AN EVALUATION OF CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES) IMPLEMENTATION IN SOUTH ASIA WITH REFERENCE TO INDIA

Thesis submitted to the

Saurashtra University, Rajkot

Gujarat

For the Award of the Degree of

Doctor of Philosophy

in

Wildlife Science

Wildlife Institute of India
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By

Samir Sinha

भारतीय वन्यजीव संस्थान
Wildlife Institute of India

October 2017

AN EVALUATION OF CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES) IMPLEMENTATION IN SOUTH ASIA WITH REFERENCE TO INDIA

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Name of Student	:	Samir Sinha
PhD Registration No.	:	5278
Date of Registration	:	01/01/2013
Subject	:	Wildlife Science
Faculty	:	Science
Name of the PhD Guide	:	Dr. V.B. Mathur
Name of Institution	:	Wildlife Institute of India, Dehradun, Uttarakhand

Signature of the Student

SAURASHTRA UNIVERSITY
P.G.T.R. Section
Main office,First Floor,
University Road,
Rajkot - 360 005(Gujarat)
Phone No. : 2578501
www.saurashtrauniversity.edu

Accredited Grade'A' by NAAC

CERTIFICATE FOR PRE Ph.D. PRESENTATION

This is to certify that **Mr. SAMIR SINHA** has made Pre Ph.D. Presentation as per UGC Guideline "University Grant Commission (Minimum Standard and Procedure for award of Ph.D. Degree) Regulation – 2009" and Saurashtra University Ordinance for Ph.D. Programme (O.Ph.D. 6.2), on the Research work titled **An Evaluation of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Implementation in South Asia with Reference to India** in the Department of Wildlife Sciences, Wildlife Institute of India, Dehradun, Research Centre of Saurashtra University, Rajkot on **1st August 2017** before the faculty members and students of the Department for getting feedback and comments.

I also certify that all who remained present appreciated the Research work and there were no comments made for this research work.

Signature of Department Head
Name of Head: **Dr. G. S Rawat**
Dean
Wildlife Institute of India

Signature of Guide:
Name of Guide: **Dr. V. B.Mathur**
Director
Wildlife Institute of India

Place: Dehradun
Date: 31st October, 17

भारतीय वन्यजीव संस्थान
Wildlife Institute of India

Dr. V. B. Mathur
Director

Dated: 30th October, 2017

Certificate

This is to certify that the thesis presented by **Mr. Samir Sinha** entitled **"An Evaluation of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Implementation in South Asia with Reference to India"** is an original piece of work submitted to the Saurashtra University, Rajkot (Gujarat), for the award of the **Doctor of Philosophy** in **Wildlife Science**.

Title of the Thesis is as per Registration and as approved by the R.D.C.

Mr. Samir Sinha has put more than six terms of research work embodied in his thesis under my guidance and supervision. The work presented in his thesis has not been submitted to any other University or Institution for the award of any degree, diploma or distinction.

Dr. V.B. Mathur
Supervisor

Forwarded:

Dr. G.S. Rawat
Dean, Faculty of Wildlife Sciences
Wildlife Institute of India
Dehradun-248 001 (Uttarakhand)

पत्रपेटी सं. 18, चन्द्रबनी, देहरादून - 248 001, उत्तराखण्ड, भारत
Post Box No. 18, Chandrabani, Dehradun - 248 001, INDIA
ई.पी.ए.बी.एक्स : +91-135-2640111 से 2640115 फैक्स : 0135-2640117
EPABX : +91-135-264011 to 2640115 Fax : 0135-2640117
ई-मेल/E-mail : wii@wii.gov.in वेब/Website : www.wii.gov.in

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This study makes liberal use of a large number of documents including statutes of International Conventions, records of proceedings of various meetings of national and international bodies, national laws, court orders including that of the International Court of Justice, Hon'ble Supreme Court of India and the American Supreme Court. While many relevant parts of such documents are quoted *in toto* with specific citation in this study, this work does not claim to be a complete or verbatim record of such documents. Wherever considered necessary, some portions have been edited, rephrased, or emphasis added for purposes of amplification, elucidation, interpretation and analysis to meet the objectives of this study. As such, for a complete record of such proceedings, court orders etc., kindly refer to the original documents as listed in the references.

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Chapter 1:

Introduction

A perspective of Wildlife Trade

Wildlife, as defined under Sec. 2(37) of the Wildlife (Protection) Act 1972, of India "includes any animal, aquatic or land vegetation which forms part of any habitat." The use of the word "includes" is meaningful as well as important as it emphasises that this definition is open ended and not all comprehensive.

Preference and utilisation of various resources by any community is shaped by its historical, social and cultural context. This is especially true of wildlife. Wildlife, in its various forms has been traded since times immemorial.

Wildlife trade includes any sale or exchange of wild animal and plant resources by people. This can involve live animals and plants or a diverse range of products needed or prized by humans—including skins, medicinal ingredients, tourist curios, timber, fish and other food products. Most wildlife trade probably occurs within national borders, but there is also a large volume of wildlife in trade internationally. (TRAFFIC 2013).

Man's exploitation of wildlife for profit is not a recent phenomenon and the international trade in wildlife has been widespread for many centuries. (Hutton & Dickson 2000).

The trade can take many forms. From local consumption of wildlife derivatives for medical and therapeutic reasons to species traded across regions and nations, the trade encompasses local, regional and global levels.

Thus, throughout history, a great variety of wild animals, large and small have been collected as curiosities and products derived from them used for many purposes, including clothing, adornment, decoration, charms or trophies, if not for food and medicine. (Donovon 2004).

Human relationships with wildlife may vary widely across geospatial landscapes, from being part of myth, mythology and folklore, commanding respect to fear to being commodities of commerce.

In Asia, as across many other regions across the globe, wild animals have played an important role in culture and history. Archaeological evidence and written records indicate that wild animal and plant products have been major trade items between South and South East Asia and China for more than two millennia. (Donovan 2004).

While wildlife trade is clearly not a recent phenomenon, the factors and drivers of this trade seem to have evolved across human history.

Rare and exotic animals- live or in the form of derivatives - were a special form of exchange between cultures and civilizations, not necessarily always qualified or acknowledged as "trade" but with the same impact.

Thus, the Royal Menagerie established in the Tower of London by King John, who reigned in England from 1199-1216 was known to have held several exotic species including lions and bears. It seems to have been a private collection for the king, a sign that he enjoyed good relations with foreign monarchs, who presented him with animals. The Duke of Wellington finally ordered it closed in 1835. (BBC 2005).

The musk of civet cats has been a valued substance since Biblical times and was later particularly appreciated in the Arab cultures. (Roth 1997). In recent times, the Tirumala Tirupati Devasthanam Board in India has offered to fund breeding of the small Indian civet (*Viverricula indica)* provided it is allowed to collect a secretion from the animal for use in temple rituals. (Deccan Herald 2011).

The impact of animals and plants on human health cannot be overemphasized. Of the 2,50,000 higher plant species recorded on earth, more than 80,000 species are reported to have at least some medicinal value and that some

50,000–70,000 plant species are used in various forms of traditional and modern medicine globally. Many animals of wild provenance have constituted important part of food and pharmacopeia for communities and groups.

Plant–human relationships are as old as human history. It is generally acknowledged that the earliest known medical document is a 4000-year-old Sumerian clay tablet that recorded plant remedies for various illnesses. (Karunamoorthi et al 2013*).*

The Rig Veda, believed to written in India between 4800 and 1600 BC is considered one of the oldest records of use of plant products for human health. The Indian Subcontinent contains about 25,000 species of vascular plants, of which at least half are endemic to the region. The 7000 medicinal plants used by the various traditional medical systems account for 28 percent of the region's flora-a very high percentage. (Lambert et al 1997).

In AD 77, the Greek surgeon Dioscorides published 'De Materia Medica', a catalogue of about 600 plants in the Mediterranean region, with information on how the Greeks used the plants, especially for medicinal purposes. The records from earlier cultures of Africa and China, the Nile and the Indus valleys have also revealed the use of herbal medicines by the inhabitants of those regions over several millennia (Khan 2013).

The use of traditional medicines in healthcare as a driver of wildlife trade presents an interesting dichotomy. Despite globalization and modernization, a sizable fraction of the rural poor across the globe largely rely on the traditional medicines as their primary support for health care. Also, a small but significantly growing market in developed nations also offers such traditional healing options at the high end of the table. For developing nations though, the use and dependence on traditional medicinal plants in health care system is only expected to increase in the future. (Karunamoorthi, et al 2013) This is largely because of affordability, cultural acceptance and difficulty in access of other modern healthcare service.

Overall, it has been estimated that of the 1.2 billion people in absolute poverty (with an income of less than US$1/day), up to 150 million (13%) rely on wildlife as a key element of their livelihood asset base (DFID 2002).

As such, these have implications in any understanding of wildlife trade.

Across India and South Asia, wildlife is traded for a variety of reasons.

These include

- Food
- Fuel and fodder
- Handicrafts
- Building materials
- Clothing and Ornaments
- Healthcare
- Sport
- Pets
- Private or scientific collections
- Religion and traditional beliefs

(from Sinha 2010)

For many species in wildlife trade, it may be interesting to see the nature of trade through a spatial prism.

Since the nineteenth century, Tibetan luxury animal products like musk, stag antler, bear gall and fox or leopard pelts fetched high prices in colonial and regional Asian markets, which demanded an ever increasing supply (Donovan 2004). There is also evidence of purchase of large quantities of valuable game animal products from peasants by influential Tibetan lama corporations (bla-brang) and monastic business managers (phyag-mdzod) for trading to China and India.... (Huber 2004)

It may be interesting to point out that most of these products are no longer locally available in the Tibet of today, which has emerged into a major market

for wildlife products sourced from outside the region from countries like India & Nepal.

On a much larger historical scale, the medicinal use of parts and derivatives of large cats in Asia, particularly the tiger is rooted deeply in Oriental traditions and myths which can be traced back to the Ch'in (221 BC) and Han dynasties (20 BC). (Roth et al 1997).

In a tropical regime, many species of large carnivores, occurring in relatively low densities, would be less attractive in a subsistence hunting regime as they were unlikely to constitute a major component of "food' or essential clothing. However, they would have limited use as status symbols and /or for decorative purposes. However, in many competitive societies of Asia, conspicuous consumption plays an important role culturally and thus, the demand for wildlife as exotic and expensive consumables is likely to persist for some times to come. (Donovon 2004).

While most such trade was at the local level and largely subsistence driven, with the advent of market driven economies driving resource procurements, this whole argument was turned upside down This impact of globalisation was severely magnified when commercial expansion was accompanied by the decline in local institutions of resource management and the breakdown in the regulatory authority (Donovon 2004 pp 104).

Rarer species suddenly became more attractive commercially, as the catchment of the market exploded across political and regional boundaries. This was primarily for sport, for status or hobby. However, the bulk of the trade continued to be dominated by species with likely attributes of high density, large range, and high fecundity. These most commonly traded species may likely be able to sustain a much higher take for the very attributes stated above and were not necessarily those most at risk from over collecting. Many of such species were also likely to be domesticated for harvesting, this providing an alternate source of flow to the market. Thus, the most commonly traded species are not necessarily those that are most at risk from over collection.

In contrast, species with restricted ranges, high levels of endemism (e.g., small island species), or life-history strategies that depend on high adult survivorship could be detrimentally affected by even a small number of individuals being removed from the wild.

Determining sustainable rates of take is a complex undertaking that depends on many factors, such as the abundance, behaviour and life-history characteristics of a species, and a host of socioeconomic factors (Schlaepfer et al 2005). In the developing nations, use of wild-living natural resources by rural communities is rarely a choice but an economic imperative (Abensperg-Traun, M. 2009). Most legal frameworks, including that of CITES do not have a reference to this important social context.

However, this issue is at the crux of the wildlife trade debate.

Scale of Wildlife Trade

The scale of wildlife trade can at best be an educated guess. This is largely because at the local end of the trade chain, such interactions can be based on informal arrangements including barter and difficult to quantify, as they do not form part of any well-documented market economy. A significant part of such trade e.g in bushmeat, is also likely in contravention of local, national and international laws, further lowering incentives for comprehensive documentation. CITES notes that the trade in bushmeat involves many species included in the Appendices of the Convention but also species, the trade of which is not regulated by CITES and that poaching and illicit trade in bushmeat constitute the greatest threat to the survival of several wildlife species in Africa in general, but especially in Central Africa, and also in all other countries in the world.
(see http://www.cites.org/eng/res/all/13/E13-11.pdf)

There are at best, limited studies on the scale and extent of wildlife trade within national boundaries. International trade is where the information is most likely

to be available and yet, these records at best represent snap shots of the nature and extent of wildlife trade.

The USA is acknowledged as one of the largest markets of wildlife globally. It is estimated to purchase nearly 20% of all legal wildlife and wildlife products in the market (Alarcon 2001). Many analysts also agree that the demand for illegal wildlife in the US is likely to parallel the US demand for legal wildlife. This clearly indicates that the United States may be a significant destination for illegal wildlife and the magnitude of the illegal trade may be increasing (Wyler and Pervaze 2008, 2013).

For example, during 1998-2002, the United States imported 14.7 million wild-caught whole amphibians, 5.2 million kg of wild-caught amphibians, and 18.4 million wild-caught reptile parts and products, and exported 26 million wild caught whole reptiles (Schlaepfer et al 2005).

Over half a million shipments containing >1.68 billion live animals were traded by the U.S. between 2000 and 2006. Seventy-nine percent of shipments were imports containing <1.4 billion live animals. 92% of these were designated for commercial purposes (largely pet trade) and ~80% contained animals from wild populations.

Records of trade in species listed under CITES and governed by CITES permits also capture details of such trade.

Between 2005 - 2009, the CITES database has recorded an annual average of more than 317,000 live birds, just over 2 million live reptiles, 2.5 million crocodilian skins, 1.5 million lizard skins, 2.1 million snake skins, 73 tonnes of caviar, 1.1 million coral pieces and nearly 20,000 hunting trophies. (TRAFFIC 2017) http://www.traffic.org/trade/ (accessed on 12 March 2017).

In addition, sectoral details of trade in wildlife such as timber and marine fisheries are available across several institutional and other studies. The volume of China's forest product imports from Africa has doubled in the last

decade from around 1.7 million m^3 in 1999 to 3 million m^3 in 2009 *(Huang 2013)*

On an alarming note, it has been forcefully argued that the magnitude of trade reported by CITES may be inaccurate *(*Robbins 1998; Bruckner 2001; Blundell & Rodan 2003, respectively in Blundell et al 2004, Blundell and Mascia 2005). If such inaccuracies are widespread, this might distort perceptions of the relative risk that targeted exploitation of wildlife poses to global biodiversity, leading to misallocation of management resources and less effective conservation strategies.

And, to note this is about what is by far one of the most comprehensive records of international trade in wildlife species listed and regulated under the CITES convention.

It is clear that wildlife trade is a major economic activity across people, communities, regions and countries.

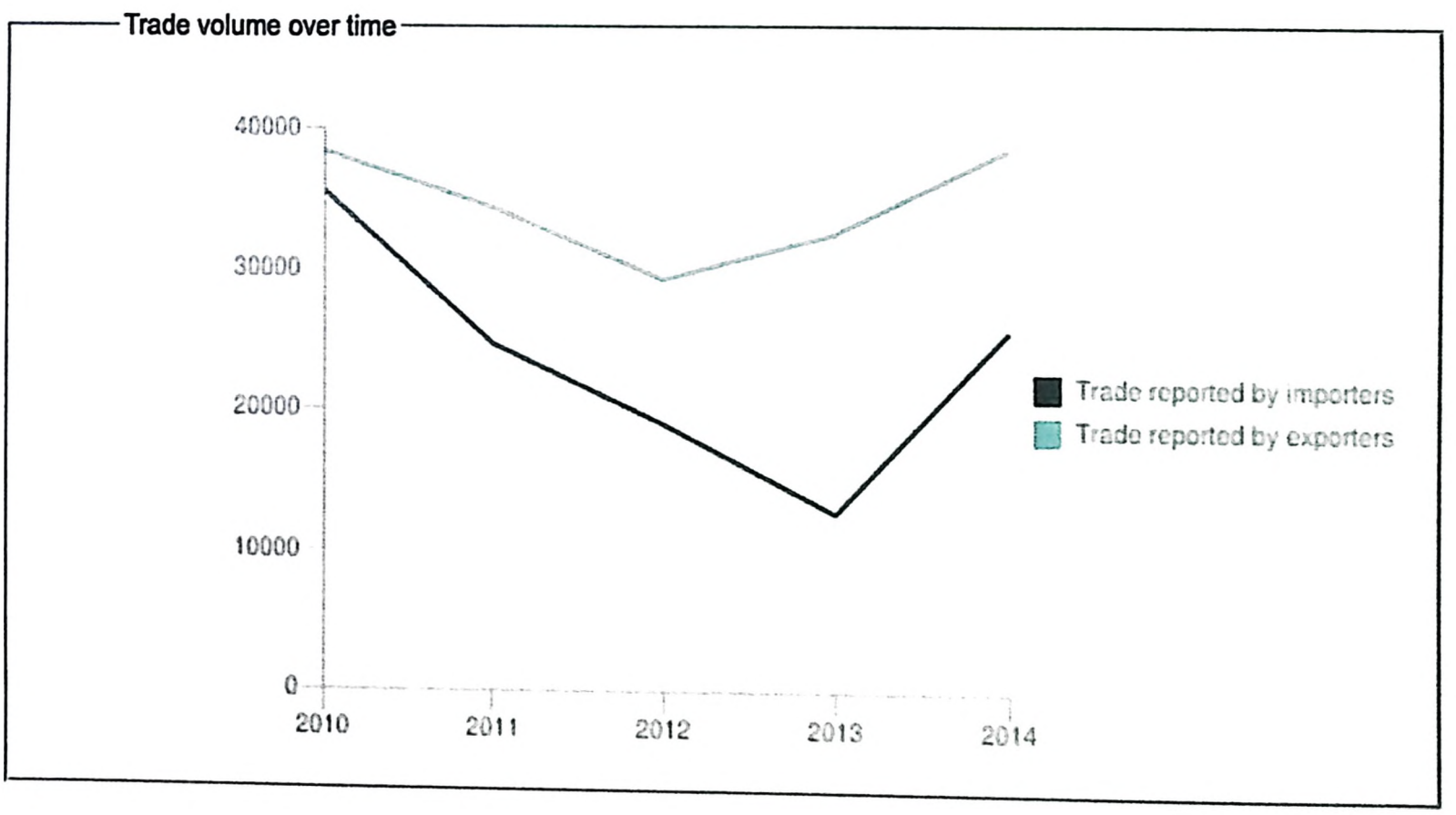
It has been estimated that the annual value of the alpine and sub-alpine medicinal plant trade to rural harvesters in Nepal is in the range US$0.7–3.3 million with a value of US$2.3 million in 1997-98. Also, 7–10% of the populations in areas classified as 'mountain region' derive incomes from the alpine medicinal plant trade. The authors themselves acknowledge this figure to be a "highly conservative estimate" (Olsen et al 2003).

TRAFFIC has estimated the value of legal, international wildlife trade alone to be worth nearly USD300 billion in 2005, based on declared import values. A discernible trend also seems to be a steady increase in value (Roe, D. 2008).

The European Union (EU) ranks as the top global importer by value of many wild animal and plant commodities, including tropical timber, caviar, reptile skins and live reptiles. The legal trade in wildlife products in the EU had an estimated declared import value of EUR93 billion in 2005. (Engler, M. and Parry-Jones, R. 2007).

The CITES Trade Data Dashboards provides an interactive, dynamic way of viewing the trade data submitted by CITES Parties in their annual reports to the Convention. The Global Dashboard provides an overview of global trade trends by taxonomic group and shows only a subset of the over 15 million records found in the CITES database. Some snapshots from 2010-2014 are as follows:

Chart 1:



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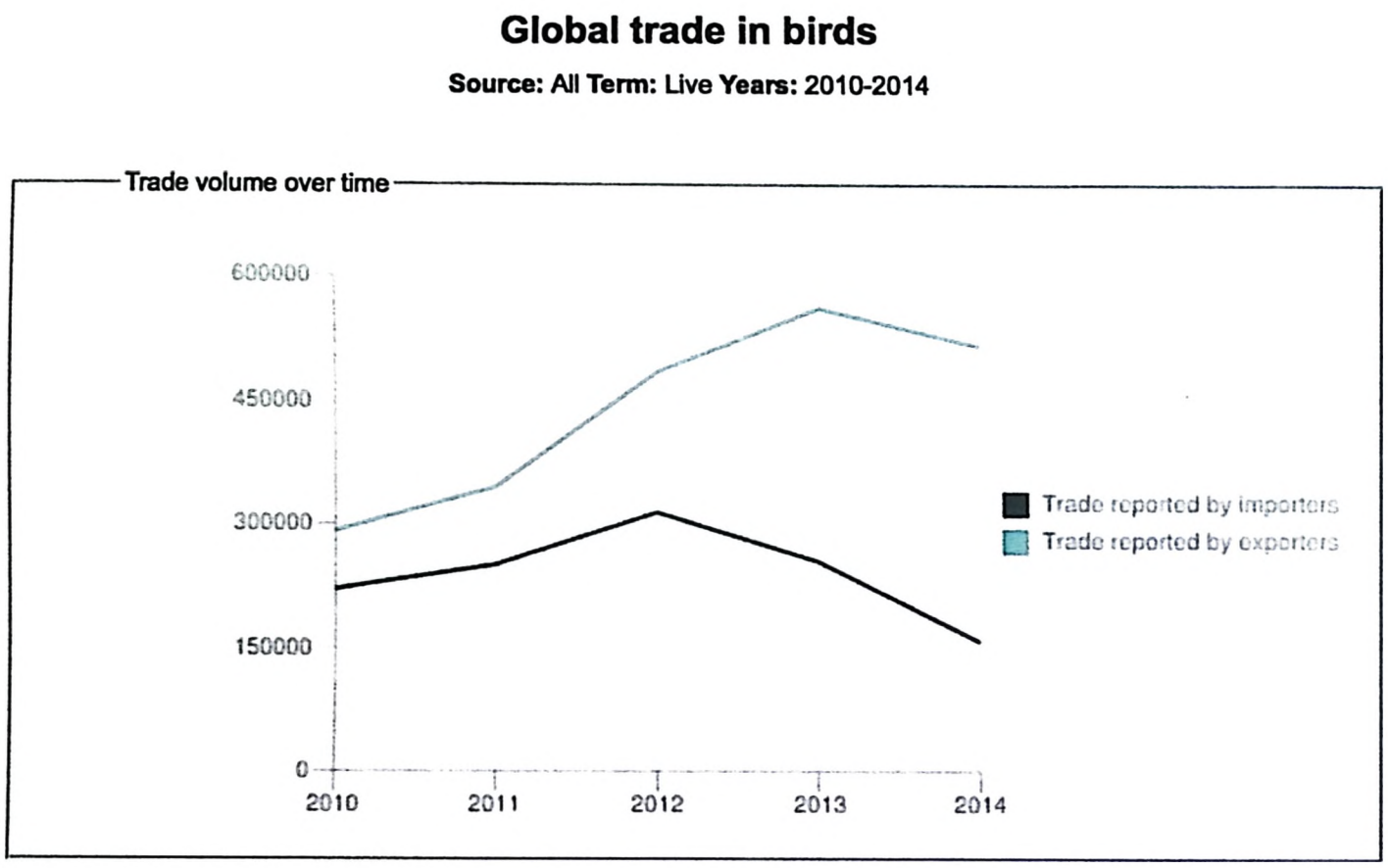

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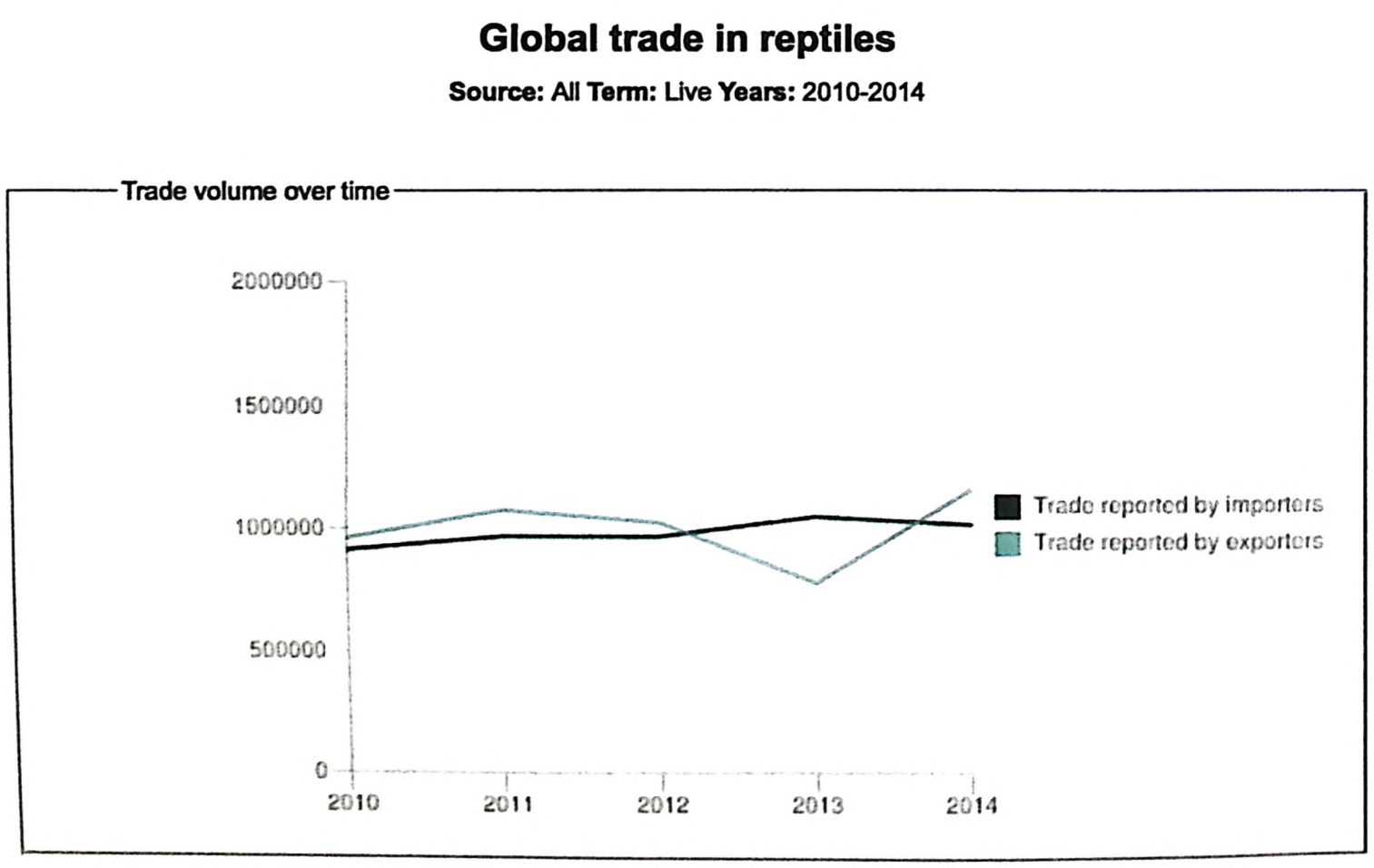

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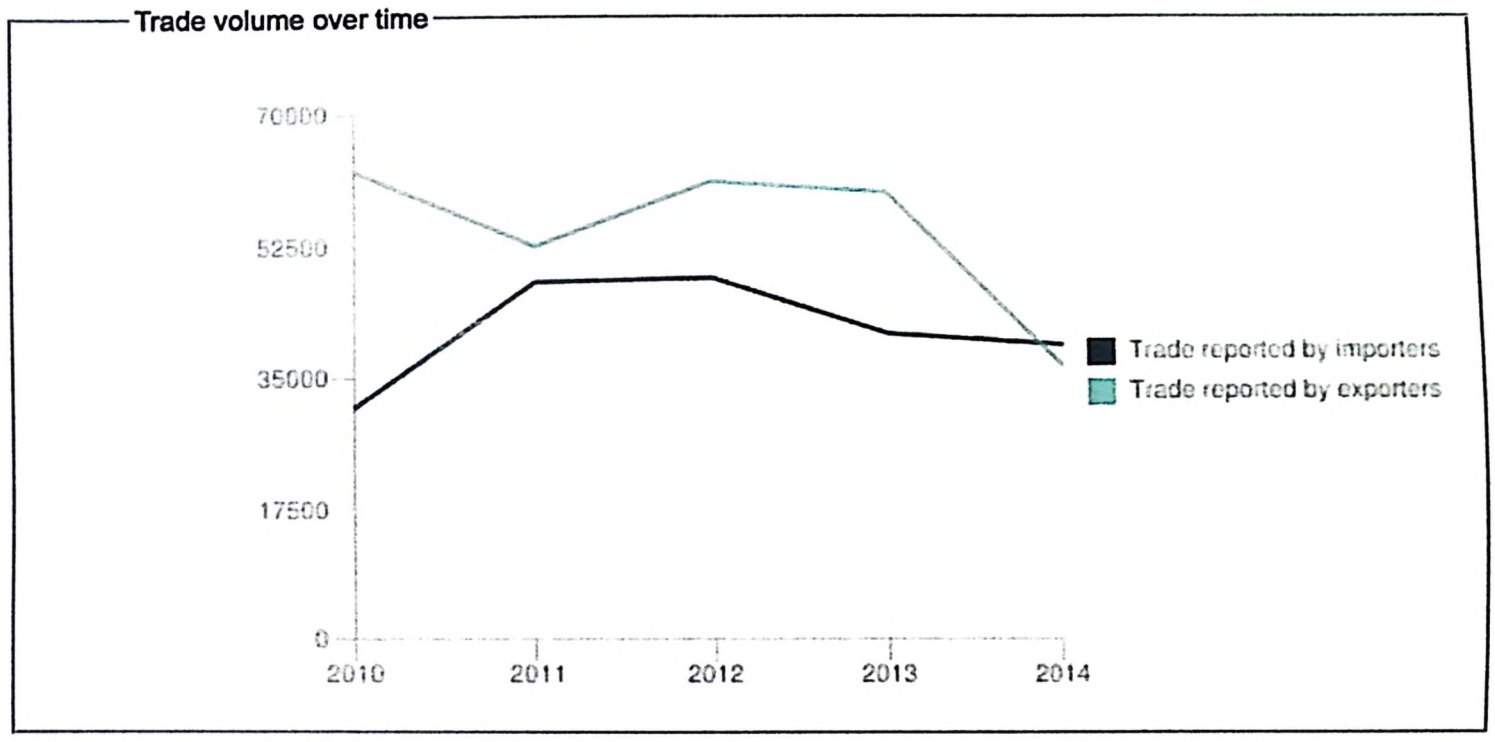


Source: http://cites-dashboards.unep-wcmc.org/global (accessed on 7th March 2017)

Some important attributes of wildlife trade are immediately discernible:

1. Wildlife trade is a major economic activity that has important implications for human well-being. Such resource use is also anchored in local cultural and social contexts.
2. The trade has important implications as an economic activity for livelihoods of poor people and also for resource rich but economically poor nations.
1. Wildlife resources are generally seen as common property or open access resources and can be accessible to remote and/or socially weaker communities.

2. Wild resources can be usually harvested and used or made available to the primary market with little processing and with low-cost technologies. This could also lead to wasteful harvesting and processing and undervaluation, at least at the primary points of sale.

3. Wild resources are available for direct consumption or sale in times of economic hardships such as when crops fail or when other livelihood options are adversely affected.

4. The attributes such as numbers and nature of players involved in the trade may vary widely with the species and nature of trade.

5. Trade chains in wildlife products between harvester and end-consumer can be highly complex. The nature of such trade is that it is often carried out through informal networks.

6. While most wildlife trade occurs within national borders, sold and used locally or transported for sale in urban centres, a significant portion is also sent across national borders to markets in neighbouring countries or shipped half way around the world.

7. For these and variety of other reasons, the trade is relatively poorly managed and documented or captured in government statistics, as compared to most other forms of "mainstream economic activity".

8. As such, the incentives to conform to laws and regulations can often be poor, the related crimes can carry little or no social stigma and the probability of getting punished or even caught for such offences is low.

9. As such, such trade can at times be unsustainable and contribute significantly to extensive species loss and ecosystem degradation.

10. However, when managed well, such trade can make very significant contributions towards sustainable livelihoods and development, especially in developing economies. It can also be beneficial to species and habitats.

11. Not ALL wildlife trade is illegal. In fact, most of it is legal. However, whatever is acknowledged as legal need not be sustainable and all illegal trade may not be unsustainable.

Adapted from (Broad et al., 2003). (Belcher et al., 2007) (Milledge et al., 2007).

Illegal Wildlife Trade:

If determining the extent of the legal trade in wildlife presents a challenge, the same is much more amplified when attempting to understand the magnitude and nature of illegal wildlife trade.

The illegal wildlife trade is probably best understood as a collection of specialized sub-disciplines – each one accompanied by its own smuggling methods, trafficking routes and markets (UNODC 2007).

Thus, while there are "guesstimates" that attempt to capture the enormity and diversity of the trade, snap shots across various sectors perhaps provide the best indicators of this illicit economy.

Despite many suggestions that wildlife and forest offences are one of the most profitable forms of organized crime, only after illegal drugs and trafficking in firearms and ammunitions, it can be extremely difficult, if not impossible, to estimate the true scale of the problem (UNODC 2012 wildlife toolkit pp 16).

Global trade in illegal wildlife is a growing illicit economy, estimated to be worth at least US$5 billion and potentially in excess of US$20 billion annually (Wyler and Sheikh 2008).

According to official estimates by the U.S. government, illegal trade in endangered wildlife products, including elephant ivory, rhino horns, and turtle shells, is worth at least an estimated US$7billion to US$10billion annually. This figure does not include illegal logging and fishing, which can account, respectively, for roughly an additional US$30 billion to US$100 billion annually and US$10 billion to US$23 billion annually (Wyler and Sheikh 2013).

The revenues generated by trade in endangered species are estimated at 18 to 26 billion Euros per year, with the EU the foremost destination market in the

world. The trade is principally coordinated by well-organised, loose networks based in the EU and in the source regions. (EUROPOL OCTA 2011). A perception of low risk and high profitability associated with this crime area is likely to continue to attract interest from Organised Criminal Groups (OCGs) (EUROPOL SOCTA 2013).

In 2001, around EUR60 million was lost to Caspian Sea range States due to illegal sturgeon fishing and trade, while illegal logging costs developing country governments an estimated EUR10-15 billion every year in lost revenue (TRAFFIC 2010).

The total value of current illegal and unreported fishing losses worldwide is estimated between US$10 billion and US$23.5 billion annually, representing between 11 and 26 million tonnes (Agnew et al 2009).

The total volume of suspicious wood exports worldwide is estimated to exceed 30 million cubic meters and is valued at almost US$5billion. Most of the illegal exports involve roundwood (almost 18 million cubic meters). Illicit exports of lumber and plywood are smaller in volume, but higher in value. (Schloenhardt 2008).

The EU-TWIX database for the period 2007-2011 records a total of 12,486 seizure records of illegal wildlife products across the European Union (Mundy-Taylor 2013).

Between 2001-2007, the UK alone has seized over 142 t of illegally traded Ramin, a CITES Appendix II-listed timber species often used for picture frames and snooker cues. In addition, between 2000 and 2005, almost 12 tonnes of caviar were reported as having been seized in the EU and Switzerland (Engler, M. and Parry-Jones, R. 2007).

More significantly, the US Congressional Research Service has also found that wildlife trade now ranks in the upper tier of the world's most lucrative illicit

economies, behind only illegal drugs and possibly human trafficking and arms trafficking (Wyler and Sheikh 2008 pp 2).

Speaking at the Partnership Meeting on Wildlife Trafficking on 8th November 2012, Hillary Rodham Clinton, U.S. Secretary of State said, "Over the past few years wildlife trafficking has become more organized, more lucrative, more widespread, and more dangerous than ever before". She also added that, by some estimates, the black market in wildlife is rivaled in size only by trade in illegal arms and drugs http://voices.nationalgeographic.com/2012/11 /08/u-s-pursues-global-strategy-to-end-trafficking-in-wildlife/.

Experts widely acknowledge the casual links between wildlife trafficking and declining biodiversity. Less well known are the economic, social and public health impacts. Illegal wildlife trade also lowers the economic value of legally traded wildlife, contributes to poverty, impairs sustainable development and undermines the rule of law (McMurrey 2009).

The threats:

Illegal wildlife trade presents several threats. These include, but may not be limited to the following:

- Illegal wildlife trade may directly contribute to the decline of some species in the wild. It may also lead to damage and/or loss of important ecosystems and habitats.
- Such illegal wildlife trade may introduce harmful, alien species that could disrupt ecosystems and affect human, animal, and plant health, causing considerable economic and environmental damage
- Illegal wildlife trade can also facilitate the entry and spread of animal borne diseases.

As the illegal trade in wildlife spirals upwards, its threats may not be limited to extinction of species and loss of habitats and ecosystems alone. The larger

social costs of such illegal activity are only now beginning to be understood and acknowledged.

In situations where the illegal wildlife trade continues, it has the potential to also undermine sustainable development and poverty alleviation objectives because it depletes the natural assets upon which rural communities depend for their livelihoods. (TOCTA East Asia Pacific, United Nations Office on Drugs and Crime UNODC-2013).

The trafficking in endangered species is a niche market attracting highly specialised organised Criminal Groups (OCGs). A perception of low risk and high profitability associated with this crime area is likely to continue to attract interest from OCGs *(SOCTA EUROPOL 2013).*

In early 2000s, the CITES Secretariat, in close collaboration with the UN Office on Drugs and Crime (UNODC) identified key indicators that clearly illustrated the involvement of organized crime in wildlife trafficking.

These include:

- Detailed planning
- Significant financial support
- Use or threat of violence
- International management of shipments
- Sophisticated forgery and alteration of permits and certifications
- Well-armed participants with the latest weapons
- Opportunity for massive profits

Illegal wildlife trade, till now generally considered a small, sporadic and often inconsequential form of crime has clearly turned the tide. In its present form, it is like any other mainstream criminal activity- well organised, well funded, ruthless and transnational. Poaching and the illicit trafficking of wildlife products are increasingly seen as severe threats to the rule of law, governance and economic development.

