owner Admits Role Running International "Fish" Smuggling Operation' July, 21 , 2015 available at https://www.justice.gov/usao-sdca/pr/furniture-company-owner-admits-role-running-international-fish-smuggling-operation, accessed on 3 October 2015.
[502] CITES Article II (1).

These enforcement efforts through the Lacey Act are important lessons to be learnt by South Africa, particularly where species are imported into South Africa and subsequently re-exported, as South Africa has international CITES obligations to ensure that trade in species would not result in extinction. Consequently, there is little doubt that the Lacey Act may serve as a strong deterrent or weapon for intentional criminal acts regarding fish, wildlife and plants. Therefore, while critics may be opposed to the extraterritorial reach of the US through the Lacey Act, the success of its application in support of sustainable use and conservation of foreign wildlife should not be discounted. Through the abovementioned cases the Lacey Act evidently serves to reinforce foreign law and challenge illegal trade in species regulated by foreign countries. It is therefore another tool in supporting sustainable use of fish, wildlife and plant species. In tandem, the successes of restitution claims that the US submits on behalf of foreign countries i.e. South Africa and Mexico in the above cases, is most noteworthy. It is hoped that the funds from such restitution claims would be ploughed back into the country of origin's conservation, management and enforcement efforts for fish, wildlife and plant species.

3.4 Conclusion

When one considers the Lacey Act as an enforcement tool to guard against violations in state, Indian tribal, federal and foreign law, the Lacey Act undoubtedly has a huge role to play in protecting fish, wildlife and plants from illegal and unsustainable trade. In the context of the US being one of the top 10 wildlife trading nations, the Lacey Act not only serves to complement and provide additional support to state and federal law, but also to wildlife law of foreign countries. This could be extremely useful to countries that trade in fish, wildlife and plants with the US, provided that they too have a legislative framework for international trade in species supported by strong governance practices.

Given the penalties under the Lacey Act, there is little doubt that the Lacey Act could be a strong deterrent or weapon for intentional violation of wildlife law. The *Bengis* case shows what can be achieved through strong laws, cooperative governance and law enforcement, backed by the judiciary. For any country trading in wildlife with the US, the Lacey Act serves as another checkpoint to ensure that such trade is not only legitimate in terms of US law, but also in terms of the foreign country's wildlife law and sustainable use of species. The success of the Lacey Act's contribution to sustainable use and conservation of foreign wildlife cannot be discounted. The key lesson for South Africa is the value of the

extraterritorial reach for import and re-export of fish, wildlife or plants. A valuable spinoff to the extraterritorial application is the ability to leverage funding through restitution resulting from illegal activities that impact negatively on the species, provided that such species is proven to be the property of the country of origin.

Neither the Lacey Act nor the ESA explicitly refer to sustainable use of species as a strong underpinning to any trade in such species. While the ESA makes reference to 'overutilisation' as a determining factor in the listing of species, it is inferred that such listing would be to guard against unsustainable 'overutilisation' and conversely supports the notion of sustainable use of species for commercial, recreational, scientific or educational purposes.

In terms of the management of species, the ESA makes provision for listing of domestic and foreign species and it is argued that while the listing process provides detailed mechanisms in the process, the number of species listed makes for a costly and resource intensive review process on all listed species to be undertaken every five years. Since any person may submit a petition to list a species at any time, there is an element of flexibility to respond to species requiring urgent and immediate protection. It is also recognised that public participation or consultation, including through public hearings, is an integral part of the listing process and adds rigour to the process. In fact, the listing process itself is extremely onerous with statutory time-frames, but is nevertheless considered a strength of the ESA. Given that the ESA also provides for citizen suits decision makers may be subjected to law suits if time-frames are not met. The adherence to legislated time-frames is an important lesson for South Africa, especially in considering the need to mitigate costly and time-consuming litigation.

The species recovery plans has proven to be a strength of the ESA as it has shown successes in species recovery through delisting of species that no longer require federal protection. It is noted though that some delisted species may require continued management to avoid being listed again in future. The average time required for species recovery is indicated as 25 years. This is an important lesson for South Africa in setting realistic time-frames for recovery of species and the kind of commitment that such recovery plans may require in order to be successful.

The practical implications of the lessons learnt from the US will be considered in the South African chapter that follows, with a view to strengthening the law in support of

sustainable use and trade in species, wherever possible. Relevant precedent setting cases regarding species in South Africa will also be considered.

CHAPTER 4

Analysis of South African laws for trade in threatened species

4. Introduction

South Africa is a republic with nine provinces. Geographically South Africa lies at the southern tip of Africa and occupies an area of about 1,2 million square kilometres, which is about one eighth the size of the US. The country is home to about 55 million people, which is about 17 percent of the US population.[503] Surrounded by three different oceans, Indian, Atlantic and Southern Oceans, it has a diverse marine life.[504] South Africa is considered a megadiverse country, with its diverse flora and the Cape Floral Kingdom, making it the third most megadiverse country in the world.[505]

In terms of wildlife, South Africa is world famous for its big five mammals, viz. lion, elephant, rhinoceros, leopard and buffalo. According to the CITES trade database, South Africa is a net exporter of mammals.[506] In terms of the top 10 importers of mammals from South Africa, Thailand is the largest importer, with the US being the third largest importer.[507] On the other hand, the origin of re-exports of mammals from South Africa is predominantly from the southern African region, e.g. Namibia and Zimbabwe. In terms of the species of export from South Africa, these are predominantly common marmoset, red-handed tamarin, squirrel monkey and tufted capuchin (live exports of monkey), followed by lion (trophies and parts), lechwe (antelope), caracal, serval and rhino (trophy horns). As far as the terms of trade in mammals from South Africa are concerned, these are mostly hunting trophies (39%), skulls (18%), live (15%), tusks (14.4%) and ivory carvings (12.8%).[508] However, exports in wild animals and derivatives or parts are not limited to mammals. South Africa also exports

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[503] South Africa Population available at http://www.worldometers.info/world-population/south-africa-population/, accessed on 21 November 2016.
[504] Amanda Driver, *et al. National Biodiversity Assessment 2011: An assessment of South Africa's biodiversity and ecosystems. Synthesis Report* (2012) South African National Biodiversity Institute and Department of Environmental Affairs, Pretoria.
[505] Megadiverse countries are those countries that play host to more than two thirds of the Earth's species. Seventeen countries have been identified as megadiverse. To meet the conditions for megadiverse status a country must have at least 5 000 endemic plant species and marine ecosystems within its borders Mittermeier RA, Gil PR and Mittermeier CG *Megadiversity: Earth's Biologically Wealthiest Nations* (1997) Conservation International.
[506] Trade in mammals by South Africa from 2010 to 2014 available at http://cites-dashboards.unep-wcmc.org/national?id=ZA, accessed on 21 November 2016.
[507] *Ibid*.
[508] *Ibid*.

reptiles, invertebrates (variety including spiders, beetles, scorpions, etc.), birds and a large variety of plant species. In fact, South Africa is also home to the oldest living seed plants in the world, cycads. Cycads are also particularly sought after by collectors and nursery owners.[509]

Unfortunately, South Africa has not been spared from the scourge of poaching, whether for rhino, elephant, chameleons or cycads. The illegal trade in wildlife is one of the single greatest challenges facing conservation in recent times. It continues to undermine all national and international efforts in achieving sustainable use of species for the benefit of communities and land owners that live most closely to the animals in the wild, including adjacent to national parks and reserves as well as private game reserves. The international community is extremely active in mobilising resources and efforts to tackle transnational organised crime of which illegal wildlife trade is now a component.[510] South Africa too has put in tremendous effort in stemming the tide of rhino poaching as evidenced by the development of the draft National Integrated Strategy to Combat Wildlife Trafficking (NISCWT) in South Africa, especially since South Africa is home to about 80 percent of Africa's rhino.[511] Therefore in this context, considering strengthening the law that deals with international trade in threatened or protected species is judicious and timely.

As this is a comparative study with the United States of America (hereafter referred to as the 'US') laws for trade in endangered species, frequent comparisons and references will be made to the previous chapter that dealt with the US provisions. In particular, reference is made to lessons learnt from the US. However, prior to engaging in comparative analysis, it is prudent to consider the historical context of conservation in South Africa.

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[509] SANBI 'South African cycads face extinction crisis' 28 October 2010 available at http://www.sanbi.org/news/south-african-cycads-face-extinction-crisis, accessed on 21 November 2016.

[510] This is evident in the number of recent conferences on illegal wildlife trade - London Conference February 2014, Kasane Conference March 2015 and Hanoi Conference November 2016. At each of these conferences relevant Minister's adopted a joint statement (Kasane) or joint declarations (London and Hanoi). These were concerning the global fight against illegal wildlife trade. See London UK conference available at https://www.gov.uk/government/topical-events/illegal-wildlife-trade-2014 Kasane Botswana conference available at http://sdg.iisd.org/news/international-conference-on-illegal-wildlife-trade-adopts-kasane-statement/ and Hanoi Vietnam conference available at http://iwthanoi.vn/, accessed on 7 December 2016.

[511] While the NISCWT document is not publicly available it is referred to in various public platforms. See media release 'Minister Edna Molewa joined by Security Cluster Ministers highlights progress in the fight against rhino poaching' 8 May 2016 available at https://www.environment.gov.za/mediarelease/molewa_onprogresagainst_rhinopoaching, accessed on 7 December 2016. Also see media statement by International Cooperation, Trade and Security Cluster briefing of 13 December 2016 available at http://www.gcis.gov.za/newsroom/media-releases/international-cooperation-trade-and-security-cluster-briefing, accessed on 11 April 2017.

4.1 Background to species conservation in South Africa

For many years prior to colonisation, the indigenous people of South Africa, the San, Khoi and Nguni applied natural resource management systems, as they were heavily reliant on natural resources for their survival. Evidence of the management systems included setting aside hunting preserves for Zulu royalty as well as totem protection for certain species by the BaSotho people.[512] Indigenous people also had a strong spiritual and cultural connection with nature and their environment. However, this changed dramatically after colonisation in 1652 under the leadership of Jan van Riebeeck. With colonisation came an increase in hunting by European settlers, with a concomitant increase in firearms in the country.[513]

The first protected areas in South Africa were the forest reserves of Knysna and Tsitsikamma, which were declared under the Cape Forest Act of 1888. During the late 1800s the decline in wildlife due to unrestricted hunting activities necessitated the development of statutory game reserves such as, Pongola and Sabie Game Reserves, the Hluhluwe, Imfolozi and St Lucia Game Reserves. From the 1860s, private landowners similarly began establishing reserves on their land to protect game from hunting.[514] The first National Parks Act was promulgated in 1926. At that time, the underlying approach to biodiversity was that of preservation or protectionism, with fences providing access only to the privileged white minority in South Africa, while excluding the black majority of the population. Essentially black people were denied access to natural resources, which understandably led to animosity and little regard for the resources that whites were so protective over. Pre-democracy conservation was understandably largely perceived as a white middle-class issue with a protectionist viewpoint.[515]

Notwithstanding this history, South Africa has a network of protected areas and nature reserves that hold great biodiversity and with that, the promise of sustainable use options for all its people. With the dawn of democracy in 1994, came major law reform in South Africa. The pillar of such law reform is the new Constitution of South Africa and its Bill of Rights, where Section 24 states that everyone has a right:

(a) to an environment that is not harmful to their health or well-being; and

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[512] Department of Environmental Affairs and Tourism. White Paper on the Conservation and Sustainable Use of South Africa's Biological Diversity. *GG* 18163 of 28 July 1997.
[513] *Ibid.*
[514] Stevenson-Hamilton, JC 'South African Eden' (1993) *The Kruger National Park* 1902-1946.
[515] International Development Research Centre. (1995) *Building a new South Africa, Environment, Reconstruction and Development,* vol 4, A.V. Whyte (ed), p. xviii. IDRC, Ottawa.

(b) to have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures that;
    (i) prevent pollution and ecological degradation;
    (ii) promote conservation; and
    (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.[516]

The latter provision (b) is most noteworthy in the context of this thesis, as it clearly reflects sustainable development principles that take account of ecological, social and economic aspects of development for current and future generations. This is a critical underpinning of sustainable development in South Africa. At this juncture it is appropriate to refer back to the working definition of sustainable use as set out in chapter 2 for purposes of this thesis, which is '*use of species at a rate that maintains viable population levels for the benefit of present and future generations*'. This accords well with sustainable development as reflected in the new Constitution.

The Constitution provides national and provincial concurrent legislative competence relevant to environment and nature conservation, while national parks, national botanical gardens and marine reserves are exclusively the competence of national government.[517] Similarly, the power to negotiate and sign international agreements rests with the national executive.[518] Since the focus of this thesis is on the national law, only such legislative instruments will be further considered. However, it should be acknowledged that national law for biodiversity and conservation and sustainable use in South Africa has also been shaped by international law. The next section examines South Africa's commitments as a global player in species conservation.

4.2 South Africa and its international commitments to species conservation and species in trade

Even though South Africa was excluded from various international engagements during the Apartheid years,[519] there was nevertheless a keen interest shown in the area of nature conservation, as evidenced by the history of conservation in the South African context described above. This section briefly examines the international agreements that are most relevant to sustainable use and trade in threatened species.

[516] Constitution of the Republic of South Africa 1996, as amended.
[517] The Constitution, Schedule 4: Functional areas of concurrent national and provincial legislative competence.
[518] The Constitution, section 231.
[519] Wynberg R. *Exploring the Earth Summit, Findings of the Rio United Nations Conference on Environment and Development, Implications for South Africa.* (1993).

4.2.1 CITES in the South African context

CITES is discussed in greater detail in chapter 2 of this thesis and this section focuses on South Africa's obligations. South Africa became the 15th Party to ratify the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in July 1975 and the Convention came into force for South Africa in October that year.[520] South Africa implemented national legislation for CITES for the first time in 2010 and is now considered a 'Category 1' Party in meeting the legislative requirements for CITES implementation.[521] South Africa has come a long way in achieving such status and in fact, at the fifty-seventh meeting of the CITES Standing Committee held in 2008, the CITES Secretariat recommended that the Standing Committee issue a written caution to South Africa, amongst others, to advise of the 'need to accelerate their efforts to enact adequate legislation by SC58'.[522]

South Africa has actively participated in the Conference of the Parties (CoP) which is held at least every two years since the CITES came into force. Most recently, South Africa hosted the 17th CoP in Johannesburg South Africa, from 24 September to 4 October 2016. The CoP17 meeting was described by the CITES Secretary General as the "largest ever World Wildlife Conference hailed as a 'game changer'", with over 3 500 delegates, 152 governments represented, 51 proposals on species listing accepted, five rejected and six withdrawn.[523] The CoP17 ended a day sooner as a result of a high level of consensus informing decision making by the Parties. The Secretary General also stated that:

> Notable successes included decisions to bring new marine and timber species under CITES trade controls, continuing a trend from CoP16 where countries turned to CITES to assist them along the path to sustainability in oceans and forests. It was not just the well-known species that were on the agenda, the pangolin and many lesser known species also came under the spotlight.[524]

The African elephant, rhino and lion featured prominently on the CITES agenda, but the decisions effectively meant a status quo of the listing for the South African populations of

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[520] CITES Contracting Parties available at https://cites.org/eng/disc/parties/chronolo.php, accessed on 21 November 2016.
[521] CITES Parties with legislation in category 1, which means 'legislation that is believed generally to meet all four requirements for effective implementation of CITES' available at https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-22-A3-R1.pdf accessed on 24 March 2017.
[522] CITES SC57 Doc. 18 available at https://cites.org/sites/default/files/eng/com/sc/57/E57-18.pdf accessed on 24 March 2017.
[523] Press Release available at https://cites.org/eng/news/pr/Largest_ever_World_Wildlife_Conference_CoP17_hailed_as_a_game_changer_04102016, accessed on 21 November 2016.
[524] *Ibid*.

these species.[525] As a range State South Africa is compelled to, amongst others, participate in a CITES Task Force on African Lions.[526] In addition, the decision at CITES included the need to commission further studies on the legal and illegal trade in African lion, including in lion bones and other parts and derivatives. However, in terms of trade in lion which occurs predominantly as a result of trophy hunting, the decision taken at the recent CoP17 meeting was to establish a zero export quota for specimens taken from the wild, while South Africa may establish an annual export quota for parts derived from captive breeding operations.[527] The Department's invitation to the public to comment on the lion export quota for lion bones from the captive bred lion,[528] has come under tremendous criticism as captive breeding of lion expressly for hunting purposes in considered to be 'canned hunting'.[529] This practice has fuelled the discourse on ethics and animal welfare which has to date not been adequately addressed by South African authorities.[530]

As the focus of this thesis is on sustainable use, provided that hunting of threatened or endangered species are effectively managed and informed by socio-economic and scientific considerations, e.g. setting of annual quotas that are reviewed on a regular basis, with appropriate monitoring programmes in place, hunting could support sustainable use and provide socio-economic benefits to people. Naidoo *et al*. argues that both tourism and hunting generates economic benefits for private and communal landowners, as evidenced on 77 communal conservancies in Namibia, where tourism and hunting are complementary land uses.[531] The IUCN have also recently documented 10 case studies across the globe that illustrates the benefits of trophy hunting to conservation and community livelihoods, provided such hunting is legal, well-regulated and underpinned by sustainable use

[525] South African populations of *Loxodonto africana* (elephant) remain on Appendix II with a quota of 300 tusks from trophies of 150 animals. South African populations of *Ceratotherium simum simum* (white rhino) and *Diceros bicornis* (black rhino) with a quota of 5 horns as hunting trophies from adult male black rhino, remain on Appendix II. South African population of *Panthera leo persica* (lion) remains on Appendix II, with an exception for exports from South Africa, available at https://cites.org/eng/app/appendices.php, accessed on 11 April 2017.
[526] CITES Decision 17.241 to 17.245 available at https://cites.org/sites/default/files/eng/dec/valid17/E17-Dec.pdf, accessed on 11 April 2017.
[527] CITES Appendices available at https://cites.org/sites/default/files/eng/app/2017/E-Appendices-2017-04-04.pdf, accessed on 11 April 2017.
[528] Media release of 25 January 2017 available at https://www.environment.gov.za/mediarelease/africanlion_pantheraleo_exportquota, accessed on 11 April 2017.
[529] Times Live 'Claws out over South Africa's export of lion bones' 1 March 2017 available at http://www.timeslive.co.za/scitech/2017/03/01/Claws-out-over-South-Africas-export-of-lion-bones, accessed on 14 April 2017.
[530] Barnett, R. and Patterson C. *Sport Hunting in the Southern African Development Community (SADC) region: An overview.* (2005) TRAFFIC Southern/East Africa. Johannesburg, South Africa.
[531] Robin Naidoo, L. Chris Weaver, Richard W. Diggle, Greenwell Montongo, Greg Stuart-Hill and Chris Thouless. 'Complementary benefits of tourism and hunting to communal conservancies in Namibia' (2016) 30 *Conservation Biology* 3:628-38.

principles.[532] Therefore, well-regulated trophy hunting underpinned by sustainable use would serve as an incentive for conservation, as the wildlife are seen to hold value and provide direct benefits to landowners, be they on public, private or communal land.

Apart from CITES South Africa is also a Contracting Party to other international Conventions that are concerned with survival of species in the wild and biodiversity generally.

4.2.2 CBD

South Africa became a Contracting Party to the Convention on Biological Diversity (CBD) in early 1996.[533] There are presently 195 Parties to the Convention. The Convention fundamentally shaped the development of the South African policy on biodiversity conservation and sustainable use.[534] While the CBD does not focus on species only, it considers biodiversity at an ecosystem, species and genetic level together with the sustainable use of biodiversity and the fair and equitable sharing of benefits from sustainable use of genetic resources.[535] According to Wynberg, in the South African context, sustainable use was predominantly about recreational hunting and fishing, as opposed to addressing the issues of benefits and livelihoods for people.[536] However, subsequently there's been a shift in national policy towards a more integrated approach to biodiversity conservation that embraces socio-political concerns including 'human rights, access to natural resources, equity and environmental sustainability'.[537] While the CBD does not provide a regulatory framework for enforcement it provides an important basis from which national law has been derived.

The White Paper on Biodiversity that informed South Africa's national policy on biodiversity had as one of its goals the promotion of conservation and sustainable use of biodiversity at the international level.[538] The manifestation of this goal is seen through South Africa's continued active participation in the CBDs mechanisms of implementation, such as,

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[532] IUCN Briefing Paper, April 2016. Informing decisions on trophy hunting. A briefing paper for European Union Decision-makers regarding potential plans for restriction of imports of hunting trophies.
[533] CBD List of Parties available at https://www.cbd.int/information/parties.shtml, accessed on 22 November 2016.
[534] See above (note) 512.
[535] Article 1. Convention on Biological Diversity. 1992. United Nations.
[536] Rachel Wynberg. 'A decade of biodiversity conservation and use in South Africa: tracking progress from the Rio Earth Summit to the Johannesburg World Summit on Sustainable Development' (2002) 98 *South African Journal of Science* 233-43.
[537] *Ibid*.
[538] See above (note) 512.

the development of the National Biodiversity Strategies and Action Plans (NBSAP)[539] and the submission of National Reports.[540] For South Africa the CBD framework has been implemented through the National Environmental Management Biodiversity Act,[541] which is discussed in greater detail below. In terms of matters relating to sustainable use within the CBD, the recognition has been given to the benefits of sustainable use for conservation of natural resources.[542]

4.2.3 CMS

In 1991 South Africa became a Contracting Party to the 1983 Convention on the Conservation of Migratory Species of Wild Animals. The US is not a Party to this Convention.[543] As the name of the Convention describes, it is predominantly concerned with the migration of wild species. In terms of the framework of the Convention it also uses species lists in the form of Appendices to indicate to which species the Convention applies. Appendix I lists migratory species that are endangered, while Appendix II lists migratory species with an unfavourable conservation status, requiring international agreements for conservation that would prevent them from being listed as endangered.[544] However, the Convention does not provide any mechanisms or regulations for sustainable use and trade in species and is fundamentally concerned with the conservation of migratory species by range States. South Africa is an active participant in the CMS as evidenced by the regular submission of national reports.[545]

4.2.4 SADC Protocol on Wildlife Conservation and Law Enforcement

South Africa has an important role to play in the Southern African Development Community (SADC), including in wildlife conservation and law enforcement.[546] The SADC Protocol text recalls that its member States are also Parties to various international agreements, including

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[539] South Africa submitted its NBSAP to the CBD in 2005 and 2015. See Parties that have developed NBSAPs available at https://www.cbd.int/nbsap/, accessed on 22 November 2016.
[540] South Africa submitted the fifth national report to the CBD in March 2014, available at https://www.cbd.int/doc/world/za/za-nr-05-en.pdf, accessed on 22 November 2016.
[541] National Environmental Management Biodiversity Act No. 10 of 2004. GN 700 GG 26436 of 7 June 2004.
[542] CBD Article 1 – objectives include the sustainable use of biological diversity.
[543] CMS List of Parties and Range States available at http://www.cms.int/en/parties-range-states, accessed on 22 November 2016.
[544] CMS Convention text available at http://www.cms.int/en/convention-text, accessed on 22 November 2016.
[545] National reports to CMS available at http://www.cms.int/en/documents/national-reports?field_country_target_id_entityreference_filter=183, accessed on 22 November 2016.
[546] SADC Protocol on Wildlife Conservation and Law Enforcement of 1999, in force since 30 November 2003 available at http://www.sadc.int/files/4813/7042/6186/Wildlife_Conservation.pdf, accessed on 22 November 2016.

CITES. Such members therefore need to play a particular role in realising the objectives of those international agreements and its contribution to the region. The SADC region faces immense challenges in combatting illegal wildlife trade that poses a huge threat to the conservation and sustainable use of wildlife in the region. The collective challenge is evident in some of the recent SADC meetings held in this regard, such as the Workshop on Illegal Trade in Wildlife held in Gaborone Botswana on 8 July 2016.[547] The opening remarks of the SADC Executive Secretary[548] as well as the speech by the President of Botswana, in his capacity as the SADC Chairperson, are a testament to the challenges faced in the region.[549] The main challenge identified is the increasing trend of illegal trade in wildlife. While ecotourism is a major contributor to the Gross Domestic Product and job creation in SADC countries, illegal wildlife trade could severely undermine the socio-economic benefits of wildlife.[550] In response to the challenges SADC member States adopted the SADC Law Enforcement and Anti-Poaching (LEAP) Strategy in November 2015.[551] The LEAP Strategy encourages regional action by member States in the 'protection, management, conservation and sustainable use of their wildlife and other natural resources'. However, the realisation of the regional commitments begins at a national level and requires the incorporation of various elements of the LEAP Strategy into national strategies or national law, where appropriate.

4.3 South Africa's domestic legislative measures for trade in species

This section focuses on the domestic measures in terms of national law and regulations for the conservation and sustainable use of species in South Africa, specifically on trade in threatened or protected species. The White Paper on Biodiversity that informed the national policy on biodiversity had as one of its goals, to create conditions and incentives that support the conservation and sustainable use of biodiversity. The extent to which this has been achieved will also be considered. Through the sustainable use lens, the following three

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[547] SADC news on the workshop available at http://www.sadc.int/news-events/news/workshop-illegal-trade-wildlife-8th-july-2016-gaborone-botswana/, accessed on 23 November 2016.
[548] SADC Executive Secretary opening remarks available http://www.sadc.int/files/5014/6797/8445/SADC_Executive_Secretary__Remarks__-_SADC_MINISTERIAL_WORKSHOP__8_July_2016.pdf, accessed on 23 November 2016.
[549] Key note address by President of Botswana available at http://www.sadc.int/files/8114/6798/4206/Speech_by_the_President_of_The_Republic_of_Botswana_Lieutenant_General_Dr._Seretse_Khama_Ian_Kham_khama_speech.pdf, accessed on 23 November 2016.
[550] *Ibid.*
[551] SADC LEAP Strategy available at http://www.gaborone.diplo.de/contentblob/4715602/Daten/6225495/SADC_LEAP_FINAL.pdf, accessed on 23 November 2016.

dimensions will be considered in the South African context; management; compliance and enforcement and extraterritoriality dimensions.

4.3.1 Management dimension

The main legislative instruments used in the management of conservation and sustainable use of species is the National Environmental Management Biodiversity Act and its regulations in terms of the Threatened or Protected Species Regulations and the CITES Regulations. The latter in essence represents South Africa's domestication of the legally binding provisions of CITES. This section will consider the legislative instruments as well as relevant case law. A comparative analysis between the US law provisions and lessons learnt in chapter three of this thesis will be made in an attempt to identify areas where legislative provisions in South Africa could potentially be strengthened.

4.3.1.1 National Environmental Management: Biodiversity Act

The National Environmental Management: Biodiversity Act (hereafter referred to as 'NEMBA') was developed in terms of the underlying framework of environmental law in South Africa, viz. the National Environmental Management Act.[552] NEMBA was also informed by the White Paper (Policy on Biodiversity). Ponnan J in *Minister of Water and Environmental Affairs v Kloof Conservancy* pointed out that 'various other statutes interlink with NEMBA, forming a carefully configured legislative latticework.'[553] NEMBA empowers the Cabinet Minister responsible for national environmental management as well as the Member of the Executive Council (MEC) in the province responsible for environmental management. This aligns with the Constitutional provisions of concurrent competence for environmental matters. Based on the Constitutional system of cooperative governance, executive legislative power is devolved to three spheres of government, national, provincial and local spheres of government, each of which are distinctive, interdependent and interrelated.[554] The powers of the Minister for Environmental Affairs should therefore not be seen as hierarchical compared with the MECs and local government,[555] as each have a clearly defined scope of application relating to their duties and responsibilities.[556] The national

[552] National Environmental Management Act No. 107 of 1998. GG 19519 No. 1540 of 27 November 1998.
[553] *Minister of Water and Environmental Affairs v Kloof Conservancy* (106/2015) [2015] ZASCA 177 (27 November 2015) para 4.
[554] Section 40 of the Constitution on cooperative government.
[555] *Minister of Water and Environmental Affairs v Kloof Conservancy* para 10.
[556] *Johannesburg Metropolitan Municipality v Gauteng Development Tribunal and others* 2010 (6) SA 182 (CC) para 43. (18 June 2010).

Minister of Environment does not have supervisory or enforcement powers over other spheres of government.[557] However, the focus of this thesis will be confined to the legislative powers of the national Minister for the environment.

