

SCELG

STRATHCLYDE CENTRE FOR
ENVIRONMENTAL
LAW & GOVERNANCE

WORKING PAPER

No. 1, May 2015

Can Legalizing Trade Save Endangered Species?

An Investigation into the Conservation
Merits of a Legal Market for CITES-
prohibited Specimens

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Abstract

One of the most debated concepts in international conservation law is the legalization of trade in certain species to benefit their conservations. This article seeks to explore the weaknesses of current international law before asking the question of whether legalization could succeed and how. The objective of this article is to thoroughly evaluate this and other potential resolutions to the present difficulties inherent in international conservation law and offer its own conclusion as to the best way forward. The focal legislation for this article is CITES and this will be the standard against alternative methods that shall be measured. These alternative methods range from national provisions to community based schemes to the primary option in this article – international legislation of trade.

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1. INTRODUCTION

The protection of endangered species has been an important focus point both publically and legally for decades. Numerous international instruments exist to aide conservation and prevent damaging activities such as poaching or deforestation. However, in 2013 the Western Black Rhinoceros was declared officially extinct, driven out of existence by poaching.¹ This is the latest example of biodiversity decline leading many to argue that current international conservation law (ICL) is insufficient for the task at hand. This article shall consider this problem and seek to establish potential solutions focusing on arguably the most extreme and controversial option currently being considered academically: the legalization of trade in endangered species. It is the intention of this article to establish whether such a drastic action is necessary and whether it would be successful.

The article will be divided into three chapters respectively titled: International Conservation Law; Alternative Solutions; The Legalization of Trade in Endangered Species. The first chapter shall take an in-depth look into modern ICL, focusing particularly on the Convention on International Trade of Endangered Species of Flora and Fauna (CITES),² and seek to

establish whether the law is deficient and if amendments to the existing framework could rectify the issues. The second will consider certain “light touch” approaches, such as ownership without trade or improved domestic provisions, which are capable of coexisting with current ICL and do not require drastic legal upheavals. The final chapter shall deal with the focus of this article and consider whether legalizing trade is a viable option, how it might be achieved and whether it could actually reduce illegal trade and poaching. Once these topics have been thoroughly explored, this article will attempt to establish the best possible solution by evaluating and comparing the discussed options.

Before proceeding, it is worth noting some important points for ease of reading. This article shall primarily be focused on endangered animals rather than flora, the latter outweighing the former six to one in terms of CITES registered species. This is due to the nature of current academic discussions which focus on the “popular” species such as tigers and rhinos but flora will be referenced where appropriate. Furthermore, species which face extinction for reasons other than poaching will likewise not receive discussion. A restrictive definition of poaching shall also be relied upon. Due to the focus being on international trade,

¹ Platt, *How the Western Black Rhino went Extinct*, 2013, Scientific American

² Convention on International Trade of Endangered Species of Flora and Fauna 1975

poaching will be defined as hunting an endangered species for financial gain rather than for food – this other form of poaching actually makes up a strikingly large portion of overall endangered species hunting.³ Finally, little discussion will be given to any domestic trade in these products as the focus will be the cross-border trade.

2. INTERNATIONAL CONSERVATION LAW

2.1 CITES

CITES is arguably the biggest and most authoritative piece of international legislation regarding the conservation of endangered species. Its core objective is relatively simple: CITES seeks to regulate international trade in a manner conducive to the protection of endangered species. Presently, CITES lists over 33,000 species of flora and fauna as being under its protection. These species are divided into three distinct categories which form the Appendices of CITES.

Appendix I includes “all species threatened with extinction which are or may be affected by trade”.⁴ This first category serves to protect those under the most immediate threat and prohibits all trade “for primarily commercial purposes” of both the species and their parts.⁵ There are approximately 1000 species listed in this appendix including many of the “popular” endangered species such as rhinoceroses, tigers and certain types of elephants.⁶ While trade is not entirely prohibited it is particularly difficult to obtain the required permits for trade and “prohibited”

remains the most apt description. The majority of CITES species are found in Appendix II which contains “all species which although not necessarily now threatened with extinction may become so unless trade in such specimens is subject to strict regulation in order to avoid utilization incompatible with their survival”.⁷ Trade is far more possible with these species subject to two important criteria: the requisite permits and licenses are acquired; such trade would not be detrimental to the survival of the species. An Appendix II listing is far easier to obtain due to the reduced protection and required burdens of proof. The final Appendix contains less than 200 species and serves primarily to register the interest of certain Members. CITES regulates the permits, licenses, methods of monitoring, degree of protection and sanctions for each of the appendices with the strictest levels of protection being afforded to Appendix I. It has enjoyed some success, particularly in relation to ivory, but it is by no means a perfect example of conservation legislation. It also does not operate alone and forms part of a web of environmental instruments including the Convention on Biodiversity and the Convention on Migratory Species, as well as operating closely with many instruments of the WTO and, in recent times, instruments related to international serious crime. However, the present focus is on CITES and these other instruments will not be evaluated to the same degree.

2.2 CITES: Legislation with teeth?

The above statement has been used to describe CITES by its supporters for several decades due to its

³ Symon and Pathan, *5 Ways Saving Wildlife has Turned into All-Out Warfare*, 2014, Cracked

⁴ Article 3.1

⁵ Article 3.3

⁶ Appendix I

⁷ Article 2.2

enforcement mechanisms and capability to issue trade sanctions. However, opponents of CITES use a similar phrase, claiming that CITES is actually without teeth at all. Primarily this is due to the growth in poaching and the inability for CITES to truly enforce its provisions. It is now appropriate to evaluate CITES and highlight its weaknesses, particularly those which could benefit from the alternative methods suggested below.

For four decades, CITES has served to protect wildlife through international trade restrictions. During this time, CITES has proven itself reasonably adaptable with many “soft-law” resolutions and reasonably progressive Conference of Parties (CoP) decisions. While it is easy to focus on examples such as the Western Black Rhino, one risks overlooking the many successes of CITES. This is, in part, due to the nature of the criteria which defines CITES’ success: how do one quantify and celebrate something not happening? Quantifiable data such as species growth rates have indicated some great successes and figures related to seizures of prohibited specimens are also indicative of success. However, the former figures are often also used to reveal declining species populations and poaching has drastically increased over the past decade to further facilitate the growth of the second highest illegal product market, second only to narcotics. The intention of this article is not to celebrate the success of CITES, rather to offer a critique of this legislation, discuss its possible shortcomings and propose alternatives.

Modern commentators are beginning to question its effectiveness. This attitude is born out of recent examples where species have been insufficiently protected and have been declared extinct. Perhaps most notably in recent years, the Western Black Rhinoceros has been poached to extinction - despite its Appendix I classification and the social demand for increased protection.⁸ While the blame does not rest entirely on the shoulders of CITES, it is reasonable to suggest that the continued endangerment of such species reveals clear flaws in the protection CITES offers. This article shall now consider the key weaknesses of this legislation.

The sheer scale of continuing illegal trade under CITES is somewhat hard to realize as the data is relatively restricted due to the clandestine nature of the market. However, Rosen and Smith provide compelling evidence for its size by compiling 12 years’ worth of TRAFFIC reports regarding seizures of CITES listed specimens.⁹ The data is staggering and the seizures range from a single live bird to 68,000kg of pangolin meat.¹⁰ Matthews identifies several flaws inherent to the CITES framework which account for this continuing trade.¹¹ The first is the failure to define key terms such as the following crucial phrases: “threatened with extinction”; “detrimental to the survival of the species”; “affected by trade”.¹² These phrases are vital to the classification of species and the failure to define these terms creates subjectivity which, although often useful in international law, serves in this instance to create ambiguity far beyond simple flexibility. It

⁸ Platt op. cite

⁹ Rosen and Smith, *Summarizing the Evidence on the International Trade in Illegal Wildlife*, 2010, EcoHealth p25

¹⁰ Ibid p27

¹¹ Matthews, *Problems Related to the Convention on the International Trade in Endangered Species*, 1996, International and Comparative Law Quarterly

¹² Ibid p421

therefore becomes somewhat difficult to take even the first step regarding ICL – identifying the category into which the species belongs. Another area deemed overly ambiguous is the sanctions provisions. Sanctions are difficult in international law and they must be somewhat subjective to allow for appropriate changes depending on the criminal justice system of each Member – under CITES they must be “appropriate”.¹³ Matthews attempts to justify this approach by noting the political climate in which CITES was drafted and reminding us that many states were particularly “suspicious of other states’ ambitions over their natural resources”.¹⁴ However, it must be noted that ambiguity regarding sanctions poses the problem of drastic variations between Members as to the severity of punishments posed. It is, therefore, no surprise that many nations where sanctions are lesser have become trade corridors for species not native to their country – South African species being smuggled through Mozambique, for example.¹⁵ The extreme alternative is to impose objective standards for sanctions to all Members but this would likely create new problems as international law must always be cautious of state sovereignty particularly in relation to criminal punishment. It is often suggested a balance should be struck where malleable sanctions are imposed by CITES which carry a uniform intention and stronger guiding force with enough flexibility to account for the multitude of cultures in which they operate. Although some non-binding guidelines have been introduced, defining national level sanctions will not likely occur in the near future and this subjectivity

shall continue to restrict CITES’ effectiveness.