Given the very high profits from such illicit activities along with the relatively low probability of detection, poor conviction rates and low punishment received by those convicted, these crimes appear very attractive to professional, organized criminals. They find the wildlife trade "less risky" than other high-value black markets, including the drug trade, as while the penalties associated with wildlife crime tend to be substantially less severe, the profits could be comparable to other crimes.

Globally, such signs have been long recognised. Criminals engaged in illicit trade in tiger and bear products between the Russian Federation and China are known to have engaged with the Russian Mafia to have items smuggled across the border. It is believed that the Russian mafia controls a large part of the illegal trade in caviar.

A 2008 report of the US Congressional Research Service notes that wildlife, both legal and illegal, are also used as the means to conceal illegal drugs. It also acknowledges links of wildlife crime to other organised crime, while quoting numerous sources to indicate that organized criminal syndicates, insurgency groups, and military units are among the primary actors involved in large scale, commercial-sized wildlife trafficking.

Clearly, this aspect needs more information, analysis and study.

Chapter 2:
Objectives and Methodology of the Study

Objectives

The present study has the following objectives:

1. To analyse the general implementation of CITES in South Asia with special reference to India
2. To study the impact of CITES trade regulation and implementation on the status of trade and trade related threats with the following selected species in South Asia as indicators:
    i. Star Tortoise
    ii. Red Sanders
    iii. Tigers
3. To examine the gaps, if any in the in CITES implementation with respect to intent and outcome and the reasons thereof
4. To derive common lessons, if any to improve national engagements with MEAs like CITES

The study attempts to answer the following key questions:

1. How effective has CITES implementation been with respect to the conservation of the species in discussion?
2. What are the bottlenecks in further improving the effectiveness of such implementation?
3. What is the suggested road map for the future?
4. What are the lessons, if any for the future of CITES in a rapidly changing world?

Methodology

As a wildlife trade regulation MEA in place for over 40 years, CITES has an impressive history of documentation. These documents, most of the recent ones freely available on the CITES website, are a voluminous record of its history, expressed variously as resolutions, decisions, background information

documents, country reports, permits and reports from Secretariat or other Inter Governmental bodies and NGOs.

The CITES treaty and associated legal and policy instruments for the countries in focus for this study has also been studied and analysed.

In addition, periodical reviews of various CITES resolutions are publicly put forth by various NGOs and other interest groups, especially prior to important meetings of the CITES Conference of Parties or of its Standing Committee or the Plants and Animal committees. These again have provided a valuable reference point for the evolution of various CITES decisions through time.

TRAFFIC, the wildlife trade monitoring network regularly provides research on various aspects of wildlife trade, including on CITES listed species. Its relevant reports have also been studied.

In addition, several researchers have also carried out valuable studies on various aspects related to CITES implementation. (see Hemley 1994, Jain 2001, Reeve 2014, Sheikh et al 2005, Aryal 2009).

All these comprise a valuable record of the history of the evolution of CITES and constitute a valuable reference tool for this study.

A large amount of information is also available from the national CITES Management authorities, NGOs and in public documents including newspaper and web reports on the trade in tiger parts and derivatives, Red sanders and star tortoise. These have also been studied.

The CITES Trade Database, managed by the UNEP World Conservation Monitoring Centre (UNEP- WCMC) on behalf of the CITES Secretariat, is unique. It currently holds over 15 million records of trade in wildlife and also over 34,000 scientific names of various taxa which are listed in the CITES Appendices. Around a million records of trade in CITES-listed species of wildlife are currently reported annually and these data are entered into the

CITES Trade Database as soon as they are received by UNEP-WCMC.(CITES 2017). As such, this database comprises an extremely valuable resource for this study.

All these and any other relevant documents and publications have been studied in detail to analyse the trends in illegal trade in the selected species across South Asia. These trends have been evaluated along with the changes in CITES policy and implementation measures across a corresponding time scale to try and decipher probable correlations.

Measuring Effectiveness:

Regime effectiveness has been described as a "puzzle" (Young 2001). The effectiveness of environmental regimes is a growing concern for students both in the fields of international relations and environmental policy. International relations analysts are interested in how cooperation between sovereign states can be enhanced in order to solve problems that exceed national boundaries (Hisschemöller, M., & Gupta, J. 1999). While the concept of "regime effectiveness" widely varies across students of political science, law, social science and conservation biology, amongst others, in an ideal world, however, all of these conceptualizations should honour the following minimal requirements:

(1) focused, conceptual definition;

(2) ease of operational measurement;

(3) comparability across time and issue areas; and

(4) the ability for aggregate (regime-wide) performance measures as well as disaggregated (country-level) measures to be taken in a nested way (Sprinz, D. F., & Helm, C. 1999).

Table 1: A configuration of scores for an Effective Environmental Regime (Adapted from Miles et al ,2002)

Serial	Independent Variable	Hypothesised Score
1	Type of Problem	Predominantly benign
		State of Knowledge : Good
		General Public Awareness: Good
2	Problem Solving Capacity	High, as indicated by
		*Clear and transparent rules for decision making
		*Clear and capable institutional framework
		*Review and monitoring process for compliance
3	Political Context	Favourable, as indicated by
		*Large membership
		*Linkages with other, similar problems
		*Clear incentives for cooperation

MEAs dealing with climate change and reduction in Green House Gases have been widely studied on this account. Global concerns about rising emissions of ozone-depleting substances such as halons and chlorofluorocarbons (CFCs) causing damage to the Ozone layer led to the 1985 Vienna Convention for the Protection of the Ozone Layer and the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer. Following the establishment of this regime, emissions of these chemicals have declined, in some cases dramatically (Young 2001). Increasing concern about the greenhouse effect led to the negotiation of the 1992 UN Framework Convention on Climate Change (UNFCCC) designed to stabilize GHG concentrations in the atmosphere at levels that are not dangerous. Despite further institutional developments such as the 1997 Kyoto Protocol to the UNFCCC, the world has seen a rise in emissions of GHGs across both the developing and the developed world.

It is believed that forces other than the international regimes established to address these problems caused both the decline in emissions of ozone-

depleting substances and reductions in some forms of transboundary air pollution. It may also be that emissions of GHGs would have risen more rapidly in the absence of the regime established under the terms of the UNFCCC (Young 2001).

The above example only highlights the challenge faced while attempting to evaluate effectiveness of MEAs. It is widely accepted that regimes vary considerably in their effectiveness and that some are notably ineffective (Young, 1999; Martin, L., & Rittberger, V. 1991, Underdal, A. 1992, Haas, Keohane & Levy 1993; Young, 1994; Sprinz & Helm, 1999; Young & Levy, 1999; Miles et al., 2001; Helm & Sprinz, 2000). While there is little consensus about what effectiveness means and how to measure it, it is generally agreed that effectiveness should be judged relative to a regime's impact on the problem it sets out to deal with (Young & Levy, 1999; Young, 1999: 108-133; Miles et al., 2001: 4-13).

As Haas et al. (1993) articulated "Is the quality of the environment or resource better because of the institution?"

The key question that emerges is thus, "How can we effectively measure the observed changes in the targeted variables, if any following the establishment of an MEA that can be directly attributed to the establishment of such regime?"

Adding further twist to the tale is the view that, change per se is not necessarily a sufficient measurement of effectiveness (Kutting G. in Frantzi, Carter & Lovett 2009). Recently there has been an attempt to introduce the concept of environmental effectiveness when studying environmental regimes by distinguishing effectiveness as seen in institutional terms from that of accounting for improved environmental quality. Thus, the new "focus on observable political effects of institutions rather than directly on environmental impact."

For CITES, the question can be expressed as how can we effectively measure if the listing of a species under the convention and subsequent affirmative action has effectively reduced or stopped its march towards extinction?

Looking whichever way, the question is further complicated by the fact that CITES does not operate in isolation. Its effectiveness is also in part attributable to similar success on part of several other linked MEAs such as the CBD, IWC, ITTO etc.

Clearly, such questions are not easy to address and present significant methodological challenges.

There are two clear patterns to this. In one way, this aims to assess how much of what happens in the wake of regime formation would not have occurred in the absence of the regimes created. Another involves devising an index or indices that can be used to measure empirically the performance of individual regimes. The simple "cause and effect" measurement would be ideal here, if only if was simple to measure. Nonetheless, the development of a well-defined measure of regime performance that can be employed in a manner that makes it possible to compare and contrast the performance of different regimes (or individual regimes at different stages in their lives) in a meaningful fashion would go far toward alleviating a major barrier to the development of cumulative knowledge regarding the effectiveness of international environmental regimes (Young 2001).

Environmental regimes operate in complex settings. A variety of demographic, economic, political, social, and technological forces—not to mention bio-geophysical drivers—are in operation at the same time (Young 2001). Thus, for many of the climate change related MEAs, major economic and political imbalances between the advanced industrial countries and other developing countries are a very significant factor. Thus, it can be easy to be overwhelmed by the multiple linkages, some direct most not so that influence effectiveness.

However, a beginning has to be made somewhere. Accordingly, the first step to assess the causal significance of environmental regimes may be to begin by making an effort to document changes in key variables occurring in the wake of

regime formation, without worrying initially about causal relationships between the regimes and the changes in question.

These features of the research environment have obvious implications for efforts to broaden and deepen our understanding of regime effectiveness. They make it difficult and sometimes impossible to employ various techniques of statistical inference that constitute standard elements in the tool kit available to those working in other fields of empirical research. They also limit our ability to isolate the significance of specific factors (e.g. problem type) by holding other factors constant and varying the factor of interest in a controlled manner. These are serious constraints. For CITES, this could include changes in a number of targets of interest and patterns of behavior (e.g. changes in the actions of various groups of source and consumers that can be directly and significantly attributed as response to various actions agreed upon in the timescale of the Convention.

One helpful procedure in this connection is to take a series of snapshots regarding the status of target variables at regular intervals (once a year, every fifth year, and so forth) following the point of regime formation (or, for that matter, following watershed events in the life of a single regime). This procedure can yield a clear picture of the range or domain of potential regime effects.

The task before us then is the conceptually clear but analytically difficult one of determining the proportion of the documented changes in the target variable(s) that can be attributed in a convincing manner to the operation of the regime(s).

One of the more common methods of measuring such effectiveness has been to employ the opinion of "experts"(For example see Post, G., & Pandav, B. 2013). This generally employs a questionnaire method to seek the opinion of acknowledged subject matter specialists and apply statistical tools to their responses. The use of such methods is widely employed, (eg see Management Effectiveness Assessment of Tiger Reserves, NTCA 2015). In principle, therefore, it is possible to imagine the use of experts to rank the effectiveness of an MEA like CITES on at least a basic level.

Yet for the purposes of this study, this methodology has not been adopted. There is strong argument for this. Firstly, in a complex relationship that CITES exemplifies, the very notion of an "expert" becomes complex. Thus, would wildlife biologists qualify, or would regime managers such as Scientific and Management authorities also be equally eligible to pass their judgment on this? Also, would the views of lawyers and social scientists count? How are they likely to be selected and how are biases, if any, to be eliminated? How are their differences in perception- for we are asking of perceptions here- to be reconciled? Will there be any standard procedure-scientifically validated- to be used to arrive at such perceptions? Secondly, the role of a well structured questionnaire cannot be overemphasised in this situation. Thirdly, and perhaps most crucial, there is a lack of long term actors at least on the national levels who have had a continued association with the implementation of the Convention. Thus, in effect a globally acknowledged tiger expert may not necessarily be an appropriate person to offer insight on the role and impact of the CITES Convention in conserving tigers.

While in no way an adverse comment on the utility of such expert opinion driven analysis for certain situations, it is my contention that in the case of a complex, large MEA like CITES, the use of such methodology is inadequate and suspect.

Having rejected what is a much tread ground in such studies, we come to the key question of attempting to measure CITES effectiveness. Given the broad, global framework of CITES, while there are valuable lessons to be learnt from various models of measuring effectiveness of environmental regimes, no model by itself translates itself completely and rigorously to address this. As such, one has attempted to propose an entirely new set of parameters taking into account various local, regional and global factors to establish a scientific and precise way to measure CITES effectiveness in India and South Asia. It would be pertinent to point out here that much of what follows is new ground, without much parallel on wildlife issues but at the same time draws heavily from work on other environmental regimes especially those dealing with climate change.

The Wildlife and Forest Crime Analytic Toolkit recently developed by the United Nations Office on Drugs and Crime (UNODC) serves as a pointer where a set of questions aims to help users to conduct a comprehensive analysis of various institutional efforts to protect wildlife and forests and thereby also identify technical assistance needs, if any. It aims to analyse the administrative, preventive and criminal justice response to wildlife and forest crime and other related offences in a given country (UNODC 2012). However, the toolkit is more than a set of checklists with questions to be ticked but also aims to appreciate differences and acknowledge similarities.

The following methodology has been used in this study:

Indicator Species:

CITES operates across nearly 35,000 species. As such, it would be almost impossible to carry out an analysis of effectiveness across the whole spectrum of species listed under CITES. Also, the regime is likely to be more effective for certain species or groups of species as opposed to certain others, for a variety of factors such as but not limited to demand-supply equations and the biology of the species. Thus, a small number of indicator species have been identified to help negotiate this maze, comprehensively using them as "markers", documenting and analyzing the implementation of the treaty as exhibited by the fate of these species in trade. Given that species with different biological parameters, occupying diverse ecological niches may respond differently to poaching and opportunistic removal from the wild, it is important to calibrate enforcement responses that adequately take into account such specific requirements rather than propagating a "*One Size Fits All*" approach.

The choice of species is based on a variety of factors including:

1. Endemic or major part of its population confined to South Asia
2. Long term presence in CITES. (~20 years)
3. Considerable conservation attention on a global basis
4. Representing diverse groups of species
5. Significantly affected by global trade

Accordingly, this study has attempted to evaluate CITES effectiveness in South Asia through the following indicator species:

i. Star Tortoise
ii. Red Sanders
iii. Tigers

While the choice of species may be considered subjective, I believe these very effectively met the criterion as established before and were best suited for a study of this nature.

Global Institutional Framework:

This has taken into account the institutional framework and response of the CITES mechanism to various trade related challenges to the indicator species as above. Thus, the attention or focus given to the species as expressed through various CITES tools including resolutions, decisions, notifications, reports and the like have been evaluated and included Significant Trade Reviews, Non-detriment findings and Missions, wherever carried out.

National and Regional Institutional Framework:

The legal, policy and institutional framework at the national and regional level in South Asia to address the trade related threats to the conservation of the indicator species have been studied.

Compliance Framework:

Somewhat of an overlap with the above two, an attempt has been made to measure the level of compliance amongst nations/member states/parties towards CITES decisions. This has been done by matching specific CITES decisions with country responses, if any and also, analyses of information provided by countries as part of their Annual CITES reports, various other reports, customs data and studies and documents published by Government and Non Governmental sources. In addition, data on key seizures, trade data, trends if any, timelines, hotspots, change in approaches in law and policy to address such threats to the species and other related aspects as a measure of controls working or not has also been used in this study.

These include the following:

a) Annual reports

b) Biannual reports

c) Decision Compliance

d) National legislation Project

For the 3 target species, the following data has been compiled and analysed.

a) Ecology of the species including distribution, population, trends

b) Data on levels of Legal and Illegal Trade

c) Global Trade Flows

d) CITES Response

All the above have provided a level of detail to enable an analysis of CITES effectiveness for this study.

Chapter 3:
The Evolution and Role of Multilateral Environmental Agreements (MEAs) for Natural Resource Conservation

Till recently, environmental affairs were considered not important or significant enough for the high table of international diplomacy. The UN Conference on the Human Environment (UNCHE) organised in Stockholm in 1972 was the first world conference on the environment ever and in this sense a trail blazer as it placed such concerns at the forefront of global attention.

In the same year, the United Nations Environment Programme (UNEP) was established. The UNEP has been described as "the voice for the environment within the United Nations system", It is considered to be a catalyst, advocate, educator and facilitator to promote the wise use and sustainable development of the global environment. (http://www.unep.org/About/ accessed on 25th September 2013). The *United Nations Environment Assembly (UNEA)* is the UNEP's main governing body with universal membership. It was re-designated in March 2013 from a 58-member *Governing Council to* reflect the full and future participation of all 193 UN member states in UNEP.

Since then, several global conferences on various environmental and sustainable development issues have been held from time to time. These include the United Nations Conference on Environment and Development in Rio de Janeiro, in 1992, also known as the Rio Earth Summit, the United Nations World Summit on Sustainable Development (WSSD), also known as Earth Summit II or Rio +10, in Johannesburg, South Africa in 2002 and the United Nations Conference on Sustainable Development (UNCSD), also known as the Rio+20 Conference in Brazil in June 2012.

This series of world conferences and the mission of UNEP form two components of a system that is commonly referred to as *global environmental governance*. Yet its third and most predominant component is the fast and ever expanding grid of *Multilateral Environmental Agreements (MEAs)*, a multitude

of inter-state treaties and conventions of either regional or global scope (Desai 2006).

The fundamental principle of international law is *pacta sunt servanda* ("agreements must be observed") (UNEP 2006).

An International Environmental Agreement (IEA) is defined as "an intergovernmental document intended as legally binding with a primary stated purpose of preventing or managing human impacts on natural resources" (Mitchell 2017).

The 1969 Vienna Convention on the Law of Treaties' defines a treaty as "an international agreement concluded between States in written form and governed by international law" in which states express a "consent to be bound" [Articles 2(1)(a) and 11 through 17].

http://treaties.un.org/doc/Treaties/1980/01/19800127%2000-52%20AM/Ch_XXIII_01p.pdf (accessed on 26th Sept 2013).

The willful "consent to be bound" is considered the most crucial component of such agreements.

The term agreement as used above closely corresponds to this definition of "treaty".

Agreements are the documentation of legally binding arrangements among two or more states, regardless of whether they are designated as treaties, conventions, accords, or modifications of such arrangements (Aust A. 2000).

Agreements are identified to include:

- instruments which may be designated as convention, treaty, agreement, accord, or their non-English equivalents, and protocols and amendments to such instruments;
- instruments, regardless of designation, establishing intergovernmental commissions;

- instruments, regardless of designation, identified as binding by reliable sources (e.g., by a secretariat, UNEP, or published legal analysis); or
- instruments, regardless of designation, whose texts fit accepted terminologies of legally-binding agreements (after Mitchell 2017)

A Multilateral Environmental Agreement (MEA) is a legally binding agreement between two or more countries containing commitments to meet specific environment-related objectives (Bowling 2008).

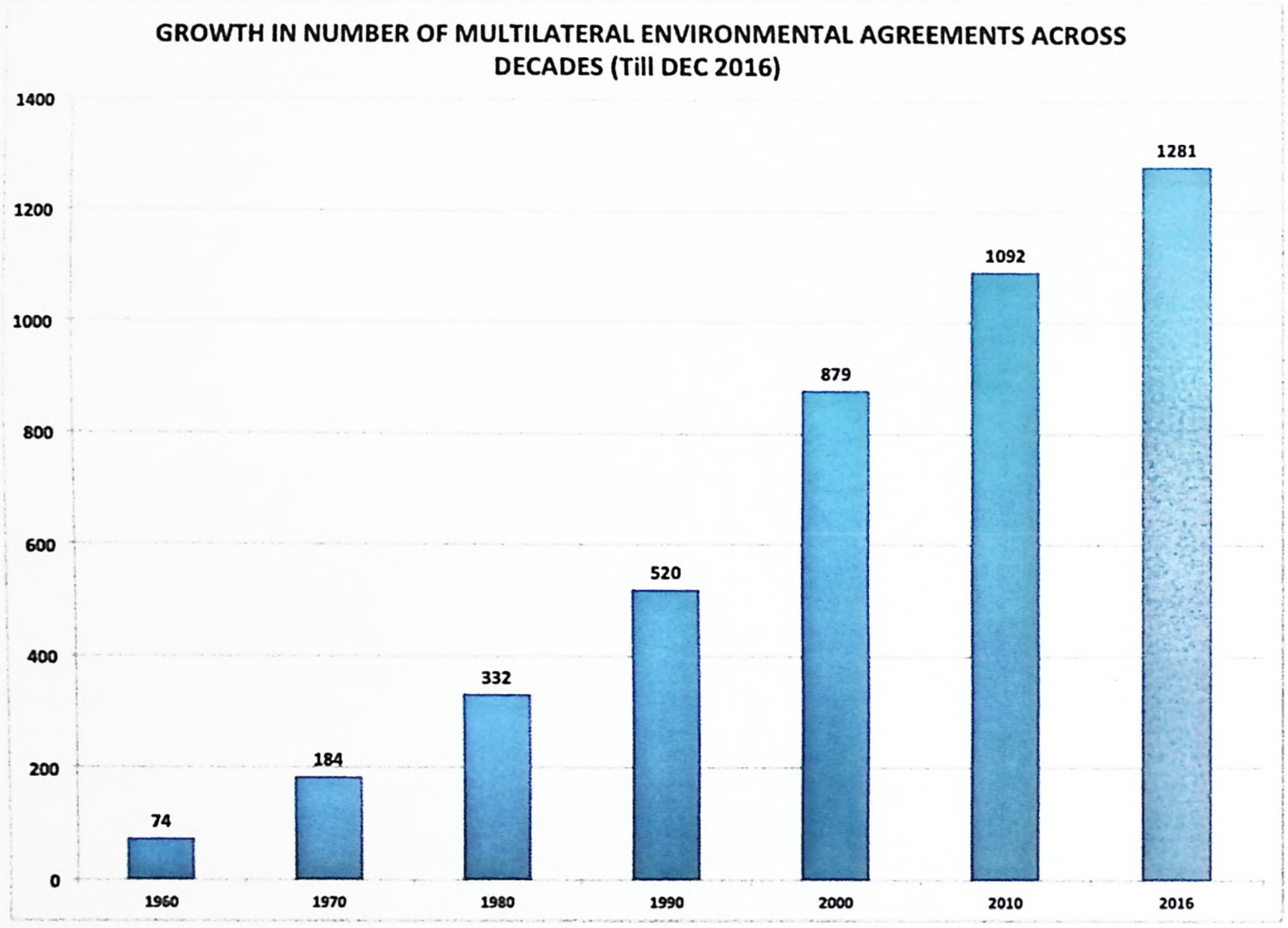
Multilateral Environmental Agreements (MEAs) have emerged as a unique technique containing flexibility, pragmatism, in-built law making mechanism as well as a consensual approach to norm-setting. They have also been regarded as part of a broader trend of an *"increasingly more complex web of international treaties, conventions, and agreements"* (Desai 2010).

The world has currently a very large number of multi country environmental agreements and non-instruments in place. These include:

i. 1598 Bilateral Environmental Agreements
ii. 1281 Multilateral Environmental Agreements
iii. 248 Other (non-multi, non-bi) Environmental Agreements
iv. 210 Bilateral Environmental Non-binding Instruments (non-agreements)
v. 239 Multilateral Environmental Non-binding Instruments (non-agreements)
vi. 98 Other (non-multi, non-bi) Environmental Non-binding Instruments (non-agreements)

(Mitchell. 2017)

Table 2:



** Data from Ronald B. Mitchell. 2002-2017. *International Environmental Agreements Database Project (Version 2017.1)* Available at: http://iea.uoregon.edu/. Date accessed: 25 January 2017).

In that sense, Multilateral Environmental Agreements are seen as a relatively recent tool for Biodiversity Conservation. In the international law making process, Multilateral Environmental Agreements (MEAs) have emerged as the "predominant legal method for addressing environmental problems that cross national boundaries" (Harvard Law Review 1991:1521). Such cooperation amongst nation states is seen as based upon 'shared sovereignties' and a useful tool to address such concerns that are beyond political boundaries. While it is well recognized that the legal underpinnings of the current drive to protect the global environment remain embedded in the general principles of

international law, states are increasingly reliant upon treaty law, in the form of multilateral environmental agreements (MEAs), to respond to new and complex challenges as they arise (Desai 2003).

Multilateral environmental agreements guide global, regional and national action on environmental issues and are a result of multilateral processes, which makes them key elements of environmental, legal and governance regimes. Scholars and practitioners also refer to them as "soft laws" to indicate the nature of the instruments and compliance issues related to them. (Pisupati 2016).

The adoption of these instruments is only the beginning of a process: full implementation of their provisions is vital to ensure their effectiveness. While setting out to efficiently combat environmental degradation, alleviate poverty, and enhance intra- as well as inter-generational equity embedded in the concept of sustainable development, there is wide concern, within international diplomatic circles, that MEAs have not lived up to their promises; that they are not fully complied with nor enforced; or are inadequately implemented. These shortcomings are one of the leading causes for the continued degradation of the environment (UNEP 2006).

Desai (2006) has pointed to the growth of functional international organisations (specialised agencies), functional commissions and regional commissions as well other programmes within the UN system providing living testimony to the craving for *institutionalisation* of international cooperation.

The roles of the UN General Assembly and that of UNEP merit special attention here. As a plenary organ of the United Nations, the General Assembly has provided crucial guidance to the whole process, acting as a 'conductor of a grand orchestra' that provides political guidance to States, notwithstanding the inbuilt Charter limitation that it can only make 'recommendations' through its resolutions (Desai 2006).

UNEP as a subsidiary organ of the UN has played an important role in this process. Institutionally, UNEP is simply a programme of the UN General Assembly. While it does not have the legal status of an independent international organisation, it does not appear to have deprived this UN body of some measure of international legal personality (Desai 2006).
In UNEPs Annual Report for 2012, the UN Secretary General mentions the collective desire of world leaders to "strengthen the institutional framework for sustainable development, including reinforcing UNEP as the leading global environmental authority.

It is here that the now globally acknowledged concept of 'implied power' comes into play. This simply means that while states may try and to put most things in the written form for maximum clarity, certain things even if not explicitly clarified in the constituent instrument can be presumed, if they are essential for its raison d'être. This has also been affirmed by the International Court of Justice (ICJ) in the Reparations case in this much-quoted passage: "Under international law, the Organization must be deemed to have those powers which, though not expressly provided in the Charter, are conferred upon it by necessary implication as being essential to the performance of its duties. This principle of law was applied by the Permanent Court of International Justice to the International Labour Organization in its Advisory Opinion No. 13 of July 23rd, [p183] 1926 (Series B., No. 13, p. 18), and must be applied to the United Nations."

Further, the ICJ added, " In the opinion of the Court, the Organization was intended to exercise and enjoy, and is in fact exercising and enjoying, functions and rights which can only be explained on the basis of the possession of a large measure of international personality and the capacity to operate upon an international plane. It is at present the supreme type of international organization, and it could not carry out the intentions of its founders if it was devoid of international personality. It must be acknowledged that its Members, by entrusting certain functions to it, with the attendant duties and responsibilities, have clothed it with the competence required to enable those

functions to be effectively discharged. Accordingly, the Court has come to the conclusion that the Organization is an international person." (Advisory opinion of the International Court of Justice (ICJ), 11 April 1949).

This needs to be emphasised as at several stages, various MEAs- CITES included- seem to have made liberal use of these principles to enhance their objectives.

Compliance mechanisms in Multilateral Environmental Agreements.

It is to be understood that Multilateral Environmental Agreements (MEAs), of which CITES is one, are multilateral treaties and as such they are subject to the 1969 Vienna Convention on the Law of Treaties (Goeteyn and Maes (2011).

Any such MEA is expected to provide a mechanism to resolve any disagreement or dispute amongst parties. This may include consultation, negotiation, arbitration and/or judicial review or a reference to the International Court of Justice. If a treaty does not provide a specific dispute resolution mechanism, article 66 of the Vienna Convention 1969 may apply.

This reads as follows:

Article 66, PROCEDURES FOR JUDICIAL SETTLEMENT, ARBITRATION AND CONCILIATION

If, under paragraph 3 of article 65, no solution has been reached within a period of twelve months following the date on which the objection was raised, the following procedures shall be followed:

(a) Any one of the parties to a dispute concerning the application or the interpretation of article 53 or 64 may, by a written application, submit it to the International Court of Justice for a decision unless the parties by common consent agree to submit the dispute to arbitration;

(b) Any one of the parties to a dispute concerning the application or the

interpretation of any of the other articles in Part V of the present Convention may set in motion the procedure specified in the Annex to the Convention by submitting a request to that effect to the Secretary-General of the United Nations (United Nations 1980).

Some Important Definitions in International Environmental law

The Guidelines on Compliance with and Enforcement of Multilateral Environmental Agreements (UNEP 2002) offer the following definitions:

"Compliance" means the fulfilment by the contracting parties of their obligations under a multilateral environmental agreement and any amendments to the multilateral environmental agreement; (International context).

"Compliance" means the state of conformity with obligations, imposed by a State, its competent authorities and agencies on the regulated community, whether directly or through conditions and requirements in permits, licences and authorizations, in implementing multilateral environmental agreements; (National context).

"Implementation" refers to, inter alia, all relevant laws, regulations, policies, and other measures and initiatives, that contracting parties adopt and/or take to meet their obligations under a multilateral environmental agreement and its amendments, if any.

"Enforcement" means the range of procedures and actions employed by a State, its competent authorities and agencies to ensure that organizations or persons, potentially failing to comply with environmental laws or regulations implementing multilateral environmental agreements, can be brought or returned into compliance and/or punished through civil, administrative or criminal action. (UNEP 2001).

The compliance mechanism under a Multilateral Environmental Agreement could comprise of one or more of the following:

1) An obligation on member states/parties to provide periodic reports on predetermined parameters

2) A framework for verification of such information.

3) Evaluation of such reports in a time bound and transparent manner

4) Assessment of such information on well established criteria to identify possible instances of non-compliance or "defaulters"

5) Costs (including corrective measures wherever applicable) of non compliance to be imposed in case of such non compliance

6) Institutional framework for review and/or resolution of disputes, if any.

A compliance mechanism in an MEA can therefore be described as a body of procedures, ranging from the gathering of information, consideration of the information provided, the causes and degree of non-compliance and the decision-making by the COP, MOP or a specifically designed and designated Compliance Committee with regard to a Party to the treaty that encounters difficulties in meeting the treaty requirements (Goeteyn and Maes 2011).

Chapter 4:

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

An overview of CITES

CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival (CITES 2017 at https://cites.org/eng/disc/what.php).

While many countries have had in place legislations, and regulations to protect species and habitats, it was perhaps in the 1950s that for the first time it was perceived that increasing wildlife trade and uncontrolled exploitation of species was leading to significant reductions of wildlife populations (Huxley in Curlier et al in Miles ed. 2002, pp 358).

The origins of CITES lie in a resolution adopted in 1963 at the General Assembly of the International Union for Conservation of Nature and Natural Resources (IUCN), now The World Conservation Union. This resolution called for "an international convention" on regulation of export, transit and import of rare or threatened wildlife species or their skins and trophies (Reeve 2007).

It is important to emphasise the deliberate choice of the word "regulate" in the very first draft of the resolution, as against "ban" or "prohibit".

Subsequent draft texts were circulated and revised in 1969 and 1971 by the IUCN International Law Centre, keeping into account the comments received from governments and non-governmental organisations (NGOs).

The convention went through six drafts before the final text was agreed upon. It is interesting to note that the word "trade" first appeared only in the fifth draft (Curlier et al in Miles ed. 2002).

In the meantime, the USA had put in place a prohibition on the import of wildlife threatened with worldwide extinction, except for scientific or breeding purposes, under the provisions of the Endangered Species Conservation Act, 1969. For US traders, this was a situation of competitive disadvantage, which led to greater efforts to seek global consensus on a international convention on this theme (Reeve 2007).

The text of the Convention was finally agreed at a meeting of representatives of 80 countries in Washington, D.C., the United States of America, on 3 March 1973. Article XII of the Convention states "the present Convention shall enter into force 90 days after the date of deposit of the tenth instrument of ratification, acceptance, approval or accession, with the Depositary Government". With this stipulation being met, CITES entered in force on 1 July 1975. The original of the Convention was deposited with the Depositary Government in the Chinese, English, French, Russian and Spanish languages, each version being equally authentic.

CITES is an international agreement to which States (countries) adhere voluntarily. States that have agreed to be bound by the Convention ('joined' CITES) are known as Parties.

For many years CITES has been among the conservation agreements with the largest membership, with currently 183 Parties.
(http://www.cites.org/eng/disc/parties/index.php accessed on 23rd Oct 2017).

CITES Appendices

Roughly 5,600 species of animals and 30,000 species of plants are protected by CITES against over-exploitation through international trade. The species are grouped in the Appendices according to how threatened they are by international trade. They include some whole groups, such as primates, cetaceans (whales, dolphins and porpoises), sea turtles, parrots, corals, cacti and orchids. However, in some cases only a subspecies or geographically separate population of a species (for example the population of just one country) is listed (CITES 2017).

Export or import of all CITES listed species and their derivatives is regulated by a system of permits.

Appendix I include all species threatened with extinction which are or may be affected by trade. Trade in specimens of these species must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances.

A permit for the export of any specimen of a species included in Appendix I shall only be granted when:

(a) a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species;

(b) a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora;

(c) a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment; and

(d) a Management Authority of the State of export is satisfied that an import permit has been granted for the specimen.

Similarly, a permit for the import of any specimen of a species included in Appendix I shall only be granted when the following conditions have been met:

(a) a Scientific Authority of the State of import has advised that the import will be for purposes which are not detrimental to the survival of the species involved;

(b) a Scientific Authority of the State of import is satisfied that the proposed recipient of a living specimen is suitably equipped to house and care for it; and

(c) a Management Authority of the State of import is satisfied that the specimen is not to be used for primarily commercial purposes.

(Article III of the Convention)

Bulk of the species listed under CITES are in Appendix II. This includes all species which although 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 utilization incompatible with their survival; and other species which must be subject to regulation in order that trade in specimens of certain species referred to as above may be brought under effective control.

All trade in specimens of species included in Appendix II require an export or import permit. According to CITES an export permit shall be granted only subject to the following conditions being met:

(a) a Scientific Authority of the State of export has advised that such export shall not be detrimental to the survival of that species;

(b) a Management Authority of the State of export has satisfied himself that the specimen has not been obtained in contravention of the laws of that State for the protection of fauna and flora; and

(c) a Management Authority of the State of export has satisfied himself that any such living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.

The import of any specimen of a species included in Appendix II is similarly governed by the requirement of either an export permit or a re-export certificate.

(Article IV of the Convention)

Appendix III shall include all species which any Party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the co-operation of other Parties in the control of trade.

(Article II (3) of the Convention)

Thus, species can be listed unilaterally by parties in Appendix III for regulation within their territories.

The table below shows the number of species that are included in the CITES Appendices (http://www.cites.org/eng/disc/species.php accessed on 25th January 2017).

Table 3: Species in CITES

	Appendix I	**Appendix II**	**Appendix III**
FAUNA			
Mammals	300 spp. (incl. 11 popns) + 23 spp. (incl. 3 popns)	501 spp. (incl. 16 popns) + 7 spp. (incl. 2 popns)	45 spp. + 10 spp.
Birds	154 spp. (incl. 2 popns) + 10 spp.	1278 spp. (incl. 1 popn) + 3 spp.	25 spp.
Reptiles	80 spp. (incl. 8 popns) + 5 spp.	673 spp. (incl. 6 popns)	40 spp.
Amphibians	17 spp.	126 spp.	3 spp.
Fish	16 spp.	87 spp.	-
Invertebrates	63 spp. + 5 spp.	2162 spp. + 1 spp.	22 spp. + 3 spp.
FAUNA TOTAL	**630 spp. + 43 spp.**	**4827 spp. + 11 spp**	**135 spp. + 13 spp.**
FLORA	301 spp. + 4 spp.	29592 spp. (incl. 162 popns)	12 spp. (incl. 2 popns) + 1 var.
GRAND TOTAL	**931 spp. + 47 spp.**	**34419 spp. + 11 spp.**	**147 spp. + 13 spp. + 1 var.**

From policy to implementation:

Management and Scientific Authorities:

According to Article IX of the text of the Convention, it is stated that each Party shall designate one or more Management Authorities competent to grant permits or certificates on behalf of that Party; and one or more Scientific Authorities.

Management and Scientific Authorities have been designated specific roles in the scheme of things to ensure that the objectives of CITES are met. Thus, a Scientific Authority is generally required to verify that such export or import will not be detrimental to the survival of that species. The role of the Scientific Authority is thus, embedded into a scientific evaluation of facts related to the ecological attributes of the species in question.

The Management Authority is entrusted with the responsibility of issuing permits or certificates and is thus fulfilling the actual administrative role of regulating export and import under the provisions of the Convention. The Management Authority is exercised with the task of carrying out due diligence to be satisfied that specimens for import and export were not obtained in contravention of any laws in force in that state for the protection of fauna and flora.

Thus, for export and import in species of Appendix I, the Scientific Authority of the State of import has also to be satisfied that the proposed recipient of a living specimen has the necessary infrastructure to house and care for it;

Also, the Management Authority of the State of import has to satisfy himself that the specimen is not to be used for primarily commercial purposes.

In cases involving introduction from the sea of any specimen of a species included in Appendix I, the Management Authority is also expected to perform a role otherwise given to the Scientific Authority.

a) a Scientific Authority of the State of introduction has to provide a considered opinion that the introduction will not be detrimental to the survival of the species involved;

b) a Management Authority of the State of introduction has to be satisfied that *the proposed recipient of a living specimen is suitably equipped to house and care for it*; and also that the specimen will not be used for primarily commercial purposes.

It is also to be noted here that while the role of the Scientific Authority is largely "to advice' as per the articles of the Convention, the final decision making rests with the Management Authority who is authorised to issue permits and certificates.

For export of Appendix II specimens, a Management Authority of the State of export is also to be satisfied that any living specimen will be so prepared and shipped so as to minimize any possible risk of injury, damage to health or cruel treatment. (Article IV c)

(Article III, IV & V of the Convention)

Compliance Mechanisms:

Although CITES is legally binding on the Parties, it is different from other MEAs in that it does not does not take the place of national laws. The convention does not have any specific treaty article mandating enforcement of the Convention along a particular set of procedures. The Convention provides a framework to be respected by each Party, which has to adopt its own domestic legislation to ensure that CITES is implemented at the national level.

Thus, Article VIII provides that Parties shall take appropriate measures to enforce the provisions of the present Convention and to prohibit trade in specimens in violation thereof.

These shall include measures:

(a) to penalize trade in, or possession of, such specimens, or both; and

(b) to also provide for the confiscation or return to the State of export of such specimens.