The NEMBA provides for the management and conservation of South Africa's biodiversity at the ecosystem and species level, while also providing for sustainable use of biodiversity; and the fair and equitable access and sharing of benefits from genetic resources through bioprospecting. The NEMBA established the South African National Biodiversity Institute. The Act also gives effect to various international agreements that are relevant to biodiversity, including CITES, CMS and the CBD, amongst others.

NEMBA is similar to the US Endangered Species Act (ESA) in that it not only makes provision for species protection, but also habitat protection through ecosystems protection. [558] NEMBA chapter 4 provides for threatened or protected ecosystems and species. Chapter 4 is divided into four parts viz. part 1 for protection of threatened or protected ecosystems; part 2 for protection of threatened or protected species; part 3 for trade in listed threatened or protected species; and part 4 for general provisions. Much of the focus of this chapter will be on chapter 4 of NEMBA, but not exclusively so.

In terms of administration of NEMBA the Minister of Environmental Affairs may make regulations for:

- the carrying out of restricted activities with threatened or protected species;[559]
- the implementation and enforcement of a legally binding international agreement that regulates trade in listed threatened or protected species;[560] however, since CITES is the only such international agreement, it would have been entirely appropriate to refer to CITES in this NEMBA provision;
- the minimising of threats to the survival of a listed threatened or protected species in the wild;[561]and
- the ecologically sustainable utilisation of biodiversity.[562]

The listing of threatened or protected species pursuant to section 56 is enabled through provisions for the Minister to make regulations.[563] The provision for Minister to

[557] *Minister of Water and Environmental Affairs v Kloof Conservancy* para 12.
[558] Chapter 4 of NEMBA – Threatened or protected ecosystems and species. Also see chapter 3 section 3.3.1.3 of this thesis for more about the ESA and the listing of species.
[559] Section 97 (1)(b)(iii).
[560] Section 97(1)(b)(v).
[561] Section 97(1)(b)(v).
[562] Section 97(1)(b)(viii).

make regulations is a discretionary one and the Minister has exercised her discretion in developing regulations for Threatened or Protected Species,[564] CITES,[565] Alien and Invasive Species[566] and Bioprospecting Access and Benefit Sharing.[567]

In addition, NEMBA also provides for the development of Biodiversity Management Plans for ecosystems and for listed threatened or protected species, which is akin to the species recovery plans under the ESA.[568] Biodiversity Management Plans will be discussed in greater detail later in this chapter.

NEMBA further makes provision for the Minister to issue Norms and Standards in order to meet the objectives of the Act. This is a discretionary provision and the Minister has exercised this discretion by gazetting National Norms and Standards for the Management of Elephants in South Africa,[569] Norms and Standards for the Marking of Rhino and Rhino Horn and Hunting of Rhino,[570] Norms and Standards for Biodiversity Management Plans for Species,[571] Draft Norms and Standards for Regulating Hunting,[572] Draft Norms and Standards for the Management of Damage Causing Animals[573] and Draft Norms and Standards for Translocation of Indigenous Species.[574]

NEMBA furthermore provides for the issuing of permits in respect of restricted activities involving threatened or protected species[575] as well as exemptions,[576] again in much the same way as the ESA. Over and above the issuance of permits, NEMBA also provides for

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[563] NEMBA Section 97.
[564] NEMBA: Threatened or Protected Species Regulations of 2007 GG 29657 GN R152 (as amended).
[565] NEMBA: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Regulations of 2010 GG 33002 GN R173 (as amended).
[566] NEMBA: Alien and Invasive Species Regulations of 2014 GG 37885 GN R598 (as amended).
[567] NEMBA: Bioprospecting Access and benefit Sharing Regulations of 2015 GG 38809 GN R447 (as amended).
[568] NEMBA Section 43(1)(b)(i). This section also provides for the development of a Biodiversity Management Plan for species that are not listed but warrant special conservation attention or a migratory species to give effect to South Africa's obligations to an international agreement e.g. Convention for the Conservation of Migratory Species (CMS).
[569] National Norms and Standards for the Management of Elephants in South Africa of 2008GG 30833 GN R251.
[570] National Norms and Standards for the Marking of Rhinoceros and Rhinoceros Horn and Hunting of White Rhinoceros for Trophy Hunting Purposes, of 2009. GG 31899 GN R170 (as amended).
[571] National Norms and Standards for Biodiversity Management Plans for Species. GG 31968 GN R214 of 2009.
[572] Draft National Norms and Standards for the Regulation of the Hunting Industry in South Africa of 2009. GG 32798 GN R1614.
[573] Draft National Norms and Standards for the Management of Damage-Causing Animals of 2016. GG 40412 GN R749.
[574] Draft National Norms and Standards for the Translocation of Indigenous Species of 2015. GG 38395 GN R44.
[575] NEMBA Chapter 7.
[576] National Environmental Laws Amendment Act of 2009 GG 32267 GN 617.

the Minister to issue notice to prohibit the carrying out of any activity that may have a negative impact on the survival of a listed species.[577] In this regard the Minister has issued notices for a national moratorium on the trade in rhino horn and any derivatives thereof[578] as well as for the export of wild and large cycads.[579]

The abovementioned provisions are most relevant aspects of NEMBA for purposes of this thesis and sustainable use and trade in threatened or protected species. However, before examining the management of the regulatory provisions for threatened or protected species and that for CITES in greater detail, it's critical to understand the definitions provided in the South African context compared with that of the US.

4.3.1.2 Definitions compared with the US

NEMBA defines listed threatened or protected species as any species listed in terms of section 56(1). While the Threatened or Protected Species (hereafter referred to as 'TOPS') Regulations of 2015[580] defines 'threatened species' as indigenous species listed as critically endangered, endangered or vulnerable in terms of section 56(1)(a)(b) and (c) of NEMBA which states that:

> (a) Critically endangered species, being any indigenous species facing an extremely high risk of extinction in the wild in the immediate future;[581]
> (b) Endangered species being any indigenous species facing a high risk of extinction in the wild in the near future, although they are not a critically endangered species;[582]
> (c) Vulnerable species, being any indigenous species facing an extremely high risk of extinction in the wild in the medium-term future, although they are not a critically endangered species or an endangered species.[583]

TOPS defines 'protected species' as any species listed in terms of NEMBA section 56(1)(d), which states that

> (d) protected species, being any species which are of such high conservation value or national importance that they require national protection, although they are not listed in terms of paragraph (a), (b) or (c).[584]

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[577] NEMBA Section 57(2).
[578] GG 31899 GN 148 of 2009 (13 February 2009).
[579] Prohibition of Trade in Certain *Encephalartos* (Cycad) Species. GG 35344 GN R371 of 2012.
[580] National Environmental Management: Biodiversity Act (10/2004): Threatened or Protected Species Regulations General Notice 255, GN 38600 of 31 March 2015.
[581] Listed critically endangered species include; Paulsen's horned baboon spider, eight colophon stag beetle species, Albany adder, wattled crane, bearded vulture, 15 cycad species, Coelacanth, Leach's storm petrel (marine), etc.
[582] Listed endangered species include; seven colophon stag beetle species, Clanwilliam sandfish (freshwater), Plain Mountain adder, grey crowned crane, South Western black rhino, *Aloe peglerae*, four cycad species, scalloped hammerhead shark (marine), Cape cormorant, African penguin, etc.
[583] Listed vulnerable species include: Clanwilliam yellowfish (freshwater), Nile crocodile, Southern bald ibis, cheetah, Samango monkey, pangolin, lion, *Aloe brevifolia*, eight cycad species, nine cycad species, brindle bass (marine), macaroni penguin, blue petrel, Wandering albatross, etc.

In terms of the US definitions under the ESA,[585] they reflect a distinction between the level of risk of extinction between endangered and threatened species, with the text largely borrowed from CITES. However, in NEMBA the level of risk is further elaborated within the category of threatened species, by distinguishing species as critically endangered, endangered or vulnerable. These distinctions in level of risk within threatened species allows for a more nuanced approach to categorising species and largely follows the approach of the IUCN Red List.[586]

NEMBA takes the categories of species further by including a category for protected species which have high value and are of national importance, whereas this category is entirely absent from the ESA.[587] Another important definition in the ESA was that of 'take' which is defined as

> to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.[588]

TOPS Regulations provide several definitions that could be considered to constitute 'take' and more. TOPS definitions are provided for 'angling' (catching fish in aquatic environment by line and hook); 'catch or capture' (take, gain control over or secure); 'coup-de-grâce' (final shot or shot of mercy for a listed species injured during a hunt); 'culling' (to kill a specific number of specimens for management purposes); 'darting' (to shoot a live specimen with a projectile filled with tranquilising, narcotics, immobilising or similar agent); 'hunt' (to kill or attempt to kill by search, lie in wait for, drive, pursue, shoot at, with the intent to kill); 'jigging' (using a line and hook on a listed fish species by a fast erratic retrieving action); and 'tracking' (search for, follow or pursue).[589] Furthermore, 'harassing' has also been defined as behaviour that threatens disturbs or torments a listed species, but only applies to threatened or protected marine species.[590] Similar to the definition of threatened species, the definitions provided above in TOPS that addresses 'take' are far more nuanced than in the ESA.

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[584] Listed protected species include: Vaal-Orange largemouth yellowfish (freshwater), Gaboon adder, blue crane, Southern white rhino, African elephant, leopard, Cape mountain zebra, *Aloe longistyla*, seventy four, red Steenbras, etc.
[585] See chapter 3 of this thesis, section 3.3.1.2 Definitions.
[586] IUCN 2012 *Guidelines for Application of IUCN Red List Criteria at Regional and National Levels: Version 4.0*. Gland, Switzerland and Cambridge, UK: IUCN. The IUCN Red List reflect threatened categories as critically endangered (CR), endangered (EN) and vulnerable (VU), with CR species being the most at risk of extinction.
[587] See chapter 3 of this thesis, section 3.3.1.2.
[588] *Ibid*.
[589] Reg 1(1).
[590] Reg 100

It is important at this juncture to also reflect on case law that has influenced the interpretation of definitions in the NEMBA and its TOPS Regulations. One such influential case is that of the *SA Predator Breeders Association v Minister of Environmental Affairs*[591] where the TOPS Regulations at the time[592] included a definition for a 'put and take animal' which

> means a live specimen of a captive bred listed large predator, or a live specimen of *Ceratotherium simum* (White rhinoceros) or *Diceros bicornis* (Black rhinoceros) that is released on a property irrespective of the size of the property for the purpose of hunting the animal within a period of twenty four months;[593]

The definition above largely describes the practice of 'canned hunting', where an animal is captive bred for the express purpose of hunting. Through the TOPS Regulations the Minister intended to prohibit the hunting of a 'put and take animal'.[594] The Appellants[595] contended that the twenty four month "sterilisation" period for hunting of captive-bred lion was baseless as it bore no rational connection to any legislative purpose of the NEMBA and the Minister's intent to prohibit the hunting of a 'put and take animal'. The Supreme Court of Appeal (SCA) upheld this contention and submitted that the Minister had no scientific basis for arbitrarily setting a time period of twenty four months after the release of the captive bred lion in order for the animal to be hunted. The Court further questioned the legislative purpose for prohibiting hunting of a 'put and take animal', in this case the lion, especially since there was no rational justification for doing so.[596] The Appeal succeeded with costs however the relief being sought for the definition of a 'put and take animal' was refused.[597] However, the latest TOPS Regulations of 2015 published for public comment are completely devoid of the 'put and take animal' definition. Furthermore, a key lesson learnt from this SCA judgement is that decisions require a rational justification, including scientifically informed decisions in respect of matters relating to the conservation and sustainable use of threatened or protected species. The importance of scientific credibility will be discussed in greater detail later in this chapter.

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[591] *SA Predator Breeders Association v Minister of Environmental Affairs* (72/10) [2010] ZASCA 151 (29 November 2010).
[592] NEMBA: Threatened or Protected Species Regulations GG 29657 GN R152 of 2007.
[593] Reg 1.
[594] 'Listed large predator' include; cheetah, spotted hyaena, brown hyaena, wild dog, lion or leopard. Reg 1 of 2007 TOPS Regulations.
[595] SA Predator Breeding Association, MC Mostert and D Cilliers (hereafter referred to as 'SA Predator Breeders').
[596] *SA Predator Breeders Association v Minister of Environmental Affairs* (72/10) [2010] ZASCA 151 (29 November 2010).
[597] The definition of a "put and take animal" was read together with the definition for a "listed large predator".

The ESA provides a definition for 'conservation'[598] and similarly the TOPS Regulations provide a definition for 'conservation purposes' which means

> carrying out a restricted activity, including the collection of such specimen from the wild, with the primary purpose of ensuring the survival of such specimen in the wild, in accordance with a –
>
> (a) conservation strategy or research programme approved by the issuing authority; or
> (b) Biodiversity Management Plan.

The main difference between the ESA definition and that of TOPS is that the ESA considers conservation to have been achieved once the species no longer requires the protection afforded by the ESA. While the TOPS Regulation suggests that the species may indeed be a listed threatened or protected species, as it proposes to regulate certain restricted activities, including the collection of the species as mentioned in the definition above. It should be noted that the primary concern of conservation is for the survival of the species in the wild. This is critically important when captive breeding is considered, as captive bred animals may not always contribute directly to the survival of the species in the wild, as demonstrated in the case of captive bred lion.[599]

Another important definition is the conception of what constitutes a restricted activity, especially since permits may be issued or prohibitions may apply in so far as certain restricted activities are concerned. 'Restricted activity' in the context of a listed threatened or protected species means hunting, catching, gathering, picking parts of, damaging or destroying, importing into the Republic, introducing from the sea, exporting or re-exporting from the Republic, having in possession or exercising control over, growing, breeding or propagating, conveying, moving or translocating, selling or otherwise trading in, receiving, giving, donating, or any other prescribed activity which involves a specimen of a listed threatened or protected species.[600]

In terms of the ESA, a definition was provided for 'commercial activity' which includes certain of the abovementioned restricted activities in NEMBA, such as, trade, which is not limited to buying or selling in terms of the ESA.[601] While the ESA lacks a definition for 'sustainable' use, the NEMBA provides for such a definition:

> 'sustainable' in relation to the use of a biological resource means, the use of such resource in such a way and at a rate that:
> (a) would not lead to its long term decline;

[598] See chapter 3 of this thesis, section 3.3.1.2 Definitions.
[599] See *SA Predator Breeders* SCA p13. Evidence produced by the Minister 'established that the breeding and hunting of captive-bred lions does not contribute to biodiversity'.
[600] NEMBA Section 1.
[601] See chapter 3 of this thesis, section 3.3.1.2 Definitions.

(b) would not disrupt the ecological integrity of the ecosystem in which it occurs; and
(c) would ensure its continued use to meet the needs and aspirations of present and future generations of people.[602]

The abovementioned definition accords well with the working definition of 'sustainable use' for this thesis, which is '*use of species at a rate that maintains viable population levels for the benefit of present and future generations*'. The section on definitions is foundational for the subsequent sections relating to the management of threatened or protected species through TOPS and CITES Regulations as well as the listing of species as a management tool of the regulatory provisions.

4.3.1.3 Listing of Species under NEMBA

NEMBA Section 56(1) makes provision for the Minister to publish lists of threatened species or those requiring national protection pursuant to the definitions described above for categories of critically endangered, endangered, vulnerable and protected species. The Minister is also under obligation to review the lists 'at least every five years'.[603] In practice, the Minister has not reviewed the lists of TOPS species within the minimum standard of five years.[604] The ESA similarly requires a review of the lists of endangered species 'at least once every five years'. However, in terms of the ESA species may be added to or removed from lists at any time, thereby necessitating review of lists at various times to coincide with the fifth year of listing of the species. This is an important lesson learnt from the US, as the ongoing listing and review of lists could be an onerous process and may require additional dedicated resources to ensure that the process is conducted effectively.[605]

Adhering to mandatory legislated time-frames has proven to be a critical lesson learnt in both the ESA[606] as well as the NEMBA. To date, the failure to review the TOPS lists within five years has not been challenged under NEMBA. However, the legislated time-frame for publishing the national list of invasive species has been challenged in South Africa. The Kloof Conservancy[607] launched an application to the High Court asserting that the Minister of

[602] NEMBA Section 1.
[603] NEMBA Section 56(2).
[604] NEMBA Threatened or Protected Species Regulations of 2007 GG 29657 GN R152 (as amended) published together with the species lists. The only review or suggested amendments to the TOPS lists were published for public comment in 2013. The comments were substantive and necessitated a further publication for public comment in 2015. At the time of writing the review process is still not concluded.
[605] See chapter 3 of this thesis, section 3.3.1.3.
[606] See chapter 3 of this thesis, section 3.3.1.3.
[607] *Kloof Conservancy v Government of the Republic of South Africa and Others* (12667/2012) [2014] KZDHC 60 (22 October 2014).

Environmental Affairs failed to timeously fulfil her obligations under NEMBA Section 70(1)(a) which states that

> The Minister must within 24 months of the date on which this section takes effect, by notice in the *Gazette*, publish a national list of invasive species in respect of which this chapter must apply nationally.

The invasive species list had to be published by 31 August 2006, but the Minister failed to do so.[608] However, the interim list was subsequently published in 2013, with the final Regulations and lists published in August 2014, with the date set for implementation. However, Kloof continued its court action and sought relief to, *inter alia*, set aside the interim lists. In his judgement, Vahed J declared the publication of the Regulations and the alien and invasive species lists unlawful and unconstitutional. The Minister consequently appealed the decision of the High Court. The Supreme Court of Appeal held that the High Court had erred in not considering the contents of the August 2014 publication of the Regulations and lists, which essentially meant that the Minister had rectified the matter of the initial challenge of her failure to publish said lists.[609] The other substantive details of the judgement are not of material concern to the context of this thesis. Be that as it may, the observance of statutory time-frames had been tested in South African courts in terms of NEMBA, as well as in US courts in terms of the ESA. Therefore, the critical lesson learnt is the importance of being cognisant of statutory time-frames when considering future legislative amendments and implementation. Similarly, public participation is another critically important element in the threatened or protected species listing process.

4.3.1.3.1 Public participation process

The need for public participation is recognised in international law and is articulated in the Rio Declaration:

> Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.[610]

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[608] *Ibid.*
[609] *Minister of Water and Environmental Affairs v Kloof Conservancy.* Para 15.
[610] United Nations General Assembly 'Report of the United Nations Conference on Environment and Development' Annex I Rio Declaration on Environment and Development (1992). A/CONF 151/26 (Vol.1) available at https://pmg.org.za/committee-meeting/21690/, accessed on 16 August 2014.

Similarly, a decade after Rio, the Johannesburg declaration also states that:

> We recognise sustainable development requires a long-term perspective and the broad-based participation in policy formulation, decision making and implementation at all levels. As social partners we will continue to work for stable partnerships with all major groups respecting the independent, important roles of each of these.[611]

The abovementioned elements of these international declarations have been codified in section 195 of the Constitution which outlines the basic values and principles governing public administration and including *inter alia*, that;

> People's needs must be responded to, and the public must be encouraged to participate in policy-making;
> Public administration must be accountable;
> Transparency must be fostered by providing the public with timely, accessible and accurate information, etc.

The Constitution requires that national legislation upholds these values and principles. In terms of NEMBA, the intent of the Constitution is firmly entrenched in section 100 through the public participation process. Du Plessis argues that enabling public participation in environmental decision making is critical to the fulfilment of the environmental right.[612]

Not only is the Minister obliged to undertake a public participation process, but the provisions compel the Minister to consult with all Cabinet members whose areas of responsibility may be affected by the exercise of her legislated powers, as well as all MECs who are responsible for environmental matters in their province.[613] The public participation provisions require the Minister to give notice of her intention to exercise certain powers in the *Government Gazette* and in at least one national newspaper, or a local newspaper for the area to which the exercise of power may relate.[614] The notice must invite the public to provide written comments on, or objections to, the notice within 30 days of its publication date, while also including information for the public to participate meaningfully.[615] Furthermore, the Minister is obliged to consider all representations made in respect of the published notice.[616]

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[611] Johannesburg Declaration on Sustainable Development. 4 September 2002 available at http://www.un-documents.net/jburgdec.htm, accessed on 16 December 2014.
[612] A Du Plessis 'Public Participation, Good Environmental Governance and Fulfilment of Environmental Rights'. *PER/PELJ* 2008 (11)2.
[613] NEMBA Section 99.
[614] NEMBA subsection 100(1).
[615] NEMBA subsection 100(2).
[616] NEMBA subsection 100(4).

The public participation process allows interested and affected parties to comment on or object to the proposed TOPS Regulations as well as the proposed species lists. By implication various specialists and academics may also submit comments during the public participation process. This democratic process allows for differing perspectives and opinions to be deliberated, as the Minister is compelled to consider the comments. In the Department of Environmental Affairs' briefing to its Parliamentary Portfolio Committee on the latest proposed TOPS amendments and species lists, the Department refers to a compilation of public comments totalling more than 600 pages.[617] In this briefing, the Department also reflects on the further amendments to TOPS Regulations in response to the comments received during the public participation process, hence evidence that all comments are being considered, as required. An important lesson learnt from the US is that considering the diversity of views during the species listing comment period, may enhance the rigour of the listing process.[618]

Nonetheless, the consultation and public participation process in terms of NEMBA sections 99 and 100 has not been spared from litigation. Kruger and Hume challenged the Minister of Water and Environmental Affairs (at the time) in the matter of the moratorium on domestic trade in white rhino horn.[619] The challenge raised questions in respect of, amongst others; whether it was necessary to consult Hume[620] or any other rhino breeder personally before implementing the moratorium; whether substantial or sufficient consultation took place; and whether the applicants made a case for the review and setting aside of the moratorium. Legodi J held that:

> The Minister is empowered in terms of section 100 of NEMBA to follow a different procedure, which in my view, although different form the one contemplated in subsection (2) of section 3 of PAJA is a fair procedure…The Minister was under no obligation to give personal notice as envisaged in section 3(1) and (2) of PAJA to Hume or Kruger.[621]

However, despite the Minister not being obliged to give personal notice to the applicants, the Minister failed to publish the notice 'in at least one newspaper distributed

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[617] See Document 'Substantial review of the TOPS Regulations and species list presentation' available at https://pmg.org.za/committee-meeting/21690/, accessed on 28 November 2016.
[618] See chapter 3 of this thesis, section 3.3.1.3.
[619] *Kruger and Another v Minister of Water and Environmental Affairs and Others* (57221/12) [2015] GPPHC 1018; [2016] 1 All SA 565 GP (28 November 2015).
[620] Hume is of the view that since he is the largest rhino breeder in the world, the Minister was obliged to give him personal notice. At the time Hume had about 1124 rhino, predominantly white rhino, but also a small number of black rhino. He was also the lawful owner of about 4000 kilograms of rhino horn which he accumulated from dehorning his own rhino. See para 7 of the judgement.
[621] See above note 619 para. 9. PAJA refers to the Promotion of Administrative Justice Act 3 of 2000, as amended.

nationally', pursuant to subsection 100(1)(b) of NEMBA. This even though the Minister had followed a consultation process that included publishing in at least 6 media articles as well as internet and newsletters,[622] the Wildlife Forum[623] and the Wildlife Ranching South Africa (WRSA), the association to which the applicants, Kruger and Hume both belong. Furthermore, the court also held that the content of the notice lacked sufficient information to enable members of the public to formulate a meaningful response, whether through written or oral representation, or objection to the notice, as provided for in subsection 100(2) and (3). Perhaps it is appropriate for completeness to contemplate the content of the notice at this juncture:

> **'National moratorium on the Trade of Individual Rhinoceros Horns within South Africa'**
>
> I, Marthinus Christoffel Johannes Van Schalkwyk, Minister of Environmental Affairs and Tourism, hereby in terms of section 100 of the Act, publish for public comment, the following:
>
> 1. Notice in terms of section 57(2) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004): **National Moratorium on the Trade of Individual Rhinoceros Horns within South Africa**.
>
> 2. In addition, I hereby publish, a procedure, as set out in Annexure I, which will regulate the marking and management of hunting of white rhinoceros for trophy hunting purposes.
>
> Any person who wishes to submit written representations and/or abjections on the proposed moratorium or Annexure is invited to do so within 30 days of the publication of this notice. All representations and comments must be submitted in writing to the Director-General of the Department of Environmental Affairs and Tourism:
>
> By post to: The Director-General: Environmental Affairs and Tourism
>
> Attention: Mrs. Sonja Meintjes
>
> Private Bag X447 Pretoria, 0001
>
> By fax to: (012) 320 7026, and by e-mail to smeintjes@deat.gov.za
>
> Any inquiries in connection with the draft notice and Annexure I can be directed to Mrs. Sonja Meintjies at Tel. (01 2) 31 0-3545

It is the court's position that the rationale or context for the moratorium was not articulated in the notice. The context as described in the Minister's answering affidavit to the application by Hume was that the

[622] The newspapers included the Cape Argus and Cape Times of the Western Cape and the Mercury and Daily News publication of Kwa-Zulu Natal. See para. 35.1 to 35.5.
[623] A forum 'established to facilitate consultation and engagement on environmental issues including legislative provisions'. See para. 13.4 of the judgement.

> Moratorium is intended to stem the flow of rhino horn into the international market and indirectly to curb the demand for horn and horn products which in turn may reduce poaching…[624]

In the view of the High Court , the public was not privy to the above rationale which not only sought to curb or reduce poaching, but also sought to comply with the international trade ban of CITES. Therefore, the Court held that in addition to not meeting the peremptory minimum requirement of publishing the notice in at least one national newspaper, the content of the notice also contained insufficient information for the public to participate meaningfully in the public participation process. While the entire judgement is fascinating and also highlights, *inter alia*, the Constitutional imperatives of the matter, the focus here is on the consultation and public participation process of NEMBA and TOPS Regulations and thus the judgement will not be considered in its entirety. Suffice to say that the High Court was correct in holding that the Minister's substantial non-compliance with the peremptory requirements of section 100 of NEMBA supports the court's finding that the moratorium should be reviewed and set aside.[625] This finding was in spite of the High Court indicating that it would have found the decision to impose the moratorium not to be irrational,[626]or that the Minister had not acted unreasonably,[627] or that the introduction of the moratorium was not unlawful[628] and not *ultra vires*.[629] Therefore, based on the above, the consultation and public participation process has to be implemented fully in order to comply with section 99 and 100 of NEMBA, with no discretion for the executing authority (the Minister) to implement it in part. It is most unfortunate that the national Minister charged with leading the realisation of the environmental right through NEMBA, was found to be non-compliant on the grounds of the public participation process. However, the Minister subsequently filed an application for leave to appeal[630] and the SCA dismissed the application.[631] The Minister then subsequently submitted a further leave to appeal to the Constitutional Court and the matter was also

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[624] See para 27 of the judgement.
[625] See paras 46 and 90.2 of the judgement.
[626] See para 53 of the judgement.
[627] See para 57 of the judgement.
[628] See para 59 of the judgement.
[629] See para 62 of the judgement.
[630] Media release 'Department of Environmental Affairs Appeals the Rhino Horn Moratorium Judgement' 9 December 2015 available at https://www.environment.gov.za/mediarelease/dea_appeals_rhinohornmoratoriumjudgment, accessed on 6 December 2016.
[631] See media release 'Supreme Court of Appeal judgement on domestic moratorium on trade in rhino horn' 24 May 2016 available at https://www.environment.gov.za/mediarelease/supremecourt_appealjudgment_traderhinohorn, accessed on 6 December 2016.

dismissed.[632] In an about turn, the Minister has subsequently published draft regulations for the domestic trade in rhino horn, which has come under enormous criticism.[633] This pre-emptive action on the part of the Minister, in response to her failure to comply with the public participation provisions, warrants further scrutiny of the public participation process.