It is also stated that CITES can be inflexible, particularly as regards the burden of proof for listing a species. At present, CITES requires a two-thirds majority for a species to be listed; it is somewhat unclear why a simple majority is not sufficient.¹⁶ The burden of proof falls on those seeking the listing rather than instigating an inclusive, investigative approach.¹⁷ Further complicating the situation is the scientific standard of proof required as set out by the Berne convention.¹⁸ Highly specific evidence is required such as statistical population decline which is extremely difficult to obtain regarding rare and dangerous species. These stringent rules, while ensuring only the species most urgently in need of protection obtain Appendix I categorization, have the effect of lengthening the listing process and often making it difficult for species to obtain a listing at all in the face of stubborn opposition. In addition to the burdens of proof, a 90 day period exists between when an animal is selected for listing and any action being taken.¹⁹ This three month period, initially designed to serve as a warning to traders who could dump their stock, really only serves to lengthen the process further.²⁰ The fact that CITES is so concerned with the wellbeing of traders indicates its role as a trade convention rather than an instrument for the direct protection of endangered species and potentially poses problems.²¹ If a species is being upgraded or listed in Appendix I, it is likely that the announcement of its listing will serve to increase immediate demand

¹³ Article 8.1

¹⁴ Matthews, op. cite p422

¹⁵ Heinrich and Brown, *White Rhino Horn: A Case for the Legalization of Trade*, 2014 p12

¹⁶ Article 15

¹⁷ Matthews op. cite p422

¹⁸ Conference of Parties 1.1, amended during ninth CoP

¹⁹ Article 15.1(c)

²⁰ Matthews, op. cite p424

²¹ Ibid

for that species or its parts due to the imminent trade prohibition. Thus, the operation of CITES itself regarding listing is detrimental to the survival of the species it seeks to protect. This can also inspire many traders to dump their stock which can have the effect of depressing the market.²² If the process were more expedient, it is likely this effect would be greater which would counterbalance the increase in immediate demand by reducing financial incentives. It is, therefore, reasonable to suggest that CITES would benefit from greater expediency.

Another weakness of CITES concerns the movement of the goods themselves. For a start, specimens in transit are deemed exempt from inspection.²³ This means that shipments which have successfully begun their journey are not inspected until they reach their destination.²⁴ It is no secret that the eastern world is a large consumer of endangered species products and often the specimens are not even inspected upon arrival within these nations.²⁵ There are certain nations which, through national legislation, impose a duty of inspection but without a universal requirement prescribed by CITES, it is all too easy for smugglers to avoid such nations completely.²⁶ Furthermore, should trade-prohibited species be discovered, there remains significant ambiguity as to the correct course of action. In the case of live specimens, the product should be returned to its country of origin²⁷ but this is rarely done and is relatively expensive.²⁸ Alternatively, the specimen can be kept within the state of discovery

though it must be delivered to an approved center.

One might contend the logical utilitarian view suggests the funds used returning the product could be better spent on direct conservation on a larger scale though this is not followed in practice. Matthews draws attention to this issue contending that the problems caused by these provisions highlight the “conflicting motives behind CITES” which seem at times focused on wider conservation and at others prioritize the individual specimen.²⁹ It becomes relatively evident that the movement and confiscation of prohibited goods are further weaknesses which CITES must address in order to achieve optimal effectiveness.

Further weaknesses of CITES include: the provisions allowing states to make a reservation against species listing for an unspecified period;³⁰ allowing for trade in products which pre-date CITES listing;³¹ and the role of public perception regarding which species receive prioritized protection.³² Furthermore, CITES has served to increase the risk of poaching which, as well as driving up the price of endangered products, has had the effect of turning wildlife rich regions into warzones between poachers and police.³³ However, arguably the greatest shortcoming of CITES is its limited capability to enforce the provisions it contains. While CITES has successfully imposed trade restrictions against non-compliant countries such as Thailand, Nigeria and the DRC, many of these nations remain rife with

²² Ibid

²³ Article 7.1

²⁴ Heinrich and Brown, op. cite

²⁵ Favre, *The International Trade in Endangered Species*, 1987, Martinus Nijhoff p130

²⁶ Matthews, op. cite p424

²⁷ Article 8

²⁸ Matthews, op. cite p426

²⁹ Ibid

³⁰ Article 12

³¹ Article 7.2

³² Matthews, op. cite p427

³³ Symon and Pathan, op. cite

conservation problems and have recently been threatened with new trade restrictions related to stemming the ivory trade. The reason for this problem is twofold: being CITES compliant only requires the minimum level of national legislation to be in force; CITES is relatively unable to impose its provisions directly on a national level. Countries like Nigeria and Vietnam provide good examples of the former issue where, even though they achieve all the requirements of CITES compliance, international trade in endangered species is still a serious problem in these nations. Using Vietnam as an example, this is due to poorly drafted, conflicting legislation. Although meeting the CITES standards, conservation law in Vietnam serves to reduce legal transparency, cause confusion as to what constitutes a criminal offence under this legislation and, due to provisions such as those allowing for on the spot fines to be administered, has arguably served to foster corruption.

CITES enforcement has posed quite a challenge and has been noted to be only “sporadically successful”.³⁴ The limited infrastructure surrounding CITES means it can often be somewhat deficient in terms of monitoring sanctions imposed by states. While annual reports are required from states which allow trade or monitor CITES species, these reports are often not submitted and there is little that CITES itself can do about this.³⁵ No dedicated body exists to monitor and regulate CITES trade: this is left to the states themselves, independent international organizations

or NGOs such as TRAFFIC. Thus, its provisions are difficult to enforce both directly and indirectly and there are gaping deficiencies regarding its ability to evaluate its own levels of success.³⁶ Perhaps one of the prime examples of the failures regarding monitoring is the case of the African elephants. Despite being listed in Appendix I in 1989, it remains relatively unclear how much of an effect this has had on elephant populations and reports vary greatly.³⁷ While stocks have often improved, the variance in types of reporting has resulted in any success being attributed to various factors depending on which report is read.³⁸ Given that CITES is incapable of monitoring all stocks by itself and is reliant upon these reports, one would expect better guidelines and uniformity. One might also expect greater depth of study to properly assess the impact of the trade ban in any population changes. It becomes clear that the poor evaluation and monitoring capabilities of CITES have led to ambiguity regarding the status of the species and the success of the ban.³⁹ As such, the effectiveness of CITES has often been called into question and significant change is being sought. A dedicated enforcement body or greater international cooperation could potentially resolve this with projects similar to the Association of Southeast Asian Nations’ Wildlife Enforcement Network.⁴⁰ However, introducing such a body or project will be a long-term effort and do little to improve immediate conservation efforts.⁴¹ Furthermore, the problem with simply improving CITES is that while it may well increase protection from poaching and make it more

³⁴ Rosen and Smith, op. cite p30

³⁵ Reeve, *Wildlife Trade, Sanctions and Compliance: Lessons from the CITES Regime*, 2008, International Affairs p887

³⁶ Ibid p892

³⁷ Keane, Jones, Edward-Jones and Milner-Gulland, *The Sleeping Policemen: Understanding Issues of Enforcement and*

Compliance in Conservation, 2008, Animal Conservation at p78

³⁸ Ibid

³⁹ Ibid

⁴⁰ ASEAN-WEN homepage available at www.asean-wen.org

⁴¹ Rosen and Smith, op. cite p30

challenging to transport and trade endangered species, it does little to address the source of conservation issues: the financial incentives and increasing demands behind illegal trade. Ultimately, conservation will remain a pressing issue until these root causes are addressed.