Underlining its support for facilitating legal trade, this also provides that, "As far as possible, the Parties shall ensure that specimens shall pass through any formalities required for trade with a minimum of delay." Article VIII(3).

By the above, CITES reinforces its recognition of the fact that people and States are and should be the best protectors of their own wild fauna and flora and that of national sovereignty over natural resources. Instead, its compliance

system has evolved through resolutions and decisions of the Conference of Parties and practice over four decades on the basis of broad provisions in treaty articles (Reeve 2007).

Record keeping; Annual & Biennial Reports:

Article VII (6) of the Convention states that each Party shall maintain records of trade in specimens of species included in Appendices I, II and III which shall cover:

(a) the names and addresses of exporters and importers; and

(b) details including the number and type of permits and certificates granted; the States with which such trade occurred; the numbers or quantities and types of specimens, names of species as included in Appendices I, II and III and, where applicable, the size and sex of the specimens in question.

Article VII (7) of the Convention further states that each Party shall prepare periodic reports on its implementation of the present Convention and shall transmit to the Secretariat:

(a) an annual report containing a summary of the information specified in sub-paragraph (b) of paragraph 6 of this Article; and

(b) a biennial report on various measures including legislative, regulatory and administrative, taken to enforce the provisions of the present Convention.

It also provides that the information referred to as above shall be available to the public where this is not inconsistent with the law of the Party concerned.

Annual Reports

In several countries, these annual reports constitute an importanat part of various outputs from a national information management system that records and tracks such daily trade-related and other activities undertaken by CITES authorities. Such record-keeping and reports assist national policy-makers in

defining, implementing and assessing their wildlife management and trade policies.

In order to have consistency in reporting and to facilitate easy computerisation, collation, comparison and analysis, CITES has laid down detailed guidelines for the preparation and submission of CITES annual reports These were prepared by the Secretariat in accordance with Resolution Conf. 11.17 (Rev. CoP13) and were approved by the Standing Committee.

Thus, countries and entities in CITES reports are designated in accordance with the International Standard Codes for the representation of names of countries published by the International Organization for Standardization (ISO). Out-of-date names of countries and territories are retained for purposes of recording re-exports of specimens originating in those places. The ISO list is based on the list included in the United Nations Standard Country or Area Code for Statistical Use established by the Statistical Office of the United Nations.

These reports aim to encourage Parties to present information in a standard form, with two main objectives:

- to enable monitoring of the extent of world trade in each species included in the CITES Appendices and the identification of potentially harmful trade; and
- to enable monitoring of the implementation of the Convention and the detection of potentially illicit trade.

Each annual report should cover the period 1 January to 31 December and be prepared in any one of the three working languages of the Convention, i.e. English, French or Spanish. Annual reports should be submitted to the Secretariat before 31 October of the year following the year to which they relate. In accordance with Resolution Conf. 11.17 (Rev. CoP13), the Secretariat may approve a valid request from a Party for a reasonable extension of time to the 31 October deadline provided that the Party submits to

the Secretariat a written request, containing adequate justification before that deadline.

CITES Biennial Reports

CITES Notification No. 2005/35 of 6 July 2005 lays down a format for submission of biennial reports.

The biennial report format includes five parts as follows:

A. General information;

B. Legislative and regulatory measures: related to adoption and review of laws and regulations;

C. Various compliance and enforcement measures: related to compliance monitoring as well as administrative, civil or criminal enforcement;

D. Administrative measures: related to the structure and activities of CITES authorities; and

E. General feedback.

Biennial reports serve as an opportunity for Parties to share information regarding their overall implementation of the Convention, including their progress in the development and application of laws and regulations, administrative procedures, economic and social incentives and wildlife trade policies. Such reports may also contain information related to national compliance and enforcement efforts such as awareness-raising, training, monitoring, inspections, investigations, seizures, confiscations, prosecutions, convictions, penalties, court decisions, etc..

At the national level, biennial reports serve as a tool for self-assessment through which Parties can identify achievements, significant developments or trends, gaps or problems and possible solutions. At the international level, the comparison and synthesis of information in biennial reports can support substantive and procedural decision-making by the Conference of the Parties

and various subsidiary bodies. (CITES http://www.cites.org/eng/resources/reports.shtml (accessed on 10th Sept 2013).

It is significant to note here that Resolution Conf. 11.17 (Rev. CoP13) clearly recognises the importance of the annual reports and biennial reports as the only available means of monitoring the implementation of the Convention and the level of international trade in specimens of species included in the Appendices;

Article XI (d) of the Convention further provides that at meetings, whether regular or extraordinary, the Parties shall review the implementation of the present Convention and may receive and consider any reports that are presented before them by the Secretariat or by any Party; and where appropriate, make recommendations for improving the effectiveness of the present Convention.

This is in effect the cornerstone of the compliance and control mechanism under CITES, driven primarily by an obligation to Parties to submit annual and biennial reports as above and of various forums under CITES to evaluate such reports and make appropriate recommendations.

This periodic report based model of compliance under CITES also effectively translates into a huge volume of information available in the public domain on the working of the Convention. These records also constitute the primary source of information for this study.

Institutional Mechanisms for Monitoring of Compliance:

The CITES Secretariat:

Article XII of the convention provides that CITES will have a Secretariat. The Secretariat is the permanent institutional administrative body of the Convention. In its functioning, the CITES Secretariat may be provided assistance by suitable inter-governmental or non-governmental international or

national agencies and bodies technically qualified in protection, conservation and management of wild fauna and flora. (Article XII (1). Among various roles mandated to the Secretariat, it is also entrusted to undertake scientific and technical studies in accordance with programmes authorized by the Conference of the Parties as will contribute to the implementation of the present Convention.....(Article XII (2)(c).

Also, Article XV which specifies the mechanism for Amendments to Appendices I and II notes that "....the Secretariat shall consult the other Parties and interested bodies on the amendment....".

These provide ample authority and opportunity for the CITES Secretariat to engage with Parties and/or other institutions including research organisations and NGOs to receive additional information including reports as above to assist in decision making.

The role of monitoring compliance under CITES rests with the CITES Secretariat. Thus, Article XII (2) (c) & Article XII (2) (d) mention that the function of the Secretariat shall be *".... to undertake scientific and technical studies in accordance with programmes authorized by the Conference of the Parties as will contribute to the implementation of the present Convention, including studies concerning standards for appropriate preparation and shipment of living specimens and the means of identifying specimens;*

and, to study the reports of Parties and to request from Parties such further information with respect thereto as it deems necessary to ensure implementation of the present Convention;"

In addition, the Secretariat is also mandated to invite the attention of the Parties to any matter pertaining to the aims of the present Convention, to prepare annual reports to the Parties on its work and on the implementation of the present Convention and such other reports as meetings of the Parties may request and to *make recommendations* as may be suitable for the

implementation of the aims and objectives of the CITES Convention, including the exchange of information of a scientific or technical nature;
It has been argued by Reeve (2007) that the CITES Secretariat plays an unusually strong role in implementation and compliance control, especially by making full use of the provisions giving it the mandate to make recommendations. He also flags the concern that such strong a role may compromise its neutrality.

According to Article XI, paragraph 7, of the Convention national non-governmental organizations, which have been approved, to attend a meeting of the Conference of the Parties (CoP) as observers shall have the right to participate in the meeting but they are not permitted to vote. CITES also acknowledges that for many of the issues submitted for discussion at meetings of the CoP, the greatest level of expertise is within the community of non-governmental organizations that attend as observers (Doc. 11.16, 11th meeting of the Conference of the Parties, Gigiri (Kenya), 10-20 April 2000).

As mentioned above, Article XII (1) provides that the CITES Secretariat may be assisted by suitable inter-governmental or non-governmental international or national agencies and bodies technically qualified in protection, conservation and management of wild fauna and flora. Thus, many NGOs, notably IUCN and TRAFFIC have a close working relationship with the CITES Secretariat which routinely seeks reports on related matters from them and uses them to strengthen decision making. Thus, in 1989, TRAFFIC was mandated by the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to create and manage a monitoring system to track trends in the illegal ivory trade over time. What is now known as the Elephant Trade Information System (ETIS) is the world's foremost collection of ivory and other elephant product seizures. Today, it contains nearly 20,000 records from some 90 countries or territories worldwide since 1989 (www.traffic.org/species-reports/traffic_species_mammals74.pdf accessed 11Sep, 2013).

Since they often end up bringing out shortcomings on behalf of some Parties, the outputs provided by such NGOS are sometimes questioned, but overall they have played a very important role in the development of CITES policy.

Committees:

The Conference of Parties (CoPs) to CITES agreed to formalise a system for the appointment of committees of the Conference of Parties and to establish procedures to be followed when such committees are established. Thus, by Resolution Conf. 11.1 (Rev. CoP16)* and also taking into account the Resolution Conf. 9.1 (Rev.), which was adopted by the Conference of the Parties at its ninth meeting (Fort Lauderdale, 1994) and amended at its 10th meeting (Harare, 1997), relating to the establishment of committees,
the following was resolved:

a) there shall be a permanent Standing Committee of the Conference of the Parties, which shall be the senior Committee, and shall report to the Conference of the Parties;

b) there shall be an Animals Committee and a Plants Committee, which shall report to the Conference of the Parties at its meetings and, if so requested, to the Standing Committee between meetings of the Conference of the Parties;

c) the Conference of the Parties may appoint additional committees as the need arises;

It also resolved that the Conference of the Parties, the Standing Committee and the Animals and Plants Committees may appoint working groups with specific terms of reference as required to address specific problems. These working groups have a defined life span which shall not exceed the period until the next meeting of the Conference of the Parties, at which time they may be re-established if necessary. Working Groups established by the Conference of the Parties shall report to the Conference of the Parties and, if so requested, to the Standing Committee.

The Standing Committee and the Animals and Plants Committees can also appoint any subcommittees with specific terms of reference to implement the

tasks that are given to them. Unless otherwise agreed by through a Resolution or Decision of the Conference of the Parties, these subcommittees shall have a defined lifespan, which shall not exceed the period until the next meeting of the Conference of the Parties, at which time they may be re-established if necessary.

Standing Committee

The Standing Committee has the mandate to:

a) provide general policy and general operational direction to the Secretariat concerning the implementation of the Convention

b) provide guidance and advice to the Secretariat on the preparation of agendas and other requirements of meetings, and on any other matters brought to it by the Secretariat in the exercise of its function;

c) oversee, on behalf of the Parties, the development and execution of the Secretariat's budget as derived from the Trust Fund and other sources, and also all aspects of fund raising undertaken by the Secretariat in order to meet its roles and responsibilities including to carry out specific functions authorized by the Conference of the Parties, and to oversee expenditures of such fund-raising activities

d) provide coordination and advice as may be required from time to time to other committees and provide direction and coordination of working groups established by either itself or the Conference of the Parties;

e) carry out, between one meeting of the Conference of the Parties and the next, such interim activities on behalf of the Conference as may be necessary

f) prepare draft resolutions for consideration by the Conference of the Parties

g) report to the Conference of the Parties on the activities it has carried out between meetings of the Conference;

h) generally act as the Bureau at meetings of the Conference of the Parties, until such time as the Rules of Procedure are adopted; and

i) perform any other functions as may be entrusted to it by the Conference of the Parties;

To give it a representative character, the membership of the Standing Committee is as follows:

A. a Party or Parties elected from each of the six major geographic regions consisting of Africa, Asia, Central and South America and the Caribbean, Europe, North America and Oceania, according to the following criteria:

   1) one representative for regions with up to 15 Parties;

   2) two representatives for regions with 16 to 30 Parties;

   3) three representatives for regions with 31 to 45 Parties; or

   4) four representatives for regions with more than 45 Parties;

B. the Depositary Government (Switzerland); and

C. the host Party of the previous CoP and the host Party of the next CoP.

The Standing Committee is in effect the most important committee of the CITES Convention as it is designated as the "senior Committee", and mandated to report directly to the Conference of the Parties while providing general policy and operational *direction* to the Secretariat concerning the implementation of the Convention. It also provides guidance and advice to the Secretariat on the preparation of agendas and other requirements of meetings etc.

Animals and Plants Committees

The Conference of Parties, keeping into account the lack of biological data and expert knowledge of animal and plant trade and management and that an effective method of evaluating whether a species is appropriately listed in the CITES Appendices requires a periodic review of its biological and trade status, has constituted the Animals and Plants Committees of the Conference of the Parties, with the following terms of reference:

A) The committees are required to provide scientific advice and guidance to the Conference of the Parties, the other committees, working groups and the CITES Secretariat, on all matters relevant to international trade in animal and plant species included in the Appendices, which may also include any proposals to amend the Appendices;

B) They will deal with nomenclatural issues by carrying on the following tasks:

i. cause the preperation of standardized nomenclatural references for animal and plant taxa, to the level of subspecies or botanical variety and also including synonyms, and also propose for adoption existing nomenclatural references, as may be appropriate, for all species listed in the Appendices to the Convention;

ii. upon its acceptance of a new or updated reference (or part thereof) for a given taxon, after following the procedure described below, present this to the Conference of the Parties for adoption as the standard reference for that taxon;

iii. ensure that the highest priorities in developing the standard reference lists of animal and plant names and synonyms be:

a. species names of animals and plants listed at the species level in the Appendices;

b. generic names of animals and plants listed at the genus or family level in the Appendices; and

c. family names of animals and plants listed at the family level in the Appendices;

iv. They will also review the existing Appendices with regard to the correct use of zoological and botanical nomenclature;

v. Upon such request, they will also provide advice to Parties concerning nomenclature issues related to proposals to amend the Appendices;

vi. Upon request from the Secretariat, they will also review proposals to amend the Appendices to ensure that correct names for the species and other taxa in question are used;

vii. They will ensure that changes in nomenclature recommended by a Party do not alter the scope of protection of the taxon concerned; and

viii. They will also make recommendations on nomenclature to the Conference of the Parties, other committees, working groups and the Secretariat;

C) They will also assist the Secretariat with the implementation of the Resolution on the Identification Manual and Decisions related to it and, upon request of the Secretariat, review proposals to amend the Appendices with regard to possible identification problems;

D) They will cooperate with the Secretariat on the implementation of its programme of work to assist Scientific Authorities and provide scientific advice on training materials used in capacity building;

E) They will develop regional directories that list the botanists and zoologists in each region who are experts in CITES-listed species;

F) They will establish a list of those taxa included in Appendix II that are considered as being significantly affected by trade, and review and assess all available biological and trade information including comments by the range States on these taxa to:

i. exclude all species for which there is adequate information to conclude that trade is not having a significant detrimental effect on their populations;

ii. formulate recommendations for remedial measures for those species for which trade is believed to be having a detrimental effect; and

iii. establish priorities for projects to collect information for those species for which there is insufficient information available on which to base a judgement as to whether the level of trade is detrimental;

G) They will assess information on those species for which there is evidence of a change in the volume of trade or for which specific information is available to indicate the necessity for review;

H) They will undertake a periodic review of animal or plant species included in the CITES Appendices by:

   i. establishing a schedule for reviewing the biological and trade status of these species;

   ii. identifying any problems or potential problems concerning the biological status of any species being traded;

   iii. consulting the Parties on the need to review specific species, working directly with the range States in the selection process, and seeking their

   iv. assistance in such reviews; and

   v. preparing and submitting any amendment proposals resulting from such review as above, through the Depositary Government, for consideration at meetings of the Conference of the Parties;

I) make available advice on management techniques and procedures for range States requesting such assistance;

J) draft resolutions on scientific matters related to animals or plants, for consideration by the Conference of the Parties, with a budget for the work involved and an indication of the source of funding;

K) perform any other functions that may be entrusted to them by the Conference of the Parties or the Standing Committee; and

L) report to the Conference of the Parties and, if so requested, to the Standing Committee, on the activities they have carried out or supervised between meetings of the Conference;

This level of detail from the CITES Resolution has been included here mainly to highlight the expectation of the work that the Animals and Plants Committees are expected to undertake. Not surprisingly, the CoP in almost the same breath agrees that in giving instructions to the Animals and Plants

committees, due attention should be given to the fact whether they have the time and personnel to undertake such work!

Other Mechanisms:

National Legislation Project (NLP)

According to Article VIII, paragraph 1 of the CITES Convention, each Party needs to take appropriate measures to enforce the provisions of the Convention and to prohibit trade in violation thereof.

Wildlife entities are treated as "sovereign resources' within national boundaries. As such, it is the prerogative of each Party itself as a sovereign entity to decide how it incorporates CITES obligations into its national legislation, taking into account its needs and legal practice. Resolution Conf. 8.4 (Rev. CoP15) on National laws for implementation of the Convention, as initially adopted in 1992 establishes the basis for a CITES National Legislation Project aimed at providing legislative assistance to Parties towards achieving this.

In very broad terms, the NLP has identified three main options:

a) amend existing provisions in various legislative texts related to wildlife, Customs, import/export and environment;

b) include a specific chapter on CITES or a set of CITES provisions in comprehensive wildlife or biodiversity legislation; or

c) enact CITES-specific legislation.

All of these options involve one or more legally-binding and enforceable instruments – Constitution, parliamentary laws, subsidiary legislation, decrees, orders, norms, codes – through which governments comply with the requirements of the Convention (CoP12 Doc. 28 http://www.cites.org/eng / cop/12/doc/E12-28.pdf accessed 11 Sept 2013).

Accordingly, four requirements are identified in Resolution Conf. 8.4. These are discussed in brief as below:

a) Designation of National CITES Authorities:

Parties are mandated by Article IX, paragraph 1 of the Convention to designate one or more Management & Scientific Authorities responsible for the implementation of CITES. However, the NLP takes into account whether the designation of such authorities is an administrative decision or there is a legal instrument (law, regulation, decree) that authorizes designation of both CITES authorities or expressly designates those authorities. Thus, if the national laws of any Party do not provide for the designation of a Management or Scientific Authority, it would be deemed inadequate. Also, the NLP would take into account whether CITES authorities are "clearly and precisely" given the necessary powers to carry out their responsibilities (power to grant permits and certificates, power to establish export quotas, etc.).

b) Prohibition of trade in violation of the Convention

This is perhaps the most important of the requirements in that it evaluates whether existing legislation covers all specimens of all species (animals and plants, live and dead, and parts and derivatives) included in the three Appendices of the Convention. It further considers whether all types of transactions as envisaged under the Convention, including exports, imports, re –exports, introduction from the sea and transit and transshipment between Parties and non Parties are covered. In essence, this encompasses a set of components as laid down in Articles II, III, IV, V, VI and VII of the Convention.

c) Penalization of illegal trade

The legal basis for the third requirement is stated in Article VIII, paragraph 1 (a), which includes also the possession of CITES specimens acquired in violation of the Convention. The analysis verifies that domestic legislation clearly lists the activities that are prohibited and specifies that the breach of any prohibition constitutes an offence. These include at a minimum the import or export of CITES specimens without a permit, the use of invalid or forged permits and the possession of and trade in specimens that were illegally imported or otherwise acquired. It also considers the nature and level of

penalties which may be imposed for violation of CITES provisions and the procedures that must be followed.

It is essential that the departments and agents responsible for enforcing the Convention are clearly designated by the legislation and that enforcement agents are appointed and given the necessary powers to carry out their tasks.

Finally, given that illegal trade in CITES specimens may constitute a violation of more than one law, such as the Penal Code, Forest and Wildlife law, Customs legislation etc. it is important to specify which specific legal provisions apply to CITES-related offences and penalties.

d) Authorization to confiscate specimens illegally traded or possessed

The legal basis for the fourth requirement is given in Article VIII, paragraph 1(b). The NLP verifies that domestic legislation provides for the confiscation or return of specimens illegally traded or possessed. It also verifies that other related aspects such as which authorities may confiscate; the extent of their confiscation powers (e.g. specimens, containers, equipment and vehicles involved in an offence); the procedures that must be followed; and the final disposal of confiscated specimens are sufficiently clear in law.

The Secretariat strongly emphasises that general administrative authority and discretion is not an adequate substitute for legislative changes that can be used to adapt existing legislation to CITES requirements.

The Secretariat conducts periodic evaluation of the national legislation of various parties to verify if they meet all requirements (Category 1), some (Category 2) or none (Category 3).

Countries that are evaluated to be in Category 2 or 3 are required to provide a time bound action plan to bring their national legislation up to date with CITES requirements.

Thus, at its 46th meeting (Geneva, March 2002), the Standing Committee agreed that 73 Parties should provide an outline of their programme to comply with their obligation to adopt adequate legislation to implement the Convention, in the form of a CITES legislation Plan. The purpose of this plan is to establish and commit to a timeframe for the adoption of national legislation pursuant to Resolution Conf. 8.4 and Decisions 11.18 and 11.19. Failure to submit such a CITES Legislation Plan within a given time frame could lead to the Secretariat recommending a suspension of commercial trade in specimens of CITES-listed species with any such Parties. (Notification No. 2002/023 Dated 9th April 2002).

The Review of Significant Trade

The Review of Significant Trade in CITES listed species is an important tool in the CITES process. CITES provisions of Article IV, paragraph 2 (a), provide that , as a condition for granting an export permit, a Scientific Authority of the State of export should be able to advise that such export will not be detrimental to the survival of the species concerned. Also, Article IV, paragraph 3, requires a Scientific Authority of each Party to monitor exports of Appendix-II species and to advise the Management Authority of any suitable measures that need to be taken to limit such exports so that such species may continue to be maintained throughout their range at a level consistent with their role in the ecosystem. Similarly, Article IV, paragraph 6 (a), requires, that as a condition for granting a certificate of introduction from the sea, that a Scientific Authority of the State of introduction from the sea should provide advise that such introduction will not be detrimental to the survival of the species concerned;

However, there is concern that some States permitting export of Appendix-II species are not effectively implementing these measures, including such as population assessments and monitoring programmes and that information on the biological status of many species is frequently not available. Accordingly, it has directed the Animals and Plants Committees, in cooperation with the Secretariat and experts, and in consultation with range States, to review the biological, trade and other relevant information on such species listed on CITES Appendix-II which are subject to significant levels of trade, and also to

identify problems and solutions concerning the implementation of Article IV, paragraphs 2 (a), 3 and 6 (a) of the convention.

This procedure reviews the status of species listed in Appendix II that are believed to be traded in significant numbers.

Thus, based on a summary from the CITES database of annual report statistics showing the recorded net level of exports for Appendix-II species over the five most recent years, or on the basis of recorded trade levels and information available to the Animals or Plants Committee, the Secretariat, Parties or other relevant experts, species of priority concern shall be taken up for review by the Animals or Plants Committee ,irrespective of whether or not such species have been the subject of a previous review). In exceptional cases where new information indicates an urgent concern, the Animals or Plants Committee may add a species to the list of species of concern.

Once such species have been identified, the Secretariat approaches the Range state(s) for comments in implementing Article IV, paragraph 2 (a), 3 or 6 (a) with regard to the species.

After receiving comments as above, the Secretariat may, if considered necessary, engage consultants to compile information about the biology and management of and trade in the species who shall contact the range States or relevant experts to obtain information in this regard.

Based on such studies regarding the implementation of Article IV, the selected species are provisionally divided into three categories:

i) **'species of urgent concern'** shall include any such species for which the available information indicates that the provisions of Article IV, paragraph 2 (a), 3 or 6 (a), are not being implemented;

ii) **'species of possible concern'** shall include any such species for which it is not clear whether or not these provisions are being implemented; and

iii) **'species of least concern'** shall include any such species for which the available information appears to indicate that these provisions are being met;

Before any such report prepared by the Secretariat, or consultant, is placed before the Animals or Plants Committee for its consideration, the Secretariat sends it to the relevant range States, seeking comments and, where appropriate, additional information within a given time frame.

Based on the above, the Animals or Plants Committee shall, in consultation with the Secretariat, formulates recommendations for species other than those identified as of "least concern." For species of urgent concern, these recommendations propose specific actions, including short term and long term, to address problems related to the implementation of Article IV, paragraph 2 (a), 3 or 6 (a).

These may include, for example:

i) the establishment of administrative procedures, cautious export quotas or temporary restrictions on exports of the species concerned;

ii) the application of adaptive management procedures to ensure that further decisions about the harvesting and management of the species concerned will be based on the monitoring of the impact of previous harvesting and other factors; or

iii) the conducting of taxon- and country-specific status assessments, field studies, or evaluation of threats to populations or other relevant factors to provide the basis for a Scientific Authority's non-detriment finding, as required under the provisions of Article IV, paragraph 2 (a) or 6 (a).

Non Detriment Finding (NDF)

An NDF is defined as a conclusion by a CITES Scientific Authority that the export of specimens of a particular species will not negatively affect the survival of a species in the wild. (Chris R. Shepherd 2011).

The preamble to the CITES Convention clearly acknowledges that international cooperation is essential for the protection of certain species of wild fauna and flora against over-exploitation through international trade, and recognizes also the urgency of taking appropriate measures to this end. However, the point at which such over-exploitation starts has never been defined by the Parties.

Terms used in the Convention text such as "threatened with extinction" (Article II, paragraph 1) and "utilization incompatible with their survival" [Article II, paragraph 2. (a)] in relation to inclusion of species in the Appendices have been largely defined through the adoption of Resolution Conf. 9.24 (Rev. CoP17) on Criteria for amendment of Appendices I and II. However, related concepts linked with the issuance of permits, such as "...detrimental to the survival of that species" [Article III, paragraphs 2. (a), 3. (a) and 5. (a); and, Article IV, paragraphs 2. (a) and 6. (a)] and "maintain that species throughout its range at a level consistent with its role in the ecosystems in which it occurs" [Article IV, paragraph 3], have been little clarified by the Parties. These have become collectively known as the "non-detriment findings" (NDFs). (CITES http://www.cites.org/eng/prog/ndf/index.shtml).

Article IV of CITES requires a non-detriment finding (NDF) be carried out prior to the export of an Appendix II-listed species.

The following are presented as generic principles applicable to the NDF process in CITES regardless of the taxa being considered.

- The non-detriment finding (NDF) for Appendix I and II species is a process to verify that traded volumes within the range state are not detrimental to the survival of that species.

- The NDF considers whether the species is maintained throughout its range at a level consistent with its role in the ecosystems in which it occurs.
- The data requirements for an NDF are so tailored to appropriate precision so as to adequately reflect the resilience or vulnerability of the target species.
- The implementation of an adaptive management scheme based on regular monitoring is an important consideration in the NDF evaluation process.
- The NDF is based on resource assessment methodologies.
- The NDF process also employs appropriate broad-scale assessment, such as total harvest assessments.

(CITES CoP15 Doc. 16.3, March 2010)

These detailed processes very strongly emphasis the scientific basis of decision making for permitting or prohibiting trade under CITES.

Resolution of Disputes

It is also important to flag here, the mechanism for resolution of disputes as laid down under Article XVIII of the Convention:

1. Any dispute which may arise between two or more Parties with respect to the interpretation or application of the provisions of the present Convention shall be subject to negotiation between the Parties involved in the dispute.

2. If the dispute cannot be resolved in accordance with paragraph 1 of this Article, the Parties may, by mutual consent, submit the dispute to arbitration, in particular that of the Permanent Court of Arbitration at The Hague, and the Parties submitting the dispute shall be bound by the arbitral decision.

Thus, it is abundantly clear that from the very beginning, CITES has emphasised on consensus as the key to its compliance.

This is also further reinforced by its preference for a two-thirds majority of Parties present and voting for taking significant decisions. (eg XIV (1) (b), XVII (1).

Technical and political missions:

The CITES Secretariat and the Plants and Animal Committees undertake Technical and Political Missions from time to time to strengthen the implementation of the Convention.

Thus, by Decision 10.66 b) at its 10th meeting (Harare, 1997), the CoP mandated that the Standing Committee shall, in consultation with interested Parties and where appropriate, undertake technical and political missions to various tiger range and consumer states, to assist in the development of strategies for improving control of tiger trade and related activities. Doc. SC.41.7, Geneva (Switzerland), dated 8-12 February 1999 spells out the Terms of reference of such a mission on tigers. In accordance with the above Decision, the CITES Tiger Missions Technical Team undertook a mission to 14 tiger range and consumer States in 1999.

In fulfilment of Decision 15.44, the Secretariat has also conducted technical missions to Cameroon and Gabon to assess current enforcement activities relevant to the conservation of and trade in great apes and to identify best practices and challenges in these gorilla range States. (CoP16 Doc. 49 Annex 2 http://www.cites.org/eng/cop/16/doc/E-CoP16-49-A2.pdf 9accessed on 11th Sept 2013).

An orang-utan technical mission was conducted in Indonesia from 8 to 15 May 2006 and to Thailand and Cambodia from 23 to 28 April 2007.

In Girgiri, at its 11th meeting of the Conference of the Parties in 2000, CITES established the CITES Tiger Enforcement Task Force (TETF), with the objective of combating illicit trade in tigers and tiger parts and derivatives.

Further, atits 13th meeting (Bangkok, 2004), the Conference of the Parties adopted Decision 13.22, which directed the Secretariat to convene a special meeting of the TETF to "examine, in particular, the issue of illicit trade in Asian big cat skins with a view to facilitating and improving the exchange of enforcement information and the coordination of investigations".

Thus, resolution Conf. 11.3 (Rev. CoP16) on compliance and enforcement measures, while acknowledging the engagement of the Secretariat has taken with the International Criminal Police Organization (ICPO-INTERPOL) and the World Customs Organization to facilitate the exchange of information between enforcement bodies and for training purposes, welcomes the establishment of the International Consortium on Combating Wildlife Crime (ICCWC)and urges ICPO-INTERPOL to support the attendance of a representative from its Wildlife Crime Working Group at meetings of the Conference of the Parties to CITES.

Such engagements bring about additional opportunities of generating and sharing information, including as reports.

Chapter 5:
Status of CITES Implementation in some countries of South Asia

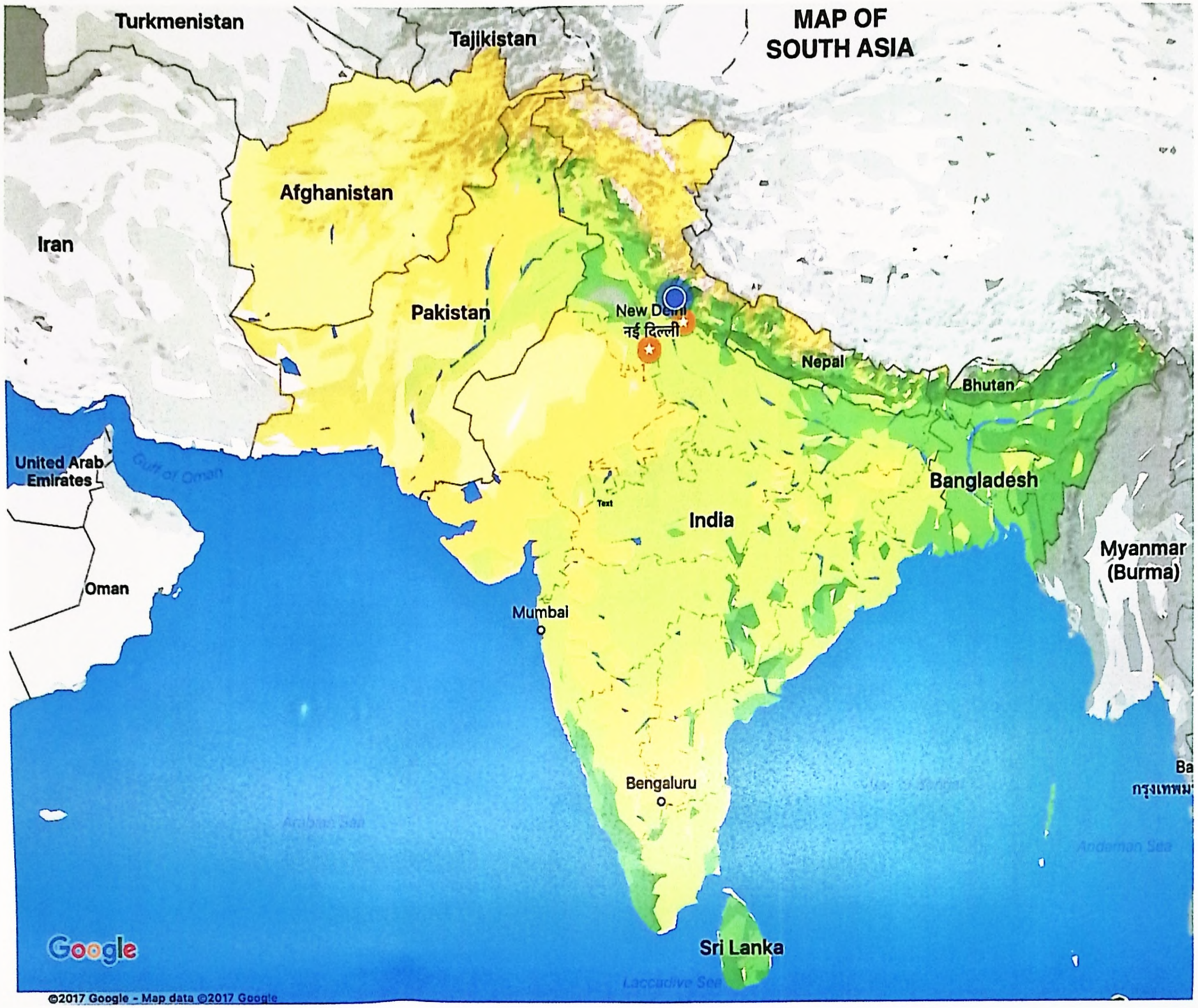
South Asia refers to the following eight countries of the South Asian region: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. All are members of the South Asian Association for Regional Cooperation (SAARC). Apart from a shared geography and history, these countries also have social, cultural and economic associations that date back several centuries.

The region is a particularly diverse one, home to the "Third pole" i.e. the mighty Himalayas, along with other habitat types and landforms including trans-Himalayan cold deserts, glaciers, tropical forests, grasslands, mangroves and deserts. Given its unique diversity as above, the region harbors a diverse assemblage of ecosystem types and is home to a very large number of wild species of flora and fauna including several that are rare, threatened and endangered.

Together the region is home to around 21% of the global human population (World Bank 2014). Three of the countries of South Asia- India, Pakistan and Bangladesh find place amongst the top ten most populous countries of the world.

South Asia also represents one of the least forested sub regions in the Asia-Pacific region with a per capita forest area of about 0.05 hectares. (FAO 2012). This is also indicative of the high anthropogenic pressures faced by natural resources in this region, given the very high human population density across the region. This has serious implications for issues including, but not limited to social equity, livelihood opportunities for local communities and sustainability in management of natural resources including forests and water. Except for Bhutan and India, forest carbon stocks have declined in all the countries of the region between 1990-2010 (FAO 2012).

MAP 5


MAP OF
SOUTH ASIA
Turkmenistan
Tajikistan
Afghanistan
Iran
Pakistan
New Delhi
नई दिल्ली
Nepal
Bhutan
United Arab
Emirates
Gulf of Oman
Bangladesh
India
Myanmar
(Burma)
Oman
Mumbai
Bengaluru
Sri Lanka
Andaman Sea
Laccadive Sea
Google
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1. Some Country Profiles

Country Profile: BANGLADESH

- **Conventional long form name:** People's Republic of Bangladesh
- **Government type:** Parliamentary Democratic Republic
- **Capital: Dhaka**
- **Population:** 163,654,860 (July 2013 est)
- **Country Comparison to the world:** 9
- **Urban population :** 28.4% of total population (2011)
- **Literacy: (Definition :** age 15 and over can read and write)
  - **Total population:** 57.7%
  - **Male:** 62%
  - **Female:** 53.4% (2011 est.)
- **GDP (purchasing power parity):** US$ 311 billion (2012 est.)
- **Country comparison to the world:** 44
- **Geographic coordinates:** 23 43 N, 90 24 E
- **Total Geographical Area (sq.km.): 143,998**
- **Global ranking according to area: 95**
- **Land Area (sq.km.): 130,168**
- **Forest Area (sq.km.): 14420**
- **Forest Area as % of geographical area: 11**
- **Water Area (sq.km.): 13,830**
- **Total Land Boundaries (km.): 4,246**
- **Border Countries: Myanmar 193 km., India 4,053 km**
- **Coastline (km.): 580**
- **Highest Point (m): 1,230 m above msl -Keokradong**
- **Lowest Point (m): 0- msl**

Major Environmental issues:

High population density with many people forced to live on and cultivate flood-prone land; waterborne diseases prevalent in surface water; water pollution, especially of fishing areas, results from the use of commercial pesticides; ground water contamination by naturally occurring arsenic; intermittent water

shortages because of falling water tables in the northern and central parts of the country; soil degradation and erosion; deforestation;

Environment - international agreements:

Bangladesh is party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Environmental Modification, Hazardous Wastes, Law of the Sea, Ozone Layer Protection, Ship Pollution, Wetlands

It has taken Actions on 211 International Agreements including:

- 21 Signatures
- 50 Ratification, Accession, Succession, or Similar
- 195 Entry Into Forces
- 1 Withdrawal or Similar

(World Bank 2014, at http://data.worldbank.org/region/SAS, FAO 2012, World Population Data Sheet (2013). http://www.prb.org/pdf13/2013-population-data-sheet_eng.pdf)

Legal Framework for Wildlife Conservation:

Umbrella legislation:

The Wildlife (Conservation and Security) Act, 2012.

Important Provisions:

Sec 2 (25): "wild animals" means different types and species of animals or different stages of their life cycle, the source of which is considered as wild;

Sec 2 (29): "endangered species" means any species of wild animal or plant considered as critically endangered, vulnerable or rare and which is at risk of extinction;

Sec 2 (30): "vulnerable species" means a species of wild animal or plant which is not critically endangered at present but facing risk of extinction in near future;

Sec 3. Wildlife Advisory Board, etc.— *(1) As soon as may be, after the commencement of this Act, Government shall, by notification in the official Gazette, constitute a Board to be called the Wildlife Advisory Board consisting of a Chairman and necessary number of members from among the persons with expertise in conservation of biodiversity, forests and wildlife.*

6. Prohibition related to wild animals and plants. — *(1) No person shall hunt any wild animal without a license or, as the case may be, obtaining a permit under this Act, or wilfully pick, uproot, destroy or collect any plant mentioned in Schedule IV.*

(2) The Government may, by notification in the official Gazette, prohibit hunting of any specified or all wild animals in a specific forest area or throughout Bangladesh for a specific period.