In the South African context, public participation is described by the legislative sector as;

> the process by which Parliament and provincial legislatures consult with the people and interested or affected individuals, organisations and government entities before making a decision. Public participation is a two-way communication and collaborative problem solving mechanism with the goal of achieving representative and more acceptable decisions. Other terms sometimes used are 'public involvement', 'community involvement' or 'stakeholder involvement'.[634]

In the South African legislative sector, four levels of public participation were identified. The first level being to inform the public, the second level to consult, the third level to involve and the fourth level to collaborate. The first level represents awareness raising and provides the public with information on the policy or proposed changes, this could be considered to be one-way form of communication.[635] Consultation on the other hand invites comments, feedback and suggestions from the public on the proposed policy and is therefore more engaging and allows for two-way communication. The third level to involve the public allows for more dialogue and facilitates a greater level of understanding of public concerns. The level of involvement is considered to be the most feasible at this stage in South Africa's democracy, according to the framework for the legislative sector, with the legislature as the ultimate decision-maker. While the fourth level of collaboration allows for partnering and joint-decision making for identifying appropriate solutions to challenges. This last level is considered to be the level of participation that our democracy should be striving towards, but the legislature still remains the final decision-maker.[636] While the public participation framework has limited application to the legislature and does not apply to Departments,[637] it

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[632] See media release 'Minister Edna Molewa notes the Constitutional Court decision on the moratorium on the domestic trade in rhino horn' 6 April 2017 https://www.environment.gov.za/mediarelease/molewa_notes_constitutionalcourtdecision, accessed on 11 April 2017.

[633] NEMBA (10/2004): Draft regulations for the domestic trade in Rhinoceros horn, or a part, product or derivative of Rhinoceros Horn. 8 February 2017 GG 40601 GN R620. The Guardian 'South Africa lifts ban on domestic rhino horn sales' 6 April 2017 available at https://www.theguardian.com/environment/2017/apr/06/south-africa-lifts-ban-on-domestic-rhino-horn-sales, accessed on 11 April 2017.

[634] Public Participation Framework for the South African Legislative Sector June 2013.

[635] *Ibid.*

[636] *Ibid.*

[637] *Ibid.*

may serve as a useful benchmark for Departments to consider. In addition, a huge body of work exists on the public participation process from which the Department could draw on, some of which are reflected below.

Fiorino argues that greater consideration needs to be given to other mechanisms of public participation in a democracy.[638] He focuses on five participatory mechanisms that include public hearings[639] (considered to be the most common of administrative participation), initiatives,[640] public surveys,[641] negotiated rule making[642] and citizen's review panels.[643] However, it should be noted that other common mechanisms include the use of 'elite advisory commissions, written comment processes and site-specific dispute mediation.'[644] In terms of the five participatory mechanisms, Fiorino identified strengths and weaknesses for each of the approaches, depending on the context of the decision-making. Considering the mechanisms identified by Fiorino together with the levels of public participation described for the legislative sector above, it may be timely for the Department and the Minister of Environmental Affairs to consider a more collaborative level of public participation.

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[638] Daniel J Fiorino 'Citizen Participation and Environmental Risk: A Survey of Institutional Mechanisms' (1990) 15 *Science, Technology and Human Values* (2) 226-43.

[639] Public hearings are structured by the government agency and allows for the public to hear about proposed policies, legislation, etc. and the public, including amateurs as well as organised interest groups could clarify government's intentions. Organised interest groups often have an economic interest in the decision making to which the public hearings relate. Checkoway B 'The Politics of Public Hearings' (1981) 17 *Journal of Applied Behavioral Science* 566-82.

[640] Initiatives are more democratic and allow participants to vote, thereby addressing issues of equality and democracy. Equality also refers to the fact that all participants have an opportunity to vote and influence the outcome, unlike the public hearings which may be dominated by a few interest groups or intellectuals. The outcome of an initiative through the democratic process would be binding in terms of a ballot process and the outcome would inform policy. Daniel J Fiorino 'Environmental Risk and Democratic Process: A Critical Review' (1989) 15 *Columbia Journal of Environmental Law* 501-47.

[641] Public surveys provide a more representative public opinion, whether they are 'uninterested but affected public'. Milbrath LW 'Citizen surveys as citizen participation mechanisms' (1981) 17 *Journal of Applied Behavioral Science* 478-96.

[642] Negotiated rule making is a more informed process with the benefit of resolving conflict, while arriving at pragmatic and realistic end products. However, negotiated rule making relies on negotiations between representatives of organised interests and therefore excludes general public and amateurs from the process. Negotiated rule making therefore serves as an institutional mechanism for public participation. Daniel J Fiorino 'Regulatory Negotiation as a Policy Process' (1988) 48 *Public Administration Review* 764-72.

[643] Citizen's review panels allow the lay person as well as technical experts and scientists or representatives of interest groups to participate. The panel selection is based on the jury selection model. .The citizen's review panel considers evidence, debate alternatives and could make recommendations. Ned Crosby, Janet M Kelly and Paul Schaefer 'Citizens Panels: A New Approach to Citizen Participation' (1986) 46 *Public Administration Review* 170-78.

[644] Daniel J Fiorino 'Citizen Participation and Environmental Risk: A Survey of Institutional Mechanisms' (1990) 15 *Science, Technology and Human Values* (2) 226-43.

There is a growing discourse on the benefits, strengths, weaknesses and failures of the public participation process in the US.[645] Innes and Booher argue that the public hearings, review and comment processes in the US does not work, as they do not allow for authentic participation, the public remains disgruntled as they feel that they are not being heard, they seldom reflect improved decisions made by officials and they exclude the majority of the public.[646] In terms of the latter, Fiorino also highlights that public participation processes are often extremely technical in nature and have the effect of excluding the majority of the public or 'amateurs' and remain biased towards experts or dominated by organised interests with an economic share in the decision.[647] In terms of the latter, Kruger and Hume[648] represent organised interests with vested economic interest in opposing the moratorium on domestic trade in rhino horn.[649] Having said that, it is further argued that current public participation processes of hearings and comment procedures 'often antagonize the members of the public who do try to work with them. The methods often pit citizens against each other, as they feel compelled to speak of the issues in polarizing terms to get their points across'.[650] However, the benefits of public participation also need to be considered as they bring legitimacy to policy and government decision making, provided the appropriate mechanism is used.

While the appropriateness of the mechanism should be considered on a case-by-case basis, benefits to public participation exist for both government and the public (citizenry).[651] Benefits to government include cost-effectiveness of the process where it reduces the risk and costs of litigation, opportunities to learn from the public while also informing them, building trust and allaying fears or anxiety of the public, building strategic alliances and legitimising and improving policy and decision making. Conversely benefits to the public (citizens) include learning from and informing government, influencing and enlightening government

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[645] Paul Wilkinson 'Public Participation in Environmental Management: A case study' (1976) 16 *Natural Resources Journal* 117-35. Gene Rowe and Lynn J Frewer 'Public Participation Methods: A framework for evaluation' (2000) 25 *Science, Technology and Human Values* 3-29. Lawrence C Walters, James Aydelotte and Jessica Miller 'Putting More Public in Policy Analysis' (2000) 60 *Public Administration Review* 4:349-59. Judith E. Innis and David E. Booher 'Reframing Public Participation: Strategies for the 21st century' (2004) 5 *Planning Theory and Practice* 4:419-36.

[646] Judith E Innis and David E Booher (2004) 5 *Planning Theory and Practice* 4:419-36.

[647] See above (note) 638. Also see Checkoway B and J. van Til 'What do we know about citizen participation? A selective review of research' (1978) In *Citizen Participation in America*, ed. Stuart Langton, 25-42. Lexington MA: DC Heath.

[648] *Kruger and Another v Minister of Water and Environmental Affairs and Others* (57221/12) [2015] GPPHC 1018; [2016] 1 All SA 565 GP (28 November 2015).

[649] See section 4.3.1.3 above.

[650] Herberlein TA 'Some observations on alternative mechanisms for public involvement: The hearing, the public opinion poll, the workshop and the quasi-experiment' (1976) 16 *Natural Resources Journal* 197-221.

[651] Renée A Irvin and John Stansbury 'Citizen Participation in Decision Making: Is it worth the effort?' (2004) 64 *Public Administration Review* 1:55-65.

officials, while building skills in activism and allowing a degree of control in the policy making process.[652] Innes and Booher are also of the view that the public participation process creates the expectation that government will be responsive, especially subsequent to engaging the public, regardless of the method employed. If government remains unresponsive, the legitimacy of the public participation process and subsequent decision making is in jeopardy. In order to move towards a more meaningful and authentic public participation process and away from a mechanistic approach in order to comply with the need to consult, a change in citizen and government officials' roles and relationships may be required as well as a willingness to collaborate.[653]

In pursuing a more collaborative approach to public participation, engagement should ideally begin before a policy is formulated, so that government officials, citizens and various stakeholders could jointly develop objectives and solutions.[654] While this approach does not remove dissent completely, it goes a long way in building trust and social capital,[655] which is sorely needed by decision makers in South Africa.

The consultation and public participation process provides integrity to the regulatory process and the progressive realisation of the environmental right pursuant to section 24 of the Constitution.[656] In addition, section 3 of NEMBA confers upon the State as trustee of biological diversity the responsibility, through the organs of state, to implement NEMBA to progressively realise the environmental right contained in section 24 of the Constitution. The consultation and public participation process of sections 99 and 100 of NEMBA applies equally to the Regulations as well as to the species lists and the integrity of the process of amending the Regulations or lists is critical to achieving the objectives of sustainable use and conservation. The public participation process by its very nature provides an opportunity for the public to engage in the decision making process insofar as influencing the final regulatory provisions are concerned. Furthermore, the process creates greater awareness of the

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[652] *Ibid*.
[653] Paul Wilkinson 'Public Participation in Environmental Management: A case study' (1976) 16 *Natural Resources Journal* 117-35. Cheryl Simrell King, Kathryn M. Feltey and Bridget O'Neill Susel 'The Question of Participation: Toward Authentic Public Participation in Public Administration' (1998) 58 *Public Administration Review* 4:317-26.
[654] Judith E. Innis and David E. Booher 'Reframing Public Participation: Strategies for the 21st century' (2004) 5 *Planning Theory and Practice* (4) 419-436.
[655] OECD Insights: Human Capital. The OECD defines social capital as 'networks together with shared norms, values and understandings that facilitate cooperation within or among groups'. However, it should be noted that there are varying definitions for social capital, available at https://www.oecd.org/insights/37966934.pdf accessed on 21 March 2017.
[656] See section 4.1 above.

regulatory provisions and the status of the listed species. Access to this information should empower the public to act in a responsible manner and within the legislative framework to ensure the conservation and sustainable use of threatened or protected species. It could also be argued that such consultation and public participation should facilitate buy-in to support the implementation of the regulatory provisions.

While the listing process in terms of NEMBA is not as exhaustive as that of the ESA,[657] it nonetheless has similarly been tested through case law. Given that the US is considered to be a highly litigious society,[658] South Africa's environmental law since democracy may be lagging behind but has a growing body of litigation as elucidated by Feris and Du Plessis.[659] The litigation in terms of NEMBA and its Regulations continue to shape the implementation and interpretation of legislation keeping it current and responsive to changes in society. However, it is absolutely critical that all of the requirements of NEMBA insofar as making or amending regulations and species lists are concerned, are complied with at all times in order to meet the objectives of the Act and uphold the democratic principles of the Constitution. Rossouw and Wiseman indicate that following democracy in 1994, a period of legislative and administrative reform ensued based on democratic and participative principles.[660] It is essential that these principles be maintained moving forward in implementation of environmental legislation, such as NEMBA and its Regulations, especially to minimise or mitigate litigation.

As mentioned, the listing process provided in NEMBA is not as exhaustive as that of the ESA, which details every step in the listing process, which is often time-bound. In addition, in terms of the ESA anyone may petition the listing of a species and the authorities are compelled to consider the petition for listing and provide strong evidence to the contrary if listing is not forthcoming. The NEMBA on the other hand does not provide for anyone to petition the Minister to list a species as threatened or protected, the listing is largely the prerogative of the national and provincial conservation authorities. The minimalist approach

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[657] See chapter 3 in this thesis section 3.3.1.3.
[658] Paul H Rubin 'More money into bad suits' November 16, 2010 The New York Times available at http://www.nytimes.com/roomfordebate/2010/11/15/investing-in-someone-elses-lawsuit/more-money-into-bad-suits, accessed on 6 December 2016.
[659] LA Feris 'The Role of good environmental governance in the sustainable development of South Africa'. *PER/PELJ* 2010 (13)1. A Du Plessis 'Public Participation, Good Environmental Governance and Fulfilment of Environmental Rights'. *PER/PELJ* 2008 (11)2.
[660] Nigel Rossouw and Keith Wiseman 'Learning from the implementation of environmental public policy instruments after the first ten years of democracy in South Africa' (2004) *22 Impact Assessment and Project Appraisal* 131-140.

described for listing of threatened or protected species in NEMBA section 56(1) creates fewer statutory constraints for the Minister in determining the lists. This may consequently minimise the litigation potential when compared with the ESA as it follows a more detailed and cumbersome process as described in chapter three of this thesis. However, while the ESA listing process has been described as cumbersome, an interviewee argues that there is merit in having 'clear mechanisms' for the listing process and sees this as a strength of the ESA.[661] Similar to the ESA, the listing of threatened and protected species in South Africa is largely informed by a scientific process and may also be considered as a strength in the listing process.

The ESA states that the species listing process should be based on the best available scientific and commercial data.[662] In terms of NEMBA, provision is made for a Scientific Authority to advise the Minister on various matters, *inter alia*, any amendments published in terms of section 56(1) and 57(2), where 56(1) provides for listing of threatened or protected species, while 57(2) provides for prohibitions relating to threatened or protected species. Other matters of the Scientific Authority are further espoused in the TOPS Regulations in terms of the establishment, composition and operating procedures.[663] As prescribed in section 61(2) of NEMBA, in performing its duties the Scientific Authority must

> (a) base its findings, recommendations or advice on a scientific and professional review of available information; and
> (b) consult, when necessary, organs of state, the private sector, non-governmental organisations, local communities and other stakeholders before making any findings or recommendations or giving any advice.

The Scientific Authority is therefore compelled to use available scientific information in making findings, recommendations or providing advice. In addition, the Scientific Authority appears to have some discretion in determining when it is necessary to consult with various groups as mentioned in para (b) above. This consultation is however different and over and above the consultation contemplated in sections 99 and 100 of NEMBA.

The Scientific Authority is composed of various provincial authority representatives, as well as representatives from national entities such as, the South African National Parks

[661] See section 3.3.1.3 of chapter 3.
[662] See section 3.3.1.3 of chapter 3.
[663] Regs 59 to 69.

(SANParks) and the South African National Biodiversity Institute (SANBI).[664] Currently the chairperson of the Scientific Authority is the representative from SANBI.[665]

The SANBI is a public entity founded through section 10 of NEMBA and is responsible for, *inter alia,* monitoring and reporting regularly to the Minister on the 'conservation status of all listed threatened or protected species and listed ecosystems'.[666] As a result of the functions entrusted to SANBI through NEMBA and the Minister's responsibility in terms of section 56 on listing of threatened or protected species, there are sound reasons for the Department of Environmental Affairs to work closely with SANBI in this regard. This is also evidenced in the Parliamentary Portfolio Committee briefing by the Department on the latest proposed amendments to TOPS.[667] The aforementioned briefing notes go so far as to say that,

> SANBI developed scientific criteria for the listing of the species in the different categories, namely critically endangered species, endangered species, vulnerable species and protected species, as envisaged by section 56(1) of NEMBA.

As previously mentioned, the public participation process pursuant to NEMBA section 100 allows for all interested and affected parties to provide comments on the proposed species lists, such interested parties would include the scientific community of South Africa. Indeed, South Africa's scientific community could be described as vibrant and active, as evidenced by South Africa having published red list assessments on plants,[668] spiders,[669] butterflies,[670] reptiles[671] and mammals.[672] These red list assessments employ the IUCN criteria for red lists, which is the same methodology used for the threatened species categories of critically endangered, endangered and vulnerable species in NEMBA section 56(1). The South African scientific community, as evidenced by the various red list assessments undertaken to date, is very well placed to provide meaningful comments on the

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[664] Reg 60(1).
[665] South Africa's national contacts for CITES Scientific Authority available at https://cites.org/eng/cms/index.php/component/cp/country/ZA, accessed on 6 December 2016.
[666] NEMBA section 11(1)(a)(ii).
[667] Document 'Briefing Notes on Substantial Review of the Threatened or Protected Species (TOPS) Regulations and Species Lists' para 3.1 available at https://pmg.org.za/committee-meeting/21690/, accessed on 28 November 2016.
[668] Plant red list available at http://redlist.sanbi.org/, accessed on 7 December 2016.
[669] Spider Red List available at http://www.arc.agric.za/arc-ppri/Documents/1.SPIDERATLASFAMILIESAE.pdf, accessed on 7 December 2016.
[670] Butterfly Red List available at http://www.lepsoc.org.za/books-posters-ebooks/conservation-assessment-of-butterflies-of-south-africa-lesotho-and-swaziland-red-list-and-atlas.html, accessed on 7 December 2016.
[671] Reptile Red List available at http://www.sanbi.org/news/sanbi-publishes-2-new-animal-publications, accessed on 7 December 2016.
[672] Mammal Red List available at https://www.ewt.org.za/reddata/reddata.html, accessed on 7 December 2016.

proposed lists of threatened or protected species. This peer-reviewed scientific rigour of the listing process enhances the credibility of the process, especially for threatened species (critically endangered, endangered and vulnerable). It should however be acknowledged that protected species are different in that they are considered to be of 'high conservation value or national importance or require regulation in order to ensure that the species are managed in an ecologically sustainable manner'.[673] The protected species category of listing species may therefore not be subjected to the same level of scientific rigour as the threatened species categories, but it is subjected to the public participation process. Be that as it may, as with the ESA, the scientific rigour and credibility of the species listing process may have the effect of vindicating litigation in species listing. The threatened or protected species lists are a fundamental tool in the regulatory process for ensuring sustainable use of listed species. The regulatory tool, TOPS Regulations is considered in the next section.

4.3.1.4 Threatened or Protected Species Regulations

Through NEMBA Chapter 4, the TOPS Regulations provides for the regulation, protection and sustainable use of listed threatened or protected species. The objectives of the Regulations are to provide for the following regarding listed threatened or protected species: protection; permitting system for restricted activities or prohibit certain activities; registration of certain institutions, facilities and services; and the composition and functions of the Scientific Authority.[674] Most recently, the intention is also to regulate boat-based whale and dolphin watching and white shark cage diving activities, as well as for the recognition of associations.[675] The TOPS Regulations first came into effect on 1 June 2007, but has subsequently been amended at least five times. In fact the latest proposed amendments published in 2015 for public comment were as a result of the 2013 proposed amendments, which received substantive comments necessitating an invitation for further comments in the 2015 proposed amendments. However, at the time of writing, the latter process has yet to be concluded. Given that the intention, through the 2015 proposed amendments, is to implement such amendments once the process is concluded, the discussion below is primarily based on the 2015 suggested amendments. As with all notices issued in terms of NEMBA, all amendments to TOPS are subject to a consultation and public participation process, pursuant to NEMBA sections 99 and 100.

[673] NEMBA section 56(1)(d), as amended.
[674] NEMBA (10/2004): Threatened or Protected Species Regulations GG 29657 GN R152 of 2007.
[675] TOPS Regulations (draft) GG 38600 GN R597 of 2015.

The TOPS Regulations, as proposed in 2015, consists of three sections, section A relating to listed terrestrial species, freshwater fish species and marine fish species, while section B relates to listed marine species and section C relates to transitional provisions for permits and restricted activities that have already been issued in terms of the previous TOPS Regulations. Section A provides for; permit system for listed species, including the requirements for possession of elephant ivory and rhino horn;[676] registration of persons or facilities[677] as well as the application for certificates;[678] duties of permit holders and certificate holders;[679] renewal, amendment and cancellation of permits and registration certificates;[680] associations or organisations involved in the utilisation of listed species;[681] prohibition of certain restricted activities under certain circumstances;[682] regulation of restricted activities involving listed species;[683] management of listed species that are damage causing animals;[684] and the Scientific Authority.[685] Section B of the TOPS Regulations provides for permits and restricted activities of marine species.[686] Section C of TOPS Regulations provides for the permits and restricted activities relating to the previous TOPS Regulations, including offences and penalties.[687]

In terms of the importance of sustainable use and trade in species, trade is considered to be a restricted activity in terms of NEMBA. TOPS defines trade as

> 'trade' means to import into the Republic, export from the Republic, sell, exchange, purchase, receive, accept as a gift, give, donate, or to acquire or dispose of in any way, a specimen of a listed threatened or protected species within the Republic.[688]

Therefore, the above restricted activity in terms of trade in listed threatened or protected species requires a permit to be issued pursuant to regulation 18 of TOPS. As far as TOPS and CITES species are concerned, the 2015 amendments include CITES Appendix I listed species into the protected species category, if they have not been included in any of the

[676] Regulations Chapter 2.
[677] Facilities include captive breeding facilities, rehabilitation facilities, sanctuaries, temporary translocation facilities, scientific institutions, commercial exhibition facilities, nurseries and game farms, while the persons include wildlife traders, taxidermists, wildlife translocators and freight agents.
[678] TOPS Regulations Chapter 3.
[679] TOPS Regulations Chapter 4.
[680] TOPS Regulations Chapter 5.
[681] TOPS Regulations Chapter 6. This includes recognition of associations or organisations and the withdrawal of such recognition as well as provisions for codes of responsible conduct and good practice.
[682] TOPS Regulations Chapter 7.
[683] TOPS Regulations Chapter 8.
[684] TOPS Regulations Chapter 9.
[685] TOPS Regulations Chapter 10.
[686] TOPS Regulations Chapter 11.
[687] TOPS Regulations Chapter 12.
[688] Reg 1.

threatened species categories (critically endangered, endangered and vulnerable). In so doing, this would facilitate the TOPS requirement for a possession permit after the import of a CITES Appendix I listed species. The latter provision ensures greater alignment between the TOPS and CITES Regulations. The permitting process in terms of TOPS will not be elaborated further, except for the compliance and enforcement dimensions related to it, which is considered later in this chapter. The other closely related NEMBA regulations to TOPS is CITES, which is considered next.

4.3.1.5 CITES Regulations

NEMBA chapter four on threatened or protected ecosystems and species has four parts and part 3 provides for trade in listed threatened or protected species. NEMBA section 59 prescribes the Minister's functions in respect of trade and these include, *inter alia*, that the Minister

(a) Must monitor
  (i) Compliance with section 57(1) insofar as trade in specimens of listed threatened or protected species is concerned; and
  (ii) Compliance in the Republic with an international agreement regulating international trade in specimens of endangered species which is binding on the Republic;
(b) Must consult the scientific authority
(c) Must prepare and submit reports and documents in accordance with the Republic's obligations in terms of such an international agreement;
(d) May provide administrative and technical support services and advice to organs of state to ensure the effective implementation and enforcement in the Republic of such an international agreement;
(e) May make information and documentation relating to such an international agreement

Much of the Minister's functions in this section relate to CITES, as the international agreement. As a Party to CITES, South Africa is required to develop national laws for the implementation of CITES provisions.[689] South Africa finally published the national laws through section 97(1)(b)(iv) of NEMBA as CITES Regulations in March 2010, for implementation.[690] The main objective of the CITES Regulations is to give effect to South Africa's international obligations in terms of regulation and management of trade in CITES listed species. Arguably this has been long overdue when one considers that South Africa has been a Party to CITES since 1975. However, prior to 2010, the provincial legislation provided for implementation of CITES. The concern was that the provincial provisions were

[689] CITES Resolution Conf. 8.4 (Rev. CoP15) National Laws for the Implementation of the Convention available at https://cites.org/eng/res/08/08-04R15.php, accessed on 8 December 2016.
[690] NEMBA: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Regulations of 2010 GG 33002 GN R173 (as amended).

not all aligned to a national standard and the NEMBA CITES Regulations now provides the national standard for implementation of CITES.

In terms of the species lists in the CITES Regulations, these are essentially Appendix I, II and III of CITES and are 'automatically amended' when decisions taken at the CITES Conference of the Parties come into force, as these are legally binding to South Africa as a Party to the Convention. While the CITES Appendices to the Regulations are adopted directly from CITES, some of the species may be listed in the TOPS Regulations, especially where such species are indigenous to South Africa. This approach is similar to the ESA approach, however the ESA allows for the listing of foreign species as well as species that are indigenous to the US. The current NEMBA TOPS Regulations does not provide for the listing of foreign species, while the CITES Regulations in automatically adopting the CITES Appendices, invariably also contains species that are foreign to South Africa. An important lesson learnt from the ESA was that listing the foreign species allows the US to support interventions for the conservation of those species, including beyond US borders in close consultation and collaboration with the foreign State, e.g. the US Fish and Wildlife Service – 'Wildlife Without Borders, Species Programme' which has the African Elephant Conservation Fund.[691] The latter fund allows the US to invest in the conservation of African elephant, a species which is foreign to the US. This initiative could allow for coordinated efforts to stop illegal poaching of elephant for ivory and thereby allowing dwindling elephant populations an opportunity to recover. While this approach may be a bridge too far for South Africa, due to limited resources, it lends itself to possibilities for collaboration on the African continent for survival of African species in the wild. In South Africa, the most recent mechanism used to coordinate efforts for species recovery in the wild is through the Biodiversity Management Plans for Species, which is dealt with in the next section.

4.3.1.6 Biodiversity Management Plans for Species

NEMBA section 43 provides for Biodiversity Management Plans, while section 45 provides for the contents of such plans. Furthermore, Norms and Standards for Biodiversity Management Plans (BMP) for Species have been published as a national approach providing minimum standards to guide the development of such BMPs.[692] BMPs have been developed

[691] Wildlife Without Borders available at https://www.fws.gov/international/wildlife-without-borders/african-elephant-conservation-fund.html, accessed on 8 December 2016.
[692] NEMBA (10/2004): Norms and Standards for Biodiversity Management Plans for Species of 2009 GG 31968 GN R214.

for the following species: Albany cycad,[693] *Pelargonium sidoides*,[694] African penguin,[695] black rhino,[696] shark,[697] eleven critically endangered and four endangered cycad species,[698] with draft BMPs for white rhino,[699] lion[700] and most recently the Cape Mountain zebra.[701] These BMPs provide for a coordinated effort to the conservation and management of the species. They aim to achieve, *inter alia*, the long term survival of the species in the wild, designate responsible organisation(s) for monitoring and reporting on the implementation of the plan which can be developed for any indigenous or migratory species. While the BMP may contain comprehensive information on the species or group of species for which the plan is intended, some of the key information includes criteria for selecting the species for a BMP, the status of the species, known threats and its impacts, the utilisation of the species, socio economic issues, previous conservation efforts, etc.[702] The process for developing the BMP is very much a participative process since the notice published for the BMP is in terms of NEMBA and it is therefore subject to the consultation and public participation process aligned to the NEMBA provisions.[703] Any organisation or person may develop the BMP for species and submit it to the Minister for approval. In some ways this is similar to the ESA listing, where any person or organisation may petition to have a species listed. However, in the South African context this applies to the BMP for species and not the TOPS listing. Be that as it may, the Minister is obliged to review the BMP every five years and assess compliance with the plan and the extent to which the objectives are being met.[704]

Since the aim of the BMP is to ensure the long term survival of the species in the wild, it is critical to consider conservation efforts that would allow the species to recover. This is aptly captured in the following definition contained in the Norms and Standards

> '*In-situ* – 'on site' conservation' means the conservation of biodiversity in the wild through the conservation of ecosystems and natural habitats, and the maintenance and recovery of viable populations of species in their natural surroundings.

[693] NEMBA (10/2004): BMP – Albany Cycad of 2011 GG34488 GN R416.
[694] NEMBA (10/2004): BMP – *Pelargonium sidoides* of 2013 GG 36411 GN R433.
[695] NEMBA (10/2004): BMP – African penguin of 2013 GG 36966 GN 824.
[696] NEMBA (10/2004): BMP – Black rhino of 2013 GG 36096 GN R49.
[697] NEMBA (10/2004): Shark Biodiversity Management Plan of 2015 GG 38607 GN R258.
[698] NEMBA (10/2004): BMP – Eleven critically endangered and four endangered *Encephalartos* cycad species of 2017 GG 40815 GN R315.
[699] NEMBA (10/2004): BMP – White rhino (draft) of 2015 GG 39469 GN R1191.
[700] NEMBA (10/2004): BMP – Lion (draft) of 2015 GG 39468 GN R1190.
[701] NEMBA (10/2004): BMP – Cape Mountain zebra (draft) of 2016 GG 40464 GN R1483.
[702] Norms and Standards for BMP, section 5 on Process for developing BMPs and section 6 on Format of BMPs.
[703] NEMBA Sections 99 and 100.
[704] Norms and Standards for BMPs section 8 on Implementation of BMP for species.