It has become reasonably apparent that CITES is by no means a perfect legal instrument. In order to operate truly effectively, numerous amendments are required and, even if the framework is suitably adjusted, it is likely that illegal trade will remain. It is therefore evident that CITES in its present form is no longer suited to the task for which it was designed and alternative approaches must be explored. Before considering the potential for lifting the prohibition, the next chapter will consider whether there are any alternative approaches which could operate alongside the current framework to improve the protection and conservation of endangered species.

3. ALTERNATIVE SOLUTIONS

Having discussed the deficiencies within the current conservation law and the options regarding direct amendment as oppose to removal, it is worth now considering what alternative approaches to conservation could be utilized alongside the existing framework. This chapter will focus on methods which do not require any changes to CITES and consider whether a lighter approach could still achieve the desired effects.

3.1 Improving Funding

One of the biggest problems facing combatants of

poaching is the limited resources of the agencies dedicated to protecting wildlife. Poaching is a lucrative industry and poachers are often able to afford better equipment or greater manpower than those attempting to prevent them. Asgar Pathan, a Kenyan ranger, notes that, although his task force was technically better equipped, many teams fall foul to ambushes by poachers, become locked in firefights in which they are outnumbered or find themselves caught in the very traps they are seeking to destroy.⁴² These issues are partially attributable to limited funding,⁴³ one of the most important factors in the continued decline in endangered species populations. In principle, increasing funding for wildlife protection seems a relatively straightforward issue. However, many nations have been reluctant to increase their conservation budgets. One of the causes of this hesitation is that there are limited returns on such investments. Aside from tourism, most CITES species generate very little income and are incapable of providing for their own protection. Thus, particularly for many developing nations with limited means, governments would prefer not to divert funds from other public sectors which are capable of providing more direct benefit or from which contributions can be extracted.

That being said, there are alternative options such as legalizing controlled hunting. In many countries a large portion of wildlife protection funds come from the distribution of hunting permits. These permits are a requisite for hunting in such countries and ensure a strong sense of sustainability due to their ability to manage animal stocks on top of the immense funding. One particularly popularized example of this is the recent sale of a hunting permit for a black rhinoceros

⁴² Symon and Pathan, *op. cite*

⁴³ *Ibid*

which reportedly raised \$350,000 for future conservation.⁴⁴ Governments could consider implementing comprehensive permit systems with revenue being funneled back into wildlife protection. However, consider a nation such as Kenya where indigenous people have been living off the land for centuries. Requesting these people to pay for hunting permits would likely have a negative reception and hunting would most likely continue regardless.⁴⁵ It is a difficult situation and the introduction of such a system would require great care. It should also be noted that the introduction of hunting permits would not eradicate the issue of poaching by themselves – indeed the forging of permits may provide another avenue for poaching to continue. However, if the animals carried a higher monetary value then governments may be more inclined to strengthen protection. The increased revenue for the conservation sector generated by permits would improve the resources available for combating poaching.

3.2 National Measures

A prime example of another approach can be found in the instance of Ukrainian customs. Recently, Ukrainian customs underwent a large update which, among other features, focused heavily on improving protection against CITES-prohibited trade.⁴⁶ The reason for this focus is relatively simple: Ukraine was one of the driving nations behind the enlistment of

sturgeons in CITES⁴⁷ - preventing such trade over their borders is crucial.⁴⁸

The new Ukrainian customs code⁴⁹ gives officials the power and responsibility to provide “sanitary, epidemiological, veterinary, phytosanitary, environmental and other controls” at various customs checkpoints where appropriate.⁵⁰ These controls were already possible but were previously governed by different bodies subject to different rules. Under the new code, their responsibility is governed by one organization, the Ministry of Revenue and Duties of Ukraine, which allows for greater efficiency due to more focused targets and shared administration. Where enforcement is a problem in terms of international trade prohibitions, stricter border controls can have a positive impact. It has now been recommended that Ukraine take this one step further and introduce a customs body specifically dedicated to combating CITES trade.⁵¹ Oleksiienko provides a detailed description of the form such a body should take defining its functions in terms of regulating, monitoring and protecting.⁵² It is his belief that the establishment of such a unit will significantly restrict CITES trade through Ukraine in an efficient and comprehensive manner while being capable of improving statistical evidence on the subject. If this proves to be the case, there seems little reason to suggest that such a department should not be developed.

⁴⁴ BBC News, *Black rhino hunt permit auctioned in US*, 2014

⁴⁵ For example, the massacring of lions in Kenya at Matthews, op. cite p422

⁴⁶ Customs Code of Ukraine 2012

⁴⁷ Oleksiienko, *Organizational, Economic and Legal Aspects of the State Regulation of International Trade in CITES Species in Ukraine*, found in *Customs Scientific Journal*, 2013, Academy of Customs Service of Ukraine p39

⁴⁸ It should also be noted that conforming with the EU was also a factor

⁴⁹ Article 319.1

⁵⁰ Oleksiienko, op. cite p41

⁵¹ Ibid p43

⁵² Ibid p45

However, while improving national customs regulations could provide great benefits, at least in terms of curtailing trade, it does little to prevent the poaching itself other than raising the risk. The simple truth is that the greater the risk, the greater the value. One may argue that these products may reach a price so high as to restrict demand, as has been seen in some countries such as Yemen,⁵³ but the current price per kilo of rhino horn is \$65,000 and demand continues to increase.⁵⁴ It could, therefore, be argued that improving customs agencies may have the opposite effect to that desired and increase the incentive for poaching. It should also be noted that, while many states do also have relatively poor customs operations, much of the developed world already operates at a reasonably high standard and, while there is always likely to be some avenue through which products will move, an overhaul of customs provisions will have little impact, at least in comparison to nations such as Ukraine. Thus, adoption of this approach will likely have minimal impact and will mainly serve to increase the risk-related incentives for poaching.

Another example of an arguably successful project run on a national level is India's Project Tiger. Entirely run by the National Tiger Conservation Authority, Project Tiger has operated for over forty years and successfully improved tiger stocks to a certain extent⁵⁵ which provides an example of how policy on a national level has the potential to improve conservation efforts

⁵³ Vigne and Martin, *Demand for Rhino Horn Declines in Yemen*, 2013, *Oryx* p323

⁵⁴ Heinrich and Brown, op. cite p4

⁵⁵ Project Tiger Homepage available at <http://www.projecttiger.nic.in/>

⁵⁶ Post, *Evaluation of Tiger Conservation in India: the use of comparative effectiveness research*, 2010, Nicholas School of the Environment p2

where CITES alone has failed. However, while populations have grown in certain reserves, in others they have been reduced to zero.⁵⁶ This is not entirely due to poaching – much of the damage is caused by the destruction of habitats – but illegal trade remains a primary factor in the endangerment of tigers amplified by its lack of legislative backing. Furthermore, the monitoring methods employed by the project have been viewed as insufficient and have hindered the project's success.⁵⁷ There is also sadly a lack of incentive for those responsible to ensure the species' survival. It has been noted that it is not uncommon for wildlife reserve gamekeepers to be complicit in poaching in spite of their duties which implies that the lack of direct benefit from protecting the wildlife is perhaps one of the greatest detriments to conservation.⁵⁸ The largest problem with Project Tiger is that it focuses on protecting the species from the immediate danger rather than seeking to eliminate the long-term threat. Thus, the approach should be similar to that proposed regarding customs legislation: comparable projects should be organized but only with a view to operate alongside the larger legal changes required to end illegal trade.