Sec 7: Determination of vulnerable, endangered and critically endangered species. — *The Chief Warden shall determine which species or sub-species of wild animals mentioned in schedule I, II and III and plants mentioned in schedule IV are vulnerable, endangered or critically endangered according to scientific data and internationally acceptable provisions or customs in consultation with the scientific committee.*

Sec 13: Declaration of sanctuary. — *(1) The Government may, by notification in the official Gazette, in the light of national forest policy and forest master plan, and considering natural, geomorphological features, biodiversity and environmental significance, declare any Government forests or part of such forests or any Government land or wetland or any specified area as sanctuary, specifying the demarcation, for the conservation of forest and habitat of wildlife.*

(2) The sanctuary declared under sub-section (1) may be called as wildlife sanctuary, bird sanctuary, elephant sanctuary or wetland dependent animal sanctuary or, as the case may be, marine protected area.

17. Declaration of national park. *— (1) The Government may, by notification in the official Gazette, declare any Government forests or part of such forests or any Government land with natural scenic beauty as national park, specifying the boundary for the conservation of wildlife and their habitat or environmental development.*

18. Declaration of community conservation area. *— (1) Any person or community being owner of such land or wetland not included in landscape zone may, for protection of traditional or cultural value or use of any animal or plant and for sustainable development of such land or wetland and for the management of wildlife, apply to the Government for declaration as community conservation area.*

19. Declaration of safari park, ecopark, botanical garden and wild animal breeding center. *— (1) The Government may, by notification in the official Gazette, declare or establish any government owned forest area as safari park, ecopark or botanical garden or, as the case may be, wild animal breeding centre for the purpose of in-situ or ex-situ conservation of wild animals or for promotion of opportunities for research, public recreation or education.*

20. Declaration of landscape zone or corridor, buffer zone and core zone. *— (1) The Government may, after receiving consensus of local community, by notification in the official Gazette, declare any public or private area outside the boundaries of protected or reserved forests but adjacent to any declared area as a landscape zone or corridor for the movement of wild animals or for the purpose of special development or abate or control any sorts of damage of such area.*

22. Declaration of special biodiversity conservation area. *— (1) The Government may, in its own initiative or on application of any person, by notification in the official Gazette, declare any government land, land or trees under private ownership or reserved forest, khas land, wetland, river, sea, canal, dighi or pond used for special purpose as special biodiversity*

conservation area subject to conservation of traditional or cultural values and norms of the area.

23. Declaration of national heritage, memorial tree, sacred tree and kunjaban. — (1) The Government may, on application of any owner of land, organisation or person, by notification in the official Gazette, declare any tree or kunjaban standing at any government forest, any land under any organisation, khas land or land owned by any community which is recognized and used as cultural, traditional, religious or memorial purpose and which is known as habitat for wildlife in such area, as national heritage, memorial tree, sacred tree or, as the case may be, kunjaban.

31. Constitution of wildlife crime control unit. *— (1) The Government may, to ensure strict compliance and effective implementation of wildlife related international convention, protocol, treaty etc. establish wildlife crime control unit comprising custom officers, members of law and order enforcing agency at any place in Bangladesh including strategic air, land and seaports.*

36. Penalties for killing tiger, elephant, etc. *— (1) If any person kills any tiger or elephant mentioned in schedule I without obtaining any licence under section 24, he shall be deemed to have committed an offence and shall be non-bailable for such offence and, be punished with imprisonment for a term not less than 2 (two) years and not exceeding 7 (seven) years and also with a fine of Taka not less than 1 (one) lac and not exceeding Taka 10 (ten) lac and, in case of his repetition of the same offence, he shall be punished with imprisonment for a term not exceeding 12 (twelve) years and with a fine of Taka not exceeding 15 (fifteen) lac:*

37. Penalties for killing cheetah, lam cheetah, hoolock, sambar deer, crocodile, gharial, whale or dolphin, etc. *—(1) If any person kills any cheetah, lam cheetah, hoolock, sambar deer, crocodile, gharial, whale or dolphin mentioned in Schedule I, he shall be deemed to have committed an offence and for such offence, be punished with imprisonment for a term not exceeding 3 (three) years or with a fine of Taka not exceeding 3 (three) lac or with both, and in case of his repetition of the same offence, he shall be*

punished with imprisonment for a term not exceeding 5 (five) years or with a fine of Taka not exceeding 5 (five) lac or with both.

(http://www.bforest.gov.bd/index.php/protected-areas)

Country Profile: BHUTAN

- **Government type:** Constitutional Monarchy
- **Capital:** Thimphu
- **Population:** 725,296 (July 2013 est)
- **Country comparison to the world:** 166
- **Urban population :** 35.6% of total population (2011)
- **Literacy:**
  - **Definition :** age 15 and over can read and write
- **Total population:** 52.8%
  - **Male:** 65%
  - **Female:** 38.7% (2005 est.)
- **GDP (purchasing power parity):**
  - US$ 5.036 billion (2012 est.)
- **Country comparison to the world:** 171
- **Geographic coordinates: 27 28 N, 89 38 E**
- **Total Geographical Area (sq.km.): 38,394**
- **Global ranking according to area: 137**
- **Land Area (sq.km.): 38,394**
- **Forest Area (sq.km.): 32490**
- **Forest Area as % of geographical area: 69**
- **Water Area (sq.km.): 0**
- **Total Land Boundaries (km.): 1,075**
- **Border Countries: China 470 km., India 605 km**
- **Coastline (km.): 0**
- **Highest Point (m): 7,570 m above msl –Gangkar Puensum**
- **Lowest Point (m): 97 m above msl- Drangeme Chhu**

Major Environmental Issues: maintenance of high forest cover, soil erosion; limited access to potable water

Environment - international agreements:

Bhutan is party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Hazardous Wastes, Ozone Layer Protection

It has signed, but not ratified: Law of the Sea

It has taken Actions on 69 International agreements including:**

7 Signatures

26 Ratification, Accession, Succession, or Similar

62 Entry Into Forces

(World Bank 2014, at http://data.worldbank.org/region/SAS, World Population Data Sheet (2013). http://www.prb.org/pdf13/2013-population-data-sheet_eng.pdf)

Legal Framework for Wildlife Conservation:

Umbrella Legislation:

The Forest and Nature Conservation Act of Bhutan, 1995. This is into force from 1st of September, 1995.

Important provisions:

*Sec 3 g: **"Protected Area"** means a national park, conservation area, wildlife sanctuary, wildlife reserve, nature reserve, strict nature reserve, research forest, critical watershed or other area declared as a Protected Area under Section 21.*

21. Establishment of Protected Areas

(a) The Royal Government may declare any land in the country to be a National Park, Wildlife Sanctuary, Wildlife Reserve, Nature Reserve, Strict Nature Reserve, Protected Forest, Research Forest, Conservation Area, Cultural or Natural Heritage Site, Biosphere Reserve, Critical Watershed or other category of Protected Area for the preservation of areas of natural beauty of national importance, protection of biological diversity, management of wildlife, conservation of soil and water and related purposes. If any private

registered land is taken under this section, compensation or alternative land rights shall be provided in accordance with Section 9.

Sec 22: Taking of Wildlife Restricted

(a) All wild animals listed in Schedule I and wild plants listed in Schedule I are declared to be totally protected, whether or not in a Government Reserved Forests, and may not be killed, injured, destroyed, captured, collected or otherwise taken except by special permit or under threat to human life.

All wild animals not listed in Schedule I are also protected and may not be killed, injured, destroyed, captured, collected or otherwise taken except pursuant to a special permit issued under Section 23, or to defend against an attack or imminent threat of attack on human life or livestock or against damage to crops and other private property, if the killing, injuring or other form of taking occurs on private registered land; or by accident or in accordance with any hunting rules which may be issued by the Ministry.

28. Offences

Violation of sections 22, 24, 25 and 26 is an offence punishable with imprisonment which may extend to 5 years or a fine which may extend to an amount prescribed in the Rules which may be issued from time to time, or both, in addition to either.

(i) confiscation of anything illegally taken or the proceeds from the sale thereof, or

(ii) payment of compensation at fair market value or according to the schedules of compensation fixed by the Ministry from time to time.

FOREST AND NATURE CONSERVATION RULES OF BHUTAN

FIRE MALE DOG YEAR, 2006

(http://www.moaf.gov.bt/moaf/?wpfb_dl=145 (accessed on 30th Sept 2013)

Sec. 82

(6) Protected area offenses

(a) for conducting research without valid permit from the Department (or collecting specimens for such research) in a protected area or for violation of such permission, including refusal to allow or cooperate with monitoring by the Department, a penalty of imprisonment up to one year or fine, minimum of which shall be Nu.15000/- and may extend up to Nu. 50,000/-, or both, plus confiscation of all research equipment used in such activities;

(b) for taking wildlife from a core zone, or any other zone of a protected area without a permit, a penalty of imprisonment up to 5 years, or a fine, minimum of which shall be Nu.60000/- and may extend up to Nu. 200,000/-, or both

(c) for constructing any road, fence, building or other structure in a core zone/any other zone without written permission, a penalty of imprisonment up to 6 months, or a fine, minimum of which shall be Nu.15000.00 - and may extend up to Nu. 50,000, or both, plus the cost of demolition of the structures so constructed, in addition to seizure of the materials and equipment used in the construction;

(d) for illegal settlement or cultivation in a core zone a penalty of imprisonment up to 6 months or a fine, minimum of which shall be Nu.15000/- and may extend up to Nu. 50,000/-, or both, plus the fair market value of trees and forest produce damaged as a result of illegal settlement or cultivation.

(e) *for felling in a core zone, a penalty of imprisonment for not more than 5 years or a fine, minimum of which shall be Nu.10000/- and may extend up to Nu. 50,000/-, or both, in addition to confiscation of anything illegally taken or the proceeds from the sale thereof or compensation at fair market value for anything taken illegally taken, damaged or destroyed and confiscation of any equipment, vehicle and tools used in committing the offense;*

(f) *for illegal logging in any other zone of a protected area, a penalty of imprisonment up to 6 months, or fine, minimum of which shall be Nu.15000/- and may extend up to Nu. 50,000/-, or both, plus confiscation of the illegally logged timber or any equipment, vehicle, livestock, tools or other items used or involved in commission of the offense, or the proceeds of any sale or other transaction involving such timber in addition to compensation at fair market value;*

(g) *for illegal livestock grazing within a core zone, except by traditional grazers with proper permission, fine, minimum of which shall be Nu.150 per animal and may extend to Nu. 500 per animal;*

(h) *for collecting firewood or non-wood forest produce in a core zone a penalty of imprisonment for not more than 5 years or a fine, minimum of which shall be Nu.7000/- and may extend up to Nu. 50,000/-, or both, in addition to confiscation of anything illegally taken or the proceeds from the sale thereof or compensation at fair market value for anything taken illegally taken, damaged or destroyed and confiscation of any equipment, vehicle and tools used to committing the offense;*

(i) *for collecting firewood or non-forest produce in other zones of the protected area (except by a resident of the local area), imprisonment for not more than 5 years or a fine, minimum of which shall be Nu.5000/- and may extend upto Nu. 50,000/-, or both, in addition to confiscation of anything illegally taken or the proceeds from the sale thereof or compensation at fair market value for anything taken illegally taken,*

damaged or destroyed and confiscation of any equipment, vehicle and tools used in committing the offense.

(7) Penalties for offenses related to protected species

(a) for the taking, injuring, destroying, capturing, and trade and/or use of wild animals and plants, or their parts and products without a permit, (regardless of whether such animal was taken, destroyed, or captured in Bhutan or elsewhere) a penalty of imprisonment which may extend up to five years or fines prescribed in Annexure 19 (a), (b) & (c) or Annexure 20(b)or as the case may be in addition to confiscation and payment of compensation at fair market value; and

(b) illegal harvesting and marketing of species having traditional uses, as described under Rule 66, fine, minimum of which shall be Nu.1500/- and may extend upto Nu. 5,000/-, plus confiscation of all specimens, or forest produce so harvested.

(http://www.moaf.gov.bt/moaf/?wpfb_dl=145)

Country Profile: INDIA

- **Conventional long form name:** Republic of India
- **Government type:** Federal Parliamentary Democratic Republic
- **Capital:** New Delhi
- **Population:** 1,220,800,359 (July 2013 est)
- **Country comparison to the world:** 2
- **Urbanization:**
    - **Urban population :** 31.3% of total population (2011)
- **Literacy:**
    - **Definition :** age 15 and over can read and write
- **Total population:** 62.8%
    - **Male:** 75.2%
    - **Female:** 50.8% (2006 est.)
- **GDP (purchasing power parity):**
    - US$ 4.761 trillion (2012 est.)
- **Country comparison to the world:** 4
- **Geographic coordinates: 28 36 N, 77 12 E**
- **Total Geographical Area (sq.km.): 3,287,263**
- **Global ranking according to area: 7**
- **Land Area (sq.km.): 2,973,193**
- **Forest Area (sq.km.): 32490**
- **Forest Area as % of geographical area: 69**
- **Water Area (sq.km.): 314,070**
- **Total Land Boundaries (km.): 14,103**
- **Border Countries: Bangladesh 4,053 km., Bhutan 605 km., China 3380 km., Myanmar 1,463 km., Nepal 1,690 km., Pakistan 2,912 km.**
- **Coastline (km.): 7,000**
- **Highest Point (m): 8,598 m above msl –Kanchenjunga**
- **Lowest Point (m): 0- msl-**

Major Environmental issues:

deforestation; soil erosion; overgrazing; desertification; air and water pollution high population density

Environment - international agreements:

India is party to: Antarctic-Environmental Protocol, Antarctic-Marine Living Resources, Antarctic Treaty, Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Environmental Modification, Hazardous Wastes, Law of the Sea, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, Tropical Timber 94, Wetlands, Whaling

India has taken Actions on 331 Agreements including:**

45 Signatures

85 Ratification, Accession, Succession, or Similar

300 Entry Into Forces

7 Withdrawal or Similar

(World Bank 2014, at http://data.worldbank.org/region/SAS, World Population Data Sheet (2013). http://www.prb.org/pdf13/2013-population-data-sheet_eng.pdf)

Legal Framework for Wildlife Conservation

Umbrella Legislation: Wild Life (Protection) Act, 1972.

Important Provisions:

Sec. 1(2): *It extends to the whole of India except the state of Jammu and Kashmir, which has its own Wildlife Protection Act.*

Sec 2. Definitions:

(1) "animal" includes mammals, birds, reptiles, amphibians, fish, other chordates and invertebrates and also includes their young eggs;

(16) "hunting", with its grammatical variations and cognate expressions, includes,-

(a) *killing or poisoning, snaring and trapping of any wild animal and every attempt to do so,*

(b) *capturing, coursing, snaring, trapping, driving or baiting any wild animal or captive animal and every attempt to do so,*

(c) *injuring or destroying or taking any part of the body of any such animal or, in the case of wild birds or reptiles, damaging the eggs of such birds or reptiles or disturbing the eggs or nests of such birds of reptiles;*

(36) *"wild animal" means any animal specified in Schedule I to IV and found wild in nature;*

(37) *"wild life" includes any animal aquatic or land vegetation which form part of any habitat;*

Sec. 5A: *Constitution of the National Board for Wild Life (1) The Central Government shall, within three months from the date of commencement of the Wild Life (Protection) Amendment Act, 2002, constitute the National Board for Wild Life consisting of the following members, namely:-*

(a) the Prime Minister as Chairperson;

(b) the Minister in-charge of Forests and Wild Life as Vice-Chairperson;

(c) three members of Parliament of whom two shall be from the House of the People and one from the Council of States;

(d) Member, Planning Commission in-charge of Forests and Wild Life;
(e) five persons to represent non-governmental organisations to be nominated by the Central Government;

(f) ten persons to be nominated by the Central Government from amongst eminent conservationists, ecologists and environmentalists;

(g) the Secretary to the Government of India in-charge of the Ministry or Department of the Central Government dealing with Forests and Wild Life;

(h) the Chief of the Army Staff,

(i) the Secretary to the Government of India in-charge of the Ministry of Defence;

(j) the Secretary to the Government of India in-charge of the Ministry of information and Broadcasting;

(k) the Secretary to the Government of India in;-charge of the Department of Expenditure, Ministry of Finance;

(l) the Secretary to the Government of India, Ministry of Tribal Welfare;
(m) the Director-General of Forests in the Ministry or Department of the Central Government

dealing with Forests and Wild Life;

(n) the Director-General of Tourism, Government of India;

(o) the Director-General, Indian Council for Forestry Research and Education, Dehradun;

(p) the Director, Wild Life Institute of India, Dehradun;

(q) the Director, Zoological Survey of India;

(r) the Director, Botanical Survey of India;

(s) the Director, Indian Veterinary Research Institute;

(t) the Member-Secretary, Central Zoo Authority;

(u) the Director, National Institute of Oceanography;

(v) one representative each from ten States and Union territories by rotation, to be nominated by the Central Government;

(w) the Director of Wild Life Preservation who shall be the Member-Secretary of the National Board.

Sec. 9: Prohibition of hunting.- *No person shall hunt any wild animal specified in Schedule I, II, III and IV except as provided under section 11 and section 12.*

Sec.11. Hunting of wild animals to be permitted in certain cases.-

(1)Notwithstanding anything contained in any other law for the time being in force and subject to the provisions of Chapter IV,-

(a) the Chief Wild Life Warden may, if he is satisfied that any wild animal specified in Schedule I has become dangerous to human life or is so disabled or diseased as to be beyond recovery, by order in writing and stating the reasons therefore, permit any person to hunt such animal or cause such animal to be hunted;

"Provided that no wild animal shall be ordered to be killed unless the Chief Wild Life Warden is satisfied that such animal cannot be captured, tranquilised or translocated:
Provided further that no such captured animal shall be kept in captivity unless the Chief Wild Life Warden is satisfied that such animal cannot be rehabilitated in the wild and the reasons for the same are recorded in writing.

Explanation- For the purposes of clause (a), the process of capture or translocation , as the case may be, of such animal shall be made in such manner as to cause minimum stress to the said animal.
(b) the Chief Wild Life Warden or the authorised officer may, if he is satisfied that any wild animal specified in Schedule II, Schedule III, or Schedule IV has become dangerous to human life or to property (including standing crops on any land) or is so disabled or diseased as to be beyond recovery, by order in writing and stating the reasons therefore, permit any person to hunt such animal or cause such animal to be hunted.

(b) the Chief Wild Life Warden or the authorised officer may, if he is satisfied that any wild animal specified in Schedule II, Schedule III, or Schedule IV has become dangerous to human life or to property (including standing crops on any land) or is so disabled or diseased as to be beyond recovery, by order in writing and stating the reasons therefore, permit any person to hunt "such animal or group of animals in a specified area or cause such animal or group of animals in that specified area to be hunted"

(2) The killing or wounding in good faith of any wild animal in defence of oneself or any other person shall not be an offence:

Provided that nothing in this sub-section shall exonerate any person who, when such defence becomes necessary, was committing any act in contravention of any provisions of this Act or any rule or order made there under.

(3) Any wild animal killed or wounded in defence of any person shall be Government property.

***Sec. 18. Declaration of sanctuary.**- 2[(1) The State Government may, by notification, declare its intention to constitute any area comprised within any reserve forest or the territorial waters as a sanctuary if it considers that such area is of adequate ecological, faunal, floral, geomorphological, natural or zoological significance, for the purpose of protecting, propagating or developing wild life or its environment.]*

***Sec. 27. Restriction on entry in sanctuary.**- (1) No person other than,-*

(a) a public servant on duty,

(b) a person who has been permitted by the Chief Wild Life Warden or the authorised officer to reside within the limits of the sanctuary,

(c) a person who has any right over immovable property within the limits of the sanctuary,

(d) a person passing through the sanctuary along a public highway, and

(e) the dependents of the person referred to in clause (a), clause (b) or clause (c), shall enter or reside in the sanctuary, except under and in accordance with the conditions of a permit granted under section 28.

Sec. 29: *No person shall destroy, exploit or remove any wild life including forest produce from a sanctuary or destroy or damage or divert the habitat of any wild animal by any act whatsoever or divert, stop or enhance the flow of water into or outside the sanctuary, except under and in accordance with a permit granted by the Chief Wild Life Warden, and no such permit shall be granted unless the State Government being satisfied in consultation with the Board that such removal of wild life from the sanctuary or the change in the flow of water into or outside the sanctuary is necessary for the improvement and better management of wild life therein, authorises the issue of such permit:*

Provided that where the forest produce is removed from a sanctuary the same may be used for meeting the personal bonafide needs of the people living in and around the sanctuary and shall not be used for any commercial purpose.

Sec. 30. Causing fire prohibited.*-No person shall set fire to a sanctuary, or kindle any fire, or leave any fire burning, in such manner as to endanger such sanctuary.*

Sec.31. Prohibition of entry into sanctuary with weapon.*-No person shall enter a sanctuary with any weapon except with the previous permission in writing of the Chief Wild Life Warden or the authorised officer.*

Sec.32. Ban on use of injurious substances.*-No person shall use, in a sanctuary, chemicals, explosives or any other substances which may cause injury to or endanger, any wild life in such sanctuary.*

Sec.33. Control of sanctuaries*.- The Chief Wild Life Warden shall be the authority who shall control, manage and maintain all sanctuaries ….*

Sec.35. Declaration of National Parks.

(1) Whenever it appears to the State Government that an area, whether within a sanctuary or not, is, by reason of its ecological, faunal, floral, geomorphological or zoological association or importance, needed to be constituted as National Park for the purpose of protecting, propagating or developing wild life therein or its environment, it may, by notification, declare its intention to constitute such area as a National Park.

8) The provisions of sections 27 and 28, sections 30 to 32 (both inclusive), and clauses (a), (b) and (c) of 2[section 33, section 33 A] and section 34 shall, as far as may be apply in relation to a National Park as they apply in relation to a sanctuary

***Sec.36A.** (1) The State Government may, after having consultations with the local communities, declare any area owned by the Government, particularly the areas adjacent to National Parks and sanctuaries and those areas which link one protected area with another, as a Conservation Reserve for protecting landscapes, seascapes, flora and fauna and their habitat:*

***Sec.36C.** (1) The State Government may, where the community or an individual has volunteered to conserve wild life and its habitat, declare any private or community land not comprised within a National Park, sanctuary or a conservation reserve, as a community reserve, for protecting fauna, flora and traditional or cultural conservation values and practices.*

***Sec. 38L.** (1) The Central Government shall constitute a body to be known as the National Tiger Conservation Authority, to exercise the powers conferred on, and to perform the functions assigned to it under this Act.*

***Sec.38O.** (1) The Tiger Conservation Authority shall have the following powers and perform the following functions, namely:—*

(a) to approve the Tiger Conservation Plan prepared by the State Government under sub-section (3) of section 38V of this Act;

(b) *evaluate and assess various aspects of sustainable ecology and disallow any ecologically unsustainable land use such as, mining, industry and other projects within the tiger reserves;*

(c) *lay down normative standards for tourism activities and guidelines for project tiger from time to time for tiger conservation in the buffer and core area of tiger reserves and ensure their due compliance;*

(d) *provide for management focus and measures for addressing conflicts of men and wild animals and to emphasise on co-existence in forest areas outside the National Parks, sanctuaries or tiger reserve, in the working plan code;*

(e) *provide information on protection measures including future conservation plan, estimation of population of tiger and its natural prey species, status of habitats, disease surveillance, mortality survey, patrolling, reports on untoward happenings and such other management aspects as it may deem fit including future plan conservation;*

(f) *approve, co-ordinate research and monitoring on tiger, co-predators, prey, habitat, related ecological and socio-economic parameters and their evaluation;*

(g) *ensure that the tiger reserves and areas linking one protected area or tiger reserve with another protected area or tiger reserve are not diverted for ecologically unsustainable uses, except in public interest and with the approval of the National Board for Wild Life and on the advice of the Tiger Conservation Authority;*

(h) *facilitate and support the tiger reserve management in the State for biodiversity conservation initiatives through eco-development and people's participation as per approved management plans and to support similar initiatives in adjoining areas consistent with the Central and State laws;*

(i) *ensure critical support including scientific, information technology and legal support for better implementation of the tiger conservation plan;*

(j) *facilitate ongoing capacity building programme for skill development of officers and staff of tiger reserves; and*

(k) *perform such other functions as may be necessary to carry out the purposes of this Act with regard to conservation of tigers and their habitat.*

(2) *The Tiger Conservation Authority may, in the exercise of its powers and performance of its functions under this Chapter, issue directions in writing to any person, officer or authority for the protection of tiger or tiger reserves and such person, officer or authority shall be bound to comply with the directions:*

Provided that no such direction shall interfere with or affect the rights of local people particularly the Scheduled Tribes

Sec. 38Y. *The Central Government may, for the purposes of this Act, by order published in the Official Gazette, constitute a Tiger and other Endangered Species Crime Control Bureau to be known as the Wildlife Crime Control Bureau.*

Sec.51.. Penalties.-

(1) Any person who contravenes any provision of this Act (except Chapter VA and section 38J) or any rule order and made there under or who commits a breach of any of the conditions of any license or permit granted under this Act, shall be guilty of an offence against this Act, and shall, on conviction, be punishable with imprisonment for a term which may extend to three years or with fine which may extend to twenty-five thousand rupees or with both:

Provided that where the offence committed is in relation to any animal specified in Schedule I or part II or meat of any such animal or animal article, trophy or uncured trophy derived from such animal or where the offence relates to hunting in, or altering the boundaries of a sanctuary or a National Park, such offence shall be punishable with imprisonment for a term which shall not be

less than three years but may extend to seven years and also with fine which shall not be less than ten thousand rupees.

Provided further that in the case of a second or subsequent offence of the nature mentioned in this sub-section, the term of imprisonment shall not be less than three years but may extend to seven years and also with fine which shall not be less than twenty five thousand rupees.

(1A) Any person who contravenes any provisions of Chapter VA, shall be punishable with imprisonment for a term which shall not be less than three years but which may extend to seven years and also with fine which shall not be less than ten thousand rupees.

(1B) Any person who contravenes the provisions of section 38J shall be punishable with imprisonment for a term which may extend to six months, or with fine which may extend to two thousand rupees, or with both.

Provided that in the case of a second or subsequent offence the term of imprisonment may extend to one year, or with fine which may extend to five thousand rupees.

(IC) Any person, who commits an offence in relation to the core area of a tiger reserve or where the offence relate to hunting in the tiger reserve or altering the boundaries of the tiger reserve, such offence shall be punishable on first conviction with imprisonment for a term which shall not be less than three years but may extend to seven years, and also with fine which shall not be less than fifty thousand rupees but may extend to two lakh rupees; and in the event of a second or subsequent conviction with imprisonment for a term of not less than seven years and also with fine which shall not be less than five lakh rupees but may extend to fifty lakh rupees. (The Wildlife (Protection) Act, 1972, Govt. of India 2006.)

Country Profile: NEPAL

- **Conventional long form name :** Federal Democratic Republic of Nepal
- **Government type:** Federal Democratic Republic
- **Capital:** Kathmandu
- **Population:** 30,430,267 (July 2013 est)
- **Country comparison to the world:** 42
- **Urban population :** 17% of total population (2011)
- **Literacy:**
  - **Definition :** age 15 and over can read and write
- **Total population:** 57.4%
  - **Male:** 71.1%
  - **Female:** 46.7% (2011 est.)
- **GDP (purchasing power parity):**
  - US$ 41.22 billion (2012 est.)
- **Country comparison to the world:** 102
- **Geographic coordinates: 27 43 N, 85 19 E**
- **Total Geographical Area (sq.km.): 147,181**
- **Global ranking according to area: 94**
- **Land Area (sq.km.): 143,351**
- **Forest Area (sq.km.): 36360**
- **Forest Area as % of geographical area: 25**
- **Water Area (sq.km.): 3,830**
- **Total Land Boundaries (km.): 2,926**
- **Border Countries: China 1,236 km., India 1,690 km**
- **Coastline (km.): 0**
- **Highest Point (m): 8,850 m above msl –Mount Everest**
- **Lowest Point (m): 70- msl- Kanchan Kalan**

Major Environmental issues: deforestation, increasing demand for wood for fuel and lack of alternatives; wildlife conservation;

Environment - international agreements:

Nepal is party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Ozone Layer Protection, Tropical Timber 83, Tropical Timber 94, Wetlands

It has signed, but not ratified: Marine Life Conservation

Has taken Actions on 109 Agreements including: **

18 Signatures

40 Ratification, Accession, Succession, or Similar

91 Entry Into Forces

3 Withdrawal or Similar

(World Bank 2014, at http://data.worldbank.org/region/SAS,
World Population Data Sheet (2013). http://www.prb.org/pdf13/2013-population-data-sheet_eng.pdf)

Legal Framework for Wildlife Conservation

Umbrella legislation: "National Parks and Wildlife Conservation Act, (2029)", 1973

Important Provisions:

Sec 2: "National Park" means an area set aside for the conservation, management and utilization of flora, fauna and scenery along with the natural environment.

b. *"Strict Nature Reserve" means an area of ecological importance or important otherwise and set aside for scientific studies.*

c. *"Wildlife Reserve" means an area set aside for the conservation and management of wildlife resources and their habitats.*

d. *"Hunting Reserve" means an area set aside for the management of wildlife for allowing hunters to hunt them.*

e. *"Reserve" means strict nature reserve, wildlife reserve and hunting reserve.*

(e1) *"Conservation Area" means an area to be managed according to an integrated plan for the conservation of natural environment and balanced utilization of natural resources.*

(e2) *"Buffer Zone" means a peripheral area of a national park or reserve prescribed under the Section 3a in order to provide facilities to use forest resources on a regular and beneficial basis for the local people.*

f. *"Wildlife" means mammals, birds, reptiles, pieces, amphibians and insects of any kind other than domesticated and this term also includes the eggs of Oviparous creatures.*

(h) *"Hunting" means the act of chasing, capturing, torturing or killing of any wildlife by any means or attempting to do so or extracting any part of its body or eliminating it or taking out or destroying its eggs or taking out, destroying or disturbing its nest.*

Sec. 3. *Government of Nepal may declare an area as a national park, or reserve or conservation area by publishing a notice in the Nepal Gazette and indicating the boundary thereof.*

Sec 5. Prohibited actions within national park or reserve: *No person shall carry out the following actions within national park or reserve without obtaining a written permission from the authorized official:*

a. *To hunt wildlife,*

b. *To construct or possess house, hut, shelter, or any other structures of any material,*

c. *To occupy, clear, reclaim or cultivate any part or grow or harvest any crop,*

d. *To graze any domestic animal or bird, or feed water to it,*

e. *To cut, clear, fell, remove or block trees, plants, bushes or any other forest resources, or do anything to cause any forest resources dry, or set it on fire, or otherwise harm or damage it,*

f. *To dig mines, stones or remove any mineral, stone, boulder, earth or any other similar material,*

g. *To cause damage to forest resources or wildlife or birds or any land*

h. *To carry arms, ammunition or poison, or use them*

i. *To take any domestic or any other kind of animal or trophy by persons other than government employees on deputation or visitors of the public paths within the national park or reserve, and*

j. *To block, divert any river or stream flowing through national park or reserve, or any other source of water, or use any harmful or explosive materials therein.*

***Sec 10. Protected wildlife**: The wildlife mentioned in Schedule-1 of this Act shall be considered as the protected wildlife and their hunting is prohibited. However, a rogue wild elephant, a man-eater tiger and wildlife that suffers from disease or have become disabled and may not survive, shall be killed or captured on the order of the prescribed officer. Also, when deemed necessary wildlife, which come out of the forested area and cause considerable loss to human beings or to domestic birds and animals, may be killed, captured or chased on the order of the prescribed officer.*

***Sec 11. Prohibition to hunt without a license**: (1) No person shall be permitted to hunt wildlife without obtaining a license.*

Sec 26. Punishment:

(1) *Any person who illegally kills or injures, sells, purchases or transfers or obtains rhinoceros, tiger, elephant, musk deer, clouded leopard, snow leopard or bison, or keeps, purchases or sells rhinoceros horn or musk-pods or the fur of snow leopard as well as trophies of any other protected wildlife, shall be punished with a fine ranging from fifty to one hundred thousand rupees or an imprisonment ranging from five years to fifteen years or both.*

(2) *Any person who kills or injures any other protected wildlife other than those mentioned in Sub-Section (1) shall be punished with a fine ranging from forty to seventy five thousand rupees, or face an imprisonment ranging from one year to ten years or both.*

(3) *Any person who hunts and kills or injures wildlife other than birds and fish inside a national park, strict nature reserve or wildlife reserve without obtaining a license shall be punished with a fine ranging from one thousand rupees and ten thousand rupees or face imprisonment ranging from six months to two years or both.*

(4) *Any person who hunts and kills or injures protected birds shall be punished with a fine ranging from five hundred rupees and ten thousand rupees or face imprisonment ranging from three months and two years or both.*

(5) *Any person who hunts and kills or injures birds other than protected birds inside a national park, strict nature reserve or wildlife reserve without obtaining a license shall be punished with a fine ranging from two hundred rupees and ten thousand rupees, or face imprisonment ranging between three months and two years or both.*

(6) *Any person who commits an offense other than those mentioned in Sub-Section (1), (2), (3), (4) and (5), in contravention of this Act or the Rules framed under the Act shall be punished with a fine up to ten thousand rupees or two years imprisonment or both depending on the nature of the case.*

(http://www.dofdocs.gov.np/information.php?info_id=3.)

2. Regional Perspective

Country Protected Area Network profiles**

(** Source: https://protectedplanet.net/c/united-nations-list-of-protected-areas/united-nations-list-of-protected-areas-2014 accessed on 28th Feb 2017).