The BMP for species is akin to the species recovery plans under the ESA. An important lesson learnt from the ESA species recovery plans of the US is that if fully implemented, the species could recover to such an extent that it no longer requires the protection of a listing under the ESA. The US indicates a 90 percent success rate of species recovery through the plans.[705] While a signal of success in recovery is ultimately the delisting of a species from the ESA, some argue that the species may require continued management in order to avoid being listed again in future, these species have been referred to as 'conservation reliant species'. Another key finding in the US and a lesson for South Africa is that species on average recover in 25 years.[706] For example, the Black Footed Ferret Species Recovery Plan revised in November 2013 acknowledges that efforts for recovery of the species have been underway for at least 29 years since the development of the first recovery plan in 1988. However it was noted that the species was under protection when it was first listed on the Endangered Species Protection Act of 1966, thereby providing a total of 51 years of protection for the species up to the time of writing.[707] Therefore South African stakeholders should consider planning for long term commitments to include the appropriate level of financial resourcing required for successful implementation of the BMP for species.[708] In addition, the Species Recovery Plans such as the Black Footed Ferret Recovery Plan provide clear down listing and delisting criteria. These criteria are measurable and provide 'reasonable biological and logistically achievable criteria'.[709] It is therefore important to consider such measurable criteria that would serve as a barometer to indicate improvement in the species threat status in the BMP.

Perhaps it is opportune to consider the decision at the recent CITES CoP17 meeting to down list Cape Mountain zebra from CITES Appendix I to Appendix II, which is hailed as a conservation success story. The Cape Mountain zebra was initially listed on CITES Appendix I in the 1970s when the population consisted of about 50 individual animals. However, the sub-species has shown recovery and an August 2015 estimate shows that the population is

[705] See Chapter 3 section 3.3.1.4 on species recovery plans.
[706] *Ibid*.
[707] See chapter three section 3.3.1.4.
[708] The Black Footed Ferret Species recovery Plan includes the detailed financial implications of activities in the plan.
[709] See Black Footed Ferret Recovery Plan, Second Revision, November 2013 available at https://ecos.fws.gov/docs/recovery_plan/20131108%20BFF%202nd%20Rev.%20Final%20Recovery%20Plan.pdf, accessed on 22 March 2017.

about 4 791 individuals, with a growth rate of around 9 percent per year.[710] While this recovery took over three decades, the recovery achieved to date has been in the absence of a BMP, as BMPs for species are a recent mechanism introduced to species conservation in South Africa. However, at the time of the CoP17 meeting, South Africa indicated that a BMP was being developed for the Cape Mountain zebra to address the threat of genetic diversity and to improve the management at a meta-population level. South Africa, within two months of the CoP17 meeting, subsequently published the draft BMP for Cape Mountain zebra for public comment, making good on their commitment at CoP17.[711]

The BMPs for species are a relatively recent mechanism for species conservation in South Africa, as such they have not had much time to prove their utility, with the Norms and Standards published for implementation in 2009 and the first BMP for species published for Albany cycad in 2011. That means that the latter BMP is due for review by the Minister, as it was published over six years ago. Whereas, when compared with the US, the first species recovery plans were introduced in the 1970s, over four decades ago and have therefore proven their value to conservation, with their 90 percent success rate. The success rate of South Africa's BMPs for species will largely depend on the implementation of the BMP by all of the critical role players identified in the specific BMPs. If fully implemented there is great potential that South Africa would have a high success rate of species recovery, as experienced in the US.

Having said that, South Africa has a relatively good track record in species recovery in the wild e.g. elephant and rhino were saved from the brink of extinction over the last three decades. In fact the elephant and rhino populations in South Africa, until recently, have been stable or increasing. However, the increasing threat of poaching over the last few years has necessitated an increased coordinated conservation effort as well as increased coordinated compliance and enforcement efforts.[712] The next section examines the compliance and enforcement dimension as it relates to trade in threatened or protected species.

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[710] CITES CoP17 Proposal 6 submitted by South Africa available at https://cites.org/sites/default/files/eng/cop/17/prop/060216/E-CoP17-Prop-06.pdf, accessed on 20 September 2016.

[711] NEMBA (10/2004): BMP – Cape Mountain zebra (draft) of 2016 GG 40464 GN R1483. Published on 2 December 2016.

[712] Evidenced in the media release 'Minister Edna Molewa joined by Security Cluster Ministers highlights progress in the fight against rhino poaching' 8 May 2016 available at https://www.environment.gov.za/mediarelease/molewa_onprogresagainst_rhinopoaching, accessed on 7 December 2016.

4.3.2 Compliance and enforcement dimension

As previously mentioned, South Africa is a republic, with nine provinces. Environmental law is a concurrent competence shared by national and provincial government. Therefore, the enforcement and compliance of environmental law, such as NEMBA and its associated Regulations (TOPS and CITES) is a national as well as provincial responsibility. DLA Piper considers South Africa's legislation to be excellent, but the enforcement problematic because of the fragmented nature of enforcement of national laws through national as well as provincial agencies that may not have adequate capacity or resources.[713] The concurrent competence for environmental matters and nature conservation that is shared between national and provincial government often results in inconsistencies in application thereby creating unnecessary confusion. The latter also being further compounded by corruption, which is proving to be a major challenge in illegal wildlife trade.[714]

The enforcement of NEMBA is the duty of environmental management inspectors. The NEMBA definition

> 'environmental management inspector' means a person authorised in terms of the National Environmental Management Act to enforce the provisions of this Act.

Whereas, the National Environmental Management Act (NEMA) chapter 7 provides for compliance and enforcement with respect to NEMA and any specific environmental management Act.[715] NEMA section 31B provides for the designation of environmental management inspectors by the Minister, while section 31C provides for the designation of environmental management inspectors by the MEC. The environmental management inspectors are essentially the enforcers of NEMBA and its associated Regulations. An important aspect of the compliance and enforcement dimension includes provision for penalties or sanctions. NEMBA sections 101 and 102 outline what constitutes offences and the associated penalties, respectively.

Offences include non-compliance with NEMBA sections 57(1),[716] 57(1A),[717] 57(2),[718] failure to comply with permit conditions, fraud, forgery and falsifying documents relating to

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[713] DLA Piper (2015) 'Empty Threat: Does the Law Combat Illegal Wildlife Trade? A review of legislative and judicial approaches in fifteen jurisdictions.' Available at http://www.dlapiperprobono.com/export/sites/pro-bono/downloads/pdfs/Illegal-Wildlife-Trade-Report-2015.pdf accessed on 21 March 2017.
[714] *Ibid*. UNODC Wildlife and Forest Crime Toolkit revised edition. United Nations 2012.
[715] National Environmental Management Act 107 of 1998, as amended. GG 19519 GN R1540.
[716] Carrying out a restricted activity involving a TOPS listed species without a permit.

permits and knowingly making false statements or reports for purposes of acquiring a permit, or allowing any other person to do or fail to do anything which constitutes an offence. The penalties associated with offences include ZAR10 million (ten million rand) fine, or 10 years' imprisonment, or both a fine and imprisonment. If convicted of an offence relating to a TOPS listed species without a permit, then the penalty could be three times the commercial value of the specimen, or the abovementioned fine, whichever is greater. Meting out of penalties is within the jurisdiction of a magistrate's court.[719] In deliberating the enforcement and penalties of NEMBA as it relates to threatened or protected species, case law is explored.

In *Lemtongthai v State*, the appellant applied for 26 permits to hunt rhino with the subsequent export of the rhino horns as trophies.[720] However, the appellant, by his own admission, was intent on trading illegally in the rhino horn thereafter. Trade in rhino horn was in contravention of NEMBAs TOPS as well as the CITES Regulations, as rhino horn is subjected to an international trade moratorium through CITES. The Regional Court sentenced the appellant to 40 years imprisonment. The Regional Court charged the appellant with 26 counts of contravening the Customs and Excise Act 91 of 1964. The appellant also faced counts 27 to 52 for contravening section 57(1)[721] of NEMBA read together with, *inter alia*, section 101(1)[722] and 102[723] of NEMBA.[724]

The sentence was subsequently reduced to 30 years imprisonment by the South Gauteng High Court.[725] Tsoka J was of the view that

> …If we do not take measures such as imposing appropriate sentences for people such as the appellant, these magnificent creatures will be decimated from earth. Our Flora and Fauna would be poorer for it. South Africa would no longer be the safe home of one of the "Big Five", as it is known all over the world. [726]

And that

> …deterrence cries out in this matter. The sentence to be imposed must not only act as a deterrent to the appellant but must also serve as a deterrent to all those who intend to embark

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[717] Import, export or re-export or introduce from the sea a specimen of a species listed in terms of CITES without a permit.
[718] Carrying out a prohibited activity with a TOPS listed species in terms of a prohibition notice issued.
[719] NEMBA section 102(3).
[720] *Lemtongthai v State* (849/2013) [2014] SCA 131 (25 September 2014).
[721] 'A person may not carry out a restricted activity involving a specimen of a listed threatened or protected species without a permit issued in terms of Chapter 7'.
[722] 'A person is guilty of an offence if a person contravenes or fails to comply with a provision of– (a) section 57(1), 57(1A), 65(1), 67(2), 71(1), 81(1) or 81A(1)…'
[723] '102(1) A person convicted of an offence in terms of section 101 is liable to a fine not exceeding R10 million, or an imprisonment for a period not exceeding 10 years, or to both such a fine and such imprisonment'.
[724] *Lemtongthai v State* (A82/2013) [2013] GP JHC 294; 2014 (1) SACR 495 (GJ) (30 August 2013).
[725] *Ibid*.
[726] *Ibid*. para 20.

> on the illegal activity of dealing in rhino horn. Potential poachers must know that in the event they are caught, they will be prosecuted and a proper and fitting sentence would be imposed on them. Courts should not shirk their responsibilities in meting out the appropriate sentence in appropriate cases. They must protect these ancient and magnificent animals.[727]

The High Court judgment therefore clearly took account of the potential deterrent effect that a sentence of 30 years may have on would be rhino poachers. However, the SCA submitted that the sentence of 30 years was too severe and since the appellant had spent 16 months in custody while awaiting trial, the sentence was reduced to 13 years imprisonment and a fine of R1 million was imposed.[728] In determining the sentence, the SCA further held that both the Regional Court and the High Court provided no basis for grouping counts 27 to 52 in the way that it had.[729] The SCA determined that

> Having regard that the killing of 26 rhinos occurred during one operation, a sentence of imprisonment of six months in respect of each of counts 27 to 52 is an appropriate sentence. This amounts to a total of 13 years' imprisonment. In arriving at this conclusion, I have borne in mind that the appellant was in custody for 16 months awaiting the finalisation of his trial.

However, in *Radebe v State*, Lewis J had the following opinion

> (14) A better approach in my view is that the period in detention pre-sentencing is but one of the factors that should be taken into account in determining whether the effective period of imprisonment to be imposed is justified… [730]

When one considers that the 16 months pre-sentencing period in detention should be one factor in the imposed imprisonment of Lemtongthai, then other factors might include the context of the high levels of poaching of rhino, that trade in rhino horn was illegal in terms of CITES which is legally binding on South Africa as a Party to the Convention and that South Africa is home to about 80 percent of Africa's rhinos.[731] When these factors are considered together, then it could be argued that South Africa's disproportionately high level of responsibility as the guardian of most of the Africa's rhino warrants a sentence that would act as a deterrent to would-be poachers. Stricter penalties in terms of both fines and imprisonment have been touted by several scholars as having a deterrent effect on illegal

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[727] *Ibid*. para 32.
[728] *Lemtongthai v State* (849/2013) [2014] SCA 131 (25 September 2014).
[729] The grouping was as follows: counts 1 to 26 – 10 years' imprisonment; counts 27 to 36 – 12 years' imprisonment; counts 37 to 46 – 12 years' imprisonment; counts 47 to 52 – six years' imprisonment; thereby totalling an effective 40 years' imprisonment. The High Court, acting as the appeal court, used the same grouping in determining its sentence afresh.
[730] *Radebe v State* (726/12) [2013] SCA 31 (27 March 2013). Para 14.
[731] Richard H Emslie, Tom Milliken, Bibhab Talukdar, Susie Ellis, Keryn Adcock and Michael H Knight 'African and Asian Rhinoceroses – Status, conservation and trade' CoP17 Doc. 68 Annex 5 p3 available at https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-68-A5.pdf, accessed on 21 September 2016.

wildlife trade.[732] Carlsmith *et al* argue that from a psychological perspective, in considering reducing future crime, it is critical that the punishment 'aligns with people's everyday sense of justice'.[733] In considering people's sense of justice, it is prudent to consider the global context of illegal wildlife trade.

Globally illegal wildlife trade is now considered a serious crime together with drug smuggling and human trafficking[734] as evidenced by the UN Resolution on tackling illicit trafficking in wildlife.[735] The Resolution reflects the serious concern in escalating levels of rhino and elephant poaching in Africa. In addition, the UN encourages Member States to recognise illicit trafficking in protected species of wild fauna and flora by organised criminal groups as a serious crime. The Resolution also

> Encourages Member States to adopt effective measures to prevent and counter the serious problem of crimes that have an impact on the environment, such as illicit trafficking in wildlife and wildlife products, including fauna and flora as protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora, and poaching;
>
> Urges Member States to take decisive steps at the national level to prevent, combat and eradicate the illegal trade in wildlife, on both the supply and demand sides, including by strengthening the legislation necessary for the prevention, investigation and prosecution of such illegal trade as well as strengthening enforcement and criminal justice responses, in accordance with national legislation and international law, acknowledging that the International Consortium on Combating Wildlife Crime can provide valuable technical assistance in this regard;

Since the Resolution reflects the political will of 193 nations[736] the call for Member States to 'strengthen legislation necessary for prevention, investigation and prosecution of such illegal trade as well as strengthening enforcement and criminal justice responses' could be considered as a call to ensure justice is exercised insofar as prosecutions and sanctions are concerned. This in turn would require Member States to mete out the appropriate sentences for the serious crime of illegal wildlife trade.

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[732] ME Zimmerman 'The Black Market for Wildlife: Combating Transnational Organised Crime in the Illegal Wildlife Trade' (2003) 36 *Vand. J. Transnat'l L.* 1657. C Parks-Gilbert, III 'The Lacey Act: a vintage conservation tool still vital in today's global economy' (2015) 29 *Natural Resources & Environment* 3.
[733] Kevin M Carlsmith, John M Darly and Paul H Robinson 'Why Do We Punish? Deterrence and Just Deserts as Motives for Punishment' (2002) 83 *Journal of Personality and Social Psychology* 2:284-99.
[734] 'UN puts wildlife crime on par with drug and people trafficking' available at https://www.newscientist.com/article/dn27995-un-puts-wildlife-crime-on-a-par-with-drug-and-people-trafficking/, accessed on 22 December 2016.
[735] UNGA Resolution 69/314 adopted on 30 July 2015.
[736] UN Growth in United Nations membership, 1945 to present available at http://www.un.org/en/sections/member-states/growth-united-nations-membership-1945-present/index.html, accessed on 2 January 2017.

Other parts of Africa have meted out sentences for illegal wildlife trade to serve as a deterrent to future criminals, including Tanzanian Court sentences.[737] Malawi also recognised the importance of appropriate terms of imprisonment as a deterrent to poaching that undermines wildlife conservation and sustainable use.[738] Admittedly, penalties that reflect people's everyday sense of justice may not be the panacea as a deterrent to wildlife crime, but they may indeed serve as an important tool in the fight against wildlife poaching, as poaching severely compromises all efforts for and benefits of sustainable use. Therefore, it is argued that the appropriate sentence for Lemtongthai would have been the High Court determination of 30 years, especially since South Africa harbours about 80 percent of Africa's rhino. South Africa should be at the forefront in precedent setting cases for rhino poaching. In this context the SCA reduction in sentence to 13 years seems a wholly inadequate sentence for illegal trade in rhino horn derived from South Africa.

Perhaps it is appropriate at this juncture to reflect on the South Africa's penalties relative to the US. Comparatively, South Africa's penalties are more stringent than the US, with NEMBAs ZAR 10 million which is equivalent to USD 804, 052[739] per offence, or 10 years imprisonment, or both. The maximum penalty per offence of ESA is USD 50,276 (ZAR 625, 282).[740] The Lacey Act maximum monetary civil penalty is USD 25,881 (ZAR 321,882) and USD 181,071 (ZAR 2,251,980) for violation of various international fishery agreements or conventions.[741] In terms of criminal penalties, for a misdemeanour[742] the penalty is USD

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[737] *Emmanuel Saguda @Sululuka and Sahili Wambura v the Republic of Tanzania*, Tabora Court of Appeal, No. 422B of 2013. Initial sentence included a 30 year sentence, which was reduced on appeal to 20 years and subsequently the sentence was set aside by the Appeal Court. *The Republic of Tanzania v Emiry Feruzi*, Ditsrict Court of Mpanda, No. 110 of 2014. The sentence in the latter case was 20 years imprisonment.

[738] *Republic of Malawi v Akimu* [2003] Malawi High Court 96 (Revision Case No. 9 of 2003). The matter was under review, with the sentence being considered. The concern by the National Parks and Wildlife Department was that the fine or one year imprisonment was no deterrent to would be poachers, especially when considering the financial returns on illegal wildlife trade. It was argued that the sentencing in this case was inappropriately lenient in the context of wildlife crime as a serious crime and that an appropriate imprisonment would have been in the public interest.

[739] Universal currency converter available at http://www.xe.com/currencyconverter/convert/?Amount=10000000&From=ZAR&To=USD, (USD1=ZAR12,437) accessed on 25 March 2017.

[740] 81 FR 41865, June 28, 2016, as amended at 82 FR 6308, Jan. 19, 2017. Available at http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=b7e0152bf980b4c8e39564c0bdeb165e&ty=HTML&h=L&mc=true&r=SUBPART&n=sp50.1.11.d, accessed on 25 March 2017.

[741] Pub. L. 101-410, 104 Stat. 890 (28 U.S.C. 2461 note); Pub. L. 104-134, 110 Stat. 1321 (31 U.S.C. 3701 note); Sec. 701 of Pub. L. 114-74, 129 Stat. 599 (28 U.S.C. 1 note; 28 U.S.C. 2461 note). 81 FR 95434, Dec. 28, 2016, unless otherwise noted available at http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=b7e0152bf980b4c8e39564c0bdeb165e&ty=HTML&h=L&mc=true&r=PART&n=pt15.1.6, accessed on 25 March 2017.

[742] Misdemeanour means that 'government must show that the defendant "in the exercise of due care" should have known of the illegal nature of the plant, fish or wildlife in question, although not necessarily the specific

100,000 (ZAR 1,243,700) per individual and USD 200,000 (ZAR 2,477,400) for organisations, or maximum of one year imprisonment, or both, for each offense of the Lacey Act.[743] While for a felony criminal penalty[744] the maximum fine for a guilty individual is USD 250,000 (ZAR3,109,250), or USD 500,000 (ZAR6,218,500) for organisations or twice the amount of the gross gain or loss, or imprisonment for not more than five years, or both, for each offence of the Lacey Act.[745] It is therefore apparent that the maximum fine or term of imprisonment, or both, set out by NEMBA and TOPS are substantially higher than that for the ESA and for the Lacey Act.

Be that as it may, the *Lemtongthai* case discussed above is a fascinating case that brought about a significant change in approach to regulating hunting of rhino in South Africa, as the case illuminated what became known as 'pseudo-hunting'.[746] The High Court remarked that

> …The people reflected on the permits as professional hunters were in fact prostitutes hired by the appellant to mislead the authorities into believing that indeed professional hunters, shot the rhinos, while in fact this was not true.[747]

While the SCA noted Lemtongthai's plea of 5 November 2012 which states that

> …The people on whose behalf the applications were made were not bona fide hunters and their passports were merely used to fraudulently obtain hunting permits in their names…[748]

By these accounts the lack of bona fides of the hunters reflected a serious deficiency in the South African legislation, a loophole which had to be remedied without delay. In response, the NEMBA 2009 Norms and Standards for marking of rhinoceros horn and hunting of white rhinoceros for trophy hunting purposes[749] was repealed and superseded in terms of section 9 of NEMBA with Norms and Standards that also required the bona fides of

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law violated.' Lacey Act Frequently Asked Questions April 28, 2016 available at https://www.aphis.usda.gov/plant_health/lacey_act/downloads/faq.pdf, accessed on 25 March 2017.

[743] *Ibid.*

[744] *Ibid*. Felony means that 'government must show that the defendant knew or was generally aware of the illegal nature of the plant, fish or wildlife, although not necessarily the specific law violated. Felony violations in addition to a "knowing" scienter or *mens rea* requirement, require either proof that the defendant knowingly imported or exported plants or wildlife or "knowingly" engaged in conduct during the offence that involved the sale or purchase, the offer for sale or purchase of, or the intent to sell or purchase plants or wildlife with a market value over $350.'Also see chapter 3 section 3.3.2.2 of this thesis for a greater discussion on the Lacey Act and *mens rea*.

[745] *Ibid.*

[746] 'Pseudo-hunting' is hunting permit applications made by non-traditional hunters for the purposes of illicit trade in rhino horn. Millikin T and Shaw J (2012) *The South Africa – Viet Nam Rhino Horn Trade Nexus: A deadly combination of institutional lapses, corrupt wildlife industry professionals and Asian crime syndicates*. TRAFFIC, Johannesburg, South Africa.

[747] *Lemtongthai v S* Case No. A82/2013 para 9.

[748] *Lemtongthai v S* (849/2013) para 9 (20).

[749] GG 32426 GN R756 of 20 July 2009.

the hunter to be established through *inter alia*, proof of membership of a hunting association in the country of usual residence of the hunting client, a *curriculum vitae* indicating the hunters experience in hunting in the country of usual residence, proof of previous experience in hunting African species and a copy of the hunting client's passport.[750] Pseudo-hunting peeked in 2011 until South Africa instituted stricter measures to curb the abuse of hunting permits in 2012, as evidenced by a marked decline in permit applications from Viet Nam, Thailand and the Czech Republic.[751] Therefore, the 2012 Norms and Standards sufficiently closed the loophole on pseudo-hunting in South Africa, thanks to the lessons learnt in the *Lemtongthai* case. The Norms and Standards proved to be the most appropriate instrument to use in responding rapidly to early lessons learnt in the *Lemtongthai* case, thereby demonstrating that the Norms and Standards within South African legislation has sufficient flexibility to respond quickly to closing a loophole or addressing what might be considered an emergency or crisis.

The abovementioned provides brief insight into the compliance and enforcement in South Africa in terms of sustainable use and trade in threatened or protected species taken within South Africa and the legislative mechanisms for responsive management to potential crisis and emergency situations. The next section briefly considers whether there is scope for extraterritorial application of South African law to threatened or protected species imported or introduced from the sea into or re-exported from the Republic in contravention of foreign law. The extraterritoriality dimension is a sub-set of the compliance and enforcement dimension.

4.3.3 Extraterritoriality dimension

Recalling chapter 3 and the successes of the US with extraterritoriality, including in cases where South African laws were violated, this section will consider the potential for extraterritoriality for South Africa. In considering any potential extraterritorial application of law in terms of sustainable use and trade in threatened or protected species, it would be prudent to consider the regional context of South Africa. South Africa is a Party to the Southern African Development Community (SADC) and has also ratified various SADC Protocols, including amongst others, the Protocol on Wildlife Conservation and Enforcement

[750] National Norms and Standards for the Marking of Rhinoceros and Rhinoceros Horn and Hunting of White Rhinoceros for Trophy Hunting Purposes, of 2012. GG 35248 GN R304.
[751] Emslie RH, Millikin T and Talukdar B (2012*) African and Asian Rhinoceroses – Status, Conservation and Trade.* CoP16 Doc. 54-2- Annex 2. CITES Secretariat, Geneva, Switzerland.

alluded to in section 4.2.4 above, the Protocol on Fisheries, the Protocol on Forestry and the Protocol on Tribunal in the SADC.[752] The Protocols seek to provide a standard for the region, while the SADC Tribunal is the judicial structure established by SADC in 1992 through the SADC Treaty.[753] The Tribunal was established to resolve disputes between member States and natural and legal persons.[754] As evidenced by recent case law, the Tribunal may also consider the implications of economic policies and programmes. However, the Tribunal has not been very successful at resolving disputes as demonstrated by the *Campbell* case, which many scholars have examined.[755] The ruling of the SADC Tribunal and the fact that it was largely ignored by the Mugabe led Zimbabwean government, instils little confidence that a regional SADC intervention to enforce wildlife conservation would work. The SADC Tribunal was subsequently disbanded and the terms of reference reviewed.[756] The SADC Tribunal with its somewhat reduced mandate has not yet been implemented.[757] If the SADC Tribunal had worked effectively, then it could potentially have served as a vehicle to facilitate enforcement of wildlife law extraterritorially for its member States in the region. This would have been ideal for the region and the implementation of the SADC Law Enforcement and Anti-Poaching (LEAP) Strategy, mentioned in section 4.2.4 above. Therefore, apart from SADC, what are the alternative extraterritorial applications for South Africa to ensure sustainable use of species in the wild? In considering alternatives, the lessons learnt from the US are relevant.

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[752] SADC Protocols available at http://www.sadc.int/index.php/documents-publications/protocols?sortBy=date&pageSize=10&doc_q_4700=&sortOrder=desc&filterByKey=&filterByVal=&page=2, accessed on the 15 January 2017.

[753] SADC Treaty Article 9. The SADC Tribunal was sworn in on 18 November 2005 in Windhoek Namibia.

[754] Oliver C Ruppel (2012) 'SADC Environmental Law and the Promotion of Sustainable Development' 2 *SADC Law Journal* (2) 246-280.

[755] *Mike Campbell and Another (PVT) Limited v The Republic of Zimbabwe* SADC (T) 2/2007. In the Campbell case, Campbell's farmland was expropriated by the Zimbabwean government without compensation, with the dispossessed having no legal recourse through Zimbabwean Courts, as a result of the Constitutional Amendment Act of 2005. Campbell's case was premised on the fact that he acquired the farmland on the open market after Zimbabwe's independence and the farm was seized on racial grounds, as white farmers lost their land. The SADC Tribunal ruled in favour of Campbell and other white dispossessed farmers, finding the Zimbabwean government in breach of certain Articles of the SADC Treaty and that there was no mechanism for farmers to appeal to a Zimbabwean court. Part of the Tribunal's ruling was that fair compensation be made. However the ruling was largely ignored by the Zimbabwean government, to such an extent that Zimbabwe withdrew from the SADC Tribunal. Laurie Nathan 'The Disbanding of the SADC Tribunal: A Cautionary Tale' 2013 35*Human Rights Quarterly* 870-892. Gino J. Naldi '*Mike Campbell (Pvt) Ltd et al v The Republic of Zimbabwe*: Zimbabwe's Land Reform Programme Held in Breach of the SADC Treaty' 2009 53*Journal of African Law* 2: 305-320. Admark Moyo 'Defending Human Rights and the Rule of Law by the SADC Tribunal: *Campbell* and Beyond'2009 *African Human Rights Law Journal* 590.

[756] Oliver C Ruppel (2012) 2 *SADC Law Journal* (2) 246-280.

[757] SADC Tribunal available at http://www.sadc.int/about-sadc/sadc-institutions/tribun/, accessed on 15 January 2017.

In terms of the US legislation, the Lacey Act makes provision for enforcement of state, federal, tribal and foreign law where such wildlife law has been violated.[758] In so doing, acting as a safety net for conservation legislation at the level of state, tribal, federal or foreign State. Unfortunately South Africa doesn't have similar provisions for enforcement of provincial, national or foreign law. As a member of CITES, South Africa is obliged to demonstrate compliance with its international commitments to ensure that trade in endangered (threatened or protected) species is not detrimental to the survival of the species in the wild. As part of that commitment South Africa is also obliged to cooperate with other CITES Parties in implementing the provisions of CITES. To this end, South Africa has engaged in multinational law enforcement efforts such as Operation COBRA III, led by INTERPOL on behalf of the International Consortium on Combating Wildlife Crime (ICCWC).[759] The CITES Secretary General Mr John Scanlon, states that

> Operation COBRA III is a great example of the collaboration that is needed between multiple organisations, disciplines and agencies to combat organised transnational wildlife crimes. It is most encouraging to see enforcement agencies working together across source, transit and destination States to combat these serious wildlife crimes, which makes it increasingly likely that these illicit activities will be detected and the criminals behind them brought to justice.[760]

Critically important to the arrests and seizure successes of Operation COBRA[761] would be the follow through by investigations and the prosecutions, [762] including meting out the appropriate sentences for wildlife crime.