3.3 Ownership Without Trade

Turning now to a private rights-based approach, one option is to allow ownership without trade. This approach, already followed in some nations, has seen some success. Consider, for example, the

⁵⁷ Sethi, *Documentary Shows Failure of Project Tiger*, 2007, Times of India

⁵⁸ Forbes, *Limited Trade and the CITES Ivory Trade Ban: Sustainable Use as a Viable Means of Conservation*, 2013, University of Puget Sound p11

controversial African hunting lodges.⁵⁹ These lodges allow wealthy tourists to hunt exotic species on large reserves. This appears to be the exact opposite of CITES' aims and is inconsistent with ICL. However, it could be argued that these lodges are a valuable tool for conservation. Part of the reason conservation receives so little funding is lack of return on investment but these lodges introduce a financial incentive to protect the species they contain. Furthermore, the prices charged for hunting the specimens range drastically depending on the rarity of the animal in question. Prices at the African Sky Lodges, for example, range from as little as \$500 for common blesbok to \$35,000 for an elephant.⁶⁰ Although these prices remain affordable to some, it is clear that the best game is reserved for the highest paying customers and for many it is an unobtainable fee. Furthermore, the hunted animals are then used to provide a cheap source of meat to the local communities – sourcing food making up a large portion of poaching⁶¹ – as the customers themselves are concerned with the trophy and little else.⁶² This helps to reduce local poaching while ensuring the lodges are both looked upon favorably and contributing to their local communities.

One important counter-point to this approach is that containing endangered species in a captive environment is not the same as conserving the species.⁶³ This is a valid statement and it is agreed that species only surviving in captivity remain endangered.

That being said, many of these lodges consist of several square miles of entirely natural habitat - the animals are permitted nearly complete freedom in their natural environment. In one interview, lodge owner Pete Warren adamantly stated that his priority was the wellbeing of his animals and their conservation, claiming to invest the majority of his profits in expanding the land he owned and increasing the freedom of the specimens contained within.⁶⁴ The issue then becomes one of perspective: are these specimens any less wild and free than those outside the boundaries? Certainly the answer is no in relation to roaming animals such as elephants but for nesting or territorial species it is a harder position to argue. Wild specimens are still prohibited from entering farmland and civilization - one may argue that this is a restriction on their freedom. Thus, there is an argument to present that species surviving in these lodges are doing so in a manner comparable, though not identical, to those in the wild.

Similarly, in South Africa, the government chose to auction off the few remaining white rhinos to private owners in the early 1900s.⁶⁵ Today there are over 20,000 with at least one quarter still in captivity.⁶⁶ In stark contrast, the black rhinoceros numbered over 100,000 a century ago and today it is one of the most critically endangered species on the planet.⁶⁷ This is perhaps one of the most compelling pieces of evidence in support of privatization of endangered species. Not only has the white rhino flourished in

⁵⁹ Bond, *Private Land Contribution to Conservation in South Africa*, in Child, *Parks in Transition*, 2004, Earthscan

⁶⁰ Example pricing can be found on the Price List page of the African Sky Hunting site, available at <http://www.africanskyhunting.co.za/pricelist.html>

⁶¹ Symon and Pathan, op. cite

⁶² Theroux, *The Price of a Rhino's Life? \$100,000*, 2008, BBC News

⁶³ IUCN, *Red List Categories and Criteria*, 2000

⁶⁴ Theroux, *Louis Theroux: African Hunting Holiday*, 2007, BBC

⁶⁵ Heinrich and Brown, op. cite p2

⁶⁶ Ibid

⁶⁷ Ibid p3

captivity, the situation has allowed enormous population growth in wild rhino populations. The simple truth is people feel more inclined to protect what is theirs. It has been observed that national wildlife sanctuaries do not achieve the same level of success with the sanctuary guardians often selectively oblivious of or complicit in continued poaching within the reserves.⁶⁸ It is easily argued that this is due to the lack of direct personal and financial incentives to protect the specimens contained therein – the type of incentive born out of private ownership. Abbot and van Kooten recognize and partially base their model of tiger conservation on the assumption that tiger farmers would take measures to protect their property from poaching.⁶⁹ It is, therefore, arguable that the vesting of private rights in endangered species may be one of the best methods of species conservation as will be discussed further in the next chapter in relation to legalizing trade. It is now time to examine another variation of private rights regarding endangered species by considering the conservation efforts in Namibia.

3.4 Namibia and the IRDNC

The final option to be discussed in this chapter is best explained by John Kasaona.⁷⁰ In his TED Talk, John discusses the situation of his homeland, the northwest region of Namibia. Due to apartheid, black men in Namibia were not permitted to hunt and were branded poachers for doing so. However, after the

regime collapsed, an organization called IRDNC entered the country and began to make contact with the local Himba tribes.⁷¹ Their goal was to improve wildlife populations in Namibia through the establishment of conservancies and restoring responsibility for the native wildlife to the native people. Beginning in one small village, the project took hold and began to spread.⁷² Now working with the Namibian government, the IRDNC has been extremely successful and wildlife populations have grown extraordinarily over the past twenty years – the region now boasts the largest free roaming black rhino population in the world.⁷³ The quasi-ownership established in this region is akin to a softer version of the previously discussed private ownership option and has been successful due to a variety of factors.

The situation in Namibia was ideally suited to this approach. Countless tribes were striving to reclaim what they deemed to be naturally theirs following the fall of apartheid and poaching was reaching a low point primarily due to the sheer lack of game available.⁷⁴ Furthermore, there was an impressive economic incentive with many conservancies playing host to the tourist industry.⁷⁵ However, the founders of the IRDNC saw the main incentive as being far more intrinsic.⁷⁶ The community-level concerns regarding decreasing wildlife populations, loss of valuable culture and threat to society were a strong foundation for the IRDNC to build upon further strengthened by the desire of many of these communities to be granted

⁶⁸ Forbes, op. cite

⁶⁹ Abbot and van Kooten, *Can Domestication of Wildlife Lead to Conservation? The Economics of Tiger Farming in China*, 2010, Ecological Economics p728

⁷⁰ Kasaona, *How Poachers Became Caretakers*, 2010, Ted Talks

⁷¹ Jones, *Policy Lessons from the Evolution of a Community-Based Approach to Wildlife Management, Kunene Region, Namibia*, 1999, Journal of International Development p297

⁷² Ibid

⁷³ Ibid

⁷⁴ Kasaona, op. cite

⁷⁵ Jones, op. cite p297

⁷⁶ Ibid

responsibility for their own ecology.⁷⁷ Basic private rights akin to property were formed between these communities and their wildlife which are perhaps the key in this scenario creating a strong bond between communities and wildlife in a manner inspiring protection.

The IRDNC worked with the Namibian Ministry of Wildlife, Conservation and Tourism to establish the legislative foundation for the creation and maintenance of the conservancies.⁷⁸ These were carefully drafted with great consideration for the local tribesmen as well as the natural wildlife. The success achieved by the IRDNC has now spread across Namibia with many other nations beginning to consider the approach.⁷⁹ The Kunene region example is, therefore, excellent evidence for the value of introducing private rights on a national scale without introducing trade and there are those who think this model is the best way forward.⁸⁰ However, simply improving local protection, while potentially reducing success rates of poachers, does little to stem the demand for endangered products. Until the demand is removed or satisfied, the incentives for poaching will still remain too great. It is, therefore, evident that, as with the other options presented in this chapter, the IRDNC model should be implemented alongside the greater changes suggested in this assignment but this method alone is simply not sufficient to combat the imminent threat of extinction faced by Appendix I species.

In summation, there are a variety of options which may reduce poaching and improve conservation. It can be

argued that most, if not all, of these alternatives should be implemented where possible. However, the bottom line is that neither one nor all will be sufficient to control poaching in the same manner as changing ICL and targeting demand. It is now appropriate to consider the most radical option and the primary focus of this article: legalizing trade in endangered species.