Table 4: Protected Area Profile of Bangladesh

BANGLADESH	Category	Number	Area (sq.km.)
	National Park	17	457.46
	Wildlife Sanctuary	17	2196.72
	Dolphin Sanctuary	3	5.78
			2659.96

Table 5: Protected Area Profile of Bhutan

BHUTAN	Category	Number	Area (sq.km.)
	National Park	5	12929.0
	Strict Nature Reserve	1	609.0
	Wildlife Sanctuary	4	2865.0
	TOTAL	**10**	**16403**

Table 6: Protected Area Profile of Nepal

NEPAL	Category	Number	Area (sq.km.)
	National Park	10	10853.0
	Wildlife Reserve	3	979.0
	Conservation Areas	6	15425.95
	Hunting Reserve	1	1325.0
	TOTAL	**19**	**28582.95**

Table 7: Protected Area Profile of India

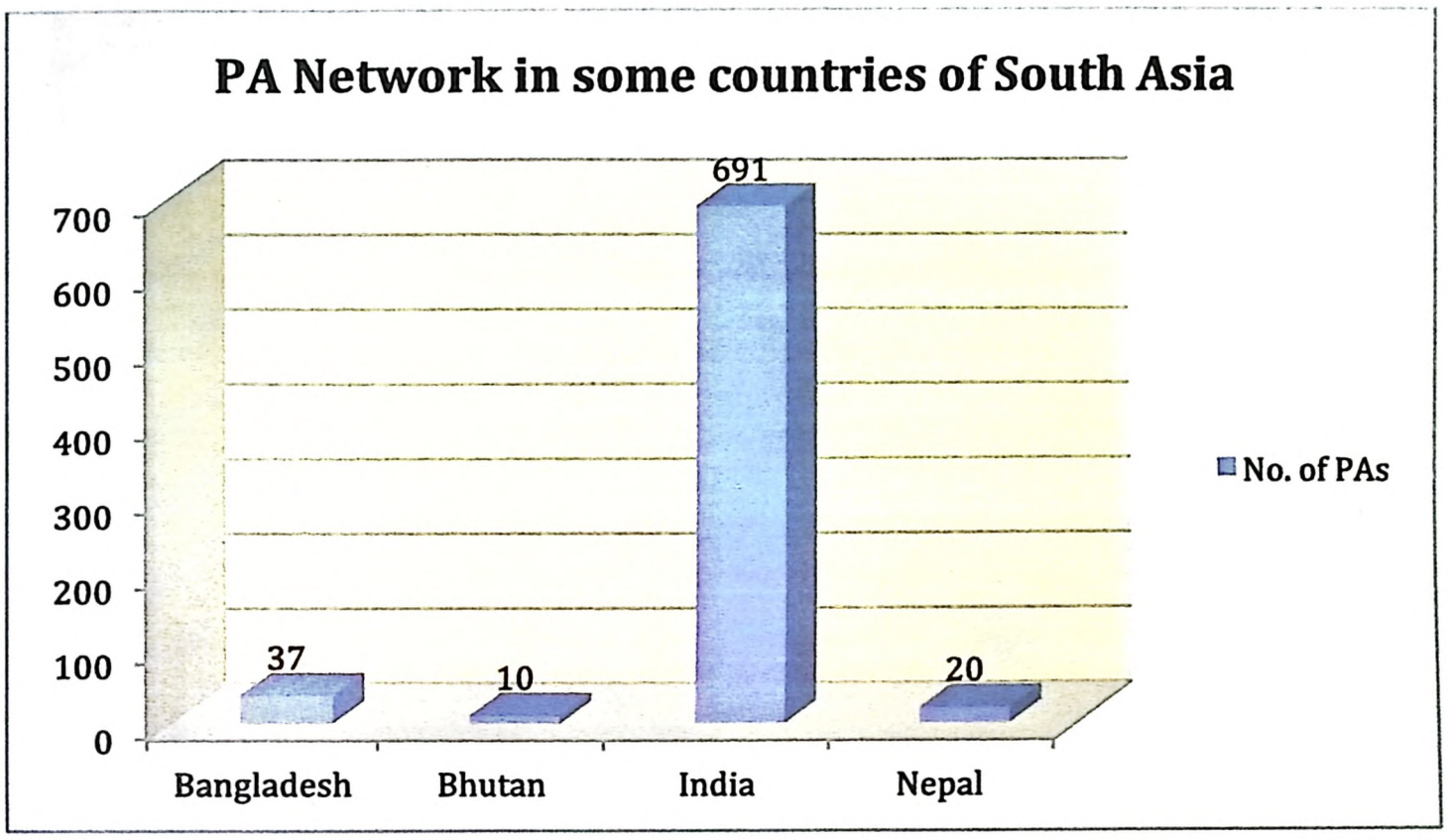
INDIA	Category	Number	Area (sq.km.)
	National Park	102	40043.13
	Wildlife Sanctuary	529	129409.37
	Community Reserve	4	20.62
	Conservation Reserve	56	1742.62
	TOTAL	**691**	**171215.74**

Table 8:

Protected Area Network in some countries of South Asia

Country	Geog Area (sq. km.)	No. of PA's	PA area	PA Area as % of Geog Area	Avg PA size (sq. Km)
Bangladesh	143998.00	37	2659.96	1.85	71.89
Bhutan	38394.00	10	16403.00	42.72	1640.30
India	3287263.00	691	171215.74	5.21	247.78
Nepal	147181.00	20	28582.95	19.42	1429.15

Chart 6:



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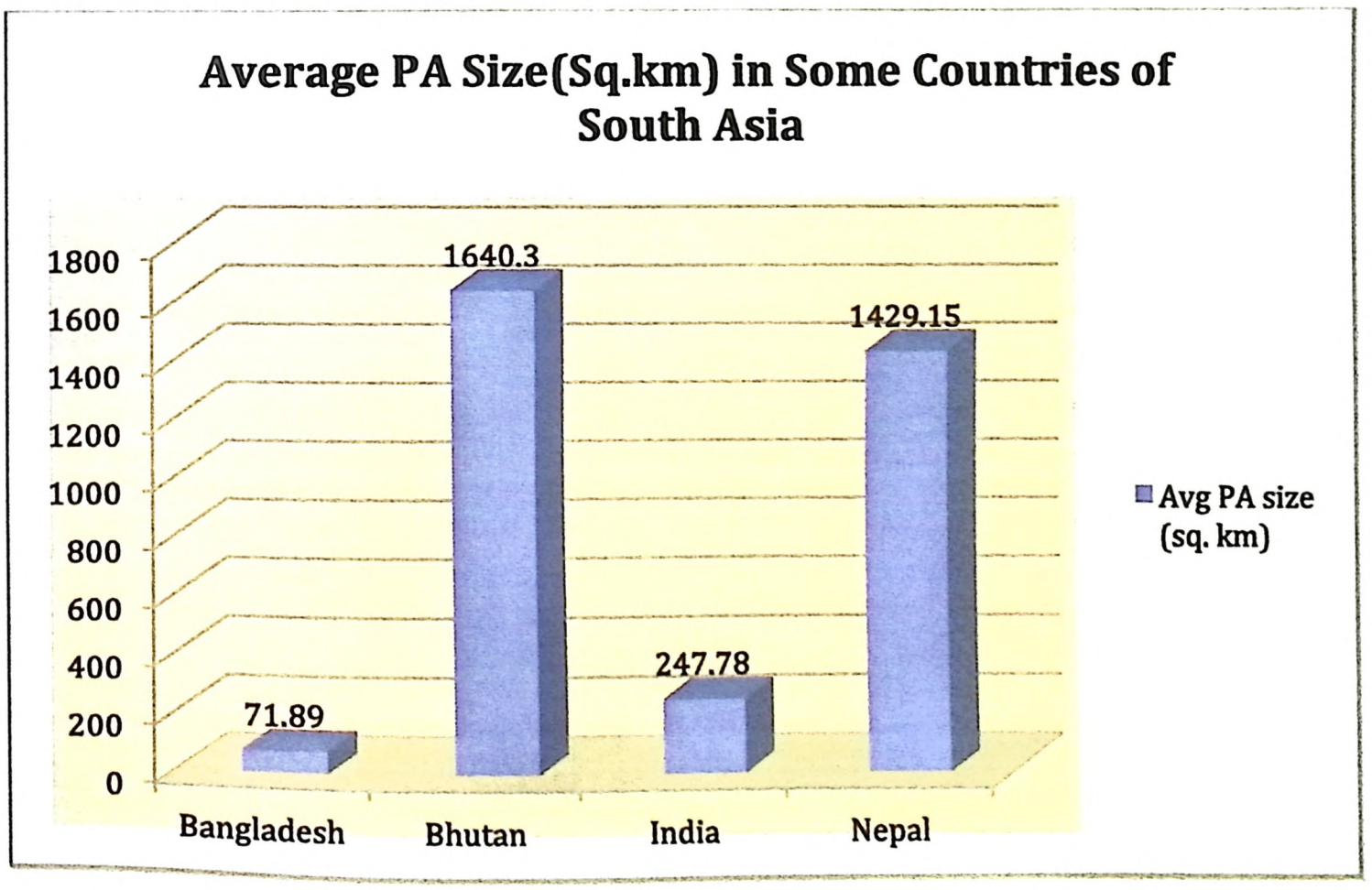

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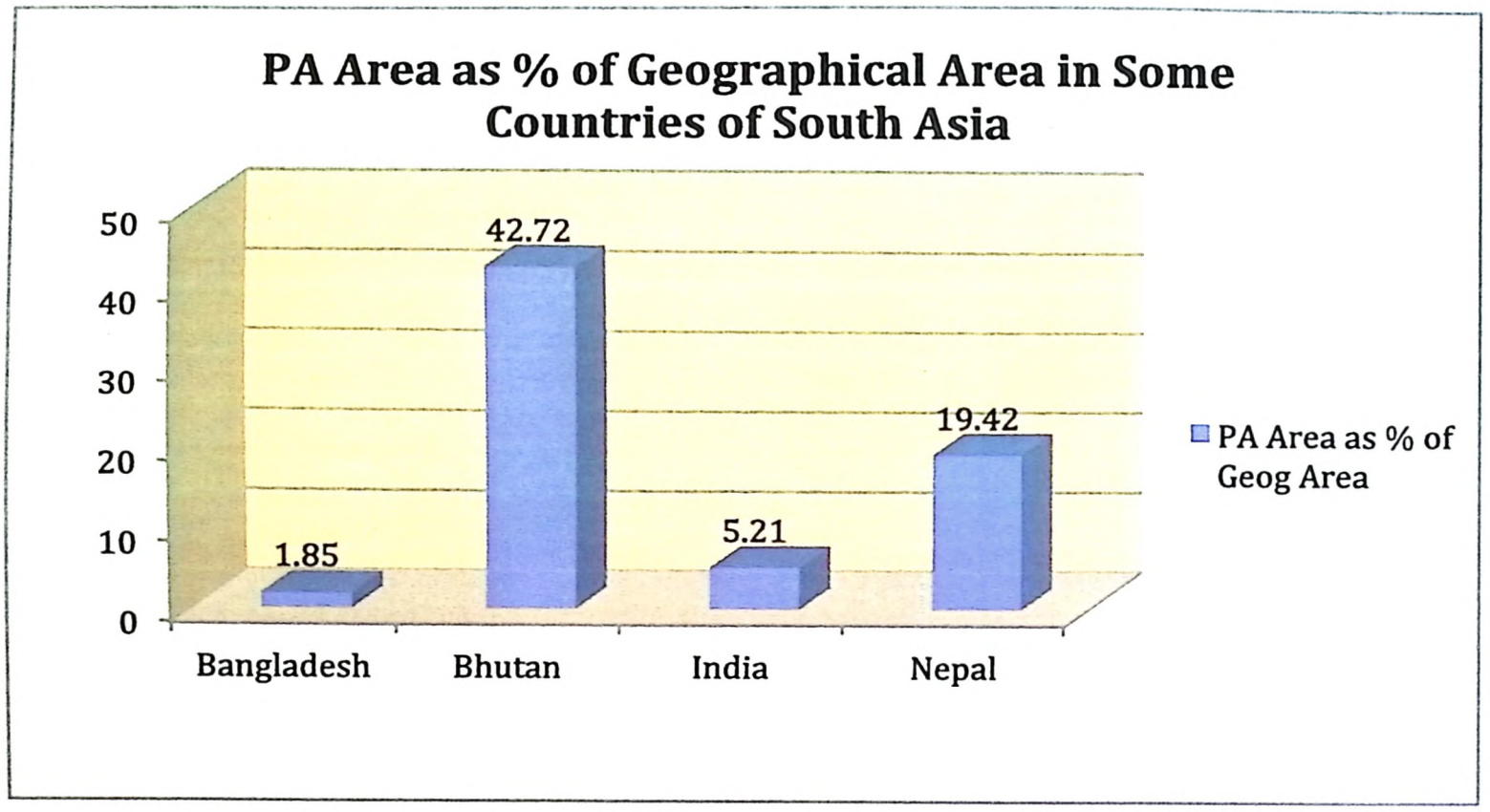


Chart 9: Protected Areas in Bangladesh

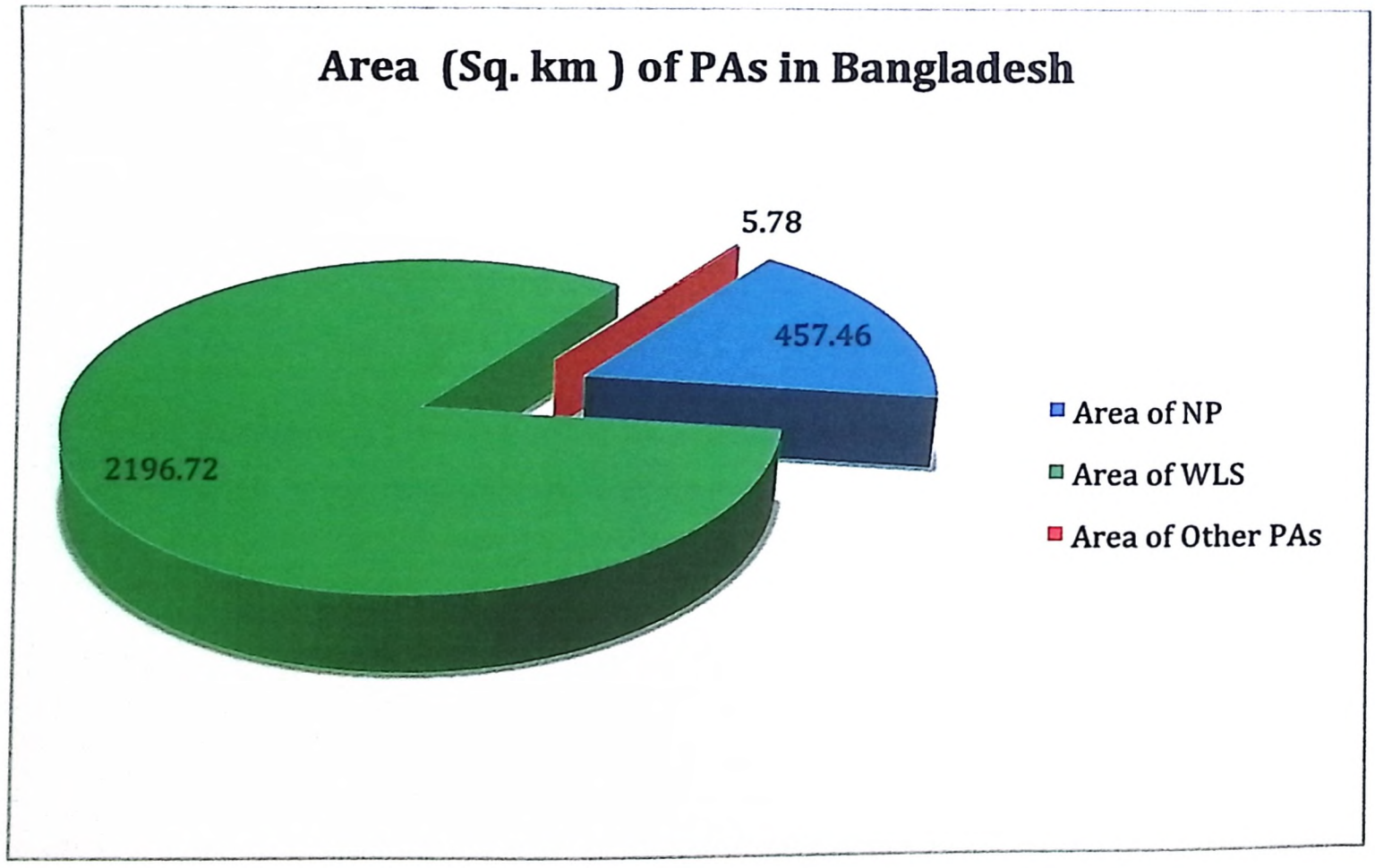


Chart 10: Protected Areas in Bhutan

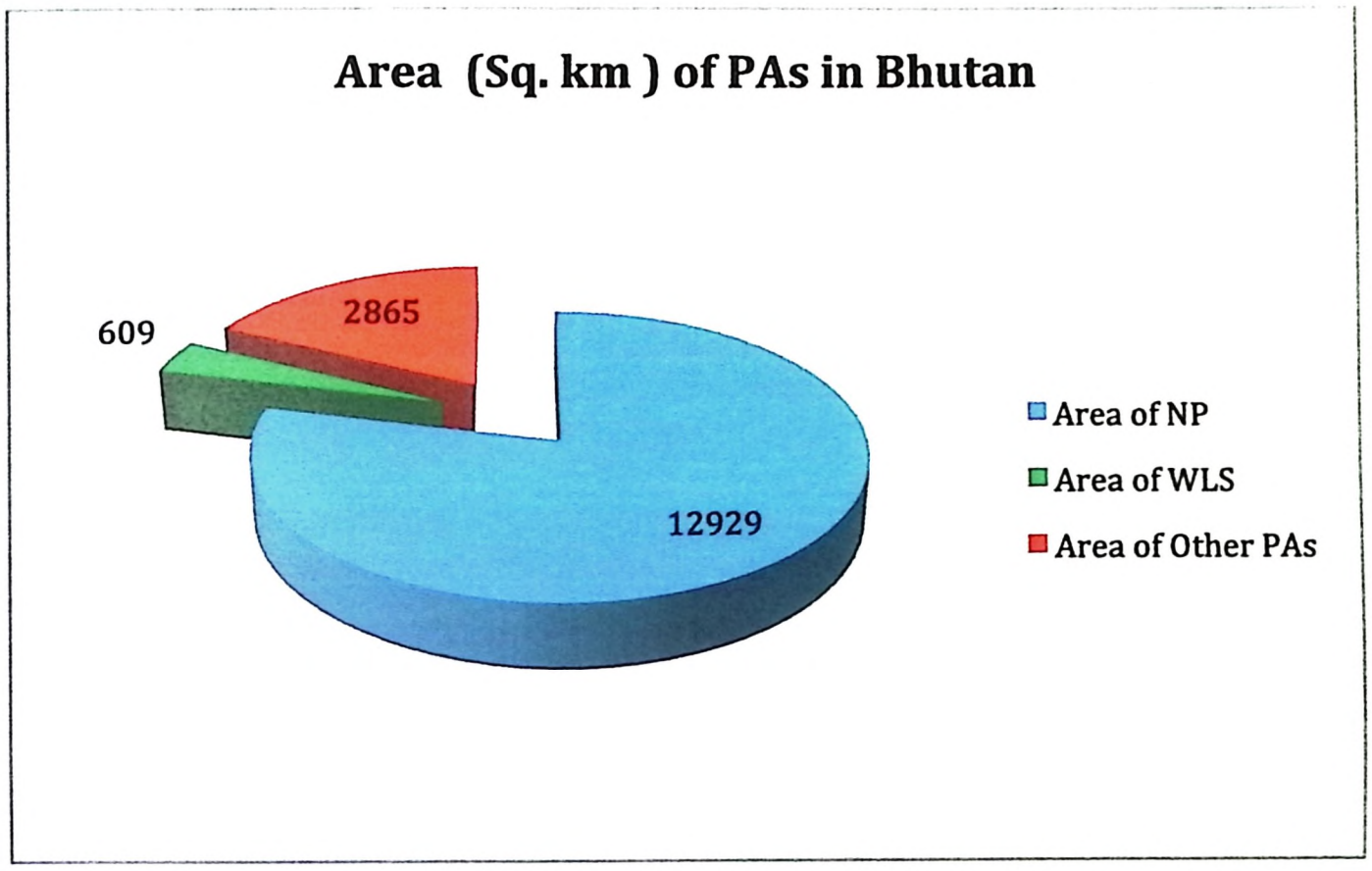


Chart 11: Protected Areas in India

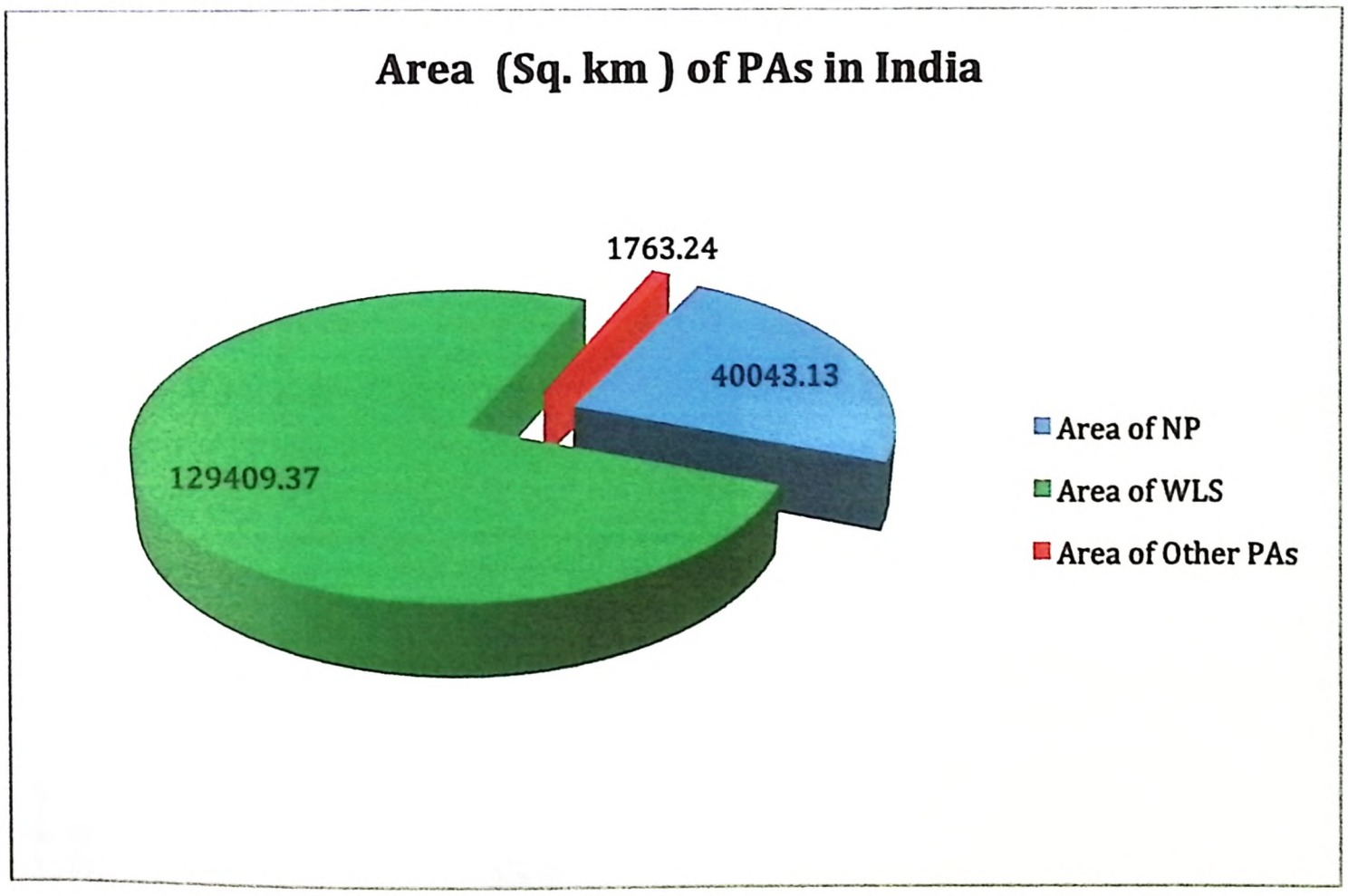
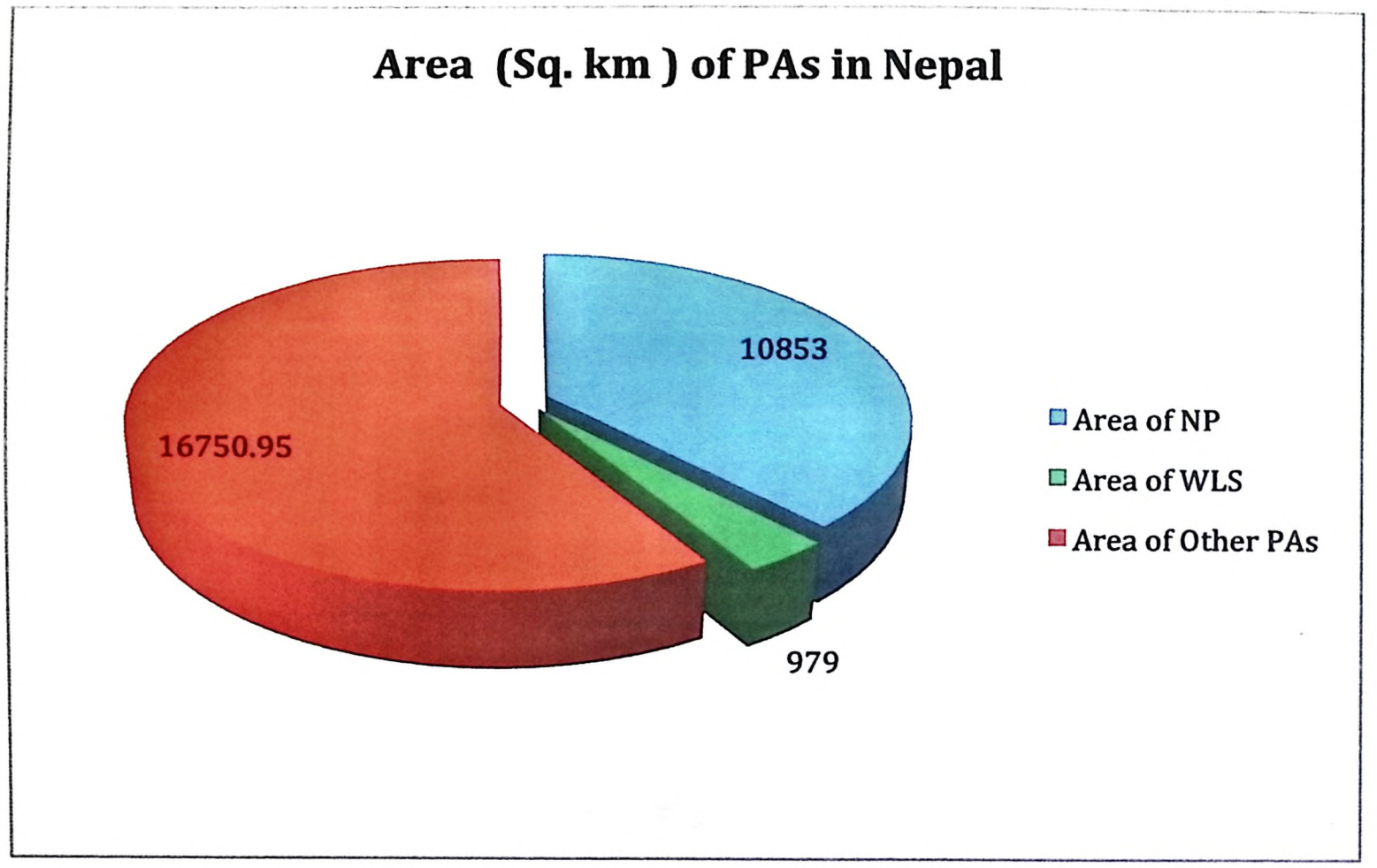


Chart 12: Protected Areas in Nepal



3. Status of CITES Compliance in South Asia:

Table 9: Date of accession to the CITES Convention by South Asian Countries

Serial	Country	Date of Joining CITES
1	Nepal	18/06/1975
2	Pakistan	20/04/1976
3	India	20/07/1976
4	Sri Lanka	04/05/1979
5	Bangladesh	20/11/1981
6	Afghanistan	30/10/1985
7	Bhutan	15/08/2002
8	Maldives	12/12/2012

Table 10: National Legislation Project Status**

Country	Entry into Force	Category	Plan	Draft	Submitted	Enacted
Afghanistan	**28/01/86**	3	Y	Y	-	N
Bangladesh	**18/02/82**	2	Y	Y	Y	N
Bhutan	**13/11/02**	3	Y	Y	-	N
India	**18/10/76**	2	Y	Y	-	N
Nepal	**16/09/75**	3	Y	Y	Y	N
***Pakistan**	**09/07/76**	3	Y	Y	-	N
Sri Lanka	**02/08/79**	3	Y	Y	-	N

* Pakistan has been identified as a Party currently requiring attention as a priority under the National Legislation Project

Keys:

Category:

1: legislation that is believed generally to meet the requirements for implementation of CITES (85 Parties and 11 dependent territories)

2: legislation that is believed generally not to meet all requirements for the implementation of CITES (49 Parties and 16 dependent territories)

3: legislation that is believed generally not to meet the requirements for the implementation of CITES (41 Parties and 2 dependent territories)

**Source: CITES Notification No. 2012/036, National laws for implementation of the Convention , Geneva, 18 April 2012.

Also see CITES CoP12 Doc. 28, Twelfth meeting of the Conference of the Parties Santiago (Chile), 3-15 November 2002

Status of Compliance on CITES Annual and Biennial reports

See, NOTIFICATION TO THE PARTIES, No. 2012/016 Geneva, 28 February 2012 Concerning Submission of national reports, http://www.cites.org/eng/notif/2012/E016.pdf

Status of Biennial Report, now known as Implementation Report

Article VIII, paragraph 7, of the Convention also requires each Party to submit a biennial report on legislative, regulatory and administrative measures taken to enforce the Convention.

Biennial reports, now known as implementation reports, provide an opportunity for Parties to share information regarding their overall implementation of the Convention, including their progress in the development and application of laws and regulations, administrative procedures, economic and social incentives and wildlife trade policies.

Table 11: Status of Submission of CITES Biennial Reports by South Asian Countries

Country	Year of Biennial Report					
	2003-04	2005-06	2007-08	2009-10	2011-12	2013-14
	Date of Submission					
Afghanistan	-	-	-	-	-	-
Bangladesh	-	-	-	-	-	-
Bhutan	14/06/06	-	-	-	-	-
India	-	-	-	-	-	-
Nepal		17/11/08	16/09/12	16/09/12	-	-
Pakistan			30/09/09		03/04/132	03/02/15
Sri Lanka	-	-	-	-	-	-

Based on https://cites.org/eng/resources/reports/biennial.php accessed on 07/03 2017

*** Maldives has become a member on 12/03/2013

*Biennial reports should be submitted to the Secretariat by 31 October following the year to which they relate.

CITES Annual Trade Report

Article VIII, paragraph 7, of the Convention requires each Party to submit an annual report on its CITES trade, containing a summary of information on, *inter alia*, the number and type of permits and certificates granted, the States with which such trade occurred, the quantities and types of specimens, and the names of species as included in Appendices I, II and III.

Table 12: Status of Submission of CITES Annual Reports by South Asian Countries

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Afghanistan	-	-	-	-	-	-	-	-	-	-	-
Bangladesh	29/01/08	29/01/08	01/07/10	01/07/10	06/02/11	19/02/12	02/06/14	02/06/14	-	-	-
Bhutan					-	27/01/16	27/01/16	27/01/16	27/01/16	27/01/16	-
India	31/03/08	26/02/09	28/10/09	24/11/10	10/01/12	-	09/10/13	03/11/14	23/10/15	21/10/16	-
Maldives	-	-	-	-	-	-	-	-	-	-	-
Nepal	13/07/08	13/07/08	16/09/12	16/09/12	16/09/12	16/09/12	30/09/13	24/09/15	24/09/15	22/09/16	-

Pakistan	24/ 03/ 07	30/ 09/ 09	30/ 09/ 09	12/ 02/ 13	12/ 02/ 13	12/ 02/ 13	12/ 02/ 13	08/ 04/ 13	03/ 02/ 15	18/ 02/ 15	-
Sri Lanka	25/ 05/ 07	30/ 12/ 08	-	13/ 03/ 10	09/ 01/ 13	01/ 03/ 13	23/ 03/ 15	14/ 09/ 15	23/ 10/ 15	21/ 09/ 16	-

*** Maldives has become a member on 12/03/2013

* Annual reports should be submitted to the Secretariat by 31 October following the year to which they relate. / http://www.cites.org/cms/public/common/resources annual_reports.pdf.

Annual Report data accessed on 1st March 2017 (accessed on 07/03/2017).

Also see CITES Conf 11.17 Rev. Cop17
https://cites.org/sites/default/files/document /E-Res-11-17-R17.pdf

Discussion:

As is evident from the above, all 8 countries of South Asia are members of CITES. However, none of the countries are regular in the compliance of reporting requirements as laid down by CITES. While many countries have submitted Annual Reports from time to time, submission of Biennial Reports is extremely poor. The status of the National Legislation Project is even more worrying as none of the South Asian countries are in compliance with CITES requirements as prescribed. Only Bangladesh and Nepal have submitted Draft plans so far. None of the countries have legislation that is believed to meet all requirements for the implementation of CITES. Pakistan has been identified as a country that needs special attention under this project.

It is disappointing that despite several decades of membership of CITES by some of the nations of South Asia, they still do not meet even some of the basic requirements of CITES, nor are they in regular compliance with reporting requirements under the convention. As such, the status of compliance under CITES for the region can at best be described as "poor".

Chapter 6:

In Search of An Ideal Legal Framework: A Comparative Analysis of the Endangered Species Act of USA (1973) and the Wildlife (Protection) Act (1972) of India

Management of threatened and endangered species requires decision making in the face of uncertainty. This gives rise to two needs: understanding the decision context of threatened species management, and understanding how to make decisions when we do not know everything we would like to know (Runge 2011). The legal and policy framework thus assigned towards such management provides a key indicator towards such decision making.

The United States of America and India are both important countries from the perspective of wildlife trade. India, a mega diverse country, is the source for many of the rare and endangered wildlife species and their derivatives that command a high value in the international market. The USA is largely driving this trade (U.S. House of Representatives, Sep 16, 2008, Serial 110-84) and is acknowledged as a primary destination for wildlife and wildlife products from legal and illegal sources (Crawford Allan 2008 in testimony before U.S. House of Representatives, Sep 16). As such, the policies and practices of both have considerable significance for the future of many wild species.

This chapter seeks to evaluate and compare the legislative and implementation characteristics of wildlife conservation including trade regulation across both countries.

As two of the world's largest democracies, it is interesting to note that the umbrella legislations for conservation of wild species found their way into the statute books at around the same time. The Wildlife (Protection) Act- WLPA was enacted in India in 1972 while the Endangered Species Act (ESA) was enacted in the USA in 1973.

The ESA is seen as an example of an international legislative framework for the protection of species as the United States has one of the most

sophisticated CITES implementation programs and it can legitimately claim to have implemented CITES longer than any of the other member-parties (Daniel 1999).

WLPA- the Early Days:

When the WLPA was first enacted in 1972, the culture of *shikar* or game hunting was still largely prevalent across India. Thanks to a global outcry, tiger hunting had just been prohibited, but not before many such sport hunters and hunting outfits protested against loss of valuable foreign exchange due to such a ban. "Project Tiger", globally acknowledged as the largest species conservation programme of its kind, was launched on 1st April 1973 in Corbett National Park, India and mainland Asia's first National Park established in 1936.

It is interesting to note that the preamble to the first version of the WLPA in 1972 mentioned that whereas it is expedient to provide for the protection of wild animals and birds and for matters connected therewith or ancillary or incidental thereto; Parliament has no power to make laws for the States with respect to any of the matters aforesaid except as provided in Articles 249 and 250 of the Constitution. This is because the subject of "wildlife" was part of the State list. It was moved to the "Concurrent list" by the 42nd Amendment to the Constitution of India in 1976, thus empowering Parliament to enact laws related to wildlife without taking recourse to Article 252(1) (Divan et al 1995). By an amendment in 1991, Parliament also extended the operation of the WLPA to the whole of India except the State of Jammu and Kashmir, which has its own Wildlife Act. (Act 44 of 1991, Sec.4 (w.e.f. 2.10.91).

The WLPA defined "wild animal" to mean any animal found wild in nature and includes any animal specified in Schedule I, II, III or IV of the Act.

This initial definition had a very wide scope under law. Thus, while any species listed under the various schedules so described above were included under the definition of 'wild animal", this was not limited to just those species. The choice

of the word "includes" indicated that the primary definition was of "any animal found wild in nature".

The Act also provided for "hunting" of wild animals specified in Schedule 11, Schedule III, or Schedule IV under a licence granted by the Chief Wild Life Warden or any other officer who may be authorised by the State Government in this behalf. These could be issued as (a) Special game hunting licence, (b) Big game hunting licence, (c) Small game hunting licence or (d) Wild animal trapping licence.

The hunting of young and female of wild animals other than vermin and of any deer with antlers in velvet was prohibited. The State Government was authorised to declare certain times of the year and certain areas as "closed" for any such wild animal and no hunting of such animal would be permitted, during the said period, in the area specified in the notification.

Wild animals could not be hunted from or by means of, a wheeled or a mechanically propelled vehicle on water or land, or by aircraft, or with chemicals, explosives, nets, pitfalls, poisons, poisoned-weapons, snares or traps, except when provided under a Wild Animal Trapping Licence. Special or big game could be hunted only with a rifle. Use of any artificial light for the purpose of hunting, and hunting any wild animal between sun-set and sun-rise was also prohibited. Wild animals could also not be hunted on a salt-lick or water hole or other drinking place or on path or approach to the same, except sandgrouse and water-birds.

WLPA Today:

Since its first enactment, the WLPA has undergone several amendments in 1982, 1986, 1991, 2003 and 2006. More recently, a comprehensive amendment is under consideration of the Government of India. The amendments have in many ways, drastically altered the structure of the WLPA. This is first reflected in the change to its preamble which now reads "...An Act to provide for the protection of wild animals, birds and plants and for matters connected therewith or ancillary or incidental thereto with a view to ensuring

the ecological and environmental security of the country." (amended vide Act 16 of 2002, Sec 3 (w.e.f. 1.4.03)).

This change is extremely significant, as it acknowledges for the first time that the protection of wild species and their habitats has a bearing on the ecological and environmental security of India.

Amongst other significant features of the WLPA as it now stands, "wild animal" *means* any animal specified in Schedules I to IV and found wild in nature; Section 2(36).

"Wild life" *includes* any animal, aquatic or land vegetation which forms part of any habitat; Sec 2(37).

Most provisions enabling hunting such as for "Closed Areas, Big game etc. now stand deleted.

Several authorities and bodies have been constituted under the provisions of the Act. Thus, the National Board for Wildlife is chaired by the Prime Minister and is the highest body mandated with the task of promoting the conservation and development of wildlife and forests by such measures as it thinks fit (Sec 5A, B &C). Similarly, States are required to have a State Board for Wildlife to be chaired by the Chief Minister of the state.

Species are listed under various Schedules. All species listed under Schedule I to IV receive protection as "wild animals' irrespective of where they are found and cannot be hunted (Sec 9) except in special conditions as provided under Sec. 11 & 12 of the WLPA.

A new Chapter III A introduced in 1991 has included a new Schedule VI listing certain species of plants under the WLPA. The WLPA (Sec 17A) provides that no person shall wilfully pick, uproot, damage destroy, acquire or collect any specified plant listed in Schedule VI from any forest land and area as notified, or possess, sell, offer for sale, or transfer by way of gift or otherwise, or

transport any specified plant, whether alive or dead, or part or derivative thereof.

The WLPA also lays down the process of law to establish various Protected Areas including Sanctuaries, National Parks, Conservation Reserves and Community Reserves. It also lays down the various activities which are regulated or prohibited in such areas and the punishments for violation of such provisions, which could include penalties and imprisonment.

The Act has also provided for the establishment of a National Tiger Conservation Authority and a Wildlife Crime Control Bureau. It is of interest to note here that of the 800 plus species listed under various Schedules under the WLPA, the tiger, India's national animal is the only one which has a statutory body specifically mandated to protect its interests.

Wildlife trade in species listed under Schedule I to IV has also received attention and the WLPA provides for specific provisions on trading in scheduled species and/or their parts and derivatives. There is also a provision for forfeiture of property derived from illegal hunting and trade.

As regards changes in the list of species on various Schedules of the WLPA, the Central Government is empowered to add or delete any entry to or from any Schedule or transfer any entry from one part of the schedule to another part of the same Schedule or from one Schedule to another.

The Central Government, and in certain cases the State government is empowered to make rules for various matters related to the implementation of the WLPA (Sec 63 & 64).

Two other important aspects of the WLPA merit attention;

- The officers or other employees of the Central Government or the State Government and the Central or the State Government themselves have legal protection against any suit, prosecution, or other legal proceeding

for anything which is done or intended to be done under this Act in good faith, including for any damage caused or likely to be caused by any such action.

- Also, several provisions of the WLPA carry timelines (e.g Sec 5A, Sec 6, Sec 7, Sec 18 B, Sec 21, Sec 25A, Sec 34). However, in most such cases, the timeline is for appointment of an authority or a body (eg Sec 5A, Sec 18B) but when it is with respect to completion of certain processes, the WLPA liberally precedes the prescribed time limit with the words "...as far as possible (eg Sec 25A)"

The Endangered Species Act (ESA)

The U.S. has a long history of legislation to protect wildlife, beginning with the Lacey Act of 1900. There are now over 170 Federal laws that regulate environmental activities, which may affect wildlife. (Fairbrother 2009).

The Endangered Species Act (ESA) is considered as the most important piece of legislation in the USA aimed at conserving wild species. It is also one of the most controversial pieces of endangered species legislation and has been the topic of much criticism (Daniel 1999). In the opinion of the U.S. Supreme Court , the ESA represents the most comprehensive legislation for the preservation of endangered species ever enacted by any nation. (437 U.S. 153 (1978) Tenessee Valley Authority vs Hill et al. No. 76-1701. Supreme Court of United States). It has also been described as the "pit bull of environmental laws" (Ruhl 2012).

ESA is a federal law which largely impinges upon federal agencies to implement its various provisions. Supporters call the ESA the "crown jewel" of the nation's environmental legislation and an absolutely essential tool for protecting biodiversity. Opponents claim that the ESA imposes unreasonable costs on society while delivering few benefits (Ferraro et al 2007). Arguments for and against the ESA vary. Those against include the Act's species-level rather than ecosystem-level focus, vague or contradictory legislative rulings,

interest group pressures that warp listing decisions, and landowner actions that pre-emptively harm species and their habitat in order to avoid regulatory burdens. As further evidence against the Act's effectiveness, critics cite the paucity of delisted species and of recovering species as defined by the US Fish and Wildlife Service (USFWS). Evidence in favour of the ESA are the Act's strong regulatory powers (particularly Sections 7 and 9), the recovery funds allocated by Congress annually and the arguments that the ESA has prevented extinctions and that there is a positive correlation between government funding and reported FWS status (Ferraro et al 2007).