South Africa therefore lacks the legislative provisions that the Lacey Act affords the US in prosecuting contraventions in domestic as well as foreign law. It is argued that South Africa has benefited hugely from US-led prosecution under the Lacey Act in the *Bengis* case, as discussed in chapter 3 of this thesis.[763] It is argued that Lacey Act provisions would not

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[758] See chapter 3 paragraph 3.3.2.2.
[759] UNODC 'Successful operation highlights growing international cooperation to combat wildlife crime' 18 June 2015 available at https://www.unodc.org/unodc/en/frontpage/2015/June/successful-operation-highlights-growing-international-cooperation-to-combat-wildlife-crime.html, accessed on 12 January 2017. Also see DEA 'National Compliance and Enforcement Report 2015-2016' p 77 available at https://www.environment.gov.za/sites/default/files/reports/necer2016.pdf, accessed on 12 January 2017.
[760] Joint Press Release CITES, INTERPOL, UNODC, World Bank Group and World Customs Organisation 'Successful operation highlights growing international cooperation to combat wildlife crime' 18 June 2015 available at https://cites.org/eng/news/pr/iccwc_press_release_cobra_III, accessed on 12 January 2017.
[761] 139 arrests and more than 247 seizures that included ivory, medicinal plants, rhino horns, pangolins, rosewood, tortoises and many other plant specimens. *Ibid*.
[762] As stated by the Executive Director of the United Nations Office on Drugs and Crime (UNODC) Mr. Yury Fedotov. *Ibid*.
[763] See Chapter 3 section 3.3.2.2. Benefits to South Africa included the elimination of a high level of over harvesting of west coast rock lobster from the South African fishery, the closure of illegal trade operations through Bengis's company Icebrand based in the US as well as the ultimate restitution claim awarded to South Africa totalling USD 22,446,720.

only strengthen South Africa's domestic legislation, but would also serve as a support or safety net within the SADC region in particular. South African ports are used for trade purposes such as import, export and re-export of species and derivatives, including in trafficked goods and wildlife from the SADC region, as well as globally. Lacey Act provisions in South African legislation would enable South Africa to support sustainable use and trade in species nationally, regionally and internationally.

Given that the Constitution provides for concurrent competence insofar as environmental matters and nature conservation are concerned, it is important to have regard for the incorporation of Lacey Act-type provisions in terms of this concurrent competence between national and provincial government.[764] Section 146 of the Constitution provides a mechanism for dealing with a conflict in national and provincial legislation where concurrent competence exists and states that:

> (2) National legislation that applies uniformly with regard to the country as a whole prevails over provincial legislation if any of the following conditions is met
> (a) The national legislation deals with a matter that cannot be regulated effectively by legislation enacted by the respective provinces individually.
> (b) The national legislation deals with a matter that, to be dealt with effectively, requires uniformity across the nation, and the national legislation provides that uniformity by establishing
> (i) norms and standards
> (ii) frameworks; or
> (iii) national policies
> (c) The national legislation is necessary for –
> (i) the maintenance of national security
> …or
> (vi) the protection of the environment.

Supporting Lacey Act-type provisions that allow South Africa to apply foreign State law for sustainable use and trade in species is a matter which requires uniformity across the nation in order for it to be dealt with effectively, thereby providing a mechanism for extraterritoriality to be considered. This is further considered in the form of recommendations in the next chapter.

4.4 Conclusion

In conclusion it is opportune to reflect on the research questions of this thesis at this juncture. In response to the first research question on the extent to which environmental law provide

[764] Schedule 4 of The Constitution. Government of South Africa (1996) *Constitution of the Republic of South Africa 1996*.

for sustainable use and trade in threatened species, under the management dimension in South Africa, the national legislation NEMBA defines conservation and sustainable in relation to the use of biological resources, which are critically important in setting the scene for the legislative provisions that follow. Sustainable use and conservation are referred to throughout the provisions for threatened or protected species (Chapter 4 of NEMBA). The use of these terms in South Africa's legislation reflects a more contemporary approach to conservation when compared with the ESA of the US, where the term sustainable use is completely absent in the ESA. It is argued that South Africa's environmental law at national level makes extensive provision for sustainable use of threatened species in trade through the NEMBA TOPS and CITES Regulations, which have been discussed above. The Regulations are extensive in that they provide detailed procedures for matters relating to TOPS or CITES listed species.

In response to the second research question on the extent to which environmental law deals with emergency situations resulting from trade, the flexibility of the NEMBA Norms and Standards allow for responsive actions to be taken in dealing with emergency situations resulting from trade. The swift response to an early lesson learnt in the *Lemtongthai* case, demonstrates this flexibility and responsiveness to deal with a loophole in legislation that inadvertently allowed 'pseudo-hunting' of rhino in South Africa. The Norms and Standards provision could equally be used in emergency situations resulting from unsustainable levels of trade for TOPS and CITES listed species.

In terms of the listing of threatened or protected species as an important mechanism to provide for management of sustainable use and trade in species, an important lesson learnt is the need to adhere to statutory time frames, as evidenced by the US as well as South African litigation (*Kloof Conservancy*).[765]

A further lesson learnt is the implementation of the requirement to consult through a public participation process. The importance of such a process was highlighted in the US, as it allows for rigour and brings legitimacy to the listing process and subsequent implementation. It is noted that South Africa has a track record of producing multi-authored red lists in determining the threat status of species taking account of the risk of extinction. The importance of scientific integrity that underpins the listing process, which is subject to peer-review through public participation, also builds further credibility and scientific rigour

[765] *Kloof Conservancy v Government of the Republic of South Africa and Others* (12667/2012) [2014] KZDHC 60 (22 October 2014).

in the listing process. An important lesson learnt in the public participation process in South Africa was through *Kruger and Another v Minister of Environmental Affairs*, where the High Court held that the Minister failed to comply with the statutory requirement to publish the notice 'in at least one newspaper distributed nationally'.[766] The High Court further held that the content of the notice published lacked sufficient information to enable the public to respond meaningfully. The Minister approached the SCA and the Constitutional Court to have the High Court decision reviewed, but it was dismissed by both Courts. This is a precedent setting case on the need for compliance with the NEMBA provisions for the public participation process.

The NEMBA also provides for the development of Biodiversity Management Plans (BMPs) for Species, which is an important tool in enabling the management and long term survival of species in the wild. The BMPs identify threats and actions to mitigate threats to species and improve the conservation status of species or allow for population recovery. The BMPs are akin to the US species recovery plans. An important lesson learnt from the US is that species on average recover in 25 years. The US has had over four decades of implementing the species recovery plans and has a 90 percent success rate. Given that the BMPs are a relatively recent mechanism for species recovery in South Africa, with the first BMP published in 2011, it may be at least two more decades before we see the first signs of successful recovery through the BMPs. The success of recovery is highly dependent on effective implementation and long term commitment by all relevant stakeholders to the management of threatened or protected species.

In terms of the compliance and enforcement dimension, the NEMBA provides for penalties that include up to ZAR10 million fine or 10 years imprisonment or both. These penalties may reflect the seriousness with which environmental crimes relating to threatened or protected species are viewed in South Africa. However, an important lesson learnt is that penalties must not only mete out an appropriate punishment for the crime committed, but should also serve as a deterrent to would be criminals. There is therefore a critical role for the judiciary to play in this regard, especially to ensure that it views wildlife crime as a serious crime.

In the US, the Lacey Act further supports the enforcement of wildlife law at state, tribal, federal and foreign level, thereby providing for extraterritorial application of wildlife

[766] *Kruger and Another v Minister of Water and Environmental Affairs and Others* (57221/12) [2015] GPPHC 1018; [2016] 1 All SA 565 GP (28 November 2015).

enforcement. The Lacey Act has benefitted South Africa in ensuring the sustainable use and trade in its west coast rock lobster resource by removing the component of overfishing of west coast rock lobster by the Bengis-owned Hout Bay Fishing. However, South African legislation lacks similar provisions to that of the Lacey Act. Compliance and enforcement therefore requires improvement or strengthening, including potentially through the extraterritoriality dimension that allows for foreign wildlife law to be upheld in South Africa.

Finally, it is concluded that South African environmental law provides for sustainable use and trade in threatened species to a large extent, as provided in the detailed and substantive provisions of national law. However, the next and final chapter of this thesis will consider where such law could further be strengthened for sustainable use and trade in species.

CHAPTER 5

Recommendations to strengthen South African legislation for sustainable use and trade in threatened species

This study sought to identify ways in which to strengthen South African legislation for sustainable use and trade in threatened species. To this end a comparative study of South African and the US legislation for endangered species viewed through the sustainable use lens, considered the management, enforcement and compliance and the extraterritoriality dimensions. The study revealed important lessons that are useful for strengthening South African legislation.

5.1 Research findings of this study

In considering the theoretical basis for sustainable use and trade in species the philosophical and psychological aspects considered in this study are foundational and that in keeping with the utilitarian approach, the willingness of the world to do what is considered right is often reflected in 'soft' and 'hard' law instruments.[767] While it is acknowledged that 'soft' law is not legally binding or enforceable, it is nevertheless extremely valuable in shaping the future of legally binding agreements and conventions. In terms of the international conventions or 'hard' law, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) of 1973 and the Convention on Biological Diversity (CBD) of 1992, were considered most relevant for purposes of setting the international context for this thesis.[768] It was noted that international law shapes and influences the development of national law and this was specifically relevant to sustainable use. The working definition proffered for sustainable use for purposes of this thesis, states that sustainable use of species means '*use of species at a rate that maintains viable population levels for the benefit of present and future generations*.'[769] This working definition compared well with other definitions of sustainable use in terms of national legislation of South Africa as well as the definition provided by the CBD. However, the US legislation contains no definition for sustainable use. It was recognised that regulated and sustainable use of species is undermined by high levels of poaching, which currently plague species globally.

[767] See chapter 2 section 2.3.
[768] See chapter 2 section 2.6.1 and 2.6.2 respectively.
[769] See chapter 2 section 2.2.

It is against this backdrop that the US legislation for the conservation and management of sustainable use and trade in species was analysed together with relevant case law to glean lessons that could be learnt for South Africa. Relevant literature and case law illustrated, amongst others, the importance of the species listing process and consultation or public participation[770] and compliance with statutory time-frames,[771] amongst others. In terms of the compliance and enforcement dimension, the ESA together with the Lacey Act proved to be highly successful in the *Totoaba* case. In terms of the extraterritoriality dimension, the Lacey Act proved its success in the *Bengis* case,[772] amongst others, demonstrating the power of the Lacey Act to serve as an enforcement safety net for foreign wildlife law and species traded with the US, especially if species involved in such trade have been illegally acquired. The Lacey Act provisions if applied to South African law could potentially strengthen South Africa's enforcement provisions for the SADC region and other countries that are subjected to illegal wildlife trade. In considering the utility of the Lacey Act for species conservation, the listing of *Totoaba* under the ESA as federal legislation was instrumental in the enforcement of the US federal law as well as Mexican law for *Totoaba.* In addition, the listing of foreign species in the ESA has allowed the US to fund and support much needed conservation efforts in foreign countries that are also range States.[773] Another important lesson is that those foreign States were consulted during the listing process and were invited to submit comments and therefore collaborate with the US in the conservation efforts. This therefore does not constitute a unilateral decision on the part of the US in listing such foreign species and subsequently enforcing the federal law as well as foreign law for those species. It is argued that the successful US prosecutions through the Lacey Act demonstrate its utility in reinforcing foreign wildlife law, while stemming the tide of illegal activity in countries of origin one case at a time as illustrated in the *Bengis* and *Groenewald* cases. [774]

In considering South African legislation and case law under the management dimension, key lessons included, amongst others, the need to comply with statutory time-frames and the public participation process as prescribed in NEMBA and its Regulations.[775] The Biodiversity Management Plans (BMPs) for Species, which is akin to the Species Recovery Plans of the US, requires long term commitment to ensure success and should

[770] See chapter three section 3.3.1.3.
[771] *Friends of Animals v Ashe*. F.3d 2015WL 9286948 (D.C.Cir. Dec.22, 2015).
[772] See chapter three sections3.3.3 and 3.3.3.1.
[773] ESA section 8(a).
[774] See chapter three section 3.4.
[775] See chapter four sections 4.3.1.1 to 4.3.1.5.

explicitly refer to species recovery actions in the BMPs.[776] In terms of the compliance and enforcement dimension, the *Lemtongthai* case is seen as instrumental in identifying a legislative loophole in 'pseudo-hunting' which was swiftly addressed through Norms and Standards that sought to, *inter alia*, establish the bona fides of hunters. The case also highlighted the need for appropriate sentencing to be meted out consistently by magistrates and judges to demonstrate the seriousness with which South Africa views wildlife crime and also act as a deterrent to would be poachers and wildlife criminals.[777] In terms of the extraterritoriality dimension, lessons learnt from the US Lacey Act were considered, especially in light of the failure by SADC to enforce decisions by its own now defunct Tribunal.[778] In response to the main research question raised in chapter one of this thesis it is argued that South Africa's environmental law at national level makes extensive provision for sustainable use of threatened species in trade through the NEMBA TOPS and CITES Regulations.[779]

In response to the research question on the benefits of listing foreign species under the ESA, it is evident that the listing of *Totoaba* under the ESA has been instrumental in the enforcement of the US and Mexican law for *Totoaba* and the reinforcement of the Lacey Act provisions as well as restitution claims that benefited Mexico. In addition, the listing of foreign species in the ESA provides a mechanism for the US to fund and support conservation efforts in foreign countries that are also range States, if deemed appropriate and funding permitting.[780] In responding to the last research question on the utility of the Lacey Act, it is argued that the prosecutions through the Lacey Act demonstrate its utility in reinforcing foreign wildlife law, while stemming the tide of illegal activity in foreign countries, one case at a time e.g. the *Bengis* and *Groenewald* cases that are most relevant to South Africa.[781]

Before considering recommendations for amendments with a view to strengthening South African legislation for sustainable use and trade in species, based on the above research findings, it is prudent to briefly reflect on the strengths of the South African legislation.

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[776] See chapter four section 4.3.2.
[777] See chapter four section 4.3.3. *Lemtongthai v State* (A82/2013) [2013] GP JHC 294; 2014 (1) SACR 495 (GJ) (30 August 2013). *Lemtongthai v State* (849/2013) [2014] SCA 131 (25 September 2014).
[778] See chapter four section 4.3.4.
[779] See chapter one section 1.4.2.
[780] See chapter three section 3.3.3.
[781] *Ibid*.

5.2 Identifying strengths in South Africa's legislation

The South African Constitution recognises the importance of securing ecologically sustainable development *and use*[782] which is couched in the environmental right.[783] Therefore the concept of sustainable use is entrenched in South Africa's supreme legislation together with the suite of environmental legislation. The NEMBA clearly defines sustainable use in the context of biological resources,[784] while specifically addressing matters relating to sustainable use and trade through its TOPS and CITES Regulations.[785] These regulatory tools make sufficient provision for the management of sustainable use and trade in species.

The interpretation and implementation of the legislation has been subjected to various court challenges, relating to decisions made in the context of sustainable use of species. Each of these cases[786] provide valuable lessons to the Minister and the Department of Environmental Affairs on matters relating to the interpretation of law for sustainable use and trade in species. This should be considered as a strength going forward. The development of Norms and Standards proved undoubtedly to be a major strength for South Africa, because the flexibility that this legislative tool offers, enables relatively swift responsiveness to urgent or emergency situations or gaps and loopholes in legislation. This responsiveness is demonstrated in the Norms and Standards developed to address the issue of 'pseudo-hunting' highlighted in the *Lemtongthai* case, which identified the loophole in determining the bona fides of hunters, now required by the Norms and Standards for the hunting of rhino and marking rhino horn.[787] The Norms and Standards provision could equally be used in emergency situations resulting from unsustainable levels of trade as evidenced by an early lesson learnt in the *Lemtongthai* case.[788]

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[782] Authors own emphasis.
[783] The Constitution section 24. 'Everyone has the right to: (a) an environment that is not harmful … (b) to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that (i) prevent pollution and ecological degradation; (ii) promote conservation; and (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.'
[784] NEMBA section 1.
[785] NEMBA sections 56 and 57.
[786] See chapter four which has details of various court cases.
[787] Norms and Standards for the Marking of Rhinoceros and Rhinoceros Horn and Hunting of White Rhinoceros for Trophy Hunting Purposes, of 2012. GG 35248 GN R304.
[788] See chapter four section 4.3.3.

5.3 Recommendations for further strengthening in South Africa's legislation based on lessons learnt from the US

The recommendations contained in the following sections are informed by the findings of this study, as mentioned above. The recommendations are therefore presented by reflecting on the three dimensions; management; compliance and enforcement; as well as extraterritoriality as a subset of the compliance and enforcement dimension.

5.3.1 Management dimension

In considering the management dimension, special consideration will be given to the listing of species and the Biodiversity Management Plans for species. Additionally, in terms of the listing of species three important elements have been identified that could be strengthened. These include compliance with statutory time-frames, statutory public participation process as well as the importance of the scientific underpinning of the species listing process.

5.3.1.1 Listing of species

An important lesson learnt from South African and US case law is the need to comply with statutory time-frames. This is critically important and it is recommended that lawmakers in South Africa approach the setting of statutory time-frames with caution as failure to meet time-frames carries the risk of litigation. This would apply to the overarching legislation NEMBA, as well as the TOPS Regulations permit processing time-frames and would apply to listing of threatened or protected species and the review thereof.

Adherence to statutory time-frames proved to be critically important in the US as well as the South African context, as demonstrated through case law considered in chapters three and four respectively. In South Africa in particular, the *Kloof Conservancy* case demonstrated the importance of complying with statutory time-frames.[789] NEMBA prescribes several time-frames for, amongst others, the development and implementation of the National Biodiversity Framework and review thereof,[790] the review of bioregional plans,[791] the review of lists of threatened ecosystems that are in need of protection[792] the publication of a national list of

[789] *Kloof Conservancy v Government of the Republic of South Africa and Others* (12667/2012) [2014] KZDHC 60 (22 October 2014).
[790] Section 38(1), development and implementation within three years of publishing NEMBA and review every five years.
[791] Section 42(1) at least every five years.
[792] Section 52(4) at least every five years.

invasive species[793] which was the basis for the *Kloof Conservancy* case; and the review of lists of threatened or protected species.[794] In terms of the latter, such review is to take place every five years, however as discussed in chapter four, the time-frame for the review of threatened or protected species lists (TOPS) has not been complied with.[795] The only review or suggested amendments to the TOPS lists were published for public comment in 2013. The comments were substantive and necessitated a further publication for public comment in 2015.[796] At the time of writing the review process has yet to be concluded. While the lack of compliance with the statutory time-frame for the review of TOPS lists has not been subjected to litigation, it remains a serious concern that there seems to be little regard for such statutory time-frames. If challenged, the Minister would have little recourse as she has failed to comply with the law. While the reasons for non-compliance may point to capacity constraints, the Department and the Minister would do well to review the time-frames as set out in NEMBA and amend them in order to be more reasonable and pragmatic. It is therefore recommended that statutory time-frames should be prescribed with much caution in NEMBA and be extended to allow the Minister to comply with the time-frames. Alternatively, if the current time-frames remain, the Department's capacity to meet the time-frames should be reviewed and increased appropriately to ensure compliance with statutory time-frames. This approach would demonstrate a degree of adaptive management[797] and responsiveness on the part of the Minister as the ultimate decision maker and should be the generally followed approach that allows for improved compliance with legislative provisions. This is not calling for a lessening of provisions, but rather for greater pragmatism.

Similarly, complying with statutory requirements for consultation and public participation process in terms of sections 99 and 100 of NEMBA proved to be critically important, as discussed in chapter four in respect of the *Kruger and Another v Minister of*

[793] Section 70(1) within 24 months of the section coming into effect.
[794] Section 56(2) at least every five years.
[795] See chapter 4 section 4.3.1.3. NEMBA Threatened or Protected Species Regulations of 2007 GG 29657 GN R152 (as amended) published together with the species lists.
[796] See chapter four section 4.3.1.3.
[797] Millennium Ecosystem Assessment defines adaptive management as 'a systematic process for continually improving management policies and practices by learning from the outcomes of previously employed policies and practices. In active adaptive management, management is treated as a deliberate experiment for the purpose of learning '. Available at http://www.greenfacts.org/glossary/abc/adaptive-management.htm, accessed on 21 March 2017.

Environmental Affairs case.[798] The NEMBA provisions leave no room for the Minister to exercise discretion in the public participation process and are mostly prescriptive in nature.[799]

Based on the detailed discussion on public participation in chapter four, it is recommended that the Minister of Environmental Affairs and her Department consider adopting a more collaborative approach to the public participation process. In terms of the precise mechanism used for the collaborative approach it would be worth exploring various mechanisms like the collaborative approach espoused in the Public Participation Framework of the legislative sector[800] or the negotiated rule-making which engages representative groups of interested and affected parties.[801] These recommended collaborative mechanisms for public participation should be used to complement the current approach of inviting written comment. However, section 100(3) of the NEMBA states that the Minister 'may in appropriate circumstances allow any interested person or community to make oral representations or objections to the Minister or a person designated by the Minister'. This latter provision should be removed as its current framing is antagonistic and invites polarisation, which is contrary to the recommended collaborative approach. Admittedly, successful implementation of the more collaborative approach will rely on appropriate resourcing and skilling of government officials and the interested and affected parties that participate in the process, but the benefits could far outweigh the costs of the process. While this approach is advocated for policy development and policy amendments, it could equally be employed in the public participation process for listing of threatened or protected species.

In terms of the listing process and the provisions set out in section 56(1) of NEMBA, no reference is made to the scientific basis for the listing of species as critically endangered, endangered, vulnerable and protected. The only scientific aspect of the listing process is in reference to the functions of the Scientific Authority in advising the Minister on amendments to the threatened or protected species list.[802] As discussed in chapters three and four, the significance of the scientific underpinning of the listing process should not be

[798] *Kruger and Another v Minister of Water and Environmental Affairs and Others* (57221/12) [2015] GPPHC 1018; [2016] 1 All SA 565 GP (28 November 2015). The Minister was found to be non-compliant with the public participation process statutory requirements of NEMBA.
[799] See chapter four section 4.3.1.3 of this thesis for a detailed discussion on public participation.
[800] Public Participation Framework for the South African Legislative Sector June 2013.
[801] Daniel J Fiorino 'Citizen Participation and Environmental Risk: A Survey of Institutional Mechanisms' (1990) 15 *Science, Technology and Human Values* 2:226-43.
[802] NEMBA Section 61(1)(e)(iv).

underestimated.[803] The scientific robustness of the listing process adds credibility to the process, which is also subject to the consultation and public participation process of sections 99 and 100 of NEMBA. In respect of the latter there is an element of scientific peer-review through the expert groups that undertake red-listing processes as guided by the IUCN.[804] It should be noted that the risk of extinction is inherent in the IUCN red-listing process, as discussed in section 4.3.1.2 of this thesis. It is therefore recommended that the scientific underpinning of the listing process should be more explicit in section 56(1) by stating that such lists must be based on the best available science.[805] This creates a cogent link with the functions of the Scientific Authority as contained in section 61(1) of NEMBA.

The listing process is critical as it forms the foundation for managing and regulating sustainable use and trade in species in terms of section 59 of NEMBA as well as other restricted activities involving listed species[806] or other legislative tools for the management of species.

5.3.1.2 Biodiversity Management Plans for Species

While the Biodiversity Management Plan (BMPs) for Species which is akin to the US species recovery plans could be considered a great strength among legislative tools, room for improvement remains. These BMPs require support and commitment by all relevant stakeholders, including government, private sector and non-governmental organisations (NGOs). Importantly, BMPs require a long term commitment if the recovery of the species is to be realised, as evidenced by the US species recovery plans that required on average 25 years in demonstrating species recovery.[807] An example of the commitment to species recovery plans could be seen in the Black Footed Ferret Species Recovery Plan where the revised recovery plan of November 2013 acknowledges that efforts for recovery of the species have been underway for at least 29 years as the first recovery plan was developed in 1988.[808] Therefore South African stakeholders should consider planning for long term

[803] Holly Doremus and Joel E Pagel 'Why listing may be forever: perspectives of delisting under the U.S. Endangered Species Act' (2001) 15 *Conservation Biology* 1258-1268.
[804] As discussed in chapter four section 4.3.1.3 of this thesis.
[805] The ESA states that the species listing process should be based on the best available scientific and commercial data. See chapter three section 3.3.1.3 in this thesis.
[806] NEMBA Section 57.
[807] See chapter four section 4.3.2 for the full discussion.
[808] See chapter three section 3.3.1.4. While the first recovery plan was developed 29 years ago, the black footed ferret was first listed on the Endangered Species Protection Act of 1966, thereby providing 51 years of protection for the species at the time of writing. See http://www.fws.gov/endangered/esa40/ accessed on 23 July 2013. Also see Black Footed Ferret Recovery Plan, Second Revision, November 2013 available at

commitments to include the appropriate level of resourcing required for successful implementation of the BMP for species.

Another key aspect of the ESA Species Recovery Plans evident in the Black Footed Ferret Recovery Plan is the financial implications of the various actions required to manage the species for recovery. The BMP for species lacks such a requirement. Indicating the financial implications of actions required by the BMP for species could facilitate funding required to carry out the activities. Such funding could also be leveraged through various NGOs that may have prioritised the conservation of that species, so that provision of funding is not exclusively the responsibility of government agencies.

Recognising that the Norms and Standards for BMP for species provide the structural basis and describes the content for all BMPs for species,[809] it is recommended that the Norms and Standards more explicitly reflect the objective of species recovery in the wild.[810] This is because the activities entailed in species recovery require deliberate attention and resources as they relate to, amongst others, increasing the population size in the wild as well as potentially expanding the species range or reintroduction of the species back into former habitat. While the Norms and Standards reflect the need to identify threats and mitigation of threats, it is argued that this may not sufficiently address species recovery in the wild, which must be more purposeful. However, this does not mean de-emphasising mitigation of threats, but complementing it with appropriate actions for recovery.[811] It is important for species recovery in the wild to be accentuated in the current Norms and Standards of BMP for species.

Further strengthening of the BMP to include clear criteria for improving the threat status of the species is highly recommended. Such criteria are considered to be akin to the recovery, down listing and delisting criteria in the Species Recovery Plans of the ESA. As could be seen from the Black Footed Ferret Recovery Plan, where the aforementioned criteria are measurable and they provide 'reasonable biological and logistically achievable

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https://ecos.fws.gov/docs/recovery_plan/20131108%20BFF%202nd%20Rev.%20Final%20Recovery%20Plan.pdf accessed on 22 March 2017.

[809] NEMBA: Norms and Standards for Biodiversity Management Plans for Species of 2009 GG 31968 GN R214.

[810] The Endangered Species Act, similar to the NEMBA, provides for the Species Recovery Plans. These Plans as the name denotes, explicitly address the issues of species recovery in the wild. The Species Recovery Plans have proven to be successful, as discussed in chapter three section 3.3.1.4.

[811] Caitlin M Troyer and Leah R Gerber 'Assessing the impact of the U.S. Endangered Species Act recovery planning guidelines on managing threats for listed species' (2015) 29(5) *Conservation Biology* 1423-1433.

criteria'.[812] Such criteria would be extremely valuable in monitoring the progress of the BMP for species.[813]

Given that the Norms and Standards for BMPs for species compels the Minister to review the BMP every five years,[814] the first BMP published in 2011 for the Albany cycad[815] should have been reviewed in 2016. However at the time of writing, such review had not been undertaken yet. It would be opportune to review the Norms and Standards for the BMP for species together with the review of the BMP for Albany cycad and use the review process to improve the Norms and Standards for BMPs. This will ensure that BMPs developed subsequently would be guided by improved Norms and Standards.