4. THE LEGALIZATION OF TRADE IN ENDANGERED SPECIES

Having now considered the current ICL and its weaknesses, and having looked into some of the less radical approaches, it is now time to turn to the legalization of trade in certain CITES listed species, thought to be one of the primary topics of discussion at the 2016 Conference of Parties. Before proceeding, it is worth noting that this approach primarily focuses on the trade in prohibited animal parts and it is accepted from the outset that this approach is not viable for all 33,000 CITES species. Discussion will rely on rhinos, elephants and tigers, partially due to popularity but also because these species represent three key categories: species with sustainably harvestable parts; species with parts which can be harvested once without the specimen's death; and species which must be dead in order to harvest their desired parts. Furthermore, this approach is primarily focused on legalization in trade of Appendix I animals, although the primary model used deals with an Appendix II subspecies, due to the greater restriction on trade and urgent need for greater protection. This article will rely primarily on the Heinrich-Brown model (HBM) as the standard approach, which will in turn be

⁷⁷ Ibid p298

⁷⁸ Jones, op. cite p298

⁷⁹ Ibid

⁸⁰ Abensperg-Traun, *CITES, Sustainable Use of Wild Species and Incentive-driven Conservation in Developing Countries, with an Emphasis on Southern Africa*, 2009, Biological Conservation p963

evaluated against various alternative methods.⁸¹ This is primarily due to the simplicity of the model in comparison to the Bulte-Damania model (BDM), for example, which focuses heavily on economic calculations.⁸²

4.1 The Heinrich-Brown Model

The HBM focuses specifically on trade in the horns of white rhinoceroses. This is primarily due to the privatization of the white rhino in South Africa as discussed above. It is the contention of the HBM that the difference in fate of the white and black rhinos over the past century is the introduction of private rights and that allowing commercial breeding may prove successful in saving the species.⁸³

The core premise of the HBM is that creating a legal market would deflate the price of these products and the incentives would be severely lessened.⁸⁴ Poaching would then be less appealing and rhino populations may be able to flourish. At present, one kilo of powdered rhino horn is worth around \$65,000, with rhino horns weighing up to six kilos.⁸⁵ Coupled with the often lax sanctions and poor enforcement thereof, it becomes relatively apparent why the incentives of poaching so grossly outweigh the risks. The HBM model suggests that the price per kilo of rhino horn could fall to as little as \$937, thus drastically reducing the incentives which should in turn reduce or eradicate poaching.⁸⁶

The HBM arrives at this conclusion by making a series of assumptions including: markets for legal and illegal horns will be synonymous in terms of size and pricing; horn demand will remain equal to supply; all captive rhinos will be immediately dehorned and the products will enter the market instantly; the demand will remain relatively inelastic; and the products will be substitutable.⁸⁷ Although numerous, these assumptions are justifiable and necessary for the completion of a theoretical approach. By plotting a demand and supply curve for rhino horn at its present black market value and using approximated figures as to the demand and a second curve relying on the relation between supply and demand, the HBM was able to input the approximated quantity of legal rhino horn available and establish the price per kilo in a legal market.⁸⁸ Using this method, the HBM has also been able to establish the price per kilo should only 25%, 50% or 75% of the available horn immediately hit the market.⁸⁹ Regardless of the amount to reach the market and the elasticity of the demand, legalizing trade should see a significant drop in price. Furthermore, it was noted above that vesting private rights in endangered species may increase their protection, particularly where commercial interests are involved.⁹⁰ It can, therefore, be argued that as well as decreasing the levels of poaching, the HBM may also provide a means to ensure additional protection. The HBM model concludes that instead of the white rhino being poached to extinction by 2022, it may in fact double in population if the above circumstances

⁸¹ Heinrich and Brown, op. cite

⁸² Bulte and Damania, *An Economic Assessment of Wildlife Farming and Conservation*, 2006, Ecological Economics

⁸³ Heinrich and Brown, op. cite p4

⁸⁴ Ibid p4

⁸⁵ Ibid p9

⁸⁶ Ibid

⁸⁷ Ibid p7

⁸⁸ Ibid p8

⁸⁹ Ibid p9, \$15,000, \$4,000 and \$2,000 respectively

⁹⁰ Abbot and van Kooten, op. cite p728

are achieved.⁹¹ Unlike the alternative approaches discussed in the previous chapter, the HBM could eliminate the problem at its root rather than dealing with short-term conservation and repairing the damage caused by poaching.

4.2 Implementation

At present, only species listed in Appendix I benefit from the trade prohibition and even those can technically be traded. A simple downgrading to Appendix II may be sufficient to achieve the goal of the HBM. However, the requirement of permits imposed by Appendix II has two important impacts on the legal market: expense and expediency. Regarding the former, permits in their current form can be costly to obtain partially to inhibit unnecessary trade in the current Appendix II species.⁹² In a legal market, such permits would have the effect of increasing the price of the product which may in turn affect the outcomes predicted by the HBM. The current permits also fail to lend themselves to expediency. It can, therefore, be concluded that although the HBM could coexist with CITES in this manner it would be unable to reach its full potential. The alternative solution is to reform CITES to allow for a separate category within which the species to be traded are found. In this separate category there would still be a requirement for licenses in order to monitor trade but they should be made as readily available as appropriate to ensure a successful market and species sustainability. This option seems the most appropriate and also serves to improve the flexibility of CITES, future-proofing it to an extent should sustainable farming methods become

available for other Appendix I species.

Another important issue regarding the implementation of this proposal is that of regulation. Currently, enforcement and regulation are two of CITES' biggest weaknesses and, should a legal market be opened, this will need to be rectified in order for legal trade to be successful. One of the most prevalent fears concerning a legal market is that it will provide a new avenue for smuggling and product laundering. When implementing the HBM or similar model, extreme care must be taken to ensure the infrastructure is suitable. As such, it is the suggestion of Biggs that a Central Selling Organization (CSO) would be the best way forward.⁹³ Such an organization would be given great powers over the international trade in endangered species. The objective of a CSO would be to manage and monitor the legal market ensuring it operates in the most expedient and cost-effective manner. Furthermore, it should strive to protect the new market from laundering of illegal products. In terms of accountability, it is proposed that the CSO should answer to the CoP and the species range states.⁹⁴ This ensures international accountability to active CITES members and direct accountability to the domestic governments responsible for the conservation of the species.⁹⁵

The function of the CSO would be to provide a conduit between registered buyers and sellers with the former trading their products to the CSO. The CSO would then be responsible for further trade to registered buyers and this responsibility should be theirs alone. This is the first of four important points Biggs *et al* suggest

⁹¹ Heinrich and Brown, *op. cit* p10

⁹² Matthews, *op. cit* p422

⁹³ Biggs *et al*, *Legal Trade of Africa's Rhino Horns*, 2013, Science p1039

⁹⁴ *Ibid*

⁹⁵ *Ibid*

are required for the structure of a CSO.⁹⁶ They also note that the CSO should use the current horn stockpiles to attract buyers to the legal market as it opens.⁹⁷ Furthermore, the CSO should possess a competent and thorough monitoring system to track the legal market in terms of success, size and product trends.⁹⁸ This is perhaps the most important function of the CSO as current market data is relatively limited.⁹⁹ An extensive monitoring system would provide the degree of data required to properly evaluate the market which allows for adjustments and trade predictions. This will be of particular importance in the years following legalization in order to judge whether the lifting of the prohibition has been successful. Taking a lesson from the reported flaws of CITES is the other requirement stipulated by Biggs *et al* that the CSO should operate closely with local governments, particularly those of high receiving nations, to ensure products are being correctly obtained and that strict punishments are handed out in the alternative.¹⁰⁰ In theory, should these requirements be met, there is little evidence to suggest a CSO would fail. In terms of funding, it is suggested that a percentage of each sale be directed to the operating costs of the CSO which helps promote sustainability, further adds to the value of legally-traded products and resolves the issue of conservation spending seeming a waste of funds.¹⁰¹ This means that as well as being comprehensive and possessing great powers, the CSO would be financially sustainable at little or no cost to CITES parties. It is, therefore, concluded that if trade be legalized, a CSO

of this nature would be the best suited instrument for market regulation.

4.3 Evaluating Legalization

In theory, the HBM model should successfully reduce incentives for poaching thus decreasing the illegal hunting of endangered species. However, rarely do such theories operate in practice as perfectly as on paper and it is now appropriate to evaluate this model and the viability of its application. The assumptions on which the HBM relies form the starting point for evaluation, beginning with the assumption that the HBM itself views as a potential problem: the elasticity of demand.¹⁰²

The HBM sets a relatively stable value for demand elasticity reached by observing current trade in rhino horn and concluding that it remains fairly inelastic,¹⁰³ a premise relied upon by many economic models supporting the legalization argument.¹⁰⁴ For example, Conrad contends that the most important factor in the ineffectiveness of trade prohibitions is this inelasticity.¹⁰⁵ Part of the reason for this assumption is that many of the prohibited products have deep roots in cultural traditions which have existed for hundreds of years.¹⁰⁶ It is deemed doubtful that these will change overnight and demand will be maintained. Further supporting the argument for inelasticity are the various attempts, through campaign and education, to reduce demands in high consuming

⁹⁶ Ibid

⁹⁷ Ibid

⁹⁸ Ibid

⁹⁹ Heinrich and Brown, *op. cite* p4

¹⁰⁰ Biggs, *op. cite* p1039

¹⁰¹ Ibid

¹⁰² Heinrich and Brown, *op. cite* p11

¹⁰³ Ibid p8

¹⁰⁴ Conrad, *Trade Bans: A Perfect Storm for Poaching?*, 2012, *Tropical Conservation Science* p245

¹⁰⁵ Ibid

¹⁰⁶ Ibid p250

regions which Biggs notes have “demonstrably failed to turn the tide of rising demand”.¹⁰⁷ However, elasticity is not simply concerned with decreasing demand, it also relates to any increase, and this statement from Biggs implies that demand is showing an upwards curve. It is reasonable to suggest that demand may not be as inelastic as many envision and that legalizing trade may have grossly different consequences than those pictured by economists.