The Endangered Species Act primarily aims to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species....". Further, the ESA goes on to explicitly state that "The terms "conserve", "conserving", and "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." Successful conservation thus, equals recovery (Goble 2009).

The main tool for biodiversity protection under the ESA is the placement of individual species on the official list of species that are either in danger of extinction or under the threat of becoming endangered (i.e., "threatened or endangered"). The list is maintained by the two federal agencies with the primary responsibility for ESA implementation and enforcement: the U.S. Fish and Wildlife Service for land and freshwater species and National Marine Fisheries Service for marine and anadromous species (Benson 2012).

Some important aspects of the ESA are discussed below.
The ESA mentions the following as a finding of the US Congress:

(1) Various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation;

(2) Other species of fish, wildlife, and plants have been so depleted in numbers that they are in danger of or threatened with extinction;

(3) These species of fish, wildlife, and plants ***are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people***;

Thus, the rock bed of the legislation of the ESA is the acknowledgment of the threat of extinction to various species in absence of adequate concern and conservation and also, more importantly, that these species of wildlife have "**value**" to the nation and its people.

It is also explicitly stated that *"the purposes of this Act are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in subsection (a) of this section."*

The Act goes on to state that *"it is further declared to be the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act."*

It is also important to note that the ESA also makes an acknowledgement of the Convention on International Trade in Endangered Species of Wild Fauna and Flora and its appendices. This is especially significant considering that the CITES Convention was signed by the first set of signatories only on March 3, 1973 and became operational only in 1975.

The ESA also lists species as threatened or endangered and provides for the establishment of Critical habitats for them. It also lays down detailed processes to determine whether any species is an endangered species or a threatened species because of any of the following factors:

(A) any present or threatened destruction, modification, or curtailment of its habitat or range;

(B) overutilization 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.

It is required by law that such designation of species as endangered or threatened are to be done ***solely on the basis of the best scientific and commercial data available*** after conducting a review of the status of the species (Sec 4 (B) b).

The ESA also provides for any "**Interested Person**" to petition the government to add a species to, or to remove a species from its list of endangered or threatened species. Such a petition may be evaluated to see if it presents substantial scientific or commercial information indicating substantive action. In such case, a much more detailed review may be carried out, leading to a final decision on such listing. In case of any negative finding, it shall be subject to judicial review.

This particular aspect of the listing process is unique in that any such petition from a citizen to list a particular species triggers a series of processes and activities linked with deadlines. Judicial review, as mentioned earlier is often brought into play at various stages. It is also interesting to note here that with regard to many of the deadlines, if they are missed by the Government itself, it comes in violation of the ESA and is liable to be prosecuted.

It is important to note here that the ESA does not limit itself to species found in the USA. As of January 2013, the FWS has listed 2,328 species worldwide as endangered or threatened, of which 1,652 occur in the United States. Of these 1,652 species, 1158 have an active Recovery Plan (USFWS 2017).

It has been stated that larger animals from higher forms of life (mammal, birds) were more likely to be listed. It is also stated that such species are likely to be "charismatic," and thus enjoy stronger political support than others. Also, species in conflict may generate extra political attention (Metrick and Weitzman 1996).

The primary reason for considering listing and funding together arises from the fact that many listed species get no more than their names in the Federal Register and a nominal amount of money for recovery efforts. In most years since 1989, fewer than 10% of the listed species received 90% of the available funds (Ferraro et al 2007).

The ESA also provides that once every five years, a review of all species included in the list of endangered or threatened species and on the basis of such review, for a decision to be taken whether any such species should —

(i) be removed from such list;

(ii) undergo a change in status from an endangered species to a threatened species; or

(iii) undergo a change in status from a threatened species to an endangered species.

In case any species so closely resembles in appearance, any species which has been listed under ESA to the extent that enforcement personnel would have substantial difficulty in attempting to differentiate between the listed and unlisted species, such species may be ordered to be treated as an endangered or threatened species even though it may not be listed as one.

The ESA also provides for the development and implementation of “recovery plans” for each listed species, unless it is determined that such a plan would not be useful. For such plans, priority is given to those endangered species or threatened species that are most likely to benefit from such plans.

Each plan would carry a description of such site-specific management actions as may be necessary to achieve the plan's goal for the conservation and survival of the species. It would also lay down a comprehensive set of objective, measurable criteria which, when met, would result in a decision that the species be removed from the list. Services of appropriate public and private agencies and institutions, and other qualified persons may also be obtained in developing and implementing such recovery plans.

For the purposes of the implementation of the ESA, the Federal Government may establish a mechanism for cooperation with various states of the Union. Such cooperation may include consultation with the states concerned before acquiring any land or water, or interest therein, for the purpose of conserving any endangered species or threatened species, any form of agreements for the administration and management of any such area established for the conservation of endangered species or threatened species or any cooperative agreements for the purpose of assisting in implementation of any state run programs for the conservation of endangered species and threatened species.

The Federal Government also provides funds to various agencies and states towards the achievement of the goals of this legislation.

The ESA makes it mandatory ("shall") for all Federal agencies to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of any critical habitat of such species, unless a specific exemption has been obtained towards the same (Sec 7(2).

To promote the worldwide protection of endangered species and threatened species, the ESA empowers the federal Government to engage with foreign countries to provide for the conservation of fish or wildlife and plants including endangered species and threatened species, enter into bilateral or multilateral agreements with such foreign countries and provide support including financial support towards the same (Sec 8).

The ESA also provides a framework for the implementation of CITES and the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere. (Sec 8A). Thus, it provides a firm legal basis for regulating trade in species listed under CITES and in strengthening CITES compliance in general.

The violation of various provisions of the ESA provides for both civil and criminal penalties (Sec 11).

Researchers have described the ESA as a straightforward statute, influential in part because of its linear and uncompromising approach to species protection (Scott et al 2005). This can be best described as **Evaluate-Enlist-Protect - Recover-Review-Delist**.

In effect, the ESA considers a progression of conservation efforts ultimately leading to the final goal of conservation of the species. This progression leads from a "risk assessment" of species which may lead to its "listing" as endangered or threatened. Once so listed, the next logical steps of risk management would work on preventing extinction and promoting recovery. Once the species is sufficiently "Recovered", it can be reviewed and finally delisted.

While such recovery is an avowed legal goal of the ESA, in criticism it is stated that Recovery is an elusive concept (Goble 2009).

However, while this may appear to be simple, in practice it is not at all so. The legally enforceable automatic deadlines that get triggered along various steps of this seemingly simple linear progression have led to the EPA being one of the most litigated laws in the USA (Benson 2012). This also makes it amongst the most controversial.

ESA, WLPA and the Courts:

The Federal Courts have a major role to steer the direction of implementation of any law. This is clearly evident in the way the US Supreme Court has dealt with questions regarding the ESA and the Supreme Court of India has dealt with questions involving the WLPA and other related issues.

ESA and the US Supreme Court:

It comes as a surprise that despite being one of the most controversial and litigated legislations on board, there appear to be only five cases involving the ESA that have been decided upon by the US Supreme Court.

Thus, in Tennessee Valley Authority vs. Hill, the court was asked to adjudicate upon the fact whether a dam being built by the Federal Government nearing completion having already spent a large sum of money, should be allowed to impound water, considering that it was likely to submerge what was then known as the only remaining habitat of a small fish, the snail darter. The issue before the court was, a) if by completing the dam, the TVA would violate the ESA? and b) if the TVA's actions would indeed offend the Act, would an injunction be the appropriate remedy?

By a majority judgment, the court answered "yes" to both questions. The majority ruling also found that the "language laid down in Section 7 of the ESA did not admit of any exception". The court went on to add that the ESA was "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation" and was intended to halt and reverse species extinction, "whatever the cost"(Coggins et al 1993).

Considering the economic significance of the project and how far construction had already progressed, the decision would likely have far reaching implications and was widely watched across society, including in the US Congress and Senate. In fact, a dissenting note on this judgement, mentioned clearly that ".....I have little doubt that Congress will amend the ESA to prevent the grave consequences made possible by today's decision. Few if any members of that body will wish to defend an interpretation of the Act that

requires the waste of at least 53 million USD...." (TVA vs Hill, Supreme Court of the United States, 1978, 437 U.S. 153).
This judgment rightfully finds its place in the annals of environmental jurisprudence as the classic David vs Goliath.

While the fate of endangered species under the ESA has been debated across various courts in the USA (eg Northern Spotted Owl vs Hodel, US District Court, Western District of Washington 1988, 716, F. Supp 479), it comes as a surprise that substantive issues regarding this "pit bull of environmental statutes" have been discussed by the US Supreme Court only five times so far.

In Babbitt vs Sweet Home, decided on June 29, 1995, Justice Stevens delivered the majority opinion of the US Supreme Court.

The issue before the court was that the Endangered Species Act of 1973 contains a variety of protections designed to save from extinction species that the Secretary of the Interior designates as endangered or threatened. Section 9of the Act makes it unlawful for any person to "take" any endangered or threatened species. The Secretary has promulgated a regulation that defines the statute's prohibition on takings to include "significant habitat modification or degradation where it actually kills or injures wildlife." This case presents the question whether the Secretary exceeded his authority under the Act by promulgating that regulation.

Thus, while the Act does not further define the terms it uses to define "take," the Interior Department regulations that implement the statute, define the statutory term "harm":

"Harm in the definition of `take' in the Act means an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioural patterns, including breeding, feeding, or sheltering."

Respondents in this action included small landowners, logging companies, and families dependent on the forest products industries in the Pacific Northwest and in the Southeast, and organizations that represent their interests who challenged the statutory validity of the Secretary's regulation defining "harm," particularly the inclusion of habitat modification and degradation in the definition on the ground that it injured them economically. In its ruling, the US Supreme Court concluded that the Secretary's interpretation i reasonable, primarily because *"...an ordinary understanding of the word "harm" supports it. The dictionary definition of the verb form of "harm" is "to cause hurt or damage to: injure." Webster's Third New International Dictionary 1034 (1966). In the context of the ESA, that definition naturally encompasses habitat modification that results in actual injury or death to members of an endangered or threatened species...."*

It also agreed that *"...the broad purpose of the ESA supports the Secretary's decision to extend protection against activities that cause the precise harms Congress enacted the statute to avoid."*

In Bennett vs Spear, decided on March 19, 1997, the US Supreme Court addressed a challenge to a biological opinion issued by the Fish and Wildlife Service in accordance with the ESA concerning the operation of the Klamath Irrigation Project by the Bureau of Reclamation, and the project's impact on two varieties of endangered fish. The question for decision was whether the petitioners, who claimed competing economic and other interests in Klamath Project water, had standing to seek judicial review of the biological opinion under the citizen-suit provision of the ESA. It is interesting to note that the plaintiffs in this matter were seeking to prevent application of environmental restrictions rather than to implement them, under the very provisions of the ESA.

The court reiterated that to satisfy the *" ...irreducible constitutional minimum" of standing, a plaintiff must, generally speaking, demonstrate that he has suffered "injury in fact," that the injury is "fairly traceable" to the actions of the defendant, and that the injury will likely be redressed by a favorable decision."*

Interestingly, the court allowed petitioners to use the existing provisions of the ESA empowering any citizen to bring a legal suit against any person, including the United States and any other governmental instrumentality or agency who is alleged to be in violation of any provision of the ESA or against the Secretary of Commerce or the Interior for an alleged failure to perform any act or duty under provisions of the Act, to sue the Secretary for what they perceived as "over enforcement" of the ESA's regulatory provisions!

The court found that *"The obvious purpose of the requirement that each agency "use the best scientific and commercial data available" is to ensure that the ESA not be implemented haphazardly, on the basis of speculation or surmise. While this no doubt serves to advance the ESA's overall goal of species preservation, we think it readily apparent that another objective (if not indeed the primary one) is to avoid needless economic dislocation produced by agency officials zealously but unintelligently pursuing their environmental objectives."*

Overall, it is percieved that the ESA has worked well on lands that are federally owned but runs into problems the moment it is percieved to impact individual landowners interests. In essense, there is a widespread notion that private land owners are on many occasions likely to surreptiously destroy endangered species and their habitats on their land if they think that the discovery could adversely impact their ownership rights. In a society as fiercely protective of the rights of the individual above everything else, this does not come as a surprise.

WLPA and the Supreme Court of India

At first instance, the WLPA is a curious mixture of legislation. It begins life as a civil code dealing with land management issues but soon evolves into a criminal code where elements such as hunting of scheduled species and destruction etc. inside Protected Areas are criminal acts dealt with appropriate criminal processes and penalties.

Given the Indian legal system where every civil or criminal prosecution can potentially lead to the Supreme Court for a final view, the WLPA has been dealt with by the Supreme Court on numerous occasions.

In T.N. Godavarman ... vs Union Of India and others , K.M. Chinnappa vs Union of India & others in I.A. no 670 of 2001 in Writ Petition (C) no 202/1995 decided on 30 October, 2002, the Hon. Supreme Court opined *"By destroying nature, environment, man is committing matricide, having in a way killed Mother Earth. Technological excellence, growth of industries, economical gains have led to depletion of natural resources irreversibly. Indifference to the grave consequences, lack of concern and foresight have contributed in large measures to the alarming position."* (I.A. no 670 of 2001 in Writ Petition (C) no 202/1995.

The judgment goes on to state, *"....The seminal issue involved is whether the approach should be "dollar friendly" or "eco friendly".*

'Environment' is a difficult word to define. Its normal meaning relates to the surroundings, but obviously that is a concept which is relatable to whatever object it is which is surrounded. Einstein had once observed, "The environment is everything that isn't me." About one and half century ago, in 1854, as the famous story goes the wise Indian Chief of Seattle replied to the offer of the great White Chief in Washington to buy their land. The reply is profound. It is beautiful. It is timeless. It contains the wisdom of the ages. It is the first ever and the most understanding statement on environment. The whole of it is worth quoting as any extract from it is to destroy its beauty.

"How can you buy or sell the sky, the warmth of the land? The idea is strange to us.

If we do not own the freshness of the air and the sparkle of the water, how can you buy them?

Every part of the earth is sacred to my people.

Every shining pine needle, every sandy shore, every mist in the dark woods, every clearing and humming insect is holy in the memory and experience of my people. The sap which courses through the trees carries the memories of the red man.

'the white man's dead forget the country of their birth when they go to walk among the stars. Our dead never forget this beautiful earth, for it is the mother of the red man. We are part of the earth and it is part of us. The perfumed flowers are our sisters; the horse, the great eagle, these are our brothers. The rocky crests, the juices in the meadows, the body heat of the pony, and man all belong to the same family.'

So, when the Great Chief in Washington sends word and he wishes to buy our land, he asks much of us. The Great Chief sends word he will reserve us a place so that we can live comfortably to ourselves. He will be our father and we will be his children. So we will consider your offer to buy our land. But it will not be easy. For this land is sacred to us.

This shining water moves is the streams and rivers is not just water but the blood of our ancestors. If we sell you land, you must remember that it is sacred, and you must teach your children that it is sacred and that each ghostly reflection in the clear water of the lakes tells of events and memories in the life of my people. The water's murmur is the voice of my father's father.

The rivers are our brothers, they quench our thirst. The rivers carry our canoes, and feed our children. If we sell you our land you must remember, and teach your children, that the rivers are our brothers, and yours and you must henceforth give the kindness you would give any brother.

We know that the white man does not understand our ways. One portion of land is the same to him as the next, for he is a stranger who comes in the night and takes from the land whatever he needs. The earth is not his brother but his enemy and when he has conquered it, he moves on. He leaves his father's graves behind, and he does not care.

He kidnaps the earth from his children. His father's grave and his children's birthright are forgotten. He treats his mother, the earth, and his brother, the sky, as things to be bought, plundered, sold like sheep or bright beads. His appetite will devour the earth and leave behind only a desert.

I do not know. Our ways are different from your ways. The sight of your cities pains the eyes of the red man. But perhaps it is because the red man is a savage and does not understand.

There is no quiet place in the white man's cities. No place to hear the unfurling of leaves in spring or the rustle of in insect's wings. But perhaps it is because I am a savage and do not understand. The clatter only seems to insult the ears. And what is there in life if a man cannot hear the lonely cry of the whippoorwill or the arguments of the frogs around a pond at night? I am a red man and do not understand. The Indian prefers the soft sound of the wind darting over the face of a pond, and the smell of the wind itself, cleansed by a mid-day rain, or scented with the pinon pine.

The air is precious to the red man, for all things share the same breath the beast, the tree, the man, they all share the same breath. The white man does not seem to notice the air he breathes. Like a man lying for many days, he is numb to the stench. But if we sell you our land, you must remember that the air is precious to us, that the air shares its spirit with all the life it supports. The wind that gave our grandfather his first breath also receives the last sign. And if we sell you our land, you must keep it apart and sacred as a place where even the white man can go to taste the wind that is sweetened by the meadow's flowers.

So we will consider your offer to buy our land. If we decide to accept, I will make one condition. The white man must treat the beasts of this land as his brothers.

I am a savage and I do not understand any other way. I have seen thousand rotting buffaloes on the prairie, left by the white man who shot them from a

passing train. I am a savage and I do not understand how the smoking iron horse can be more important than the buffalo that we kill only to stay alive.

What is man without the beasts? If all the beasts were gone, man would die from a great loneliness of spirit. For whatever happens to the beasts soon happens to man. All things are connected.

You must teach your children that the ground beneath their feet is the ashes of our grandfathers, so that they will respect the land. Tell your children that the earth is rich with the lives of our kin. Teach your children what we have taught our children, that the earth is our mother. Whatever befalls the earth befalls the sons of the earth. If man spit upon the ground, they spit upon themselves.

This we know : The earth does not belong to man, man belongs to the earth. This we know: All things are connected like the blood which unites one family. All things are connected.

Whatever befalls the earth befalls the sons of the earth. Man did not wave the web of life; he is merely a strand in it. Whatever he does to the web he does to himself.

Even the white man, whose God walks and talks with him as friend to friend cannot be exempt from the common destiny. We may be brothers after all. We shall see. One thing we know, which the white man may one day discover our God is the same God. You may think now that you own him as you wish to own our land; but you cannot. He is the God of man, and his compassion is equal for the red man and the white. This earth is precious to him, and to harm the earth is to heap contempt on the creator. The white too shall pass perhaps sooner than all other tribes. Contaminate your bed and you will one night suffocate in your own waste.

But in your perishing you will shine brightly, fired by the strength of the God who brought you this land and for some special purpose gave you dominion over this land and over the red man. That destiny is a mystery to us, for we do

not understand when the wild buffaloes are slaughtered, the wild horses are tamed, the secret corners of the forest heavy with scent of many men and the view of the ripe hills blotted by talking wires. Where is the thicket? Gone, where is the eagle? Gone. The end of living and the beginning of survival." (Supreme Court of India 10 SCC 606)

The judgement also goes on to emphatically state *"Nature hates monopolies and knows no exception. It has always some levelling agency that puts the overbearing, the strong, the rich, the fortunate substantially on the same ground with all others" said Zarathustra. Environment is polycentric and multi-facet problem affecting the human existence. The Stockholm Declaration of United Nations on Human Environment, 1972, reads its Principle No.3, inter-alia, thus: "Man has the fundamental right to freedom, equality, and adequate conditions of life in an environment of equality that permits a life of dignity and well being and bears a solemn responsibility to protect and improve the environment for present and future generations."* (Supreme Court of India 10 SCC 606)

In the matter of Sansar Chand vs State of Rajasthan decided on 20 October, 2010, the Honourable Apex Court lamented *"...how avaricious and rapacious persons have by organized crime destroyed large parts of the wild life of India and brought many animals e.g. tigers, leopards, bison, etc. almost to the brink of extinction, thereby seriously jeopardizing and destroying the ecological chain and ecological balance in our environment." The judgment also emphasised that "the Preservation of wild life is important for maintaining the ecological balance in the environment and sustaining the ecological chain." It went on to state that "...when dealing with tiger and leopard poachers and traders, it is therefore important to bear in mind that one is dealing with trans-national organized crime."* (Criminal Appeal no. 2024 of 2010, arising out of Special Leave Petition (Crl.) No.5599 of 2009)

In the concluding remarks in its judgment, the Honorable apex court went on to state as follows, *"Before we part with this case, we would like to request the Central and State Governments and their agencies to make all efforts to preserve the wild life of the country and take stringent actions against those who are violating the provisions of the Wildlife (Protection) Act, as this is necessary for maintaining the ecological balance in our country."*

More recently, in the matter of Centre for Environment Law, WWF-India vs Union of India & others (I.A. No. 100 In Writ Petition (Civil) No. 337 of 1995, with I.A. no 3452 in WP(C) No.202 of 1995, decided on 15th April 2013, the Supreme Court was called upon "...to decide the necessity of a second home for Asiatic Lion (*Panthera leo persica*), an endangered species, for its long term survival and to protect the species from extinction as issue rooted on eco-centrism, which supports the protection of all wildlife forms, not just those which are of instrumental value to humans but those which have intrinsic worth."

In deciding this, the court took into consideration not only the constitutional and the legal framework but also complex ecological questions and divergent scientific opinion that were brought before it. It stated that, *"While giving effect to the various provisions of the Wildlife Protection Act, the Centrally Sponsored Scheme 2009, the NWAP 2002-2016 our approach should be eco-centric and not anthropocentric."* It further went on to reiterate that "....*while examining the necessity of a second home for the Asiatic lions, we must apply the "species best interest standard", that is the best interest of the Asiatic lions. We must focus our attention to safeguard the interest of species, as species has equal rights to exist on this earth."*

It reiterated the recognition in International Law that the conservation of biological diversity is "a common concern of human kind" and is an integral part of the development process.

In effect, the Supreme Court of India has strongly stood behind the Wildlife Protection Act, combining it with constitutional provisions and that of other

legislation such as the Indian Forest Act 1927, the Environmental (Protection Act) 1986, the Air (Prevention and Control of Pollution) Act 1981, the Water (Prevention and Control of Pollution) Act 1974 and the Biological Diversity Act 2002 to help secure threatened and endangered species and their habitats. Such strong support from the apex court of the land does auger well for the future of conservation in India.

Discussion:

While both the ESA and the WLPA have evolved concurrently, their trajectory reflects the socio cultural context in which they are rooted. Thus, for a country with about one third the people and three times the land mass of India, one would likely presume that the application of high environmental standard would come easily. That does not necessarily seem to be the case always. While the ESA is rooted very strongly in well defined procedures and also has an open role for citizen engagement at every step, it does not necessarily make things easier. In effect, the implementation of the ESA involves many legally enforceable deadlines, the missing of any of which places the government in violation of the ESA and thus open to litigation.

The process of listing species under the ESA is largely transparent and according to well defined scientific criterion which has to be necessarily, demonstrably met before any listing or delisting of species can occur. By contrast, the WLPA does not provide any process for listing or delisting of species in its schedules or their transfer between schedules. The complete authority for this very important activity has been left to the discretion of the Central government. Thus, the rationale, scientific or otherwise, for any such changes in the various schedules of the WLPA is generally far removed from public domain. On one hand, this distances the public from this entire important process, on the other hand it also pulls down a cloak of secrecy on the validity of the scientific information, if any, that drives such decision making.

The listing of a species under the WLPA does not necessarily effectively change anything on the ground as such a listing may not be followed by any supporting action including provision of central or state level funding support.

Unlike the ESA, the WLPA does not necessary link listing with "recovery". It may also not lead to any increased awareness amongst various enforcement agencies mandated to extend such protection to a listed species or amongst the public at large. This is further compounded by the fact that there is no prescribed timeline or process of periodic review of the status of a listed species. As such, it is not often possible to determine the impact of such listing on such a species. In effect, most species on the schedules of the WLPA have been there since the Act was first enacted in 1972 but there is little consolidated empirical evidence on the change, if any on the status of such species, thanks to such listing.

Acutely conscious of this gap, the Hon'ble Apex Court in its judgement in the lion case as quoted above went on to order as follows, "The Government of India and the MoEF are directed to identify, as already highlighted by NWAP, all endangered species of flora and fauna, study their needs and survey their environs and habitats to establish the current level of security and the nature of threats. They should also conduct periodic reviews of flora and fauna species status, and correlate the same with the IUCN Red Data List every three years.

Like the rest of its order in the lion case, this part of the Honourable Apex Court's judgment still awaits compliance.

The challenge to measure effectiveness of listing is not limited to the WLPA alone; it is also one of the major issues surrounding the ESA. The key issue here is the absence of appropriate indicators that can provide answers to the question "what if" i.e how a species would have fared if it was not listed under the ESA. Of course, such a response would be impacted by factors including, but not necessarily limited to species biology, its status at the time of listing and funds made available for implementing recovery plans.

Despite being one of the earliest signatories to CITES, India's WLPA does not have any mention of CITES. As such, the world view of this important legislation is limited only to species found wild in India and listed under its various Schedules. Any violations of CITES provisions is so far dealt under the

Customs Act as a violation of the EXIM (Export Import) Policy laid down by the Ministry of Commerce.

While the National Board for Wildlife is headed by the Prime Minister and state level boards are headed by respective Chief Ministers, the implementation of various purposes and performance of various duties under the WLPA rest mostly with the Forest Department, with some role functions also provided to agencies like the Police. Thus, various actions, which may be considered of immediate significance under the WLPA may not necessarily attract compliance or even attention from other agencies. Thus, most ecological provisions of the WLPA would play out only on specially designated Forest and Protected Areas. This has of recent times considerably expanded, thanks mostly due to judicial interventions from India's Hon'ble Apex Court where need for mandatory Environmental Impact Assessments and clearances on wildlife norms have been prescribed to ensure that large scale land use changes do not undermine the larger conservation landscape. Thus, many of the objectives of the WLPA can now be said to be met and complemented by use of provisions under other legislations such as the Environment Protection Act 1986 and the Forest Conservation Act 1980.

By contrast the ESA specifically mandates "All other federal agencies" to work for the furtherance of this Act (Sec 7). However, one would do well to remember that land management across the USA is spread across several agencies including the US Fish and Wildlife Service, the US National Park Service, the US Forest Service, the Bureau of Land Management and various state agencies. Coordination and collaboration amongst such diverse agencies is not the easiest task at hand.

An important consideration here would be the comparison of "take" under the ESA vis-a-vis "hunting" under the WLPA.

Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures

wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." (USFWS January 2013).

The WLPA defines hunting with its grammatical variations and cognate expressions, to include,

"(a) killing or poisoning of any wild animal or captive animal and every attempt to do so;

(b) capturing, coursing, snaring, trapping, driving or baiting any wild or captive animal and every attempt to do so;

(c) injuring or destroying or taking any part of the body of any such animal, or in the case of wild birds or reptiles, damaging the eggs of such birds or reptiles, or disturbing the eggs or nests of such birds or reptiles; (MoEF 2013).

In a sense, both the ESA and the WLPA appear to be on the same page on this, as they define a series of activities that can be construed as directly causing harm to listed wild species as well as any attempt to do so. The WLPA has a much-detailed classification of what constitutes "hunting", even though the deliberate choice of the word "includes" suggests that this is at best an open list and not an exhaustive one. The protection to eggs and nests of birds and reptiles stands out as a special feature of the WLPA. The WLPA also extends protection to most listed species "wherever found', but protects their habitat only within PAs. For listed birds and reptiles, damaging their eggs or disturbing their eggs or nests is prohibited irrespective of location. As such, the WLPA appears to provide a higher level of protection to birds and reptiles.

The ESA has expanded the original definition of "take" by means of other administrative regulations defining "harm".

However, such regulation seems to have expanded the scope of the ESA to apply to even acts of habitat modification and degradation, irrespective of where they might occur, including on private lands. This has very serious implications for the implementation of the ESA as this Act does not distinguish between different ownership of land for application of its statutes for strengthening conservation to a listed species.

In the opinion of some scholars, the ESA began life very differently from other similar environmental legislations in the USA. Thus, when enacted, the ESA did not provide any specific regulatory regime, had no regulatory provisions of any command and control scope and weight and did not have a statutorily defined geographic domain and was drafted in generalised policy terms, not detailed regulatory script (Ruhl 2012). As such, at least in the initial years, its implementation has been driven by opportunistic and citizen driven litigation, one creek, one cave, one valley at a time. The case of Tennessee Valley Authority vs. Hill is a classic pointer in this direction, where the snail darter, a small fish came in the way of a large dam nearing completion.

The WLPA would do good to consider increasing opportunities for direct public engagement in implementation of various provisions of the act. The "list and forget approach" does not really enhance the conservation value of most of the over 800 species listed under the WLPA. There is no structured mechanism to periodically evaluate impacts of such listing on species or even the scientific basis of such listing by a "Public Hearing".

While such a step is likely to increase the costs of litigation as interest groups including animal welfare groups are likely to approach the courts on several grounds, in the longer run, it is likely to increase public buy-in of the entire conservation process.

Also, the WLPA could consider broad basing itself to include species beyond those found in the wild in India, as this would strengthen enforcement against illegal wildlife trade, now widely acknowledged as a form of organised transnational crime.

Overall, these two pieces of legislation from two of the largest democracies of the world share a common goal, yet differing approaches. The ESA began with a "whatever the cost" approach which has now been considerably mellowed to acknowledge private interests. It also acknowledges partnerships more than when it began life. Yet, it remains one of the strongest legislations of its kind globally, spreading its reach to species and habitats not just in the USA but globally. Thus, despite its perceived shortcomings, it still remains a global standard.

The WLPA has largely taken a top heavy approach where the decision making process has not always been seen as transparent and in public domain except where spirited individuals and institutions have used provisions of the Right to Information Act. That is largely seen to change where decisions are more routinely being placed in the public domain. However, given the exclusionary model of conservation that is statutorily mandated under the WLPA, the days ahead indicate a stronger conflict between 'Science Based" and "Rights Based" conservation models.

Chapter 7:

Star tortoises and CITES

The Indian Star Tortoise (*Geochelone elegans* Schoepff, 1795) is a medium sized terrestrial, diurnal land tortoise belonging to the family Testunidae with a heavy shell covered with horny shields (Daniel 2002, Vyas 2009) .

The following synonyms are also acknowledged in literature (IUCN 2016):

- *Testudo actinodes* Bell, 1828
- *Testudo actinoides* Bell in Gray, 1844
- *Testudo elegans* Schoepff, 1795
- *Testudo megalopus* Blyth, 1853
- *Testudo stellata* Schweigger, 1812

The species is identified by a strongly humped, hi dome carapace, yellow beige limbs and head and hind legs with black pigmentation. The domed carapace has conspicuous humps, each hump with a yellow aureola and radiating yellow streaks, giving a star like appearance. (Hanfee 1999, Daniel 2002).

It is a small tortoise, with females reaching ten inches (25 cm) and the males approximately six inches (15 cm) in length (Pritchard, 1979; Das, 1991 in Shephard 2004). Vyas (2011) reported an exceptionally large female specimen from Gujarat, India with a body weight (8.960 kg)and a straight carapace length (41.0 cm), 55 growth rings on scute and other measurements which are among the largest recorded for this species.

The species is omnivorous but inclined to be vegetarian. Succulents, fallen fruit, grass etc. form part of its main diet while in captivity the species feeds on all types of soft vegetables.

Mating occurs mostly during the rainy season. Eggs may vary from 3-7 in number and are laid in shallow pits dug by the female. Incubation may take from 47-147 days for eggs from the same clutch and the species reaches maturity in about two years (Daniel 2002).

Distribution:

Indian Star Tortoises are found in three broadly disjunct (and likely taxonomically recognizable; (Gaur *et al*. 2006) areas of geographic occurrence: northwestern India (Gujarat, Rajasthan) and adjoining southeastern Pakistan; eastern and southern areas from Tamil Nadu, Andhra Pradesh and eastern Karnataka to Odisha (Orissa); and throughout Sri Lanka (Iverson 1992; Das 1991, 2002; Vyas and Parasharya 2000; Fyfe 2007; Vyas 2010 in IUCN 2016).

Precise information on the status of the species within its range is lacking. It is described as not an uncommon species (Daniel 2002).

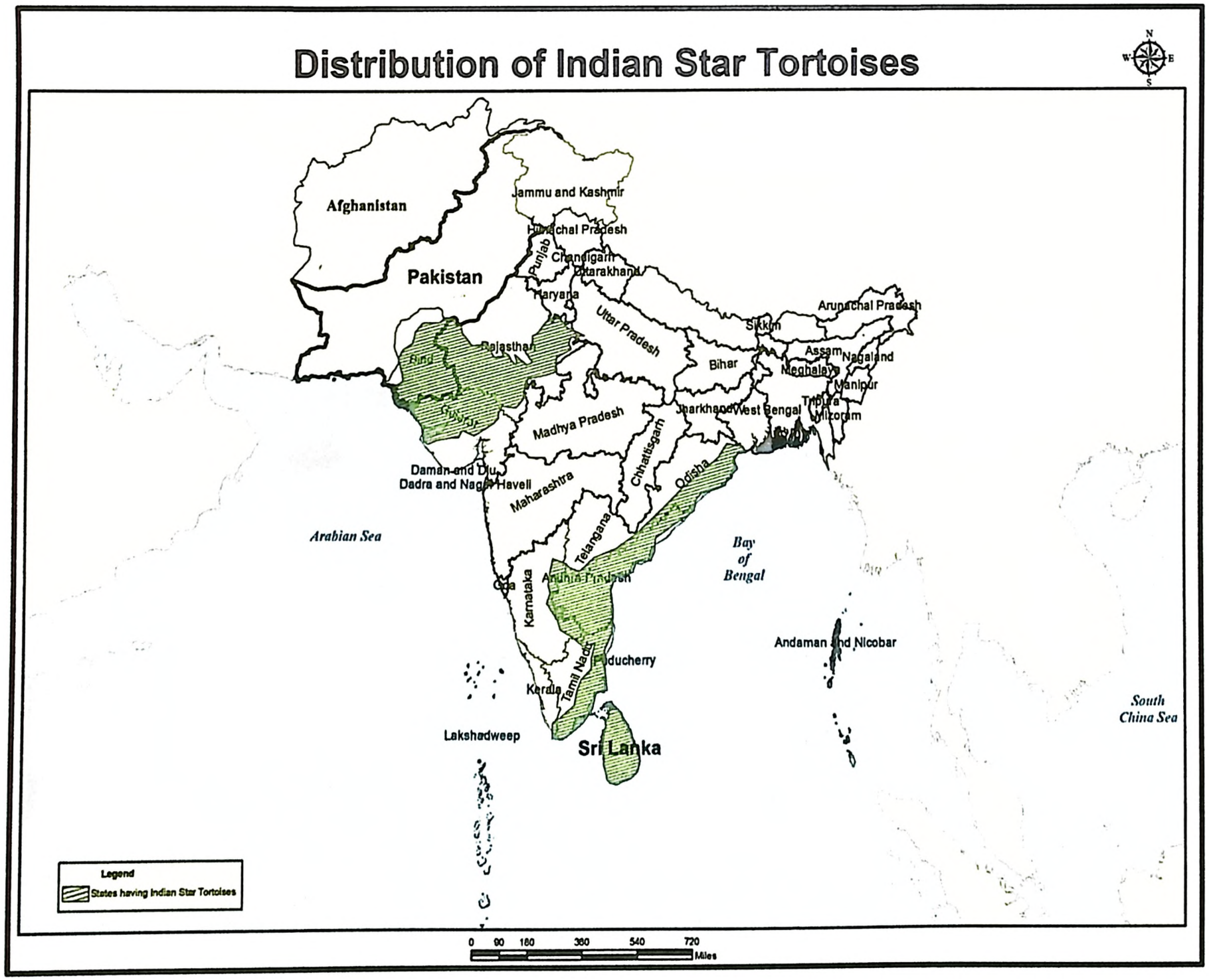
In India, there are two major races of the Star tortoises – the southern type inhabiting Andhra Pradesh, Tamil Nadu, Karnataka and Kerala; and the western type inhabiting Gujarat and Rajasthan (Gaur et al 2006).

In Gujarat, the species is widely reported but not south of the Narmada. It is found mostly in agricultural landscapes (Vyas et al 2000).

In Pakistan, where it is locally known as Satara kachoor, the species is found around Karachi, where it lives in semi domesticated conditions. It is also recorded from Kutch and Nagar Parker, southeastern Sindh (Khan 2004).

In Sri Lanka, there is limited data about the status of the Star Tortoise. It is reported from the Yala, Bundala, Dimbulagala, Giritale and Wilpattu National Parks here (de Silva et al. 2000 in IUCN 2016). Recent national assessments have acknowledged the absence or lack of accurate data on many species of reptiles as the major impediment in correctly assessing their current conservation status as well as preparing species specific conservation action

Map no. 13


Distribution of Indian Star Tortoises
N
W
E
S
Afghanistan
Pakistan
Jammu and Kashmir
Himachal Pradesh
Punjab
Chandigarh
Uttarakhand
Haryana
Uttar Pradesh
Rajasthan
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Madhya Pradesh
Chhattisgarh
Odisha
Maharashtra
Daman and Diu
Dadra and Nagar Haveli
Telangana
Andhra Pradesh
Goa
Karnataka
Tamil Nadu
Puducherry
Kerala
Lakshadweep
Sri Lanka
Andaman and Nicobar
Arabian Sea
Bay of Bengal
South China Sea
Legend
States having Indian Star Tortoises
0 90 180 360 540 720
Miles

plans for threatened reptile species. Further, there is practically no information available on the reptile fauna of Northern and North-eastern parts of the island due to three decades of civil war that existed in the region (Wickramasinghe 2012).

A recent study by IUCN (2016) has estimated that this species maintains relatively large populations of >10,000 with an extent of occurrence (EOO) >20,000 km^2 and an area of occupancy (AOO) of more than 2,000 km^2. These populations are present in both protected areas and in agricultural landscapes in India and Sri Lanka and as a small subpopulation in Pakistan.