5.3.2 Compliance and enforcement dimension

Strengthening legislation to achieve sustainable use for species can only be effective if it is accompanied by appropriate compliance and enforcement. However, there is a growing discourse advocating for incentivised compliance, through amongst others, improving opportunities or benefits from wildlife for communities living adjacent to protected areas and close to wildlife.[816] While the focus of this study was not expressly on incentives for compliance, it is nevertheless recognised to hold great potential, but may indeed be quite complex and requires more research.[817] Be that as it may, enforcement and compliance is also quite complex, especially in the context of both national and international implementation.

In terms of enforcement, presently the NEMBA provides for stringent penalties that include fine of ZAR10 million (ten million rand) or 10 years imprisonment, or both. South Africa has demonstrated a progressive increase in penalties, which begins to speak to the seriousness with which wildlife crime is being viewed. Comparatively, South Africa's

[812] See Black Footed Ferret Recovery Plan, Second Revision, November 2013.
[813] See above (note) 811.
[814] Norms and Standards for BMP for species section 8(2)(c) read in conjunction with NEMBA Section 43(3).
[815] NEMBA: BMP – Albany Cycad of 2011 GG34488 GN R416.
[816] Timothy C Haas and Sam M Ferreira 'Combatting Rhino Horn Trafficking: The Need to Disrupt Criminal Networks' 2016 11PLoS ONE (11): e0167040. doi:10.1371/journal.pone.0167040.
[817] See chapter two of this thesis for a brief discussion on incentives for sustainable use, as part of the theoretical background to sustainable use. Jon M Hutton and Nigel Leader-Williams 'Sustainable use and incentive-driven conservation: realigning human and conservation interests' (2003) 37*Oryx* 215-26. Clem Tisdell, Hemanath Swarna Nantha and Clevo Wilson 'Biodiversity Conservation and Public Support for Sustainable Wildlife Harvesting: A Case Study '(2007) 3 *International Journal of Biodiversity Science and Management* 129-44. Secretariat of the Convention on Biological Diversity 'Proposals for the Design and Implementation of Incentive Measures' (2004). Available at https://www.cbd.int/doc/publications/inc-brochure-01-en.pdf, accessed on 13 April 2015. Rosie Cooney and Max Abensperg-Traun 'Raising Local Community Voices: CITES, Livelihoods and Sustainable Use' (2013) *22 RECIEL* 301-310. Max Abensperg-Traun 'CITES, sustainable use of wild species and incentive-driven conservation in developing countries, with an emphasis on southern Africa' (2009) 142 *Biological Conservation* 948-63.

penalties are more stringent than the US, with NEMBAs ZAR 10 million equivalent to USD 804, 052[818] per offence, while the maximum penalty per offence of ESA is USD 50,276 (ZAR 625, 282).[819] Similarly, NEMBA penalties are also substantially higher than the Lacey Act penalty provisions.[820] It is therefore apparent that the maximum fine or term of imprisonment, or both, set out by NEMBA and TOPS are substantially higher than that for the ESA and for the Lacey Act.[821] Therefore given that NEMBA penalties are relatively more stringent than that for the US, it is recommended that this level of penalties be reviewed periodically to determine whether they should be increased and that they be applied consistently by magistrates and judges across the country. The legislation empowers magistrates to determine the appropriate penalty.[822] By setting the maximum limits per offence as a yardstick in NEMBA the seriousness of crime involving threatened or protected species in South Africa is underscored. Nationally, much effort has gone into prosecutorial and judicial capacity building, but these efforts have to be maintained or increased in order to ensure the appropriate sentencing for crime that undermines sustainable use of threatened or protected species, such as rhino, elephant, lion, pangolin, cycads, etc.[823]

However, it is recognised that appropriate sentences are not the silver bullet to the challenge of illegal trade in threatened or protected species, but would be one aspect in a suite of measures required to clamp down on illegal trade and the unsustainable use of species. Another consideration in the chain of events leading up to successful prosecutions and sentencing would be increasing the probability of detection of illegal trade in species through increased inspections and the gathering of evidence in an appropriate and acceptable

[818] Universal currency converter available at http://www.xe.com/currencyconverter/convert/?Amount=10000000&From=ZAR&To=USD, (USD1=ZAR12,437) accessed on 25 March 2017.
[819] 81 FR 41865, June 28, 2016, as amended at 82 FR 6308, Jan. 19, 2017. Available at http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=b7e0152bf980b4c8e39564c0bdeb165e&ty=HTML&h=L&mc=true&r=SUBPART&n=sp50.1.11.d, accessed on 25 March 2017.
[820] See chapter four section 4.3.3 for detailed comparisons of various penalty provisions.
[821] See chapter three section 3.3.2.2 and chapter four section 4.3.3 of this thesis for detailed discussions.
[822] NEMBA section 102(3).
[823] Through the GEF-UNEP Rhino Project, the Department of Environmental Affairs collaborated with the South African Judicial Education Institute of the Department of Justice in hosting a Judicial Colloquium on Biodiversity Crime in August 2015. While the focus was on rhino, the colloquium sought to raise awareness of environmental crime amongst the 150 magistrates in attendance. In 'Minister Edna Molewa highlights progress in the fight against rhino poaching' 30 August 2015 available at https://www.environment.gov.za/mediarelease/molewa_highlightsprogress_onrhinopoaching accessed on 25 March 2017.

manner.[824] As a responsible global player, South Africa should not only support the CITES convention in ensuring that international trade does not undermine the sustainability of species, but should go further in supporting foreign State laws for sustainable use and trade in species.

5.3.3 Extraterritoriality dimension

South African legislation currently has no provisions for enforcing the law of foreign States in respect of sustainable use and trade in species, if specimens or derivatives of species were illegally obtained abroad and were to arrive in the Republic for further trade. Provisions that support foreign wildlife law for threatened species would allow South Africa to enforce and uphold foreign wildlife law in South Africa. In the Southern African context SADC would be an ideal mechanism to support such extraterritorial application in the region through the SADC Protocol on Wildlife Conservation and Law Enforcement. Sadly, SADCs Tribunal has proven to be completely ineffective and lacked the teeth to enforce its decisions.[825] Illegal wildlife trade has become a major threat facing the SADC region and leads to losses in potential economic returns from wildlife tourism or sustainable use activities, such as hunting. In South Africa such losses are felt by various government authorities responsible for management of national parks and nature reserves, as well as private land owners and communities that benefit from the species. However, South Africa has an opportunity to play a leadership role in SADC as it takes up the chair of SADC from 2017.[826] The SADC Law Enforcement Anti-Poaching (LEAP) Strategy of 2015 awaits implementation and should go some way to addressing illegal wildlife trade in the region, but only time will tell if the strategy will be effective.[827]

South Africa has benefited from the US Lacey Act as well as the Mandatory Victims Restitution Act of 1986 (MVRA)[828] through the *Bengis* case.[829] Therefore, there is sufficient evidence to suggest how Lacey Act-type provisions could benefit the country nationally,

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[824] Marcus A Asner 'To Catch a Wildlife Thief: Strategies and suggestions for the fight against illegal wildlife trafficking' 2016 12 University of Pennsylvania Asian Law Review p.20. Marcus Asner was the federal prosecutor in the *US v Bengis* case. *United States v Bengis*, 03 Cr. 308 (LAK) (S.D.N.Y. 2003).
[825] See chapter four section 4.3.3.1 of this thesis for a discussion on the SADC Tribunal.
[826] 'President Jacob Zuma: Vote of thanks as incoming Chair of SADC' 31 August 2016 available at http://www.gov.za/speeches/president-jacob-zuma-vote-thanks-incoming-chair-sadc-31-aug-2016-0000, accessed on 26 March 2017.
[827] SADC LEAP Strategy available at http://www.gaborone.diplo.de/contentblob/4715602/Daten/6225495/SADC_LEAP_FINAL.pdf, accessed on 23 November 2016.
[828] 18U.S.C. § 3663 A. Where restitution is mandatory in cases when an offence is against property.
[829] See chapter three section 3.3.2.2 of this thesis for a discussion on the *Bengis* case.

while also being a benefit to enforcing foreign wildlife law and ultimately address challenges of illegal wildlife trade and the unsustainable use of species. The NEMBA provides for South Africa to implement international agreements which is legally binding on the Republic.[830] It is recommended that provision be made for South Africa to enforce foreign wildlife law for the sustainable use and trade in species, in close cooperation with the foreign State. The interpretation of the foreign law must be clarified with the foreign State in question prior to South Africa enforcing the law of that foreign State. The application of such a provision could initially be applied in a narrow view as it would apply to species in trade, but could later also be applied in relation to foreign law that combats money laundering, fraud and corruption, especially in an effort to disrupt organised criminal networks.[831] Asner argues that the first step to applying Lacey Act-type provisions is that the provisions should apply to predicate law[832] and it is therefore recommended that foreign State law for wildlife should be the predicate law in the South African context. Specifically, contraventions of section 57 of NEMBA should contain the provisions to support foreign wildlife law.[833] Asner argues that the second step should focus on the trade of illegally acquired species or species derivatives, which would make trade in such species or derivatives illegal. It is therefore further recommended that section 57 of NEMBA as well as the objectives in section 2 of NEMBA be expanded to include foreign law for species in trade. These recommended changes to NEMBA would allow Lacey Act-type enforcement provisions, often referred to as the long-arm of the law, for South Africa to support sustainable use and trade in threatened species globally. Critically important is that in applying these changes, enforcement and penalty provisions should be according to the NEMBA provisions as these are currently considered to be relatively stringent, when compared with the US. This would also be consistent with the US policy of imposing US penalties for contraventions of the Lacey Act, which includes species taken and traded in contravention of foreign wildlife law.

Furthermore, supporting Lacey Act-type provisions that allows South Africa to apply foreign State law for sustainable use and trade in species is a matter which requires uniformity across the nation in order for it to be dealt with effectively.[834] Such provisions

[830] NEMBA Sections 2(b) and 57.
[831] Asner see above (note) 824.
[832] See chapter 3 section 3.3.3.1.
[833] Restricted activities involving listed threatened or protected species and species to which an international agreement regulating international trade applies.
[834] Section 146 of the Constitution provides a mechanism for dealing with a conflict in national and provincial legislation. See chapter four section 4.3.3.1.

could also allow the Minister of Environmental Affairs to develop Norms and Standards[835] for the enforcement of foreign law, pursuant to the recommended changes to sections 2 and 57 of NEMBA (see above). Such Norms and Standards should be developed in consultation with the Minister of International Relations and Cooperation, as it proposes the enforcement of sustainable use and trade law of a foreign State extraterritorially to that State or beyond the jurisdiction of the foreign State and should contain specific guiding provisions on the processes to be followed for international cooperation pursuant to international law. This type of extraterritoriality in South African law would facilitate closing the gap between domestic and international enforcement for sustainable use and trade in species.[836]

Future consideration should also be given to claiming restitution from the perpetrators of illegal trade in species for financial compensation to the victim country,[837] provided that the victim can clearly be identified and that there is no evidence of corruption in the instance being considered, as corruption should not be rewarded in the process of restitution. [838] However, if the victim country includes restitution to community beneficiaries who have lost benefits of the species as a result of poaching and illegal trade, such restitution or financial claim could incentivise the community to take greater ownership in supporting the protection and sustainable use of those species.[839] Further research would be needed to support the use of restitution and compensation to foreign countries as victims of illegal trade in species before it could be implemented as part of a suite of measures in building up the extraterritorial capability of South Africa. It is recommended that a step-wise approach be used in building extraterritorial capability in South Africa.

5.4 Conclusion

One of the greatest challenges facing species is that of illegal trade, which undermines national as well as global efforts to achieve sustainable use for the benefit of both species and people. The direct loss of revenue as a result of poaching remains worrisome. In the famous

[835] Section 9 of NEMBA provides the Minister with discretionary powers to issue Norms and Standards.
[836] See chapter two section 2.7 on entrenching international law into national legislation.
[837] South Africa benefited from the successful restitution claim made by the US government in the *Bengis* case. See chapter three section 3.3.2.2 of this thesis for detailed discussion of this restitution claim made by the US government on behalf of South Africa.
[838] Asner see above (note) 824.
[839] *Ibid*.

words of Mollie Beattie "In the longterm, the economy and environment are the same thing. If it's unenvironmental it's uneconomical. That is the rule of nature."[840]

In concluding this thesis, South African legislation for species in trade is not only contemporary, but the legislative tools are also sufficiently flexible to allow for adaptive management responses.[841] Striving for sustainable use requires the collective effort of all stakeholders, including the resource users, government as legislators and enforcers as well as relevant NGOs, civil society and communities. Political will expressed in declarations and in international conventions are simply not enough, as once the international ideals are entrenched in national legislation they require effective implementation. The challenge for South Africa remains compliance and enforcement of the legislation, using all of the legislative tools at its disposal, in ensuring that sustainable use of species is not undermined. However, it is recognised that incentives that foster greater cooperation from all role-players could benefit greater compliance, but this would require more research.

In adopting the abovementioned recommendations, South Africa's legislation will be strengthened in addressing sustainable use and trade in plants and animals from the wild. South Africa would do well to employ an adaptive management approach in executing its international obligations by adopting lessons learnt from other countries, including but not limited to the US. Such adaptive management could follow a step-wise implementation that shows an incremental strengthening in legislation.

Regionally, South Africa must work more closely with its SADC neighbours who are plagued with similar challenges in stemming the tide of poaching and unsustainable use of wildlife. In the Southern African context, the ability to uphold the principles of sustainable use for the regulation and effective management of threatened species in trade nationally as well as extraterritorially by enforcing wildlife law of SADC member States would be a noble gesture for this megadiverse country that is South Africa.

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[840] Mollie Beattie was the first female Director of the US Fish and Wildlife Service. Available at http://www.laquotes.com/quotes/author/mollie_beattie, accessed on 21 March 2017.

[841] See chapter four section 4.4 for detailed conclusion of responses to the research questions of this thesis.

6 BIBLIOGRAPHY

Primary sources

Treaties/International Conventions/International Declarations

Convention on Biological Diversity of 1992.

Convention on the Conservation of Migratory Species of Wild Animals of 1979

Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES) of 1973.

International Convention for the High Seas Fisheries of the North Pacific Ocean of 1952.

International Convention for the Northwest Atlantic Fisheries of 1949.

North Pacific Anadromous Fisheries Commission of 1992.

International Whaling Commission of 1946.

Johannesburg Declaration on Sustainable Development. 4 September 2002 available at http://www.un-documents.net/jburgdec.htm, accessed on 16 December 2014.

North Pacific Fur Seals Convention of 1911.

Northwest Atlantic Fisheries Organisation of 1979.

SADC Protocol on Wildlife Conservation and Law Enforcement of 1999.

Stockholm Declaration. Declaration of the United Nations Conference on the Human Environment 1972.

United Nations General Assembly 'The future we want' (2012) A/RES/66/288.

Constitution

Constitution of the Republic of South Africa, 1996.

Table of Statutes

South Africa

Marine Living Resources Act 18 of 1998.

National Environmental Management Act 107 of 1998.

National Environmental Management Biodiversity Act 10 of 2004.

National Environmental Laws Amendment Act of 2009.

United States of America

Endangered Species Act of 1973, 16 USC §1531 – 1543.

Endangered Species Conservation Act of 1969.

Endangered Species Preservation Act of 1966.

Fishermen's Protective Act of 1967, 22 USC (1971-1980) Pub. L. 90-482.

Mandatory Victims Restitution Act of 1986.

Migratory Bird Treaty Act of 1918, 16 USC § 703-712.

Pelly Amendment to the Fishermen's Protective Act of 1967, 22 USC § 1978

The Lacey Act of 1900, 16 USC 3371-3378.

Victim and Witness Protection Act of 1982.

Table of Regulations
South Africa

National Environmental Management: Biodiversity Act (NEMBA) (10/2004): Alien and Invasive Species Regulations of 2014 GG 37885 GN R598.

National Norms and Standards for the Management of Elephants in South Africa of 2008GG 30833 GN R251.

National Norms and Standards for the Marking of Rhinoceros and Rhinoceros Horn and Hunting of White Rhinoceros for Trophy Hunting Purposes, of 2009. GG 31899 GN R170.

National Norms and Standards for the Marking of Rhinoceros and Rhinoceros Horn and Hunting of White Rhinoceros for Trophy Hunting Purposes, of 2012. GG 35248 GN R304.

National Norms and Standards for the Regulation of the Hunting Industry in South Africa (Draft) of 2009. GG 32798 GN R1614.

National Norms and Standards for the Management of Damage-Causing Animals (Draft) of 2016. GG 40412 GN R749.

National Norms and Standards for the Translocation of Indigenous Species (Draft) of 2015. GG 38395 GN R44.

National Norms and Standards for Biodiversity Management Plans (BMP) for Species. GG 31968 GN R214 of 2009.

NEMBA (10/2004): Bioprospecting Access and Benefit Sharing Regulations of 2015 GG 38809 GN R447.

NEMBA(10/2004): Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Regulations of 2010 GG 33002 GN R173.

NEMBA (10/2004): Draft regulations for the domestic trade in Rhinoceros horn, or a part, product or derivative of Rhinoceros horn of 2017 GG 40601 GN R620.

NEMBA (10/2004): Threatened or Protected Species Regulations of 2007 GG 29657 GN R152.

NEMBA (10/2004): Threatened or Protected Species Regulations (Draft) of 2015 GG 38600, GN R255.

NEMBA (10/2004): Norms and Standards for Biodiversity Management Plans for Species of 2009 GG 31968 GN R214.

NEMBA (10/2004): BMP – Albany Cycad of 2011 GG34488 GN R416.

NEMBA (10/2004): BMP – *Pelargonium sidoides* of 2013 GG 36411 GN R433.

NEMBA (10/2004): BMP – African penguin of 2013 GG 36966 GN 824.

NEMBA (10/2004): BMP – Black rhino of 2013 GG 36096 GN R49.

NEMBA (10/2004): Shark Biodiversity Management Plan of 2015 GG 38607 GN R258.

NEMBA (10/2004): BMP – Eleven critically endangered and four endangered *Encephalartos* cycad species of 2017 GG 40815 GN R315.

NEMBA (10/2004): BMP – White rhino (draft) of 2015 GG 39469 GN R1191.

NEMBA (10/2004): BMP – Lion (draft) of 2015 GG 39468 GN R1190.

NEMBA (10/2004): BMP – Cape Mountain zebra (draft) of 2016 GG 40464 GN R1483.

Prohibition of Trade in Certain *Encephalartos* (Cycad) Species. GG 35344 GN R371 of 2012.

Table of Policy Documents/Strategies
South Africa

Department of Environmental Affairs and Tourism. White Paper on the Conservation and Sustainable Use of South Africa's Biological Diversity. *GG* 18163 of 28 July 1997.

United States of America

National Marine Fisheries Service 'Interim Endangered and Threatened Species Recovery Planning Guidance version 1.3' (2010) NMFS. Silver Spring, Maryland.

Table of Cases
South Africa

Johannesburg Metropolitan Municipality v Gauteng Development Tribunal and others 2010 (6) SA 182 (CC) para 43. (18 June 2010).

Kloof Conservancy v Government of the Republic of South Africa and Others (12667/2012) [2014] KZDHC 60 (22 October 2014).

Kruger and Another v Minister of Water and Environmental Affairs and Others (57221/12) [2015] GPPHC 1018; [2016] 1 All SA 565 GP (28 November 2015).

Lemtongthai v State (A82/2013) [2013] GP JHC 294; 2014 (1) SACR 495 (GJ) (30 August 2013).

Lemtongthai v State (849/2013) [2014] SCA 131 (25 September 2014).

Minister of Water and Environmental Affairs v Kloof Conservancy (106/2015) [2015] ZASCA 177 (27 November 2015).

Radebe v State (726/12) [2013] SCA 31 (27 March 2013).

S v Trae Thu Hien and Huyen Phat Phuong Pretoria North CAS 442/01/2011.

SA Predator Breeders Association v Minister of Environmental Affairs and Tourism, (72/10) ZASCA 151 (29 November 2010).

United States of America

Babbitt v Sweet Home Chapter of Communities for a Great Oregon, 515 U.S. 687, 701 n.15 (1995).

Defenders of Wildlife v Hall 565 F.Supp.2d 1160 (D.Mont. 2008).

Defenders of Wildlife v Lujan 911 F.2d 117 (8th Cir. 1990).

Equal Employment Opportunity Commission v. Arabian American Oil Company 499 U.S. 244, 248 (1991).

Foley Bros. Inc. v Filardo 336 U.S. 281 (1949).

Florida Home Builders Association v Norton. 496 F.Supp.2d 1330 (M.D.Fla., 2007).

Friends of Animals v Ashe. F.3d 2015WL 9286948 (D.C.Cir. Dec.22, 2015).

Home Builders v Defenders of Wildlife 35 Ecology L.Q. 291, 293 (2008).

Tennessee Valley Authority v Hill 437 US 153, 180 (1978).

United States v Bengis 03 Cr 308 (LAK) (S.D.N.Y. 2003).

United States of America v. Arnold Maurice Bengis, Jeffrey Noll and David Bengis. 19 December 2006. Docket no. S1 03 Cr 308 (LAK) (AJP).

United States v Bengis 03 Cr. 0308 (LAK), 2007 WL 241370, *1 (S.D.N.Y. Jan. 29, 2007).

United States v Arnold Maurice Bengis, Jeffrey Noll and David Bengis, Case number 07-4895, 1-15 (2d Circ. 2011).

United States v Dawie Jacobus Groenewald and Janneman George Groenewald Indictment US District Court for the Middle District of Alabama Northern Division. 16 October 2014.

United States v Kaven Company and Kam Wing Chan 14-CR-3662-AJB.

Other cases

Emmanuel Saguda @Sululuka and Sahili Wambura v the Republic of Tanzania, Tabora Court of Appeal, No. 422B of 2013.

Mike Campbell and Another (PVT) Limited v The Republic of Zimbabwe SADC (T) 2/2007.

Oposa et al. v Fulgencio S. Factoran, Jr. et al. GR No. 101083), July 30, 1993.

Republic of Malawi v Akimu [2003] Malawi High Court 96 (Revision Case No. 9 of 2003).

The Republic of Tanzania v Emiry Feruzi, Ditsrict Court of Mpanda, No. 110 of 2014.

Secondary sources

Books and Journals

AA Rosenberg, MJ Fogarty, MP Sissenwine, JR Beddington and JG Shepherd 'Achieving Sustainable Use of Renewable Resources' (1993) 262 *Science* 5135: 828-9.

Abraham H Maslow *Motivation and Personality* 3rd ed (1970) Longman.

Abram Chayes 'The Role of the Judge in Public Law Litigation' (1976) 89 *Harvard Law Review* 7: 1281-1316.

Abram Chayes and Antonia Handler Chayes *The New Sovereignty: Compliance with International Regulatory Agreements* (1995) Harvard University Press.

Admark Moyo 'Defending Human Rights and the Rule of Law by the SADC Tribunal: *Campbell* and Beyond'2009 *African Human Rights Law Journal* 590.

A Du Plessis 'Public Participation, Good Environmental Governance and Fulfilment of Environmental Rights'. *PER/PELJ* 2008 (11)2.

Alan Bryman *Social Research Methods* 5th ed. (2016). Oxford University Press.

Amanda Driver, Kerry J Sink, Jeanne L Nel, Stephen Holness, Lara van Niekerk, Fahiema Daniels, Zuziwe Jonas, Prideel A Majiedt, Linda Harris and Kristal Maze *National Biodiversity Assessment 2011: An assessment of South Africa's biodiversity and ecosystems. Synthesis Report* (2012) South African National Biodiversity Institute and Department of Environmental Affairs, Pretoria.

Amy Whritenour Ando 'Waiting to be Protected Under the Endangered Species Act: The Political Economy of Regulatory Delay' (1999) 42 *The Journal of Law and Economics* 29.

Anne-Marie Slaughter and William Burke-White 'The Future of International law is Domestic (or, The European Way of Law)' (2006) 47 *Harvard International Law Journal* 2: 327-52.

Barnabos Dickson 'Global Regulation and Communal Management' In John Hutton and Barnabos Dickson (eds).*Endangered Species. Threatened Convention: The Past, Present and Future of CITES* (2000) London: Earthscan Publications.

Barnett, R. and Patterson C. *Sport Hunting in the Southern African Development Community (SADC) region: An overview.* (2005). TRAFFIC Southern/East Africa. Johannesburg, South Africa.

Beissinger SR and MI Westphal 'On the use of demographic models of population viability in endangered species management' (1998) 62 *Journal of Wildlife Management* 821–841.

Bruce Babbitt 'The Endangered Species Act and "Takings". A Call for Innovation Within the Terms of the Act' (1994)24 *Environmental Law* 355.

Caitlin M Troyer and Leah R Gerber 'Assessing the impact of the U.S. Endangered Species Act recovery planning guidelines on managing threats for listed species' (2015) 29 *Conservation Biology* 5:1423-33.

Callicott JB and K Mumford. 1997. Ecological Sustainability as a Conservation Concept. 11*Conservation Biology* 1:32-40.

Checkoway B 'The Politics of Public Hearings' (1981) 17 *Journal of Applied Behavioral Science* 566-82.

Cheryl Simrell King, Kathryn M. Feltey and Bridget O'Neill Susel 'The Question of Participation: Toward Authentic Public Participation in Public Administration' (1998) 58 *Public Administration Review* 4:317-26.

Checkoway B and J. van Til 'What do we know about citizen participation? A selective review of research' (1978) In *Citizen Participation in America*, ed. Stuart Langton, 25-42. Lexington MA: DC Heath.

C Jarrett Dieterle 'The Lacey Act: A Case Study in the Mechanics of Overcriminalisation' 102 *The Georgetown Law Journal* 1279-1306

Clark JA, Hoekstra JM, Boersma PD and P Kareiva 'Improving US Endangered Species Act recovery plans: Key findings and recommendations of the SCB recovery plan project' (2002) 16 *Conservation Biology* 1510–1519.

Clem Tisdell, Hemanath Swarna Nantha and Clevo Wilson 'Biodiversity Conservation and Public Support for Sustainable Wildlife Harvesting: A Case Study '(2007) 3 *International Journal of Biodiversity Science and Management* 129-144.

C Parks-Gilbert, III 'The Lacey Act: a vintage conservation tool still vital in today's global economy' (2015) 29 *Natural Resources & Environment* 3.

Daniel J Fiorino 'Regulatory Negotiation as a Policy Process' (1988) 48 *Public Administration Review* 764-72.

Daniel J Fiorino 'Environmental Risk and Democratic Process: A Critical Review' (1989) 15 *Columbia Journal of Environmental Law* 501-47.

Daniel J Fiorino 'Citizen Participation and Environmental Risk: A Survey of Institutional Mechanisms' (1990) 15 *Science, Technology and Human Values* (2) 226-43.

David S Wilcove, David Rothstein, Jason Dubow, Ali Philips and Elizabeth Losos 'Quantifying Threats to Imperiled Species in the United States: Assessing the relative importance of habitat destruction, alien species, pollution, overexploitation and disease' (1998) 48(8) *BioScience* 607-615.

Dean Lueck 'The Economic Nature of Wildlife Law' (1989) 18 *Journal of Legal Studies* 291-324.

Deborah T Crouse, Loyal A Mehrhoff, Mary J Parkin, Diane R Elam and Linus Y Chen 'Endangered Species Recovery and the SCB Study: A US Fish and Wildlife Service Perspective' (2002) 12 *Ecological Applications* 719-723.

D French 'Sustainable development and biological diversity' in *International Law and Policy of Sustainable Development* (2005).

DG Brown 'What is Mill's Principle of Utility' (1997) in David Lyons (ed.) *Mill's Utilitarianism: Critical Essays*. Rowman and Littlefield Publishers, Inc. USA.

Duffy R *Killing for Conservation. Wildlife Policy in Zimbabwe* (2000) International African Institute in association with James Currey, Indiana University Press and Weaver: London.

Elena Angulo, Anne-Laure Deves, Michel Saint Jalmes and Frank Courchamp 'Fatal attraction: rare species in the spotlight' (2008) *Proc. R Soc. B.* doi:10.1098/rspb.2008.1475 1-7.

Emilie M Hafner-Burton, Miles Kahler and Alexander H Montgomery 'Network Analysis for International Relations' (2009) 63 *International Organization* 3: 559-92.

Fisher, Roger *Improving Compliance with International Law* (1981) Charlottesville: University Press of Virginia.