In contrast, where domestic and international legislation have intervened and imposed limitations of the use of a product, declines in demand have been seen. Using tiger bones, for example, was banned in China resulting in a market demand decrease.¹⁰⁸ Further domestic product bans are also being implemented in China and it is likely these may have a similar effect.¹⁰⁹ Demand decrease has been observed in the US, UK and Japan following the accession of the African elephant to Appendix I.¹¹⁰ This was, in part, due to extensive campaigning and the attachment of stigma to the products. However, one could also argue that this decline was primarily due to the trade ban and that many nations still have high ivory desires behind prohibition dams. Once one of the highest market demands, the order for rhino horn in Yemen has seen significant decrease and, rather than being the result of campaigning or legal change, the

situation in Yemen is more related to economic conditions and the product price.¹¹¹ This example provides an excellent insight into demand elasticity and raises its own questions regarding legalizing trade: surely decreasing the price will increase the demand in such situations.

In terms of demand increases, these are more common, more likely and far more threatening.¹¹² Increases in rhino poaching inspired by greater demands have been recorded over the previous decade from a variety of sources. Vietnam is now thought to have one of the highest demands for rhino horn internationally and this is primarily attributable to new uses.¹¹³ For example, traders are promoting the use of horn as a cancer cure and it has also become seen as a sign of status.¹¹⁴ Trade in rhino horn has also been increasing in the west where it is becoming a “trendy party drug for the rich, despite its lack of any measurable effects.”¹¹⁵ Furthermore, allowing trade in these products will likely have a negative impact on the stigma effect noted above. Demand may further be impacted by legalization as those traders currently in possession of illegal products may seek to enter them into the market before the competition increases.¹¹⁶ This could inspire greater demand in the short term and encourage poaching until the legal market is functional. Such increases have already been seen in

¹⁰⁷ Biggs, op. cite p1039

¹⁰⁸ Nowell and Ling, *Taming the Tiger Trade: China's Markets for Wild and Captive Tiger Products since the 1993 Domestic Trade Ban*, 2007, TRAFFIC p20

¹⁰⁹ Ruble, *China Outlaws the Eating of Tiger Penis, Rhino Horn and Other Endangered Animal Products*, 2014, Vice News

¹¹⁰ Stiles, *The Ivory Trade and Elephant Conservation*, 2004, Foundation for Environmental Conservation p312

¹¹¹ Vigne and Martin, op. cite

¹¹² Wiersema, *Uncertainty and Markets for Endangered Species under CITES*, 2013, Review of European Community and International Environmental Law p245

¹¹³ Milliken and Shaw, *The South African-Vietnam Rhino Horn Trade Nexus: A Deadly Combination of Institutionalised Lapses, Corrupt Wildlife Industry Professionals and Asian Crime Syndicates*, 2013, TRAFFIC p118

¹¹⁴ Ibid

¹¹⁵ Conway-Smith, *A Record 1004 Rhinos were Killed in South Africa 2013*, 2014, Global Post

¹¹⁶ Wiersama, op. cite p245

the case of babirusa pigs where volume of poaching was drastically affected by the decision to alter their trading status.¹¹⁷ This is one of the great dangers behind legalizing trade. However, it should also be noted that commentators are divided on the impact of the two CITES sanctioned trades of ivory stocks.¹¹⁸ Stiles assesses the situation and finds the data is insufficient and, therefore, inconclusive.¹¹⁹ He rationalizes the hunting increases following these sales by noting that increases around the first of these trades were not extraordinary and that the second was also accompanied by the highest poaching increase over the previous decade.¹²⁰ It is accepted that the data is inconclusive but that the rationalizations presented by Stiles are an appropriate interpretation of that available.

The aim of the HBM is to provide a secure environment for the continuation of current trade, not to inspire increased levels of demand. It is uncertain at present whether the proposed market could meet current demand, let alone achieve its aims should demand rise. There are those that believe an increase in demand would be an indicator of success but it is a dangerous path and it would be the role of the CSO to ensure the stigma is not lost and the demand does not exceed the obtainable, legal supply.¹²¹ It becomes relatively apparent that the assumption of demand inelasticity is a bold one. Current markets are unpredictable and precious little valid data can be

gleaned from them. Legalizing trade will undoubtedly have an impact on demand, likely pushing it upwards, and new uses are constantly being found for these products. The HBM accounts for some elasticity but arguably does not allow for enough. The opinion of Biggs *et al* on this point seems arguably most agreeable: taking an optimistic approach and believing that the market's growth should be treated as a sign of success.¹²² The dangers presented by an increasing demand are also easier to combat than current conservation issues provided the infrastructure is sufficiently designed. Furthermore, due to the unpredictability and lack of data, refusing to take action on the grounds that it *could* increase demand seems somewhat shortsighted particularly considering conservation time frames.

One of the core assumptions made by the HBM is that legal and illegal products will be directly substitutable.¹²³ While factually the two products would be the same, this assumption overlooks a variety of factors. The HBM appears to fail to recognize that one of the primary markets for these products is traditional Chinese medicine (TCM) whose practitioners could feel strongly about issues of "potency".¹²⁴ Select products which are obtained through culling or natural death will likely be highly substitutable but the same cannot be guaranteed regarding farmed products. Again, the issue becomes one of insufficient data. With the lack of a legal

¹¹⁷ Clayton, Milner-Gulland, Sinaga and Mustari, *Effects of a Proposed Ex Situ Conservation Program on In Situ Conservation of the Babirusa, an Endangered Squirrel*, 2000, Conservation Biology p383

¹¹⁸ For example Biggs, *op. cit* p1039 finding the trades were too infrequent to prevent buyers from abandoning the illegal market and that demand was, therefore, unaffected.

¹¹⁹ Stiles, *op. cit* p317

¹²⁰ *Ibid*

¹²¹ Fischer, in fact, includes an entire Appendix focused on preventing the loss of stigma and the impact this loss may have on trade – Fischer, *The Complex Interactions of Markets for Endangered Species Products*, 2004, Journal of Environmental Economics and Management p949

¹²² Biggs, *op. cit* p1039

¹²³ Heinrich and Brown, *op. cit* p7

¹²⁴ Gratwicke *et al*, *The World Can't Have Wild Tigers and Eat Them, Too*, 2008, Conservation Biology p222

market, it simply is not possible to predict substitutability at this stage. The BDM considers an elastic substitutability during its discussion of imperfect market competition.¹²⁵ Choosing a figure arbitrarily to assess this elasticity, their model has been designed to adapt to different degrees of substitutability and predict outcomes based on the shifting value.¹²⁶ The fact that the figure chosen is random is of little consequence - actual parameters may vary¹²⁷ – as the intention is merely to show the different outcomes depending on the extent of substitutability for each product.¹²⁸ In this regard, this model is easier to extrapolate to species beyond the rhino than the HBM. Ultimately, due to the lack of sufficient data, it is agreed that no prediction made can hope to be accurate but that models for trade legalization should include figures based on an elastic substitutability.