The species also has several local names associated with it, some of which are as follows: Tamil: Nakshatra Amai, Moonam (Irula); Telugu: Nakshatra Tabelu; Oriya: Pathuria Kaincha, Tara Kaincha; Gujarati: Suraj Kachbo, Paththar Kachabo, Kabacha, Jamin no Kachabo; Sinhala, Sinhalese: Thāraka Ibbā, Vehera Ibbā, Mevara Ibba. (IUCN 2016).

Legal and Conservation Status:

The species is protected throughout its natural range. It is listed in Schedule IV of the Wildlife (Protection) Act 1972 of India, the Sri Lankan Fauna and Flora Protection Ordinance of 1938 (Amendment 1993) and in Pakistan by the provincial legislation the Sind Wildlife Protection Ordinance 1972 (Sind Province being the only natural range of *Geochelone elegans* in Pakistan) (Shepherd et al 2004). A notification issued by The Forest, Environment and Wildlife Department of the Government of Sindh, Pakistan on September 2014, included *Geochelone elegans* along with other chelonian species of Pakistan in Schedule II (Protected Animals) of Sindh Wildlife Protection Ordinance 1972 (IUCN 2016).

It is also listed in Appendix II of CITES. The IUCN Red list assesses this species as Vulnerable. (IUCN 2016). It is to be noted that in its previous assessment in 2000, the species was identied as Lower Risk/least concern (LR/lc).

The National Red List of Sri Lanka; Conservation Status of the Fauna and Flora compiled by the Ministry of Environment, Colombo, Sri Lanka has assessed the status of the species as Near Threatened (2012).

Threats:

Threats to this species may be categorized as illegal collection and habitat loss. As the species is known to inhabit human modified landscapes such as agricultural fields across its range, the threats from habitat loss are very real. The threat of illegal collection can be further classified into two, collection for local utilisation and that for the international market (D'Cruze *et al.* 2015).

At the local level, the species is mostly kept as pets in homes as an omen for good luck while they may also be housed in large numbers in ponds attached to certain temples, as they are believed to represent a reincarnation of "God Vishnu".

Illegal trade for international wildlife trade is recognized as the most significant threat to the Indian Star Tortoise (Shepherd et al 2004, Pasha et al 2010). Widespread collection and export occurs for local and global pet trade, mainly to Malaysia (Shepherd *et al.* 2004), Singapore and Thailand, as well as other countries in Southeast and East Asia. Das (1989) estimated an annual turn-over of 10,000 animals in Calcutta's New Market alone in the late 1970s, before enforcement of domestic legislation nearly eliminated this trade. According to a conservative estimate, the annual pet-trade export is of the order of 10,000 to 20,000 animals (mostly juveniles); four confiscated shipments in 2002-2003 comprised between 305 and 1090 animals per shipment (Shepherd *et al.* 2004).

A recent study by D'Cruze as quoted by IUCN in its assessment for the species (D'Cruze *et al.* 2015) has documented the illegal collection of at least 55,000 (mostly juvenile) Star tortoises from just one location (comprising 16 villages) from the state of Andhra Pradesh in India over a period of one year. This figure is three to six times larger than the 10,000–20,000 individuals previously estimated to be poached throughout the entire range of this species each year (Sekhar et al 2004;). Based on the above, population reductions of

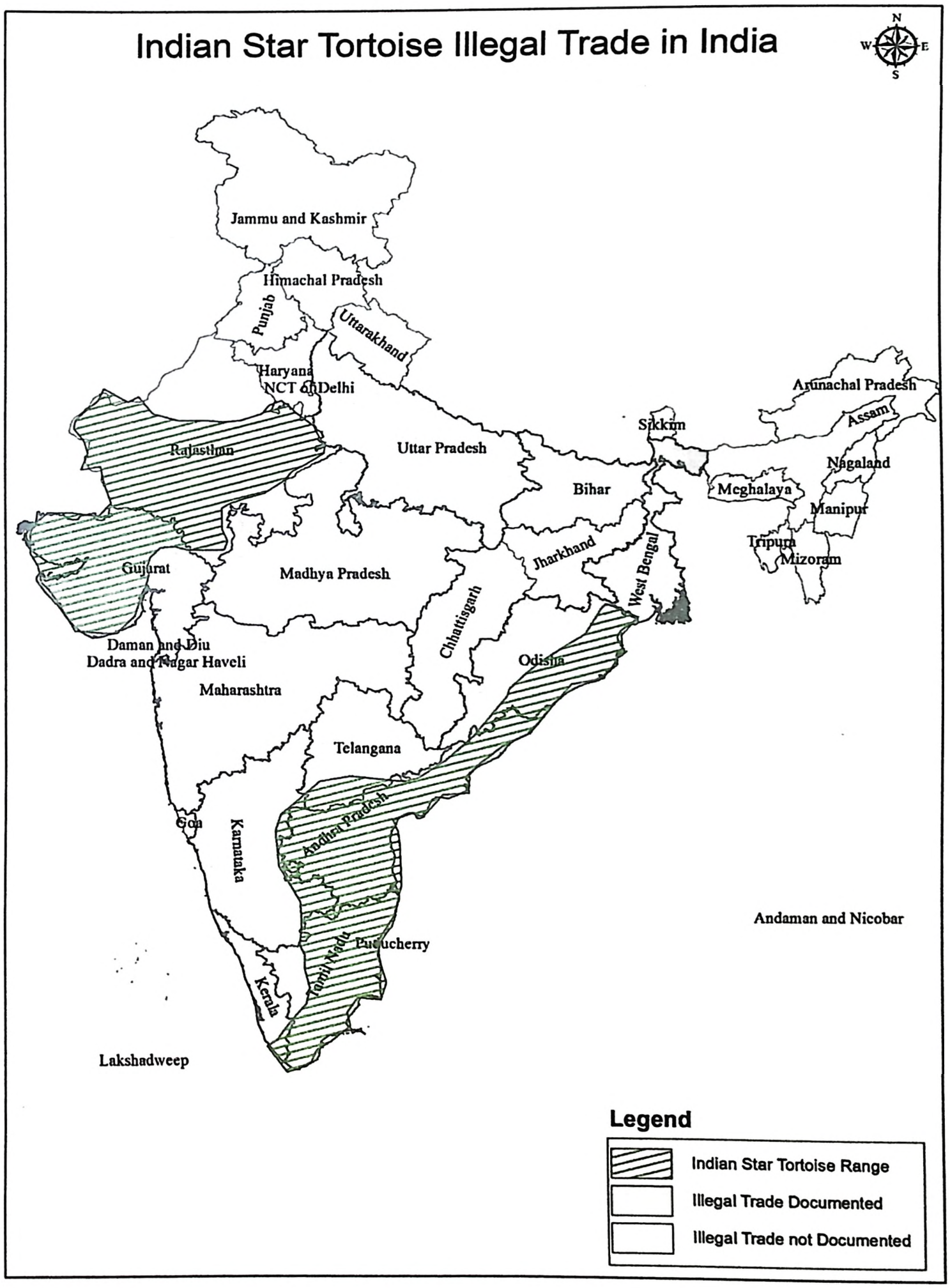
>30% were estimated at this rate of exploitation.

As a star of the illegal wildlife trade originating from India, the star tortoise has a prominent place in any attempt to understand the dynamics of this trade. Reports suggest that as many as 10,000 individuals may have been smuggled annually from India to countries including Japan and in SE Asia.

Based on molecular genetics, Gaur et al (2006) attempted to understand the origin of unknown individuals of Star tortoise. Towards this, they studied 92 Indian Star tortoises seized by the Singapore airport authorities and housed in the Nehru Zoological Park, Hyderabad. In addition, 59 samples were collected from different locations in southern and western India including Surat, Junagadh and Vadodara in Gujarat and Sri Venkateshwara National Park, Tirupathi and Chittoor in Andhra Pradesh and Bannarghatta National Park, Bangalore in Karnataka, to use as controls.

The results were significant. Star tortoises in India exhibited strong genetic structure. Western populations of tortoises were distinct from the southern populations at micro- satellite loci and at the mitochondrial control region. It was concluded that the rescued Star tortoises probably belonged to areas located in south India. However, some of the rescued tortoises formed distinct cluster that did not include individuals from the southern population, thus suggesting that they were likely sourced from other source populations from Southern India or Sri Lanka (Gaur 2006).

Map No.14


Indian Star Tortoise Illegal Trade in India
N
W
E
S
Jammu and Kashmir
Himachal Pradesh
Punjab
Uttarakhand
Haryana
NCT of Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Gujarat
Madhya Pradesh
Chhattisgarh
Odisha
Daman and Diu
Dadra and Nagar Haveli
Maharashtra
Telangana
Andhra Pradesh
Goa
Karnataka
Tamil Nadu
Puducherry
Kerala
Andaman and Nicobar
Lakshadweep
Legend
Indian Star Tortoise Range
Illegal Trade Documented
Illegal Trade not Documented

The Trade in Star Tortoise as documented by CITES

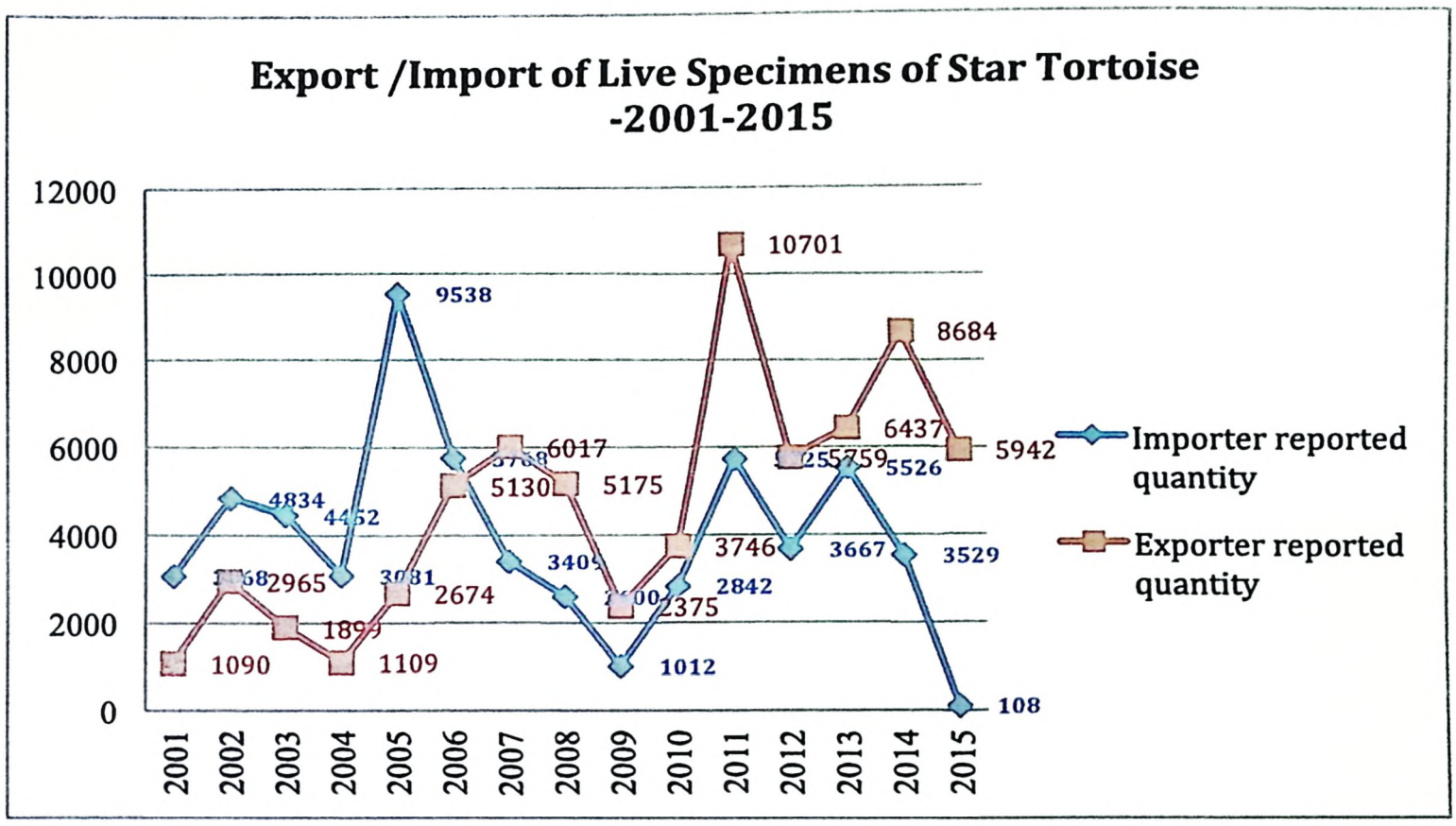
The following captures a snapshot of the global trade in Star Tortoise as documented by the CITES process. It is important to reiterate at the very outset that this refers only to such trade that is carried out on the basis of legal CITES permits across member countries and reported in the CITES Trade database maintained by UNEP-WCMC.

Table 13:
YEARWISE EXPORT / IMPORT IN LIVE SPECIMENS OF INDIAN STAR TORTOISE-2001-2015**

YEAR	Importer reported quantity	Exporter reported quantity
2001	3068	1090
2002	4834	2965
2003	4452	1899
2004	3081	1109
2005	9538	2674
2006	5768	5130
2007	3409	6017
2008	2600	5175
2009	1012	2375
2010	2842	3746
2011	5725	10701
2012	3667	5759
2013	5526	6437
2014	3529	8684
2015	108	5942
Grand Total	**59159**	**69703**

** Source CITES-WCMC Trade database

Chart 15:



** Source: CITES-WCMC Trade database

The above data set clearly captures one of the major gaps of the CITES process. Over a fifteen-year period, the difference in reported imports and exports of live specimens of this species has persisted. This difference in the reported figures of live specimens of a species presents itself as a major enforcement challenge.

Before expanding the scope of this discussion, it would be useful to see what CITES itself has to say about such differences. The document, 'A guide to using the CITES Trade Database (Version 7 October 2010) by The United Nations Environment Programme and World Conservation Monitoring Centre – pp 10-11" states the following:

"... reporting of a transaction for summed shipments between countries might not match in all respects, and therefore will not appear on the same line of the comparative tabulation. This is usually because of one or more of the following reasons:

Differences in the units used, e.g. skins may be reported by number, area or weight; The source of the items and purpose of the transaction are often poorly reported, if at all;

Specimens may be exported at the end of one year but not received by the importer until the following year;

Trade may be reported at species level by one country, whereas another country reports it at a higher taxonomic level. This is particularly common in the reporting of artificially propagated plants; or

Some countries report on the basis of the permits they have issued, rather than on the actual number of specimens traded. This may lead to an overestimation of trade volume."

A careful reading of the above will bring forth the fact that only the last may be applicable in the instant case. However, any such differences would likely be accounted for in a gross tabulation of trade over a period of time. That this does not seem to happen in the present case is itself very significant and needs further investigation of this discrepancy.

Table 14: Top 10 EXPORTERS OF INDIAN STAR TORTOISE 2001-2015

COUNTRY	EXPORTED	IMPORTED
JORDAN	57105	20
UKRAINE	3812	0
SINGAPORE	2409	0
SLOVENIA	1738	0
HONGKONG	1542	6600
JAPAN	629	37994
MALAYSIA	611	1219
BULGARIA	571	1183
THAILAND	543	2680
CZECH REPUBLIC	231	29

CHART 16: Top 10 EXPORTERS OF INDIAN STAR TORTOISE 2001-2015

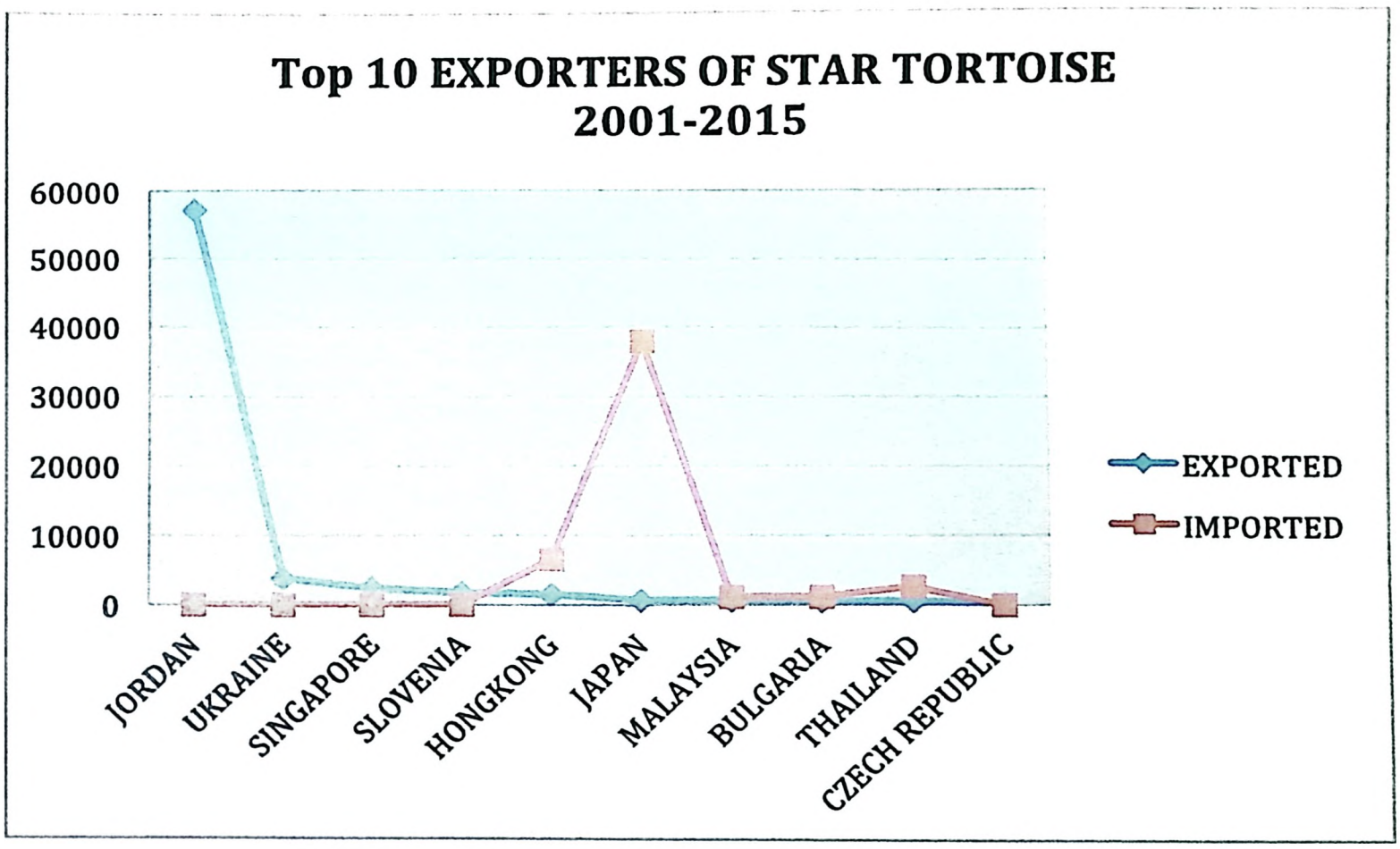
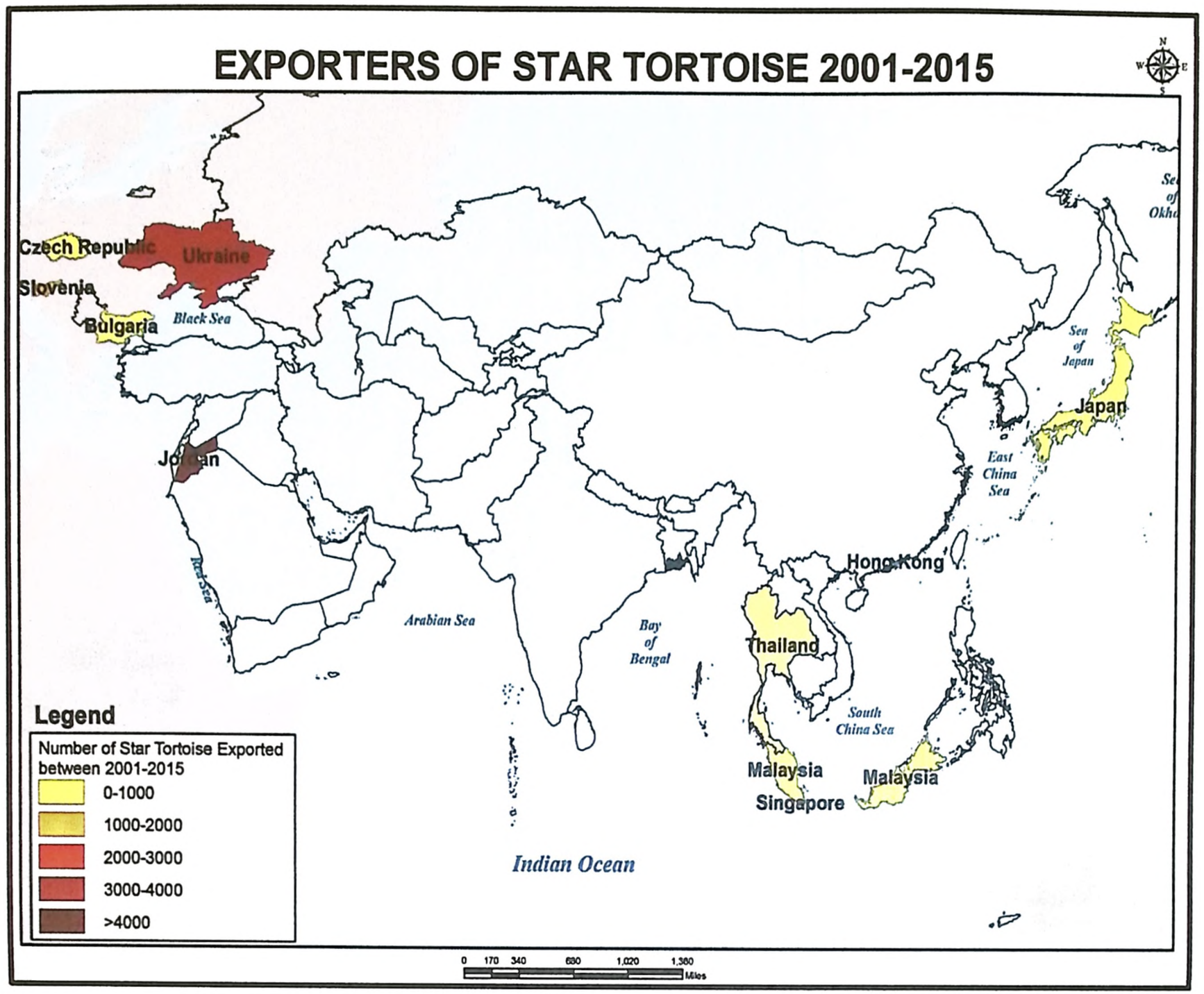


Table 15: Top 10 IMPORTERS OF INDIAN STAR TORTOISE 2001-2015

COUNTRY CODE	IMPORTED	EXPORTED
JAPAN	37994	629
HONGKONG	6600	1542
THAILAND	2680	543
UNITED STATES OF AMERICA	2246	67
REPUBLIC OF KOREA	1755	0
UZBEKISTAN	1500	0
MALAYSIA	1219	611
BULGARIA	1183	571
FRANCE	860	7
SPAIN	759	0

Map no. 17


EXPORTERS OF STAR TORTOISE 2001-2015
N
W
E
S
Czech Republic
Ukraine
Slovenia
Bulgaria
Black Sea
Jordan
Red Sea
Arabian Sea
Bay of Bengal
Sea of Okha
Sea of Japan
Japan
East China Sea
Hong Kong
Thailand
South China Sea
Malaysia
Malaysia
Singapore
Indian Ocean
Legend
Number of Star Tortoise Exported between 2001-2015
0-1000
1000-2000
2000-3000
3000-4000
>4000
0 170 340 680 1,020 1,360
Miles

Map no. 18

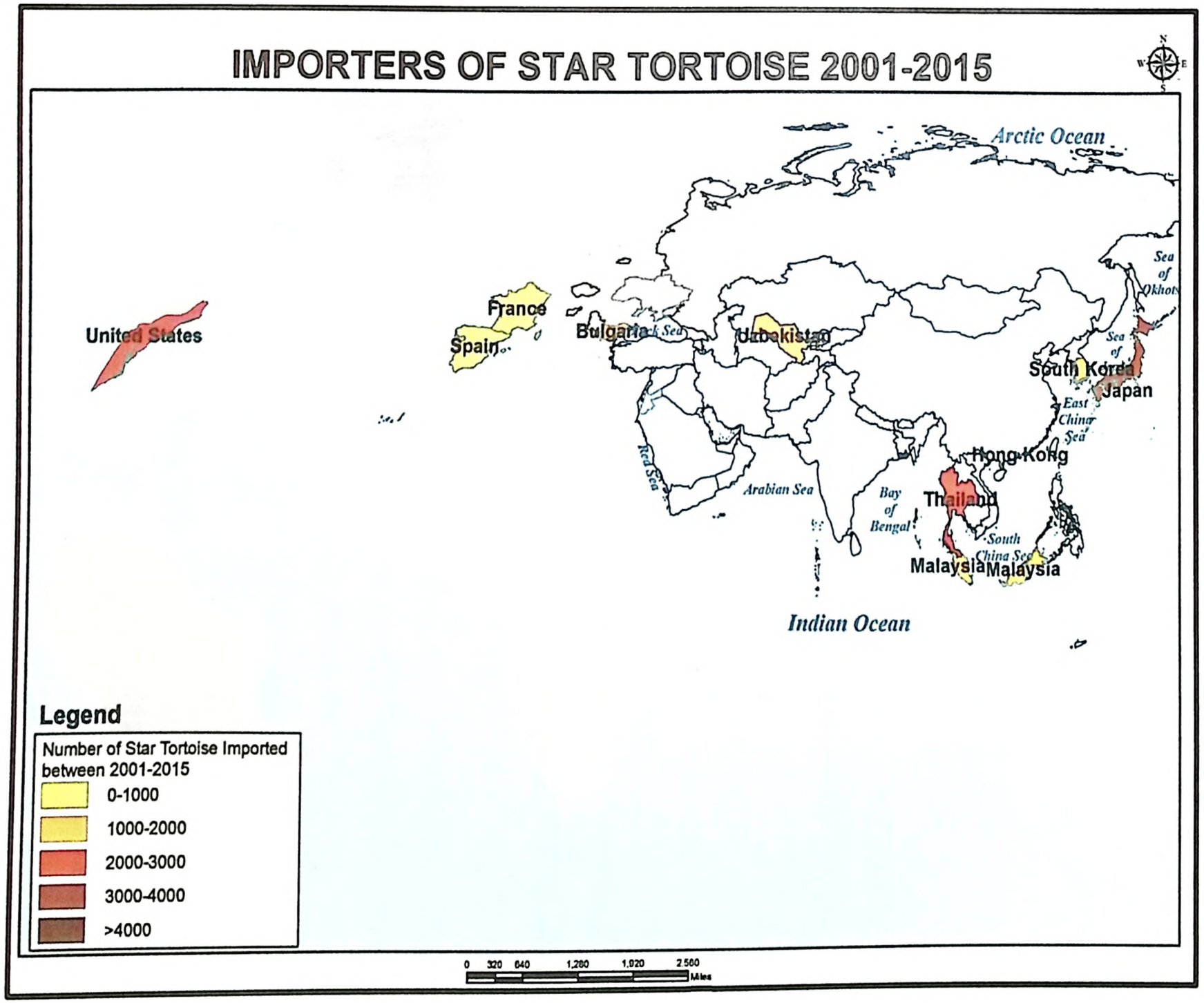
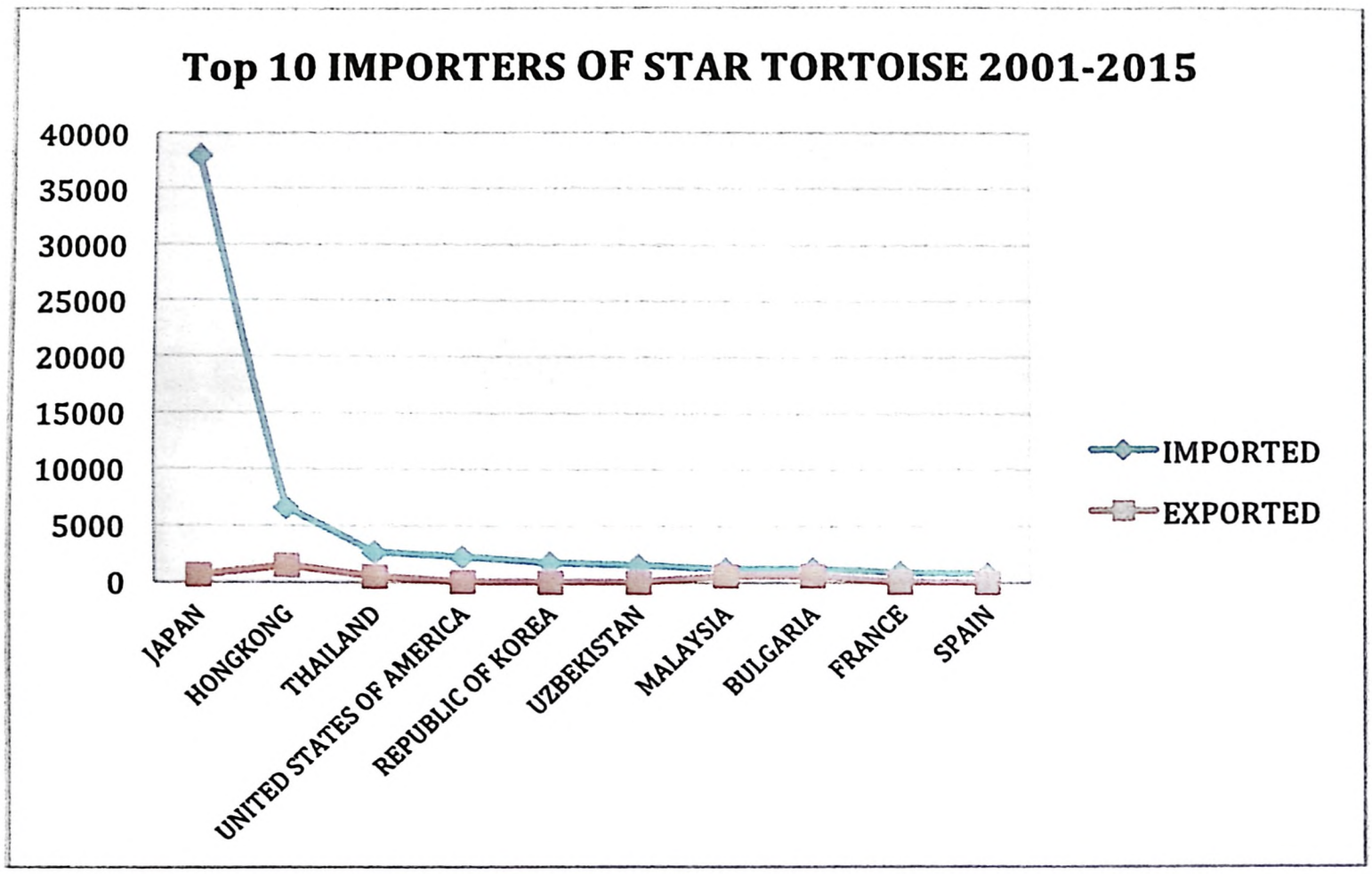

IMPORTERS OF STAR TORTOISE 2001-2015
N
W
E
S
Arctic Ocean
Sea of Okhotsk
United States
France
Spain
Bulgaria
Black Sea
Uzbekistan
South Korea
Japan
East China Sea
Hong Kong
Red Sea
Arabian Sea
Bay of Bengal
Thailand
South China Sea
Malaysia
Malaysia
Indian Ocean
Legend
Number of Star Tortoise Imported between 2001-2015
0-1000
1000-2000
2000-3000
3000-4000
>4000
0 320 640 1,280 1,920 2,560
Miles

Chart No. 19



An analysis of the ranking of the top ten countries on the basis of gross exports and imports of live specimens of Star tortoise over a period of 2001-15 presents further significant insights.

a) None of the top 10 exporting countries is a range country of the species. As such, the source for such large numbers of exports of live specimens needs to be questioned.

b) Three of the Top 10 exporting countries have no record of any legal import of the species over the last 15 years of data analysed here. As such, the possibility of any founder population responsible for such large number of offspring leading to export is also ruled out.

c) For the largest exporter, Jordon to have exported a total of 57105 live specimens over a 15 year period seems all the more remarkable considering that it has imported only 20 live specimens over the same period.

d) It appears that these countries are able to conjure such large, continuous supplies of live specimens of Star tortoise out of thin air!.

e) Singapore, Malaysia and Thailand are characterized by a high degree of illegal trade in the species. Regular market surveys and seizures in these countries highlight the regular illegal inflow of the species in these countries and the open domestic trade there. (Shepherd et al 2004, Chng and Bouhuys 2015, Nijman & Shepherd 2015, Nijman et al 2015).

f) Of the top ten importing countries, the outflow by way of exports is minimal, indicating the large domestic demand in these countries.

The Unique Case of Lebanon:

Lebanon, although not captured as either a top 10 exporting or importing country for live Star Tortoise, presents another vexing challenge. For many years, this small country has been at the forefront of exporting live specimens of Star tortoise and yet has managed to evade the radar for most other than on very careful examination.

i. In 2001, CITES reports an export of 1870 live specimens of Star tortoise from Lebanon to Japan. The exporting country does not report such trade.

ii. In 2001, CITES further reports an export of 50 live specimens of Star tortoise from Hong Kong to Japan with Lebanon as the country of origin. Both countries have reported the trade.

iii. In 2002, CITES again reports an export of 1870 live specimens of Star tortoise from Lebanon to Japan, with the exporting country again does not reporting such export. This is in a sense history repeating itself as the exact numbers of specimens as exported the previous year are again reported to and from the same set of countries.

iv. In 2002, the CITES database reports an export of 26 live specimens of Star Tortoise from Japan to Hong Kong with Lebanon identified as the source of these specimens. Both parties have reported the trade.

v. In 2002, the CITES database again reports an export of 20 live specimens of Star Tortoise from Japan to the USA with Lebanon identified as the source of these specimens. The importer has not

reported this trade.

vi. In 2002, the CITES database reports an export of 1 live specimen of Star Tortoise from Japan to Germany with Lebanon identified as the source of these specimens. Both parties have reported the trade.

vii. In 2003, the CITES database reports an export of 50 live specimens of Star Tortoise from Japan to Germany with Lebanon identified as the source of these specimens. Both parties have reported the trade

viii. In 2003, the CITES database reports an export of 50 live specimens of Star Tortoise from Japan to Indonesia with Lebanon identified as the source of these specimens. Both parties have reported the trade

ix. In 2003, the CITES database reports an export of 500 live specimens of Star Tortoise from Lebanon to Japan with Kazakhstan identified as the source of these specimens. The exporter has not reported the trade.

x. In 2003, the CITES database reports an export of 189 live specimens of Star Tortoise from Lebanon to Japan with Kazakhstan identified as the source of these specimens. The exporter has not reported the trade.

xi. In 2003, the CITES database reports an export of 30 live specimens of Star Tortoise from Japan to Thailand with Lebanon as the source. The exporter has not reported the trade. The same year, 30 live specimens are reported exported from Thailand to Japan with Lebanon as the source. The importer has not reported the trade.

xii. In 2004, the CITES database reports three exports of a total of 825 live specimens of Star Tortoise from Lebanon to Japan. Of these, 300 specimens are reported sourced from Kazakhstan, while 415 are from PK. The exporter has not reported the trade.

xiii. In 2004, the CITES database reports three exports of a total of 350 live specimens of Star Tortoise from Lebanon to Thailand. Of these, 200 specimens are reported sourced from Kazakhstan. The exporter has not reported the trade.

xiv. In 2004, the CITES database reports three exports of a total of 40 live specimens of Star Tortoise from Thailand to Taiwan. These specimens

are reported sourced from Lebanon. The importer has not reported the trade.

xv. In 2005, the CITES database reports two exports of a total of 6914 live specimens of Star Tortoise from Lebanon to Japan. Of these, 6770 specimens are reported sourced from Kazakhstan, while 144 are from Pakistan. The exporter has not reported the trade.

xvi. In 2005, the CITES database reports an export of 16 live specimens of Star Tortoise from China to Lebanon. The importer has not reported the trade.

xvii. In 2005, the CITES database reports an export of 1500 live specimens of Star Tortoise from Lebanon to Thailand, reported sourced from Kazakhstan. The exporter has not reported the trade.

xviii. In 2006, the CITES database reports three exports of a total of 900 live specimens of Star Tortoise from Lebanon to Japan, reported sourced from Kazakhstan. The exporter has not reported the trade.

xix. In 2007, the CITES database reports the export of 1 live specimen of Star Tortoise from Germany to Japan, reported sourced from Lebanon. Both parties have reported the trade.

The country has managed to stay largely under the radar as a major exporter of live specimens of Star Tortoise by a very simple strategy: It does not report the transaction! Whatever information is present in the CITES trade database is on account of reports of the other party to the transaction.

Afghanistan: More of the same.

i. In 2002, the CITES database reports an export of 2100 live specimens of Star Tortoise from Afghanistan to Japan. The exporter has not reported the trade.

ii. In 2003, the CITES database reports an export of 2800 live specimens of Star Tortoise from Afghanistan to Japan. The exporter has not reported the trade.

iii. In 2004, the CITES database reports an export of 494 live specimens of

Star Tortoise from Afghanistan to Japan. The exporter has not reported the trade.

There is clearly a pattern to this. Japan is most often the country of import while the country of export changes periodically. In the absence of any evidence about the source of such large number of specimens, it can be safely construed that these declared sources are just facilitating the paperwork for the specimens being funneled into just one country, Japan. On its part, the importer, Japan has done its role by declaring the imports but it has not been more proactive in ensuring that the source/exporter also provides similar details for scrutiny as desired by the CITES process. Thus such absence of any declaration on behalf of the purported source country only aids and abets what clearly is a trail of suspect transactions.

Enforcement Challenges:

CITES response:

Worldwide some 313 species of tortoises and freshwater turtles inhabit tropical, subtropical and some temperate regions, of which about 90 inhabit Asia (Fritz & Havas, 2007). The IUCN Red List records 128 non-marine turtle species as threatened, placing tortoises and freshwater turtles among the most threatened groups of vertebrates.