Flather CH, Hayward GD, Beissinger DR and PA Stephens 'Minimum viable populations: Is there a 'magic number' for conservation practitioners' (2011) 26 *Trends in Ecology and Evolution* 307–316.

Francis G. Tanczos 'A New Crime: Possession of Wood – Remedying the Due Care Double Standard of the Revised Lacey Act' (2011) 42 *Rutgers Law Journal* 549-88.

Gene Rowe and Lynn J Frewer 'Public Participation Methods: A framework for evaluation' (2000) 25 *Science, Technology and Human Values* 3-29.

Gino J. Naldi '*Mike Campbell (Pvt) Ltd et al v The Republic of Zimbabwe*: Zimbabwe's Land Reform Programme Held in Breach of the SADC Treaty' 2009 53*Journal of African Law* 2: 305-320.

Glazewski J. 'Current Legal Developments South Africa/United States' (2014) 29 *The International Journal of Marine and Coastal Law* 173-183.

Grace Pickering '*Bengis* and the "Victim" of an Environmental Crime' (2011) 22 *Environmental Law in New York* 7:103-7.

Handl 'A Hard Look at Soft Law' (1988) 82 *American Society of International Law Proceedings* 371.

Hardin, Garrett 'The Tragedy of the Commons' (1968) 162 *Science* 1243-1248.

Harold G Maier 'Interest Balancing and Extraterritorial Jurisdiction' (1983) 31 *American Journal of Comparative Law* 579-597.

Harold Hongju Koh 'Why Do Nations Obey International Law' (1997) 106 *Yale Law Journal* 2599.

Harold Hongju Koh 'Brining International Law Home' (1998) 35 *Houston Law Review* 623-81.

Herberlein TA 'Some observations on alternative mechanisms for public involvement: The hearing, the public opinion poll, the workshop and the quasi-experiment' (1976) 16 *Natural Resources Journal* 197-221.

HLA Hart 'Bentham's Principle of Utility and Theory of Penal Law' (1996) in JH Burns and HLA Hart (eds) *The Collected Works of Jeremy Bentham: An Introduction to the Principles of Morals and Legislation*. Clarendon Press, Oxford.

Holling, C.S. 1993. Investing in Research for Sustainability. 3 *Ecological Applications* 4: 552-555.

Holly Doremus 'Listing Decisions Under the Endangered Species Act: Why Better Science Isn't Always Better Policy' (1997) 75 *Washington University Law Review* 3:1029.

Holly Doremus and Joel E Pagel 'Why listing may be forever: perspectives of delisting under the U.S. Endangered Species Act' (2001) 15 *Conservation Biology* 1258-1268

Holmes Ralston 'Values in Nature' (1981) 3 *Environmental Ethics* 113-128.

Hutton, J. and N. Leader-Williams 'Sustainable use and incentive-driven conservation: realigning human and conservation interests' (2003) 37 *Oryx* 2:215-226.

Ina Von Frantzius 'World Summit on Sustainable Development Johannesburg 2002: A Critical Analysis and Assessment of the Outcomes' (2004) 13 *Environmental Politics* 467-473.

International Development Research Centre. (1995) *Building a new South Africa, Environment, Reconstruction and Development,* vol 4, Ed. A.V. Whyte, p. xviii. IDRC, Ottawa.

Izabella Kaziell and Charles McNeill 'Poverty Reduction Through Conservation and Sustainable Use of Biodiversity in Tom Bigg (ed) *Survival for a Small Planet: The Sustainable Development Agenda* (2004) 247-257.

J Alan Clark, Jonathan M Hoekstra, P Dee Boersma and Peter Kareiva 'Improving U.S. Endangered Species Recovery Plans: Key Findings and Recommendations from the SCB Recovery Plan Project' (2002) 16 *Conservation Biology* 6:1510-9.

J Michael Scott, Dale D Goble, John A Wiens, David S Wilcove, Michael Bean and Timothy Male 'Recovery of Imperilled Species under the Endangered Species Act: The Need for a New Approach' (2005) 3 *Frontiers in Ecology and the Environment* 7:383-9.

Jennifer Mason *Qualitative Researching* 2nd ed (2002). Sage.

Jerome A Jackson and Bette JS Jackson 'Once upon a time in American Ornithology: Extinction: the Passenger Pigeon, Last Hopes, Letting Go' (2007) 119(4) *The Wilson Journal of Ornithology* 767-772.

John L Garrison 'The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Debate Over Sustainable Use' (1994) 12 *Pace Environmental Law Review* 301-392.

John W Cresswell *Research Design: Qualitative, Quantitative and Mixed Approaches* 4th ed (2014). Sage.

John Gerring 'What Is a Case Study and What Is It Good For? (2004) 98 *The American Political Science Review* 2:341-354.

John G Robinson 'The Limits to Caring: Sustainable Living and the Loss of Biodiversity' (1993) 7 *Conservation Biology* 20-28.

Jonas Tallberg 'Paths to Compliance: Enforcement, Management and the European Union' (2002) 56 *International Organization* 3: 609-643.

Judith E Innis and David E Booher 'Reframing Public Participation: Strategies for the 21st century' (2004) 5 *Planning Theory and Practice* 4:419-36.

Kal Raustiala and David Victor 'Conclusions' in *The Implementation and Effectiveness of International Environmental Commitments: Theory and Evidence* (1998) (ed) David G Victor, Kal Raustiala and Eugene B Skolnikoff. Cambridge: Mass.: MIT Press.

Kathleen M Eisenhardt 'Building Theories from Case Study Research' (1989) 14 *The Academy of Management Review* 4:532-550.

Kevin M Carlsmith, John M Darly and Paul H Robinson 'Why Do We Punish? Deterrence and Just Deserts as Motives for Punishment' (2002) 83 *Journal of Personality and Social Psychology* 2:284-99.

King, Ralph T. 'The Future of Wildlife in Forest Land Use' (1948) 46 *Journal of Forestry* 282.

Koh, Harold Hongju "Book Review: The New Sovereignty" (1997) *Faculty Scholarship Series*. Paper 2098.

LA Feris 'The Role of good environmental governance in the sustainable development of South Africa'. *PER/PELJ* 2010 (13)1.

Laurie Nathan 'The Disbanding of the SADC Tribunal: A Cautionary Tale' 2013 35*Human Rights Quarterly* 870-892.

La Vina, Antonio GM, Gretchen Hoff and Anne Marie DeRose 'The outcomes of Johannesburg: Assessing the World Summit on Sustainable Development' (2003) 23 *School of Advanced International Studies (SAIS) Review of International Affairs* 53-70.

Lawrence C Walters, James Aydelotte and Jessica Miller 'Putting More Public in Policy Analysis' (2000) 60 *Public Administration Review* 4:349-59.

Leah Gerber 'Delisting of species under the ESA' (2003) 17 *Conservation Biology* 651-652.

LJ Kotzé 'Environmental Governance' chapter 5 in *Environmental Compliance and Enforcement in South Africa: Legal Perspectives* Alexander S Paterson and Louis J Kotzé (ed) (2009) Juta.

Ludwig D, Hilborn R and C Walters 'Uncertainty, Resource Exploitation and Conservation: Lessons from history' (1993) 3 *Ecological Applications* 4:547-549.

Madeline June Kass 'Strategic dodging of ESA listing determinations' (2015) 29 *Natural Resources & Environment* 3:54.

Marc A Levy, Peter M Haas and Robert O Keohane (ed) *Institutions for the Earth: Sources of Effective International Environmental Protection* (1993) Cambridge Mass. MIT Press.

Marc Pallemaerts ‘International Environmental Law in the Age of Sustainable Development: A critical assessment of the UNCED process’ (1995-1996) 15 *Journal of Law and Commerce* 623-676.

Marceil Yeater and Juan Vasquez ‘Demystifying the Relationship Between CITES and the WTO’ (2001) 10 *RECIEL* 271-276.

Mark Halle and Nicola Borregaard ‘The Trade and Environment Agenda Post-Johannesburg in Tom Bigg (ed) *Survival for a Small Planet: The Sustainable Development Agenda* (2004) 32-45.

Mark L. Shaffer ‘Minimum Population Sizes for Species Conservation’ (1981) 31 *BioScience* 2:131-134.

Martin F.J. Taylor, Kieran F. Suckling and Jeffrey J. Rachlinkski ‘The Effectiveness of the Endangered Species Act: A Quantitative Analysis’ (2005) 55(4) *BioScience* 360-367.

Maslow AH ‘A Theory of Human Motivation’ (1943) 50 *Psychological Review* 4:370-96.

Maslow AH *Religions, values and peak experiences* (1970) EIF Williams (ed) The Viking Press.

Max Abensperg-Traun ‘CITES, sustainable use of wild species and incentive-driven conservation in developing countries, with an emphasis on southern Africa’ (2009) 142 *Biological Conservation* 948-963.

ME Zimmerman ‘The Black Market for Wildlife: Combating Transnational Organised Crime in the Illegal Wildlife Trade’ (2003) 36 *Vand. J. Transnat’l L.* 1657.

Michael C Blumm and George Kimbrell ‘Flies, Spiders, Toads, Wolves and the Constitutionality of the Endangered Species Act’s Take Provision’ (2004) 34 *Environmental Law* 309-362.

Michael J Bean and Melanie J Rowland *The Evolution of National Wildlife Law* 3rd ed (1997) ‘A project of the Environmental Defense Fund and the World Wildlife Fund-US’. Praeger Publishers, USA.

Milbrath LW ‘Citizen surveys as citizen participation mechanisms’ (1981) 17 *Journal of Applied Behavioral Science* 478-96.

Mill, John Stuart (1861) *Utilitarianism* Roger Crisp (ed) (1998) Oxford: Oxford University Press.

Mitchell, Ronald B *Intentional Oil Pollution at Sea: Environmental Policy and Treaty Compliance* (1984) Cambridge, MA: MIT Press.

Mittermeier RA, Gil PR and Mittermeier CG *Megadiversity: Earth’s Biologically Wealthiest Nations* (1997) Conservation International, Cemex.

Morris WF, Bloch PL, Hudgens BR, Moyle LC and JR Stinchcombe 'Population viability analysis in endangered species recovery plans: Past use and future improvements' (2002) 12 *Ecological Applications* 708–712.

Ned Crosby, Janet M Kelly and Paul Schaefer 'Citizens Panels: A New Approach to Citizen Participation' (1986) 46 *Public Administration Review* 170-78.

Nigel Rossouw and Keith Wiseman 'Learning from the implementation of environmental public policy instruments after the first ten years of democracy in South Africa' (2004) *22 Impact Assessment and Project Appraisal* 131-140.

Oliver C Ruppel (2012) 'SADC Environmental Law and the Promotion of Sustainable Development' 2 *SADC Law Journal* (2) 246-280.

Paul Bourdreaux 'Understanding "Take" in the Endangered Species Act' (2002) 34 *Arizona State Law Journal* 733-774.

Paul Wilkinson 'Public Participation in Environmental Management: A case study' (1976) 16 *Natural Resources Journal* 117-35.

Peter Bridgewater 'New Context for the Ramsar Convention: Wetlands in a Changing World' (2008) 17 *RECIEL*100-6.

Peter H Sand 'Enforcing CITES: The Rise and Fall of Trade Sanctions' (2013) 22 *RECIEL* 251-263.

Pierre-Marie Dupuy 'Soft Law and the International Law of the Environment' (1991) 12 *International Law of the Environment* 420-435.

Rachel Wynberg. 'A decade of biodiversity conservation and use in South Africa: tracking progress from the Rio Earth Summit to the Johannesburg World Summit on Sustainable Development' (2002) 98 *South African Journal of Science* 233-43.

Redford, KH and BD Richter 'Conservation of Biodiversity in a World of Use' (1999) 13 *Conservation Biology* 6:1246-1256.

Renée A Irvin and John Stansbury 'Citizen Participation in Decision Making: Is it worth the effort?' (2004) 64 *Public Administration Review* 1:55-65.

Robert Innes, Stephen Polasky and Endangered Species Protection on Private Land (1998) 12(3) *Journal of Economic Perspectives* 35-52.

Robert K Yin *Qualitative Research From Start to Finish* (2011) The Guilford Press, New York, London.

Robert O Keohane 'Compliance with International Commitments: Politics Within A Framework of Law' (1992) 86 *American Society International Law Proceedings* 176.

Robert O Keohane, Peter M Haas and Marc A Levy 'The Effectiveness of International Institutions' in Peter M Haas, Robert O Keohane and Marc A Levy (ed) *Institutions for the*

Earth: Sources of Effective International Environmental Protection (1993) . Cambridge Mass. MIT Press.

Robert S Anderson 'The Lacey Act: America's Premier Weapon in the Fight Against Unlawful Wildlife Trafficking' (1995) 16 *Public Land and Resources Law Review* 27-85.

Robin Naidoo, L. Chris Weaver, Richard W. Diggle, Greenwell Montongo, Greg Stuart-Hill and Chris Thouless. 'Complementary benefits of tourism and hunting to communal conservancies in Namibia' (2016) 30 *Conservation Biology* 3:628-638.

Robinson JG 'The Limits to Caring: Sustainable Living and the Loss of Biodiversity' (1993) 7 *Conservation Biology* 1 20-28.

Rhul JB 'The Endangered Species Act's Fall from Grace in the Supreme Court' (2012) 36 *Harvard Environmental Law Review* 487-532.

Rosie Cooney and Max Abensperg-Traun 'Raising Local Community Voices: CITES, Livelihoods and Sustainable Use' (2013) *22 RECIEL*301-310.

Salwasser H 'Sustainability needs more than better Science' (1993) 3 *Ecological Applications* 4:587-589.

Sarah C Kaczmarek and Abraham L Newman 'The Long Arm of the Law: Extraterritoriality and the National Implementation of Foreign Bribery Legislation' (2011) 65 *International Organization* 4: 745-70.

Scott Brainherd 'Convention on the Conservation of European Wildlife and Natural Habitats. European Charter on Hunting and Biodiversity' (2007).

Scott Farrow 'Extinction and market forces: 2 case studies' (1995) 13 *Ecological Economics* 115-123.

Shaffer ML 'Minimum population sizes for species conservation' (1981) 31 *BioScience* 131–134.

Shaffer ML and FB Samson 'Population size and extinction: A note on determining critical population sizes' (1985) 125 *American Naturalist* 144–152.

Shannon Petersen 'Congress and Charismatic Megafauna: A Legislative History of the Endangered Species Act'(1999) 29 *Environmental Law* 463.

Simon Lyster 'Basic Principles of International Wildlife Law' in *International Wildlife Law: An analysis of international treaties concerned with the conservation of wildlife* (1985) Cambridge University Press.

Stephen R Kellert 'Social and Perceptual Factors in Endangered Species Management' (1985) 49 *Journal of Wildlife Management* 528.

Steve Charnovitz 'Environmental Trade Sanctions and the GATT: An Analysis of the Pelly Amendment on Foreign Environmental Practices' (1994) 9 *Am U J Intl L Poly* 751.

Stevenson-Hamilton, JC 1993 South African Eden. *The Kruger National Park* 1902-1946. Struik, Cape Town.

Stuart HM Butchart 'Red List Indices to measure the sustainability of species use and impacts of invasive alien species' (2008) 18 *Bird Conservation International* S245-S262.

Stuart L Somach 'What outrages me about the Endangered Species Act' (1994) 24 *Environmental Law* 801.

Tonya L Putnam 'Courts Without Borders: Domestic Sources of US Extraterritoriality in the Regulatory Sphere' (2009) 63 *International Organization* 3: 459-90.

Velázquez Gomar, José Octavio and Lindsey C Stringer 'Moving towards sustainability? An analysis of CITES' Conservation Policies' (2011) 21 *Environmental Policy and Governance* 240-258.

WM Adams 'Green Development', 2nd ed. *Environment and Sustainability in the Third World* (2009) Routledge: London.

Wolf S, Hartl B, Carroll C, Neel MC and DN Greenwald 'Beyond PVA: Why recovery under the Endangered Species Act is More than Population Viability' (2015) 65 *BioScience* 200-207.

Wynberg R. *Exploring the Earth Summit, Findings of the Rio United Nations Conference on Environment and Development, Implications for South Africa.* 1993. Penrose Press. Johannesburg.

Zeigler SL, Che–Castaldo JP and MC Neel 'Actual and potential use of population viability analyses in recovery of plant species listed under the US Endangered Species Act' (2013) 27 *Conservation Biology* 1265–1278.

Zygmunt J.B. Plater 'The Embattled Social Utilities of the Endangered Species Act – A Noah Presumption and Caution Against Putting Gasmasks on Canaries in the Coalmine' (1997) 27 *Environmental Law* 845-876.

Official Reports

Dilys Roe, Teresa Mulliken, Simon Milledge, Josephine Mremi, Simon Mosha and Maryanne Grieg-Gran. *Making a Killing or Making a Living? Wildlife trade, trade controls and rural livelihoods.* (2002) Biodiversity and Livelihoods Issues No. 6. IIED and TRAFFIC.

Emslie RH, Millikin T and Talukdar B (2012*) African and Asian Rhinoceroses – Status, Conservation and Trade.* CoP16 Doc. 54-2 (Rev1) Annex 2. CITES Secretariat, Geneva, Switzerland.

Endangered Species Act Amendments of 1993: Hearings on S. 921 Before Subcomm. on Clean Water, Fisheries, & Wildlife of the Senate Comm. on Environmental and Pub. Works, 103d Cong. 2 (1994) (statement of Senator Graham).

IUCN/UNEP/WWF. 1980. World Conservation Strategy. Living Resource Conservation for Sustainable Development. Gland, Switzerland.

IUCN 2012 *Guidelines for Application of IUCN Red List Criteria at Regional and National Levels: Version 4.0*. Gland, Switzerland and Cambridge, UK: IUCN.

IUCN Briefing Paper, April 2016. Informing decisions on trophy hunting. A briefing paper for European Union Decision-makers regarding potential plans for restriction of imports of hunting trophies.

IUCN-UNEP-WWF 'The World Conservation Strategy' (1980).

IUCN/UNEP/WWF 'Caring for the Earth: A Strategy for Sustainable Living' (1991).

Report of the World Commission on Environment and Development, Our Common Future. (1987) Oxford University Press.

Secretariat of the Convention on Biological Diversity (2004) 'Addis Ababa Principles and Guidelines for Sustainable Use of Biodiversity' Montréal.

Secretariat of the Convention on Biological Diversity (2010) 'Global Biodiversity Outlook 3' Montréal.

Trade measures in multilateral environmental agreements. A report by IUCN – The World Conservation Union on the Effectiveness of Trade Measures Contained in the CITES. Prepared for the Economics, Trade and Environment Unit, UNEP. IUCN Report (09/11/00).

UNEP 'Chapter 3: Principles and concepts of International Environmental law' in *Training Manual on International Environmental Law*. pp. 24-26.

United Nations Report of the World Commission on Environment and Development, *Our Common Future* (1987).

Willem Wijnstekers 'The Evolution of CITES: A Reference to the Convention on International Trade in Endangered Species of Wild Fauna and Flora' 9th ed (2011).

W. Lawrence Neuman *Social Research Methods: Qualitative and Quantitative Approaches* 3rd ed (1997). Allyn and Bacon, USA.

World Commission on Environment and Development. 1987. Our *Common Future.* Oxford University Press, Oxford, England.

World Health Organisation and Secretariat of the Convention on Biological Diversity *Connecting Global Priorities: Biodiversity and Human Health: A State of Knowledge Review* (2015).

Kieran Suckling, Noah Greenwald and Tierra Curry 'On Time, On Target: How the Endangered Species Act is Saving America's Wildlife' (2012) Centre for Biological Diversity, Tucson, AZ.

Kieran Suckling 'Measuring the Success of the Endangered Species Act: Recovery Trends in the Northeastern United States' (2007) Centre for Biological Diversity, Tucson, AZ.

Millikin T and Shaw J (2012) *The South Africa – Viet Nam Rhino Horn Trade Nexus: A deadly combination of institutional lapses, corrupt wildlife industry professionals and Asian crime syndicates*. TRAFFIC, Johannesburg, South Africa.

President Nixon stated that 'nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed.' President Nixon's Statement on Signing of the Endangered Species Act of 1973, 374 Pub. Papers 1027-28 (Dec. 28, 1973).

Ralph J. Gutierrez and Andrew B Carey, Tech. Eds. Ecology and Management of the Spotted Owl in the Pacific Northwest. Gen. Tech. Rep. PNW-185. (1985) Portland, OR: US Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station.

USFWS 'Leaving a Lasting Legacy: Permits as a Conservation Tool' (2002) Department of Interior, Arlington VA.

Working Papers

Rebecca F. Wisch 'Overview of the Lacey Act 16 USC §3371-3378' (2003) Animal Legal and Historical Centre, Michigan State University College of Law.

Public Participation Framework for the South African Legislative Sector June 2013.

UNODC Wildlife and Forest Crime Toolkit revised edition. United Nations 2012.

Internet sources

81 Federal Register 41865, June 28, 2016, as amended at 82 FR 6308, Jan. 19, 2017 available https://www.aphis.usda.gov/plant_health/lacey_act/downloads/faq.pdf, accessed on 25 March 2017.

A to Z of areas of biodiversity importance. Available at http://www.biodiversitya-z.org/areas/26

About the biodiversity crisis, available at http://www.iucn.org/what/tpas/biodiversity,/ accessed on 23 August 2012.

About RFMOs available at http://www.fao.org/fishery/topic/166304/en, accessed on 21 March 2017.

Addis Ababa Principles and Guidelines available at http://www.cbd.int/doc/publications/addis-gdl-en.pdf, accessed on 15 June 2014.

Agenda 21 available at http://www.sustainable-environment.org.uk/Action/Agenda_21.php, accessed on 16 August 2014.

Altruism means to be unselfish or self-sacrificing and caring for others and is associated with humanitarianism. http://en.wikipedia.org/wiki/Maslow%27s_hierarchy_of_needs or http://www.simplypsychology.org/maslow.html, accessed on 5 May 2015.

Arnold Bengis had control over Icebrand Seafoods Inc. in Manhattan, while David Bengis was the President of Icebrand Seafood Inc. in Portland Maine available at http://www.justice.gov/usao-sdny/pr/officers-fishing-and-seafood-corporations-ordered-pay-nearly-225-million-south-africa, accessed 13 October 2015.

Articles of Convention on Biological Diversity. United Nations 1992 available at http://www.cbd.int/convention/text/, accessed on 8 May 2013.

As at 16 June 2017, there are 1 159 recovery plans for listed species, which constitutes almost 50 percent of all listed species. Available at https://ecos.fws.gov/tess_public/reports/box-score-report, accessed on 16 June 2017.

Asian Elephant Conservation Act of 1997 16 USC 4261 available at https://www.fws.gov/international/pdf/multinational-species-conservation-act-asian-elephant.pdf, accessed on 15 June 2016.

Biodiversity means the variety of animals, plants, their habitats and their genes, available at http://www.iucn.org/what/tpas/biodiversity/, accessed on 23 August 2012.

'Bison Today' available at http://www.americanbison.si.edu/bison-today/, accessed on 22 June 2015.

Black Footed Ferret Recovery Plan, Second Revision, November 2013 available at https://ecos.fws.gov/docs/recovery_plan/20131108%20BFF%202nd%20Rev.%20Final%20Recovery%20Plan.pdf, accessed on 22 March 2017.

'Briefing Notes on Substantial Review of the Threatened or Protected Species (TOPS) Regulations and Species Lists' para 3.1 available at https://pmg.org.za/committee-meeting/21690/, accessed on 28 November 2016.

Butterfly Red List available at http://www.lepsoc.org.za/books-posters-ebooks/conservation-assessment-of-butterflies-of-south-africa-lesotho-and-swaziland-red-list-and-atlas.html, accessed on 7 December 2016.

CBD Decision VII/12. Available at http://www.cbd.int/doc/decisions/cop-07/cop-07-dec-12-en.pdf, accessed on 15 June 2014.

CBD List of Parties available at https://www.cbd.int/information/parties.shtml, accessed on 22 November 2016.

CMS List of Parties and Range States available at http://www.cms.int/en/parties-range-states, accessed on 22 November 2016.

CMS Convention text available at http://www.cms.int/en/convention-text, accessed on 22 November 2016.

Collins English Dictionary defines conservation as protection, preservation and careful management of natural resources and the environment. The American Heritage dictionary defines conservation as the protection, preservation, management or restoration of wildlife and of natural resources such as forests, soil and water. Available at http://www.thefreedictionary.com/conservation, accessed on 16 May 2014.

Combined IUU vessel lists available at http://iuu-vessels.org/iuu also see FAO IPOA- IUU fishing available at http://www.fao.org/docrep/003/y1224e/y1224e00.htm, accessed on 21 March 2017.

Conferences on illegal wildlife trade - London Conference February 2014, Kasane Conference March 2015 and Hanoi Conference November 2016. Available at https://www.gov.uk/government/topical-events/illegal-wildlife-trade-2014 Kasane Botswana conference available at http://sdg.iisd.org/news/international-conference-on-illegal-wildlife-trade-adopts-kasane-statement/ and Hanoi Vietnam conference available at http://iwthanoi.vn/ accessed on 7 December 2016.

Conservation dashboard for South Africa. The biodiversity loss is an estimate based on sites covering more than 27 000 species and is calculated on estimates using land use in 2000 compared against a baseline of 100% intact biodiversity. Available at https://www.unep-wcmc.org/#?country=ZA&dashboard=show accessed on 21 November 2016.

Convention on Biological Diversity. United Nations 1992. Available at http://www.cbd.int/convention/text/, accessed on 8 May 2013.

Convention on International Trade in Endangered Species of Wild Fauna and Flora, 3 March 1973, 993 U.N.T.S. 243 (hereinafter CITES). Convention text available at http://www.cites.org/eng/disc/what.php accessed on 10 May 2013.

Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (1940) Washington, available at http://www.loc.gov/law/help/us-treaties/bevans/m-ust000003-0630.pdf, accessed on 27 July 2015.

CITES Appendices available at https://cites.org/sites/default/files/eng/app/2017/E-Appendices-2017-04-04.pdf, accessed on 11 April 2017.

CITES Contracting Parties available at https://cites.org/eng/disc/parties/chronolo.php, accessed on 21 November 2016.

CITES CoP16 decision to incorporate Aichi targets available at http://www.cites.org/sites/default/files/common/cop/16/sum/E-CoP16-Com-II-Rec-03.pdf, accessed on 30 August 2013.

CITES CoP17 Proposal 6 submitted by South Africa available at https://cites.org/sites/default/files/eng/cop/17/prop/060216/E-CoP17-Prop-06.pdf, accessed on 20 September 2016.

CITES Convention text available at http://www.cites.org/eng/disc/what.php, accessed on 10 May 2013.

CITES Decision 17.241 to 17.245 available at https://cites.org/sites/default/files/eng/dec/valid17/E17-Dec.pdf, accessed on 11 April 2017.

CITES Parties with legislation in category 1, which means 'legislation that is believed generally to meet all four requirements for effective implementation of CITES' available at https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-22-A3-R1.pdf accessed on 24 March 2017.

CITES Resolutions available at https://cites.org/eng/res/index.php, accessed on 21 March 2017.

CITES Resolution Conf. 8.4 (Rev. CoP15) National Laws for the Implementation of the Convention available at https://cites.org/eng/res/08/08-04R15.php, accessed on 8 December 2016.

CITES SC57 Doc. 18 available at https://cites.org/sites/default/files/eng/com/sc/57/E57-18.pdf accessed on 24 March 2017.

CITES Strategic vision: 2008-2020 available at http://dev.cites.org/sites/default/files/eng/res/16/E-Res-16-03.pdf, accessed on 30 August 2013.

CITES Trade Data Dashboards available at http://cites-dashboards.unep-wcmc.org/national?id=ZA, accessed on 10 July 2015.

CMS/Bonn Convention available at http://www.cms.int/

Criminal Intelligence Manual for Analysts available at https://www.unodc.org/documents/organized-crime/Law-Enforcement/Criminal_Intelligence_for_Analysts.pdf, accessed on 2 July 2015.

Criminal Justice Act Best Practices Manual available at http://www.fedcourt.gov.au/law-and-practice/practice-documents/practice-notes/cm/, accessed on 2 March 2017.