It is further assumed by the HBM that the markets will prove to be perfectly competitive.¹²⁹ This assumption is largely unfounded and poses a significant problem to the HBM. Even the current markets are dominated by a few big players acting as an oligopoly and are not perfectly competitive.¹³⁰ When making economic predictions based on markets which are not perfectly competitive, there is increased uncertainty and greater margins for error.¹³¹ In the current context, the present state of the markets makes it extremely difficult to predict how the market will continue once legal products are entered. That stated, where the

HBM has made the basic assumption, the BDM has focused much of its model evaluation on the competitiveness of markets.¹³²

Many theorists adopt an optimistic approach: introducing legal products will devalue the market which will force poachers and the oligopolies out of business and into less damaging paths.¹³³ Poaching would decrease and the passive actions of illegal traders would allow the legal market to establish itself relatively free of interference. However, this outcome is not particularly likely. There is no guarantee that legal ranchers won't simply stockpile their products until the species in question becomes extinct allowing them "exclusive control on supply of the global market in tiger parts".¹³⁴ Illegal traders could simply increase their supply, making up for lost profits by increasing product volume.¹³⁵ The introduction of a legal market could, therefore, have the opposite effect desired and actually inspire greater poaching. Consider the introduction of legal bear bile into the market.¹³⁶ Instead of adhering to the HBM's predictions, poaching actually increased as illegal traders fought to maintain their market dominance.¹³⁷ However, with this exception, there are very few other indicators for predicting the actions of current traders post-legalization. In fact, there are a multitude of factors which remain as unpredictable themselves as forecasting the likely actions of the traders.¹³⁸ Variations in demand and substitutability are two of these factors. Increasing demand following the

¹²⁵ Bulte and Damania, op.cite p465

¹²⁶ Ibid

¹²⁷ Ibid

¹²⁸ Ibid

¹²⁹ Heinrich and Brown, op. cite p7

¹³⁰ Ibid

¹³¹ Wiersama, op. cite p242

¹³² Bulte and Damania, op. cite p464

¹³³ Heinrich and Brown, op. cite

¹³⁴ Gratwicke, op. cite p223

¹³⁵ Bulte and Damania, op. cite p470

¹³⁶ Wiersama, op. cite p242

¹³⁷ Ibid

¹³⁸ Ibid

legalization would certainly incline poachers to continue regardless and if wild products are determined to be more potent, the market for these items will remain active. This evidence suggests it is doubtful that the markets will be perfectly competitive as envisioned by the HBM and that attempting to predict them to be as such is both dangerous and misguided. The HBM would benefit by providing an elastic value for market competition, like the BDM, ensuring adaptability where perfect competition cannot be achieved.

Substitutable products and competitive markets raise an important question: will the legal market simply become a haven for laundering illegal products? This is one of the largest fears regarding legalizing trade, yet if the HBM is successful illegal products should no longer exist. However, for the sake of evaluation, this risk should be further examined here, particularly considering previously documented cases of such laundering regarding ivory in the 1980s.¹³⁹ Fischer notes that in a dual market system where legal products do not maintain a lower price poaching may actually increase where laundering becomes common.¹⁴⁰ Opening a legal market in endangered products requires the implementation of various infrastructure such as the CSO discussed above, registers of buyers and sellers, monitoring bodies to regulate supply and new customs controls allowing the movement of such goods.¹⁴¹ If customs are altered to allow legal movement, the more relaxed controls could make it easier for illegal products to be moved across borders as well. The responsibility of

monitoring such traffic would fall to the CSO but, due to the sheer size of the market, it is doubtful any CSO would be able to micromanage goods in transit to the required degree. Furthermore, if illegal products successfully entered the legal market they may become easier to sell due to the register of buyers. Clandestine deals would no longer be required and illegal traders would be able to cash in their harvests with far less risk. The risk of laundering appears a significant one and it is arguable that the changes required to introduce a legal market would make laundering an option or at least make illegal trade easier.

One of the most important factors in why laundering is treated as such a threat is that the products are extremely difficult to distinguish between.¹⁴² This is especially true of rhino horn which is supplied powdered¹⁴³ and passing off illegal products as legal in order to invisibly enter them into the market is a significant possibility. If trade is legalized it becomes pertinent that measures to distinguish legally harvested products from poached products are made readily available. One such measure is the DNA tagging of horns so that there is a definitive method of identifying legal products.¹⁴⁴ This method would provide nigh on conclusive evidence of product origin.¹⁴⁵ The tags would be extremely difficult to replicate and the production of fraudulent products would be difficult to achieve. Finally, the tagging can be achieved for \$200 per tag which is relatively low cost.¹⁴⁶ However, while this is a reasonable cost, the aim of the HBM is devaluing the product. Adding a

¹³⁹ Biggs, op. cite p1038

¹⁴⁰ Fischer, op. cite p947

¹⁴¹ Wiersama, op. cite p246

¹⁴² Ibid p242

¹⁴³ Biggs, op. cite p1038

¹⁴⁴ Ibid p1039; This method could likely be adopted for other CITES specimens

¹⁴⁵ Ibid

¹⁴⁶ Ibid

\$200 expense per horn does little to further realization of this goal. Furthermore, this figure only considers the cost for the tagging process and does not factor in the equipment required to read the tags necessary at all borders where trade is expected or the man power required to monitor and manage the tagging system.¹⁴⁷ As a result, the cost-effectiveness required for legal trade to undercut illegal trade may be much harder to achieve. It is unfortunate that the HBM requires substitutable products and competitive markets in order to operate as it will open itself up to potentially the greatest risk of legalizing trade: providing an avenue for laundering. That being said, DNA tagging is a viable option, though it may limit the devaluation sought by the HBM. If implemented successfully, laundering would cease to be such a large risk and the threat it does continue to pose would be far more manageable.

Perhaps one of the biggest weaknesses of the HBM in terms of legalizing trade is that it focuses on one specific species with reasonably unique circumstances. The white rhino already has a large captive population and harvestable product.¹⁴⁸ It is no surprise to find that many of the models for legalizing trade focus on the rhino. This approach may be capable of extrapolation in terms of some species – plants where only certain parts are sought for example – but becomes somewhat more difficult to apply to other scenarios. Of the three most popular species, the rhino is the only one with a farmable product. While elephants can be humanely de-tusked, ivory

does not grow back the same as the keratin horns. In the case of tigers, whose pelts, claws and teeth are sought, the animal must be killed which certainly raises questions of sustainability and morality.

One example relied on heavily by many of the proponents for legalizing trade is the Nile crocodile.¹⁴⁹ Successfully privatized in the 1990s, crocodile ranching and leather trade was permitted. The objective was protection of the species while providing the much desired leather to the market legally. In a recent report from Kenya, one of the largest crocodile leather exporters, the success of that project can be realized.¹⁵⁰ Where the species was previously threatened with extinction, it is now thriving both in captivity and in the wild. Kenya reports no illegal trade in recent years and successfully provides accounts of all legal trade.¹⁵¹ Furthermore, the projects in Kenya have proved sustainable with many ranches offering employment opportunities to local communities for the collection of wild eggs.¹⁵² The success of the project has even been great enough to enable a reintroduction project where required which, although not sought for the Nile crocodile, proves that reintroduction is an option for other species.¹⁵³ This serves to counter fears of many opponents to legal trade who believe a situation may be reached where an entire species is surviving only in captivity.¹⁵⁴ However, as discussed, one must be extremely cautious when extrapolating data relating to one species and seeking to apply it to another. Biological and behavioral differences between species mean

¹⁴⁷ Wiersama, op. cite p246

¹⁴⁸ Heinrich and Brown, op. cite

¹⁴⁹ Wiersama, op. cite p240

¹⁵⁰ Kenyan CITES Reporting Body, *The Status of Ranching and Trade in the Nile Crocodile in Kenya*, 2006

¹⁵¹ Ibid p5

¹⁵² Ibid p6 – this also responsibly restricts wild populations to prevent human-crocodile conflict

¹⁵³ Ibid

¹⁵⁴ Which, according to the International Union for Conservation of Nature, is the equivalent of being extinct – IUCN, op. cite

that the results could vary significantly and one should not use this example as proof that other models will succeed: rather, it should be viewed more as a guidebook to good practice should trade be legalized.

The fact that CITES species vary so greatly causes one of the greatest difficulties in applying the HBM. Elephants, for example, are roaming species requiring miles of suitable habitat to survive.¹⁵⁵ Thus, the first difficulty in applying the HBM beyond the rhino is accounting for huge variations in farming costs. Regarding rhinos, Biggs *et al* suggest that the dehorning process can be achieved for as little as \$20,¹⁵⁶ plus at least \$200 for the DNA tagging of horn products to prevent laundering. One must then also consider the transport costs and any license fees or farming permits. Finally, one must consider the costs of actually keeping animals. The amount of land alone required to keep these animals humanely is enormous. It is clear that the costs are, therefore, somewhat high when considering producing these products. With species like the rhino that regularly provide saleable products this may not be an issue.¹⁵⁷ However, for tigers and elephants, their products are only available once in their lifetime and the cost of keeping an animal for that period is staggering.¹⁵⁸ The devaluation predicted by the HBM is likely to be quite far from applicable in relation to these species.¹⁵⁹ That being said, the Abbot and van Kooten model does conclude that tigers could be sustainably farmed and traded in a manner sufficient to reduce poaching

incentives although they note this would achieve better results alongside “increased enforcement”.¹⁶⁰ The assumption that costs will remain low enough to undercut illegal trade is, therefore, arguably acceptable for certain species although current data remains insufficient and unpredictable.