Department of Environmental Affairs Media Release on rhino poaching as at 30 June 2014 available at https://www.environment.gov.za/mediarelease/stakeholderparticipation_rhinotrade, accessed on 6 July 2014.

Department of Environmental Affairs 'National Compliance and Enforcement Report 2015-2016' p 77 available at https://www.environment.gov.za/sites/default/files/reports/necer2016.pdf, accessed on 12 January 2017.

Department of Justice, US Attorney's Office, Southern District of California 'Furniture Company Owner Admits Role Running International "Fish" Smuggling Operation' July, 21 , 2015 available at https://www.justice.gov/usao-sdca/pr/furniture-company-owner-admits-role-running-international-fish-smuggling-operation, accessed on 3 October 2015.

Dictionary definition of sustainable available at http://www.oxforddictionaries.com/definition/english/sustainable, accessed on 10 June 2015.

DLA Piper (2015) 'Empty Threat: Does the Law Combat Illegal Wildlife Trade? A review of legislative and judicial approaches in fifteen jurisdictions.' Available at http://www.dlapiperprobono.com/export/sites/pro-bono/downloads/pdfs/Illegal-Wildlife-Trade-Report-2015.pdf accessed on 21 March 2017.

Endangered Species Act 40th anniversary – protecting imperilled plants and animals since 1973, available at http://www.fws.gov/endangered/esa40/, accessed on 20 July 2013.

Endangered Species Act amendments of 1993: Hearings on S. 921 Before Subcomm. On Clean Water, Fisheries & Wildlife of the Senate Comm. On Environment and Public Works, 103d Cong. 2 (1994) (statement of Sen. Graham) available at https://archive.org/stream/endangeredspecie199402unit/endangeredspecie199402unit_djvu.txt, accessed on 14 March 2016.

Etymology of sustainable available at http://www.etymonline.com/index.php?term=sustainable, accessed on 10 June 2015.

Etymology of use available at http://www.etymonline.com/index.php?term=use, accessed on 10 June 2015.

FAO Fisheries Department. Implementation of the International Plan of Action to Prevent, Deter and EliminateIllegal, Unreported and Unregulated Fishing. FAO Technical Guidelines for Responsible Fisheries. No. 9 Rome, FAO (2002) available at ftp://ftp.fao.org/docrep/fao/005/y3536e/y3536e00.pdf, accessed on 20 June 2015.

Federal Register 5 July 2013 Executive order 13648 – combating wildlife trafficking available at https://www.whitehouse.gov/the-press-office/2013/07/01/executive-order-combating-wildlife-trafficking, accessed on 12 July 2015.

Federal Register available at https://www.federalregister.gov/documents/1997/04/30/97-11092/termination-of-the-pelly-amendment-certification-of-taiwan, accessed on 16 July 2015.

Federal Register Vol .79 No.128, Thursday, July 3, 2014. Rules and Regulations. Department of Commerce available at http://www.cftc.gov/idc/groups/public/@lrfederalregister/documents/file/2014-15618a.pdf, accessed on 20 July 2016.

Finance Operations Policies and Guidelines available at http://www.uct.ac.za/services/financial/policiesguides/, accessed on 2 July 2015.

Ganesha the beloved elephant-headed Hindu god available at http://www.religionfacts.com/hinduism/beings/ganesha, accessed on 5 May 2015.

Global Biodiversity Outlook 4 available at https://www.cbd.int/gbo/gbo4/publication/gbo4-en.pdf , accessed on 24 December 2014.

Global Biodiversity Outlook 3 (2010) available at http://www.cbd.int/gbo3, accessed on 8 May 2013.

History of the Convention on Biological Diversity available at http://www.cbd.int/history/, accessed on 14 June 2014.

Hluhluwe-Imfolzi Park available at https://en.wikipedia.org/wiki/Hluhluwe%E2%80%93Imfolozi_Park, accessed on 8 July 2017.

Hunter-gatherer is defined as 'a member of a culture in which food is obtained by hunting, fishing and foraging rather than by agriculture or animal husbandry' available at https://www.merriam-webster.com/dictionary/hunter-gatherer, accessed on 30 June 2015.

In this context trade means the buying, selling or exchanging of goods as a commercial transaction available at http://www.merriam-webster.com/dictionary/trade, accessed on 10 June 2015.

In this context guilt means 'responsibility for a crime or knowing you have done something bad or wrong' or 'a bad feeling caused by knowing or thinking that you have done something bad or wrong' as defined at http://www.merriam-webster.com/dictionary/guilt, accessed on 20 June 2015.

Indigenous spirituality available at http://www.australianstogether.org.au/stories/detail/indigenous-spirituality, accessed on 5 May 2015.

International Bar Association Guidelines available at http://www.ibanet.org/ENews_Archive/IBA_27October_2010_Arbitration_Clauses_Guidelines.aspx accessed on 2 July 2015.

IUCN red list categories and criteria, available at http://www.iucnredlist.org/documents/redlist_cats_crit_en.pdf, accessed on 27 August 2012.

International North Pacific Anadromous Fisheries Commission (INPAFC) available at http://www.npafc.org/new/inpfc/INPFC%20_convention.pdf, accessed on 27 July 2015.

International Union for the Conservation of Nature and Natural Resources (1980) 'The World Conservation Strategy: Living Resource Conservation for Sustainable Development' available at http://www.a21italy.it/medias/688-wcs-004.pdf, accessed on 12 May 2014.

It is said that Frederick the Great of Prussia first coined the phrase of 'man's best friend' available at https://en.wikipedia.org/wiki/Man%27s_best_friend_(phrase), accessed on 30 June 2015.

J Driver 'The History of Utilitarianism' (2009) available at http://plato.stanford.edu/entries/utilitarianism-history/#JerBen accessed on 25 April 2015.

Jim MacNeill. Brundtland revisited. 4 February 2013, available at http://opencanada.org/features/the-think-tank/essays/brundtland-revisited/ accessed 16 August 2013.

Johannesburg Declaration on Sustainable Development. 4 September 2002 available at http://www.un-documents.net/jburgdec.htm, accessed on 16 December 2014.

John Stuart Mill 'Utilitarianism' (2008) available at http://www.earlymoderntexts.com/assets/pdfs/mill1863.pdf accessed on 25 April 2015.

Joint Press Release CITES, INTERPOL, UNODC, World Bank Group and World Customs Organisation 'Successful operation highlights growing international cooperation to combat wildlife crime' 18 June 2015 available at https://cites.org/eng/news/pr/iccwc_press_release_cobra_III, accessed on 12 January 2017.

Key note address by President of Botswana available at http://www.sadc.int/files/8114/6798/4206/Speech_by_the_President_of_The_Republic_of_Botswana_Lieutenant_General_Dr._Seretse_Khama_Ian_Kham_khama_speech.pdf, accessed on 23 November 2016.

'Killing for Profit by Julian Rademeyer' available at http://killingforprofit.com/tag/dawie-groenewald/, accessed on 15 June 2016.

Lacey Act Frequently Asked Questions April 28, 2016 available at https://www.aphis.usda.gov/plant_health/lacey_act/downloads/faq.pdf, accessed on 25 March 2017.

Life history is an ecological term that refers to the life cycle and stages in the life of the species, such as, life expectancy, natural mortality, sexual maturity, especially as these relate to the survival strategy of the species. Available at http://science.jrank.org/pages/3924/Life-History.html, accessed on 10 June 2017.

List of law suits available at https://www.animallaw.info/cases/topic/endangered-species, accessed on 25 March 2016.
Mammal Red List available at https://www.ewt.org.za/reddata/reddata.html, accessed on 7 December 2016.

McCreary testimony available at http://naturalresources.house.gov/uploadedfiles/mccrearytestimony05-16-13.pdf, accessed on 7 February 2016.

Media release 'Minister Edna Molewa joined by Security Cluster Ministers highlights progress in the fight against rhino poaching' 8 May 2016 available at https://www.environment.gov.za/mediarelease/molewa_onprogresagainst_rhinopoaching accessed on 7 December 2016.

Media release of 25 January 2017 available at https://www.environment.gov.za/mediarelease/africanlion_pantheraleo_exportquota, accessed on 11 April 2017.

Media release 'Department of Environmental Affairs Appeals the Rhino Horn Moratorium Judgement' 9 December 2015 available at

https://www.environment.gov.za/mediarelease/dea_appeals_rhinohornmoratoriumjudgment, accessed on 6 December 2016.
Media release 'Supreme Court of Appeal judgement on domestic moratorium on trade in rhino horn' 24 May 2016 available at https://www.environment.gov.za/mediarelease/supremecourt_appealjudgment_traderhinohorn, accessed on 6 December 2016.

Media release 'Minister Edna Molewa notes the Constitutional Court decision on the moratorium on the domestic trade in rhino horn' 6 April 2017 https://www.environment.gov.za/mediarelease/molewa_notes_constitutionalcourtdecision, accessed on 11 April 2017.

Media statement by International Cooperation, Trade and Security Cluster briefing of 13 December 2016 available at http://www.gcis.gov.za/newsroom/media-releases/international-cooperation-trade-and-security-cluster-briefing, accessed on 11 April 2017.

Memorandum for the President on Actions Taken in Response to Pelly Certification of Iceland dated January 23, 2015 available at https://www.fws.gov/international/pdf/memo-response-to-pelly-certification-of-iceland.pdf, accessed on 16 July 2015.

Merriam Webster dictionary trade means the 'buying, selling or exchanging of goods as a commercial transaction.' Available at http://www.merriam-webster.com/dictionary/trade, accessed on 10 June 2015.

Minister Edna Molewa media release available at https://www.environment.gov.za/mediarelease/molewa_highlightsprogress_againstrhinopoaching, accessed on 15 June 2016.

Mittermeier, R.A., Gil, P.R. and Mittermeier, C.G. (1997) *Megadiversity: Earth's Biologically Wealthiest Nations*. Conservation International, Cemex. Also available at http://www.biodiversitya-z.org/areas/26 accessed on 9 May 2013.

Modjadji Cycad Reserve, Limpopo available at http://www.southafrica.net/za/en/articles/entry/article-southafrica.net-modjadji-cycad-reserve, accessed on 5 May 2015.

National Prosecuting Authority (NPA) of South Africa reported on the matter in its annual report of 2007-2008 and stated that 'other prominent matters in which international cooperation is instrumental include the Arnold Bengis/Hout Bay Fishing matter…'available at http://www.gov.za/sites/www.gov.za/files/npa-annual-rpt0708.pdf, accessed 12 February 2016.

National reports to CMS available at http://www.cms.int/en/documents/national-reports?field_country_target_id_entityreference_filter=183, accessed on 22 November 2016.

Northwest Atlantic Fisheries Organisation (NAFO) replaced the 1949 ICNAF. See introduction to the Convention, available http://www.nafo.int/publications/frames/publications.html, accessed on 27 July 2015.

Norway and Japan submitted reservations to the protective listing of minke whales under CITES available at https://2001-2009.state.gov/p/eur/rls/fs/10226.htm, accessed on 3 August 2015.

OECD Insights: Human Capital. The OECD defines social capital as 'networks together with shared norms, values and understandings that facilitate cooperation within or among groups'. However, it should be noted that there are varying definitions for social capital. Available at https://www.oecd.org/insights/37966934.pdf accessed on 21 March 2017.

Open Working Group Proposal for Sustainable Development Goals available at https://sustainabledevelopment.un.org/content/documents/1579SDGs%20Proposal.pdf, accessed on 8 July 2015.

Operation Cobra III Global Wildlife Enforcement available at https://cites.org/eng/news/pr/iccwc_press_release_cobra_III, accessed 8 July 2015.

Overcriminalisation is defined as the criminalisation of conduct that most people would not consider inherently wrongful or criminal available at http://www.cato.org/publications/congressional-testimony/overcriminalization-conductoverfederalization-criminal-law, accessed on 15 July 2016.

Oversight Hearing on "The 2008 Lacey Act Amendments". Hearing before the Sub-Committee on Fisheries, Wildlife, Oceans and Insular Affairs, 113th Congress. (2013) available at http://naturalresources.house.gov/calendar/eventsingle.aspx?EventID=332895, accessed on 7 February 2016.

Plan of Implementation of the World Summit on Sustainable Development available at http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf, accessed on 16 December 2014.

Plant red list available at http://redlist.sanbi.org/, accessed on 7 December 2016.

Pelly Amendment to the Fishermen's Protective Act of 1967, 22 USC § 1978, was expanded to authorise the President to embargo wildlife products, including fish not previously covered, when the Secretary of the Interior or Commerce certifies that nationals of a foreign nation are engaging in trade or taking that diminishes the effectiveness of an international programme in force by the US for the conservation of endangered or threatened species available at http://www.fws.gov/international/laws-treaties-agreements/us-conservation-laws/pelly-amendment.html, accessed on 16 July 2015.

Poaching is defined as 'the illegal shooting, trapping or taking of game or fish from private or public property' available at http://legal-dictionary.thefreedictionary.com/Poaching, accessed on 26 June 2014.

'Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan for Implementing Task Force Recommendations' available at http://www.nmfs.noaa.gov/ia/iuu/taskforce.html, accessed on 13 July 2015.

Press release, Geneva 13 June 2014. Available at http://www.cites.org/eng/elephant_poaching_and_ivory_smuggling_figures_for_2013_released, accessed on 6 July 2014.

Press Release available at https://cites.org/eng/news/pr/Largest_ever_World_Wildlife_Conference_CoP17_hailed_as_a_game_changer_04102016, accessed on 21 November 2016.

Press Release: Interior Certifies that Iceland's Commercial Whaling Undermines International Wildlife Conservation available at https://www.fws.gov/news/ShowNews.cfm?ID=07B03A05-D0BA-0737-ECFADAFD5A84EEA2, accessed on 16 July 2015.

Press release 'CITES marks 40 years of international cooperation and national action' available at https://cites.org/eng/cites_1975_2015, accessed on 15 July 2016.

Prosecution Policy and Guidance available at http://www.cps.gov.uk/prosecution_policy_and_guidance.html, accessed on 2 July 2015.

Pub. L. 101-410, 104 Stat. 890 (28 U.S.C. 2461 note); Pub. L. 104-134, 110 Stat. 1321 (31 U.S.C. 3701 note); Sec. 701 of Pub. L. 114-74, 129 Stat. 599 (28 U.S.C. 1 note; 28 U.S.C. 2461 note). 81 FR 95434, Dec. 28, 2016, unless otherwise noted available at http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=b7e0152bf980b4c8e39564c0bdeb165e&ty=HTML&h=L&mc=true&r=PART&n=pt15.1.6, accessed on 25 March 2017.

Red Book on Rare and Endangered Fish and Wildlife of the United States which was published in 1964. This was the first official federal document of species in the US that potentially faced extinction available at http://www.fws.gov/endangered/species/faq-first-species-listed.html, accessed on 24 July 2015.

Report of the Open Working Group of the General Assembly on Sustainable Development Goals available at http://www.un.org/ga/search/view_doc.asp?symbol=A/68/970&Lang=E, accessed on 8 July 2015.

Reptile Red List available at http://www.sanbi.org/news/sanbi-publishes-2-new-animal-publications, accessed on 7 December 2016.

Res. Conf. 13.2 available at https://cites.org/sites/default/files/document/E-Res-13-02-R14.pdf, accessed on 21 March 2017.

Res. Conf. 16.6 available at https://cites.org/sites/default/files/document/E-Res-16-06-R17.pdf, accessed on 21 March 2017.

Res. Conf. 13.3 available at https://cites.org/eng/res/10/10-04R14.php, accessed on 13 April 2015.

Richard H Emslie, Tom Milliken, Bibhab Talukdar, Susie Ellis, Keryn Adcock and Michael H Knight 'African and Asian Rhinoceroses – Status, conservation and trade' CoP17 Doc. 68

Annex 5 p3 available at https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-68-A5.pdf, accessed on 21 September 2016.

Rhinoceros and Tiger Conservation Act of 1998 16 USC 5301-5306 available at https://www.fws.gov/le/USStatutes/RhinoTiger.pdf, accessed on 15 June 2016.

Richard Nixon'Special Message to the Congress Outlining the 1972 Environmental Program' February 8, 1972. Online by Gerhard Peters and John T. Woolley, *The American Presidency Project* available at http://www.presidency.ucsb.edu/ws/?pid=3731, accessed on 14 July 2015.

Rio Earth Summit available at http://www.sustainable-environment.org.uk/Action/Earth_Summit.php, accessed on 23 December 2014.

Rosie Cooney 'Sustainable use: Concepts, Ambiguities, Challenges' (2007) *IUCN, Species Survival Commission*, available at http://cmsdata.iucn.org/downloads/whiteoakmtgfinalbackgroundjuly07.pdf, accessed on 24 August 2013.

SADC Executive Secretary opening remarks available http://www.sadc.int/files/5014/6797/8445/SADC_Executive_Secretary__Remarks__-_SADC_MINISTERIAL_WORKSHOP__8_July_2016.pdf, accessed on 23 November 2016.

SADC LEAP Strategy available at http://www.gaborone.diplo.de/contentblob/4715602/Daten/6225495/SADC_LEAP_FINAL.pdf, accessed on 23 November 2016.

SADC news on the workshop available at http://www.sadc.int/news-events/news/workshop-illegal-trade-wildlife-8th-july-2016-gaborone-botswana/, accessed on 23 November 2016.

SADC Protocol on Wildlife Conservation and Law Enforcement of 1999, in force since 30 November 2003 available at http://www.sadc.int/files/4813/7042/6186/Wildlife_Conservation.pdf, accessed on 22 November 2016.

SADC Protocols available at http://www.sadc.int/index.php/documents-publications/protocols?sortBy=date&pageSize=10&doc_q_4700=&sortOrder=desc&filterByKey=&filterByVal=&page=2, accessed on the 15 January 2017.

SADC Tribunal http://www.sadc.int/about-sadc/sadc-institutions/tribun/, accessed on 15 January 2017.

SANBI 'South African cycads face extinction crisis' 28 October 2010 available at http://www.sanbi.org/news/south-african-cycads-face-extinction-crisis, accessed on 21 November 2016.

Scott Brainherd 'Convention on the Conservation of European Wildlife and Natural Habitats. European Charter on Hunting and Biodiversity' (2007) available at http://www1.nina.no/lcie_new/pdf/634991504714143702_Hunting_Charter[1].pdf, accessed on 8 April 2015.

SDG 14 calls for effective regulation of fisheries and an end to overfishing and IUU fishing. While SDG 15 calls for urgent action to halt biodiversity loss and end poaching and illegal trade in wild fauna and flora. Available at http://www.un.org/sustainabledevelopment/biodiversity/, accessed on 10 June 2015.

Secretariat of the Convention on Biological Diversity (2004) 'Addis Ababa Principles and Guidelines for Sustainable Use of Biodiversity' Montréal, at 21 available at http://www.cbd.int/doc/publications/addis-gdl-en.pdf, accessed on 15 June 2014.

Sentencing guidelines: South Africa available at http://www.loc.gov/law/help/sentencing-guidelines/southafrica.php, accessed on 2 July 2015.

South Africa's national contacts for CITES Scientific Authority available at https://cites.org/eng/cms/index.php/component/cp/country/ZA, accessed on 6 December 2016.

South Africa Population available at http://www.worldometers.info/world-population/south-africa-population/, accessed on 21 November 2016.

South Africa submitted its NBSAP to the CBD in 2005 and 2015. See Parties that have developed NBSAPs available at https://www.cbd.int/nbsap/, accessed on 22 November 2016.

South Africa submitted the fifth national report to the CBD in March 2014, available at https://www.cbd.int/doc/world/za/za-nr-05-en.pdf, accessed on 22 November 2016.

South Africa: Fast Facts available at http://www.southafrica.info/about/facts.htm#.WDKI5rJ97IU, accessed on 21 November 2016.

Spider Red List available at http://www.arc.agric.za/arc-ppri/Documents/1.SPIDERATLASFAMILIESAE.pdf, accessed on 7 December 2016.

Stockholm Declaration. Declaration of the United Nations Conference on the Human Environment 1972. Available at http://staging.unep.org/Documents.Multilingual/Default.Print.asp?DocumentID=97&ArticleID=1503&l=en, accessed on 18 May 2017.

Strategy for wildlife trafficking available at https://obamawhitehouse.archives.gov/sites/default/files/docs/nationalstrategywildlifetrafficking.pdf accessed on 21 March 2017.

Subpart D – Civil Monetary Penalty Inflation Adjustment [81 FR 41865, June 28, 2016, as amended at 82 FR 6308, Jan. 19, 2017] available at https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=5ca6452e71d05fc0075cedc549d406d1&ty=HTML&h=L&mc=true&n=pt50.1.11&r=PART, accessed on 25 March 2017.

Testimony of Stephen Guertin, the then Deputy Director US Fish and Wildlife Service, Department of Interior available at

http://naturalresources.house.gov/uploadedfiles/guertintestimony05-16-13.pdf, accessed on 7 February 2016.

The message from the Fish and Wildlife Service is that the US will not tolerate illegal trade in wildlife available at http://www.fws.gov/le/elephant-ivory-crush.html and http://time.com/3928505/elephant-ivory-times-square/, accessed on 12 July 2015.

The standard of 'knowingly' has a direct bearing on the *mens rea* of the accused. *Mens re*a is 'latin for a guilty mind or criminal intent in committing the act.' It also means 'guilty mind, the term used to describe the mental element required to constitute a crime. Generally it requires that the accused meant or intended to do wrong or at least knew he was doing wrong. However the precise mental element varies from crime to crime.' Available at http://legal-dictionary.thefreedictionary.com/mens+rea, accessed on 5 January 2016.

To assist in the conservation and protection of the African elephant by supporting the conservation programs of African countries and the CITES Secretariat; and to provide financial resources for those programs, available at https://www.fws.gov/international/wildlife-without-borders/multinational-speicies-conservation-acts-african-elephant.html, accessed on 15 June 2016.

Trade in mammals by South Africa from 2010 to 2014 available at http://cites-dashboards.unep-wcmc.org/national?id=ZA accessed on 21 November 2016.

TRAFFIC 'Wildlife trade. What is it?' available at http://www.traffic.org/trade/, accessed on 12 July 2015.

Tragedy of the Commons definition available at http://www.investopedia.com/terms/t/tragedy-of-the-commons.asp, accessed on 23 May 2014.

Transnational Environmental Crime – a common crime in need of better enforcement. UNEP Global Environmental Alert Service (GEAS). January 2013, available at http://www.unep.org/geas/, accessed on 17 July 2013.

'UN puts wildlife crime on par with drug and people trafficking' available at https://www.newscientist.com/article/dn27995-un-puts-wildlife-crime-on-a-par-with-drug-and-people-trafficking/, accessed on 22 December 2016.

UN Growth in United Nations membership, 1945 to present available at http://www.un.org/en/sections/member-states/growth-united-nations-membership-1945-present/index.html, accessed on 2 January 2017.

United Nations Conference on Sustainable Development available at https://sustainabledevelopment.un.org/rio20.html, accessed on 2 July 2015.

United Nations General Assembly 'Report of the United Nations Conference on Environment and Development' (1992). A/CONF 151/26 (Vol.1) available at http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm, accessed on 16 August 2014.

United Nations General Assembly Resolution A/Res/66/288 of 2012 available at http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E, accessed on 2 July 2015.

United Nations membership since 2011 stands at 193 member states available at http://www.un.org/en/members/growth.shtml, accessed on 10 June 2015.

UNODC 'Successful operation highlights growing international cooperation to combat wildlife crime' 18 June 2015 available at https://www.unodc.org/unodc/en/frontpage/2015/June/successful-operation-highlights-growing-international-cooperation-to-combat-wildlife-crime.html, accessed on 12 January 2017.

United Nations Report of the World Commission on Environment and Development, *Our Common Future* (1987) available at http://conspect.nl/pdf/Our_Common_Future-Brundtland_Report_1987.pdf, accessed on 16 August 2013.

United Nations General Assembly 'Report of the United Nations Conference on Environment and Development' Annex I Rio Declaration on Environment and Development (1992). A/CONF 151/26 (Vol.1) available at https://pmg.org.za/committee-meeting/21690/, accessed on 16 August 2014.

US Fish and Wildlife Service has set up a web-page about wildlife trafficking available at http://www.fws.gov/international/wildlife-trafficking/, accessed on 12 July 2015.

US Fish and Wildlife Service laws Digest available at https://www.fws.gov/laws/lawsdigest/migtrea.html, accessed on 10 June 2015.

US Fish and Wildlife Service 'Endangered Species Act 40th Anniversary, protecting imperilled plants and animals since 1973' available at http://www.fws.gov/endangered/esa40/, accessed on 23 July 2013.

USFWS Endangered Species information available at https://ecos.fws.gov/tess_public/reports/box-score-report, accessed on 16 June 2017.

US National Oceanic and Atmospheric Administration's National Marine Fisheries Service information available at http://www.nmfs.noaa.gov/

US is a top 10 importer of mammals, reptiles, orchids, cacti and plants from South Africa available at http://cites-dashboards.unep-wcmc.org/national?id=ZA, accessed on 12 July 2015.

United States v Dawie Jacobus Groenewald and Janneman George Groenewald Indictment US District Court for the Middle District of Alabama Northern Division. 16 October 2014. The 18 count indictment for activities from 2005 to 2010 is available at https://www.justice.gov/opa/pr/owners-safari-company-indicted-illegal-rhino-hunts, accessed on 15 July 2016.

Universal currency converter available at http://www.xe.com/currencyconverter/convert/?Amount=10000000&From=ZAR&To=USD, (USD1=ZAR12,437) accessed on 25 March 2017.

Wildlife Without Borders available at https://www.fws.gov/international/wildlife-without-borders/african-elephant-conservation-fund.html, accessed on 8 December 2016.

Willem Wijnstekers *The Evolution of CITES: A Reference to the Convention on International Trade in Endangered Species of Wild Fauna and Flora* 9th ed (2011) available at https://cites.org/common/resources/Evolution_of_CITES_9.pdf, accessed 9 April 2015.

Wikipedia about 'United States' available at https://en.wikipedia.org/wiki/United_States, accessed on 12 July 2015.

World Summit on Sustainable Development available at https://sustainabledevelopment.un.org/milesstones/wssd, accessed on 16 December 2014.

World Summit on Sustainable Development available at http://www.un.org/en/development/devagenda/sustainable.shtml, accessed on 23 December 2014.

WTO membership as at 26 April 2015 stands at 161 members available at https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm, accessed on 10 June 2015.

WWF 'Successes and Failures of the International Whaling Commission (IWC)'available at http://wwf.panda.org/what_we_do/endangered_species/cetaceans/cetaceans/iwc/iwc_successes_failures/, accessed on 3 August 2015.

Newspapers

Express news available at http://www.express.co.uk/news/nature/552490/Save-The-Rhino-says-rhinos-could-become-extinct-in-just-over-10-years-time, accessed on 10 June 2015.

News 24 'Interpol arrest two Limpopo brothers for fraud, money laundering' available at http://www.news24.com/SouthAfrica/News/interpol-arrests-two-limpopo-brothers-for-fraud-money-laundering-20170622, accessed on 19 July 2017.

Paul H Rubin 'More money into bad suits' November 16, 2010 The New York Times available at http://www.nytimes.com/roomfordebate/2010/11/15/investing-in-someone-elses-lawsuit/more-money-into-bad-suits, accessed on 6 December 2016.

Times Live 'Claws out over South Africa's export of lion bones' 1 March 2017 available at http://www.timeslive.co.za/scitech/2017/03/01/Claws-out-over-South-Africas-export-of-lion-bones, accessed on 14 April 2017.

Times Live 'The man who destroyed the west coast rock lobster' 21 July 2017 available at https://www.timeslive.co.za/news/south-africa/2017-07-21-knock-on-door-and-handcuffs-in--future/, accessed on 23 July 2017.

The Guardian 'South Africa lifts ban on domestic rhino horn sales' 6 April 2017 available at https://www.theguardian.com/environment/2017/apr/06/south-africa-lifts-ban-on-domestic-rhino-horn-sales, accessed on 11 April 2017.

The demonstration of such enforcement efforts was manifested in the ivory crush that took place in New York on 20 June 2015, when a ton of illegally poached ivory was destroyed in Times Square. The ivory was confiscated through enforcement efforts, as the US is not a range State for elephants available at http://edition.cnn.com/2015/06/20/us/times-square-ivory-crush/, accessed on 15 June 2016.