The HBM partially relies on the assumption that all rhino farmers will immediately enter their products into the market ensuring the flood of legal horns devalue the product on the whole.¹⁶¹ This is not so achievable with products which require the animal to be put to death. If a tiger ranch was established and trade legalized, the trader would have to slaughter his entire stock which would result in a single pay day followed, presumably, by the closing of his business. This highlights the drastic difference between the sustainable harvesting possible with rhino horn and other species. That being stated, this has successfully been achieved regarding the Nile crocodile.¹⁶² It should also be noted that the proposals by the last CoP regarding trade in these species did reflect their differences in terms of harvesting.¹⁶³ It was accepted that rhino horn could be sourced from both wild and captive animals where tiger parts were likely to come only from captive breeding programmes.¹⁶⁴ The CoP also encouraged parties to begin considering methods for controlled ivory sales.¹⁶⁵ The source of this ivory would be natural death, culling and national stockpiles seized under CITES. It is clear that the CoP has already begun considering the most appropriate

¹⁵⁵ Jones, *op. cite* p299

¹⁵⁶ *Ibid*

¹⁵⁷ *Ibid*

¹⁵⁸ Forbes, *op. cite* p11

¹⁵⁹ Abbot and van Kooten, *op. cite* p727

¹⁶⁰ *Ibid*

¹⁶¹ Heinrich and Brown, *op. cite* p7

¹⁶² Wiersama, *op. cite* p240

¹⁶³ For example, the request made at the last CoP to consider measures specific for the trade in ivory - CoP 16, *Decision-making mechanism for a process of trade in ivory*, 2013

¹⁶⁴ Wiersama, *op. cite* p241

¹⁶⁵ CoP 16, *op. cite*

methods of sustainable trade for these species and, unsurprisingly, has not based the approach on a single model of farming for a single species. While the other issues affecting differences in species continue to operate against single species models like the HBM, they do not stand as a particularly convincing barrier to the overall proposition of legal trade and ultimately the CoP will develop different trade structures to reflect the biological differences between the traded species.

It becomes evident that legalizing trade is not without its difficulties. Many of the assumptions made by economic models are bold and often unlikely to occur in the exact fashion assumed. Market competitiveness, product substitutability and ability to undercut illegal markets are all achievable but they will never be black and white issues as relied upon in the HBM. The elasticity of demand is likely to vary in a manner few of the models correctly account for. Furthermore, most models discussed above are primarily focused on the issue of rhinos and it is not necessarily possible to extrapolate the data from these models for other species. However, despite these weaknesses, legalizing trade does still have huge strengths and the HBM is a valuable model. Fischer's model is certainly more comprehensive, reflecting multiple market outcomes and retaining transferability between species, although slightly dated.¹⁶⁶ The BDM is perhaps the better model moving forward as it remains reasonably flexible for most assumptions and accounts for more negative outcomes although it only applies its findings to the example of rhinos.¹⁶⁷ Ultimately, time is of the essence and doing nothing will only ensure the extinction of these species. The current proposals are

unpredictable but this is due, at least in part, to the lack of available data on the operation of a legal market. Perhaps venturing into the uncertain will be necessary to ensure the survival of these species and it would ultimately be foolish to wait for a perfect model as it is doubtful one will ever be possible without trade first being legalized.

5. CONCLUSION

Having considered current ICL and a variety of alternative approaches, a conclusion shall now be drawn on the most promising future for ICL. It was established in the second chapter that current ICL is somewhat deficient and incapable of protecting those species most in need. CITES, the primary piece of legislation, manages to be both ambiguous and overly strict in its wording. Sanctions are left to state discretion allowing for large differences between national actions and measures for confiscated species are often inappropriate for the situation. Furthermore, CITES lacks the ability to effectively monitor and enforce its provisions meaning that those provisions which could achieve success are often poorly implemented and CITES does little to regulate this. Thus, it can be concluded that CITES is insufficient to achieve the task set to it in its present state.

One option presented above was that the CoP should simply seek to restructure and improve CITES. By tightening those provisions which are deemed too lax, lowering the standards for the listing process, altering additional problem provisions and introducing a dedicated CITES regulatory body, CITES itself could function far more successfully. However, it has been argued that simply repairing the existing framework

¹⁶⁶ Fischer, op. cite

¹⁶⁷ Bulte and Damania, op. cite

does little to resolve certain core issues. Most importantly, increasing regulation only increases the risks associated with poaching and does little to reduce the demand and prevent the source of poaching. Chapter 3 dealt with the less radical approaches such as increased funding, national measures, vesting of private rights or approaches akin to the IRDNC Namibia model. All of these options had their merits and it is concluded here that all would serve to further combat poaching. However, the ultimate problem with all of these approaches is that they are curative rather than preventative: increased funding ensures greater chance of catching poachers and private ownership should ensure greater direct protection. However, the problem of illegal trade supplied by poaching will persist and until that is dealt with, many species will remain threatened with extinction.

The final option to be considered was legalizing trade. In short, it can be concluded that, if implemented correctly and with caution, this approach should remove the incentives for illegal trade, manage product demand and allow for the improvement in endangered species numbers. Should a legal market be implemented it will require expediency and minimal costs. Most importantly, the introduction of a dedicated CSO will be necessary to monitor and regulate all trade. This approach is, however, fraught with risk. Many of the assumptions relied upon by proponents of legal trade are made boldly and the situation is likely to be far more complex than inferred. Demand elasticity is extremely unpredictable and introducing legal trade may have the effect of driving the demand up rather than decreasing it. Furthermore, there is no guarantee that legally harvested products

will be deemed substitutable for wild products, particularly in terms of traditional uses. The actions of illegal traders are completely unpredictable and they may seek to increase their volume rather than sacrifice profits which would not allow the market to be perfectly competitive. Legal trade also creates a huge risk regarding laundering of illegal products and the methods of preventing this are likely to increase product expenses. Finally, the natural differences between endangered species mean that farming may not be a sustainable option for all and that predictions made with regards to devaluing one product with a legal market may not hold true for others.

However, despite these contentious issues, legalizing trade is still an extremely attractive option and many of the arguments presented by its opponents can be rebutted. Increasing demand could be viewed as a sign of success rather than a problem and products should be substitutable for most purposes. While the actions of illegal traders are unpredictable and laundering is a risk, granting sufficient powers and resources to the CSO would ensure sufficient regulation to discount these complications. The fact that different species will require alternative approaches has also already been discussed by the CoP and it is reasonable to believe that sustainable methods of legal trade can be found for most, if not all, critically endangered species. Finally, unlike the other options presented in this assignment, legalizing trade goes straight to the heart of the problem and removes the financial incentive for illegal trade. This fact, coupled with the increased protection afforded to those specimens under private ownership, should drastically increase conservation efforts and will hopefully save numerous species from following the

Western Black Rhinoceros into extinction.

In conclusion, it has become apparent that legalizing trade is the best way forward. Current approaches have been struggling for decades and it is doubtful whether reforming these or implementing certain other methods mentioned above will do much more than increase the value of the products. Legalizing trade may be capable of dealing with the source of commercial poaching and removing the risk all together. Furthermore, it should be remembered that time is of the essence and that drastic action should be taken in order to improve the chance for survival of these species. The species discussed here are headed for extinction if no action is taken and the other methods discussed above are unlikely to achieve their goals in order to save them. For the reasons discussed here, it can be concluded that legalizing trade is the best way forward and perhaps the only option of saving multiple critically endangered species.

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Past SCELG Working Papers:

C Murdoch, Can Legalising Trade Save Endangered Species? An Investigation into the Conservation Merits of a Legal Market for CITES-prohibited Specimens, SCELG Working Paper 1/2015