Tortoises and freshwater turtles have been an integral part of CITES from its very beginning: about 50 tortoise and freshwater turtle species were listed in the Appendices in 1975, all tortoises were included in Appendix II in 1977, and additional species were added over time, accelerating by 2000. Currently, 139 tortoise and freshwater turtle species are included in Appendices I (20 species), II (89) and III (30). Through listing proposals, inclusion in the Review of Significant Trade, and other developments, tortoises and freshwater turtles have become increasingly significant within CITES, and formulation and implementation of appropriate trade regulation has demanded significant resources from Party authorities, the Secretariat and others (CITES CoP15 Inf. 22, 2010).

The only Asian turtle species for which a detailed analysis of status and trade impacts has been made and published is *Cuora amboinensis* in Indonesia and Malaysia (Schoppe, 2008, 2009 in CITES CoP15 Inf. 22 – p. 13). Despite the large number of Asian turtle species listed across various CITES Appendices, such a major information gap is surely most significant. For a species like *Geochelone elegans* which is so extensively recorded in trade, such a data gap can only be explained by the fact that till its recent listing as Vulnerable on the Red List (IUCN 2016), it was assessed as of Least Concern.

As early as 1994, the CITES Secretariat was aware of the incongruences regarding the declared trade in live specimens of *G. elegans*.

Its Notification no 786, Dated Geneva, 10 March 1994 stated as follows:

Trade in Geochelone spp.

1. *The Secretariat is aware that several Management Authorities have issued export permits and re-export certificates authorizing trade in specimens of Geochelone elegans, Geochelone gigantea and Geochelone pardalis (all of which are Appendix-II species), declared as bred in captivity and indicating the country of origin as Myanmar, Seychelles, the United Republic of Tanzania or the United Arab Emirates.*

2. *For the countries noted above:*

   a) *to the Secretariat's knowledge, wild populations of these species either do not exist or, in cases where they exist, their commercial trade may be prohibited as a result of more restrictive legislation; or*

   b) *the Secretariat is not satisfied that there exist commercial captive-breeding operations for these species, although information on such operations has been requested from those countries by the Secretariat.*

3. *Several re-export certificates for trade in specimens of these species have indicated that the specimens are pre-Convention, without noting*

their date of acquisition, in contravention of Resolutions Conf. 5.11 and Conf. 8.5.

4. *The Secretariat has received information from experts indicating that it is not possible to breed in captivity the large numbers of specimens of G. elegans that are being exported, and that such specimens are believed to be wild-caught, having been illegally imported from other countries.*

5. *In addition, the Secretariat has discovered the existence of one forged Zairian permit for the export of wild-caught specimens of G. gigantea, a species which does not occur in Zaire.*

6. *Considering the above information, the Secretariat recommends that the Parties not accept export permits or re-export certificates for trade in captive-bred or wild-caught specimens of G. elegans, G. gigantea and G. pardalis without first checking with the Secretariat as to the validity of such documents.*

At the Fifteenth meeting of the Conference of the Parties of CITES at Doha (Qatar), 13-25 March 2010, a review of the Implementation of Decision 14.128 of CITES was carried out. Accordingly, a report prepared by the IUCN/SSC Tortoise & Freshwater Turtle Specialist Group titled, "A study of progress on conservation of and trade in CITES-listed tortoises and freshwater turtles in Asia" made valuable observations on the Star tortoise. (CoP15 Inf. 22, 2010 – p. 13-14,).

Of particular concern is the recent pulse in illegal trade of Indian Star Tortoises (Geochelone elegans, App. II, native to India, Pakistan and Sri Lanka) for the pet trade, typically smuggled in shipments of several hundred juveniles from South India to Southeast Asia and beyond (Lenin, 2007). Numerous such shipments have been confiscated in India, where the species is protected from commercial trade and exports (reiterated in CITES Notification 1999/39), and in some of the destination countries, but the ease at which the animals are

observed in local public pet trade (Shepherd et al., 2004; Cheung & Dudgeon, 2006; Goh & O'Riordan, 2007; Shepherd & Nijman, 2008) indicates that enforcement efforts achieve little sustained success to halt these activities. No significant legal export trade in Geochelone elegans has been declared by its range countries during the period 1975-2008 (only 58 from Sri Lanka in 1985, 20 in 1987, and 47 in 1988 for trade or zoo exchange); however, substantial numbers are recorded in the CITES-WCMC trade database as re-exports by third countries of wild-caught animals originating from Pakistan and Sri Lanka, but no corresponding exports were declared by these countries of reputed origin; likewise a shipment of 450 wild-sourced animals from Pakistan to the Czech Republic in 1998 was declared as imported, but no corresponding export record is included in the CITES trade database. Other records of the species concern repatriations of confiscated animals to India (10 animals from Hong Kong, 582 animals from Malaysia and 2330 animals from Singapore). Of greatest concern are the considerable quantities of Indian Star Tortoises declared as captive-bred that have originated from Jordan (17,902, 2004-2008), Lebanon (15,952, 2000-2006), Ukraine (2870, 2000-2008), United Arab Emirates (2687, 1992-1999), and Slovenia (1260, 2000-2006). Detailed trade records show distinct pulses of reported captive production of the species for a number of years by country, with alleged production originating from a different country every few years, and with no reported imports in the years preceding captive- bred exports. And finally, Afghanistan exports are recorded as 2100 G. elegans in 2002, 2800 in 2003, 494 in 2004, and none afterwards, all declared as wild-sourced although the country is not part of the range of the species and no imports are on record.

This widespread but illegal trade in Indian Star Tortoises appears to have facilitated recent expansion of the pet star tortoise trade to include substantial numbers of the Radiated Tortoise (Astrochelys radiata, App.I) and Ploughshare Tortoise (A. yniphora, App.I) from Madagascar, which have been recorded in Asia in recent pet market surveys (Cheung & Dudgeon, 2006; Nijman & Shepherd, 2007; Shepherd & Nijman, 2007, 2008; Wu, 2007) and confiscations in Hong Kong SAR, Kuala Lumpur (Malaysia) and Taipei (Taiwan) (Annex C). Other Appendix I species (Geoclemmys hamiltonii,

Morenia ocellata, Pangshura tecta, Pyxis arachnoides, Testudo kleinmanni) have also been reported from pet markets in Bangkok, Guangzhou, Hong Kong, Jakarta and Shenzhen (Cheung & Dudgeon, 2006; Shepherd & Nijman, 2007, 2008; Gong et al., 2009) and confiscations (CITES 2010).

Further, at the Sixty-second meeting of the Standing Committee of CITES Geneva (Switzerland), 23-27 July 2012 , the issues of Interpretation and Implementation of the Convention Compliance and Enforcement were discussed with special focus on the implementation of the convention relating to captive bred and ranched specimens. At this important meeting, a document submitted by the United States as Chair of the intersessional working group identified the following as serious challenges:,

Concerns regarding claims that specimens are captive-bred or ranched:

i. *Sudden increases in trade in specimens declared as captive-bred following trade restrictions (in importing or exporting countries) applying to wild-caught specimens;*

ii. *High volume trade in specimens reported as captive-bred but known to be difficult to maintain or breed in captivity, or that have low reproductive output;*

iii. *Trade from non-range States of specimens claimed to be produced via ranching or with no evidence of lawful acquisition of parental breeding stock (i.e. no reported imports);*

iv. *High volume of trade in specimens from recently established facilities;*

v. *Specimens reported as ranched that, based on the natural history or natural range of the species, it is impossible or not practically feasible to produce by "ranching" as defined in Resolution Conf. 11.16 (Rev. CoP15) (e.g., mammals, corals);*

vi. *Trade in specimens that, based on their condition (adult, scarred, having parasites, etc.), make claims of captive breeding or ranching unlikely;*

vii. *Specimens declared as captive-bred from facilities that appear to exceed their breeding capacity;*

viii. *Lack of biological data and monitoring to support determinations of captive breeding or ranching, leading to variable use of source codes (C, D, F);*

ix. *Difficulties associated with documenting or providing evidence to demonstrate legal acquisition of founder stock, including those acquired pre-Convention;*

x. *Lack of systems for applying a unique and permanent mark for captive-bred specimens of some species;*

xi. *Difficulty determining age of specimens claimed to be pre-Convention as well as captive-bred or ranched;*

xii. *Difficulty identifying specimens traded as juveniles (e.g., parrots);*

Regulation/Enforcement:

i. *Mixing in individual shipments or within individual facilities of specimens derived from different production systems, making it difficult to differentiate specimens of different sources;*

ii. *High costs (financially and in human resources) associated with inspecting facilities and verifying claims of captive breeding and ranching, and a general lack of resources to do this effectively;*

iii. *Trade in captive-bred specimens, from non-range States, of endemic species that occur in countries that have not allowed export for many years;*

Administration:

i. *inquiries regarding captive-breeding facilities;*

Interpretation of (or text of) Resolutions:

i. *Differing interpretations of when it is appropriate to use source code D and source code C for Appendix-I specimens;*

ii. *Concerns about how certain Parties manage and monitor annual export quotas for captive-bred or ranched specimens;*

The current definition of source code C is not available for specimens that are 'bred in captivity' as defined in Resolution Conf. 10.16 (Rev. CoP15) but that are exported under the provisions of Article III, IV or V; (CoP15 Inf. 22, 2010); (SC62 Doc. 26 – p. 6, July 2012).

These are extremely significant observations for the Star tortoise as much of the reported international trade in this species is purportedly from captive specimens.

The document further goes on to state:,

Indian star tortoise (Geochelone elegans) from Jordan, Lebanon, Ukraine, and the United Arab Emirates using source code C (Exports of approximately 5,000 tortoises from Jordan and less than 500 tortoises from the Ukraine during the review period; no exports from Lebanon, United Arab Emirates or Slovenia during the review period. Much larger volumes from all five countries have been documented in earlier years (see Document CoP15 Inf. 22, 2010); (SC62 Doc. 26 – p. 6, July 2012).

Discussion :

The information above clearly suggests that the issues surrounding the international trade in *Geochelone elegans* are well documented and understood by CITES. However, it is the response to such understanding that merits attention.

The Conclusions and Recommendations arrived at by CITES in 2010 regarding the illegal trade in *Geochelone elegans* include the following:

" More and better data need to be collected to understand population and trade dynamics. Non- detriment findings need to incorporate these data and need to draw on technical expertise available outside the national authorities to formulate science-based robust quotas and permitted trade levels……

Better understanding of the scope and scale of the trade in parts and

derivatives is required, including its impact on populations of Asian tortoises and freshwater turtles, and requires prioritized attention from CITES regulatory authorities to monitor and supervise this trade, as well as awareness and training of enforcement personnel to recognize this trade and enforce its permit requirements….

To address these issues, it is recommended that the Parties refer the following non-biological implementation matters to the Standing Committee for consideration and further recommendations. ……

Export of substantial numbers of Geochelone elegans originating from or shipped through Jordan, Kazakhstan, Lebanon, Slovenia, Ukraine, and United Arab Emirates and declared as 'captive-bred' while no import records of parental stock exist, no large captive breeding facilities are known, and declared export quantities require numerous long-lived parental animals yet declared CB exports only occur for a few years (CITES-WCMC Trade database). Correspondingly, further information is desirable about reported wild-origin exports from Afghanistan, which recorded no imports and is not a range state.

Uneven patterns of enforcement as evidenced by public availability of animals that are subject to an export ban in the country of origin and have not been recorded in official trade records as imported from a legal source; while illegal trade has been clearly documented by extensive confiscations in the country of origin, and retail trade offers, but few corresponding confiscations are reported in destination countries, as a result of either insufficient legislation, insufficient enforcement, or inadequate coordination between different government authorities. The widespread trade in Geochelone elegans in Southeast Asia (Annex C) is the most obvious case." (CITES CoP15 Inf. 22, 2010).

Such observations echo with those from many scientific researches, which conclude by suggesting that more research is needed. However, in the instant case what is clearly a legal and enforcement issue has not received any specific, measurable and time bound set of actions by clearly identified players.

In effect, even in the face of clear evidence of an illegal(??) trade flourishing mostly from non source countries under CITES permits, CITES has refrained from any strong and clear directions to counter this, relying instead on "more and better data", the "desire for more information" and lamenting the "insufficient legislation, insufficient enforcement, or inadequate coordination between different government authorities". Thus, it has placed the onus of regulating the illegal trade in this species to the very countries who are clearly documented as indulging in it, without any clear roadmap or direction towards this!

A detailed examination of the countries currently subject to a recommendation to suspend trade in CITES, as available on the CITES website reveals that *Geochelone elegans* is currently not one of the species subject of any trade suspension from or to any country.
(https://cites.org/eng/resources/ref/suspend.php accessed on 5th February, 2017).

Table 16:

List of Countries Subject to a CITES Recommendation to Suspend Trade (As on 5th February 2017)

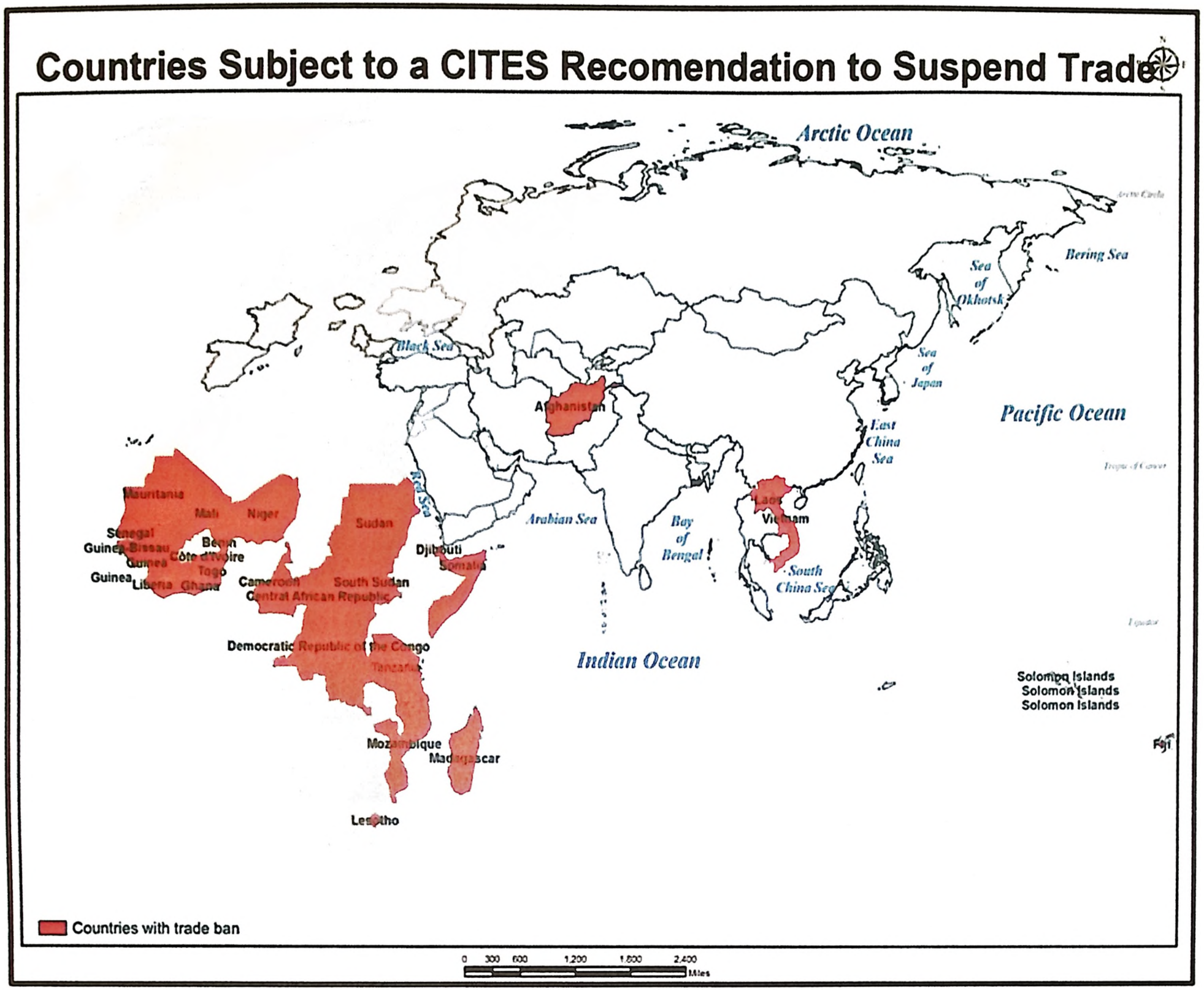
Serial	Country
1	Afghanistan
2	Belize
3	Benin
4	Cameroon
5	Central African Republic
6	Côte d'Ivoire
7	Democratic Republic of the Congo
8	Djibouti
9	Equatorial Guinea
10	Fiji
11	Ghana
12	Grenada
13	Guinea

14	Guinea-Bissau
15	Haiti
16	Lao People's Democratic Republic
17	Lesotho
18	Liberia
19	Madagascar
20	Mali
21	Mauritania
22	Mozambique
23	Niger
24	Senegal
25	Solomon Islands
26	Somalia
27	South Sudan
28	Sudan
29	Togo
30	United Republic of Tanzania
31	Viet Nam

Even a cursory examination of the above list will suggest that CITES choses its trade suspension subjects with caution.

Also, no countries other than Afghanistan, which have been identified as major dramatis personae in the illegal international trade of this species, figure on this list. CITES Notification no. 2013/018 dated 17 May 2013 states that Afghanistan had failed to provide its annual reports for three consecutive years without adequate justification and is thus in violation of existing CITES regulations.

Map no. 20


Countries Subject to a CITES Recomendation to Suspend Trade
Arctic Ocean
Bering Sea
Sea of Okhotsk
Black Sea
Sea of Japan
Afghanistan
Pacific Ocean
East China Sea
Tropic of Cancer
Mauritania
Mali
Niger
Sudan
Red Sea
Arabian Sea
Bay of Bengal
Laos
Vietnam
South China Sea
Senegal
Guinea Bissau
Benin
Côte d'Ivoire
Guinea
Togo
Djibouti
Somalia
Guinea
Liberia
Ghana
Cameroon
South Sudan
Central African Republic
Democratic Republic of the Congo
Tanzania
Indian Ocean
Equator
Solomon Islands
Solomon Islands
Solomon Islands
Mozambique
Madagascar
Fiji
Lesotho
Countries with trade ban
0 300 600 1,200 1,800 2,400
Miles

The Secretariat has informed the Parties that, in accordance with Resolution Conf. 11.17 (Rev. CoP14), the Conference of the Parties recommends that they not authorize trade in specimens of CITES-listed species with Afghanistan until further notice. This trade ban was still effective as on 5th February, 2017 (https://cites.org/sites/default/files/eng/notif/2013/E-Notif-2013-018.pdf accessed on 5th February, 2017).

The above illustrates an apparent reluctance on part of CITES to go after the big players in the illegal international trade in *Geochelone elegans*, despite having clear evidence and facts. A trade suspension from and to countries that have a consistent track record of using the CITES process to undermine the very cornerstone of the convention would be a significant step towards regulating the illegal trade in the species.

Some trade trends do indicate that the trade is showing a decline. In their assessment of trade in Star Tortoise in Malaysia, Serene C.L. Chng and Jamie Bouhuys (2015), show that there has been a drastic drop in the number of Indian Star Tortoise sold in shops of Malaysia and near-disappearance of the species from pet stores and aquaria greatly reduces availability to the general public. However, they also caution against the growth of online trade in the species.

While such drop in availability of the species in identified markets and diminishing international trade as reported is a welcome sign for the future, credit for this must largely lie at the door of the respective countries and their enforcement teams.

In the meanwhile, it is relevant to also recall here that the species has moved from the IUCN category of Least Concern to Vulnerable in its latest assessment.

There is clearly a need for CITES to review/revisit the process of monitoring import/export permits so as to minimise discrepancies, if any.

Chapter 8:
Red Sanders and CITES

Introduction:

Red sanders (*Pterocarpus santalinus*) is a tree species endemic to India. It is primarily reported from the southern parts of the Eastern Ghats region in the State of Andhra Pradesh.

Red sanders is a small to moderate sized deciduous tree, appearing with a dark brown bark divided into rectangular plates by deep vertical and horizontal cracks (Troup, 2006). This species seems to thrive in the natural elements under harsh environmental conditions characterised by dry hilly, often rocky ground from 150 - 900 m above sea level and requires perfect drainage. On low hills it can be found on all aspects, but as the elevation increases the species seems to prefer chiefly northern and easterly aspects. As a deciduous tree, the leaves shed from January to mid March with new leaves appearing in April. A self pollinating species, yellow flowers appear then rapidly form pods, containing only one or two seeds. The pods take almost 11 months to ripen and then fall during the hot season around May (Troup, 2006).

The trees occur in the forests classified as 5A/C3 Southern Tropical Dry Deciduous Forests as per the Champion and Seth Classification. Troup (2001) estimated the extent of natural occurrence of the species as extending over an area of 9600 km². Kadappa, Chittur and Nellore districts in the Rayalseema Region of Andhra Pradesh have their major areas under distribution and occupation of Red sanders.

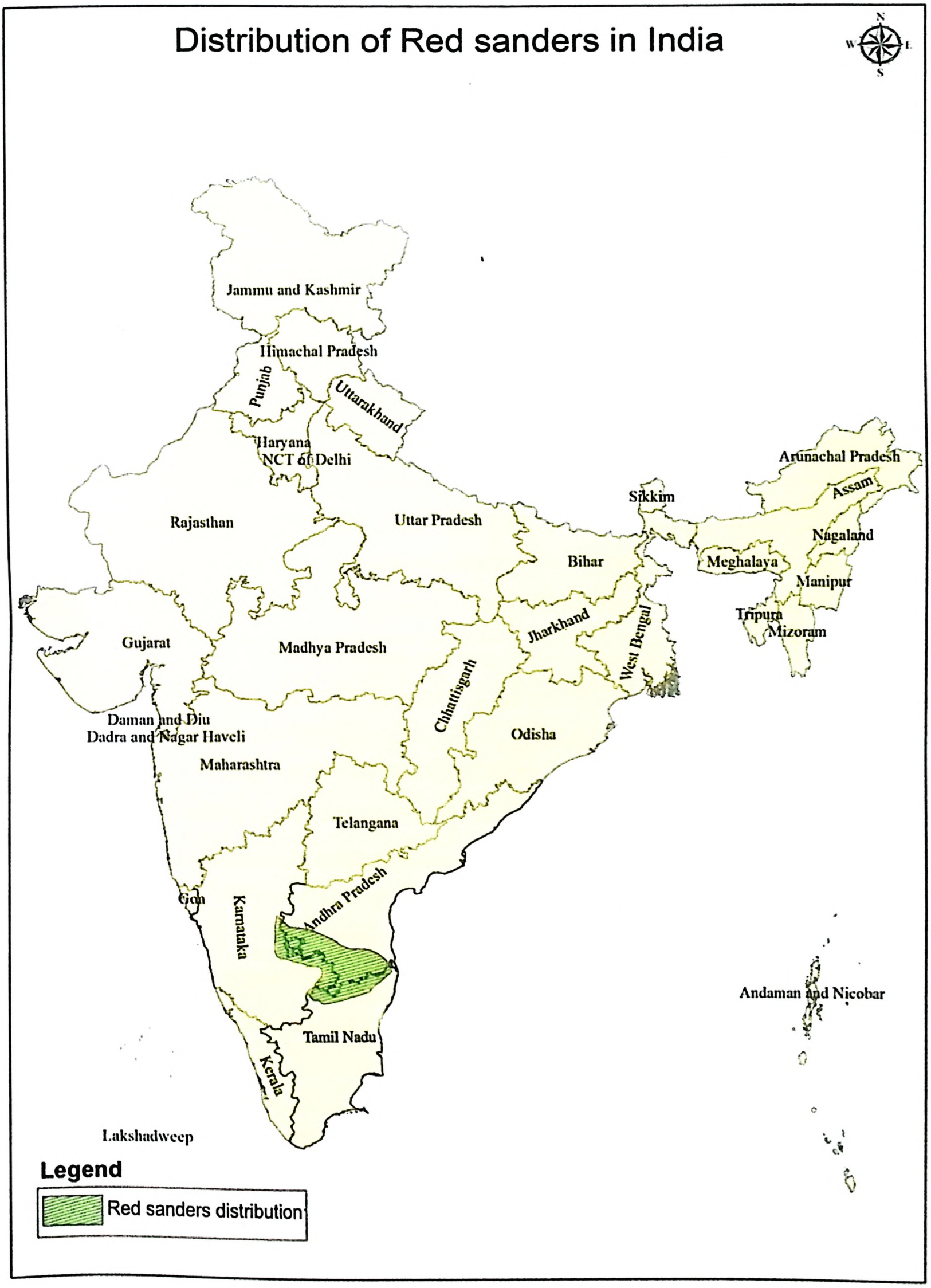
The demand for Red sanders in its various valued forms has caused such depletion to the species that it is classified as 'Endangered' (IUCN Red List, 1998). The threats to the species are reflective and are a result of the consumption patterns of Red Sanders over at least the last 400 years, since the inception of foreign trade and settlement (Abirami 2008).

Utilisation and trade:

Red Sanders is in demand as a high quality timber, a source of dyes and, less importantly, for other uses such as incense. The colorant is extracted from the heartwood, which is first reduced to chips or powder, and the colorant is then extracted. (CITES 2007)The wavy grain of the timber of this species is especially in much demand. Due to its attributes, this plant species has found a place in markets not only in India but also from across the globe. Domestic consumption of Red Sanders is largely considered insignificant; small amounts are used for extracts mainly for Ayurvedic treatments. A recent study suggests that the active fraction of ethanolic extract of bark of the P. santalinus possess the anti- hyperglycemic and anti hyperlipidemic active principle(s) which act by improving insulin secretion and alterations in the carbohydrate and lipid metabolism (Kondeti et al 2010). Thus it could have a significant role in the treatment of diabetes.

The popularity of the species in trade is also illustrated by the fact that despite a very limited geographical distribution, large number of trade names in various national and international languages are attributed to it: Agaru (kan), Agarugandhamu (tel), Almug (eng), Atti (tam), Bois de Santal rouge (fre), Chandana (mar), Honne (kan), Kempugandha Chekke (kan), Lalchandan (hin), Lalchandan (ben), Leno de Sandalo rojo (spa), Lignum Santali rubrum (pha), Lignum Santalinum rubrum (pha), Patrangam (mal), Pterocarpi lignum (pha), Rakta Chandan (hin), Rakta Chandan (ben), Rakta Gandhamu (tel), Raktacandana (san), Raktacandanah (san), Raktachandanam (san), Raktachandan (ori), Raktachandana (san), Ratanjali (guj), Red Sandalwood (eng), Red Sanders (eng), Red Sanderswood (eng), Rotes Sandelholz (ger), Rotsandelholz (ger), Sanalho vermelho (por), Santali lignum rubri (pha), Saunderswood (eng) Sivappu Chandanam (tam), Tambada (mar), Tilaparnni (mal), Yerra Chandanamu (tel), Zitan (chi) (From Green 1995, IUCN 2004, Lange & Schipmann 1999 as quoted in Mulliken et al 2008).

Map No. 21


Distribution of Red sanders in India
N
W
E
S
Jammu and Kashmir
Himachal Pradesh
Punjab
Uttarakhand
Haryana
NCT of Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Chhattisgarh
Odisha
Gujarat
Madhya Pradesh
Daman and Diu
Dadra and Nagar Haveli
Maharashtra
Telangana
Goa
Karnataka
Andhra Pradesh
Tamil Nadu
Kerala
Lakshadweep
Andaman and Nicobar
Legend
Red sanders distribution

Legislation and Policy:

Domestic Legislation and Policy:

At the domestic level, Red sanders is protected in Andhra Pradesh under the Red Sanders and Sandalwood Transit Rules of Andhra Pradesh Forest Act, 1967. It is also regulated under The Andhra Pradesh Sandalwood and Red sanders wood Transit Rules,1969 and the Andhra Pradesh Red sanders wood Possession Rules,1989.

Under the provisions of Section 3 of the Andhra Pradesh Sandalwood and Red-Sanders Wood Transit Rules, 1969, the import or export of red-sanders wood, red-sanders wood chips, red-sanders wood powder into, or from, any place in the whole of the State is prohibited unless accompanied by a prescribed permit.

It is also categorised as a Reserved Tree under the A.P. Preservation of Private Forest Rules 1978 and its felling from private lands is permitted only under a prescribed procedure when the tree exceeds 120cm and a girth of 1.3mtrs.

In Tamil Nadu, the species was included in 1987 as one of five tree species notified as Scheduled Timber under the Tamil Nadu Forest Act 1882.

Offences involving scheduled species are Non compoundable and non bailable under this Act (Sec 55 3(b) & 56-B.

In respect of any offence relating to any scheduled timber, such person shall be punished with imprisonment for a term which may extend to five years but which shall not be less than three years and with fine which may extend to twenty thousand rupees but which shall not be less than fifteen thousand rupees (Sec 56-A).

Also, when any person is accused of any offence under this Act in respect of any scheduled timber, the burden of proof shifts on the accused and it shall be

presumed, until the contrary is proved that such person has committed such offence (Sec 56-D).

Given that the species is NOT listed under any of the schedules of the Wildlife (Protection) Act 1972, its provisions do not apply in regulating its trade. As such, currently, there is no national level legislation regulating the harvest and exploitation of Red sanders in India.

Legislation and Policy on International Trade

Red sanders was listed under Appendix II of CITES in 1995 and is the only species of Pterocarpus in the CITES Appendices. The listing was annotated to cover only "logs, wood-chips and unprocessed broken material" (Annotation #7), modified at CITES CoP14 (effective 13 September 2007) to: "Designates logs, wood-chips, powder and extracts" As such, its international trade is regulated jointly through the provisions of the Foreign Trade Policy of Government of India and Customs Act, 1962.

Chapter 12 of the Export Import Policy of India (EXIM Policy) mentions that Plants, plant portions, their derivatives and extracts as specified in Appendix I or Appendix II of CITES as well as those specified at Export Licensing Note 1 and orchids from the wild are not permitted to be exported, except under special exemption granted for the purpose of research and life saving drugs on case by case basis by the Directorate General of Foreign Trade (DGFT) on the recommendation of the Ministry of Environment & Forests, Govt. of India (DGFT 2009).

Red sanders is listed in Export Licensing Note 1 of this policy, which includes 29 species. Similarly, Chapter 44 of this policy mentions that export of wood and wood products in the form of logs, timber stumps, roots, bark, chips, powder, flakes, dust and charcoal is prohibited.

However, with the relevant license, Red Sanders can be exported in value added formulation consisting of things such as extracts, dyes and musical instruments/parts.

Given the high value attributed to this timber in international markets, there has been an effort to dispose any available timber by way of global auctions.

Seized and confiscated logs are sold by way of auction. Between 1987-2007, over 9000 MT has been confiscated by Andhra Pradesh Forest Department.

Legal and Illegal Trade

The trade in Red sanders is to be understood at two layers, domestic and international.

At the domestic level, the growing demand for the species and the scale at which criminal elements are engaging in such illegal harvest is encapsulated in a news report from Andhra Pradesh that states.. "We are witnessing a new phenomenon in the modus operandi of red sanders smuggling. Armed gangs comprising 100 and more from Tamil Nadu are raiding the forests in Chittoor and Kadapa and other nearby places. Sometimes they also carry fire arms...." (Times of India, 19th June 2013).

It is estimated that the annual illegal removal of Red sanders heartwood from natural forests in Andhra Pradesh is about 3000 metric tonnes (AP Forest Department 2011).

The following table illustrates the scale and reach of the illegal trade in Red sanders across India.

Table 17: Quantity of Red sanders seized and stored in various states, Union Territories and with other agencies across India.

S.No.	STATE/Union Territories	Quantity in Tonnes
1	Andhra Pradesh	7311.09
2	Assam	101.00
3	Bihar	102.31
4	Chattishgarh (9.951 Cmt) [1 Cmt of Red Sanders = 1.4 Ton)	14.00
5	Gujarat	59.81
6	Himachal Pradesh	11.93
7	Jammu & Kashmir	93.91
8	Karnataka	12.14
9	Kerala	61.32
10	Maharashtra (Customs + Police + Forest Departments)	496.39
11	Manipur	3.63
12	Mizoram	50.19
13	Nagaland	8.00
14	Orissa	19.50
15	Tamil Nadu	299.73
16	Uttar Pradesh	17.50
17	DRI Guwahati Region	67.94
18	Office of Commissioner of Customs and Excise, Hyderabad Region	38.08
19	Office of Commissioner of Customs (Preventive), Kolkata	10.46
20	Office of Chief Commissioner of Customs, Chennai	455.22
21	DRI West Bengal and North Eastern States	504.39
22	Office of Commissioner of Customs (Preventive), Mumbai II	293.13
23	Office of Commissioner of Customs (Preventive), Chennai	274.09
24	Office of Customs Gujarat Zone	131.61
	TOTAL (In MT)	**10437.37**

** Source: IFGTB , 2012

The diverse spread and volume of these seizures is sufficient to indicate the high level of illegal trade in the species. It is also significant to note that all but one of these seizures are by states sharing an international border or agencies while control International exit-entry points of goods. This is a strong pointer to the fact that even the domestic seizures are all ultimately headed to international markets.

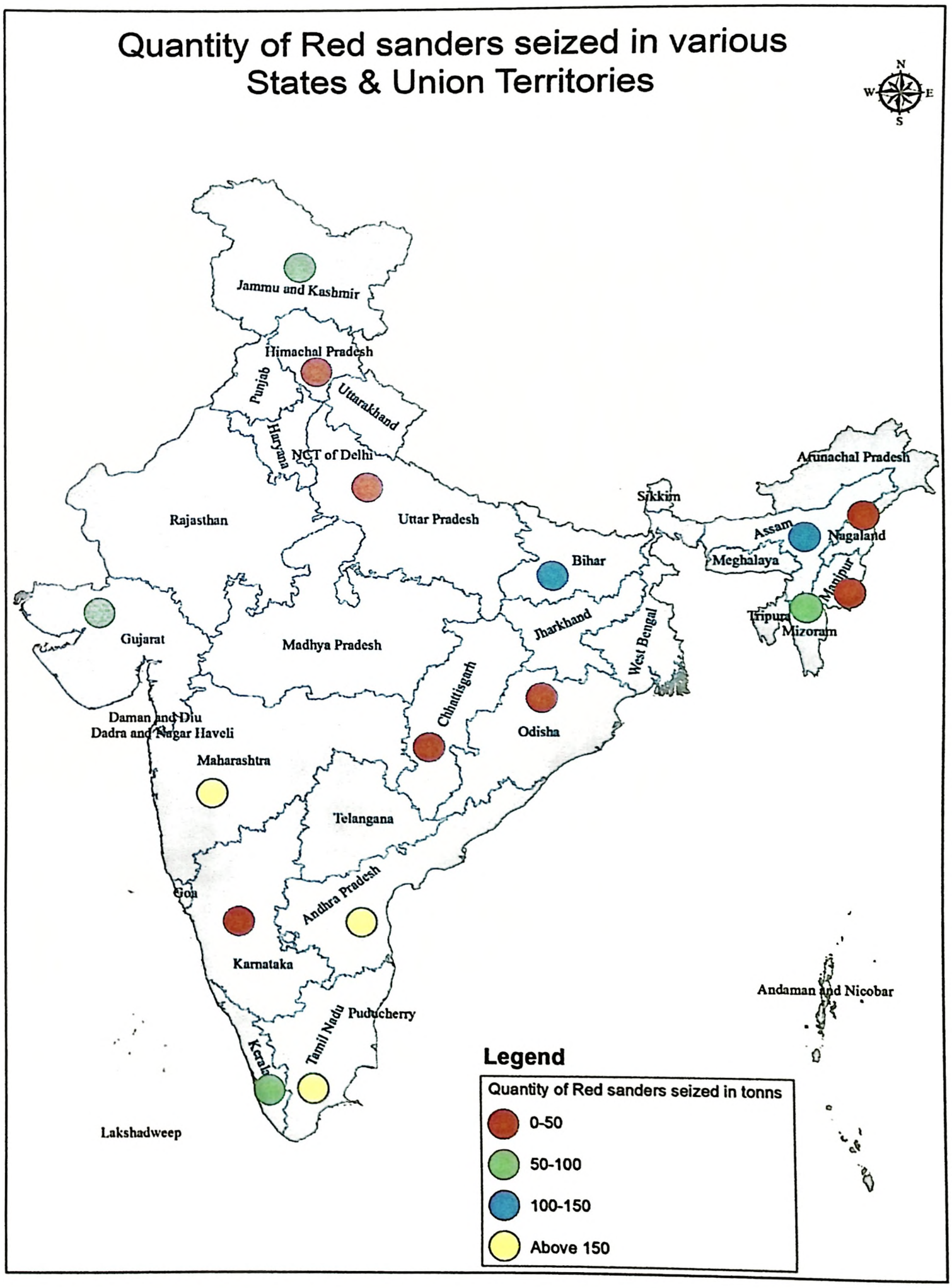
International Trade:

The global trade in Red sanders dates back to at least 400 years; as early as 1602-1617 the East Indian Company had sent consignments of Red Sanders wood from the Madras Coast to Europe (Management Plan Part I & II, Cuddapah District 1982-1997, p288). The international trade of *Pterocarpus santalinus* involves many tens if not hundreds of tonnes of wood, wood-chips and powder each year. Legal export of wild-sourced material is limited to value-added products, (i.e. other than timber). It has been imported into Germany in the form of powder or as an extract i.e. oleoresin (CITES 2007). In recent times, the main international trade in Red sanders has been with Japan and China. In Japan, the heartwood is used to make musical instruments, 'hankos' (name seals), frames, traditional dishes and carvings. (Mulliken et al 2008). Musical instruments fashioned out of Red sanders have been considered an important part of tradition, especially in weddings. While Japan appears to remain an important market for timber, this is not supported by CITES or Customs data.

More recently, there has been a surge in demand in Red sanders from China, where it is believed to be used mostly for furniture making.

The international trade in Red sanders as captured by the UNEP-WCMC Trade Database provides useful comparative tabulation. In the case of Red sanders *Pterocarpus santalinus*, analysing this data presents special challenges.

Map No.22


Quantity of Red sanders seized in various States & Union Territories
N
W
E
S
Jammu and Kashmir
Himachal Pradesh
Punjab
Uttarakhand
Haryana
NCT of Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Gujarat
Madhya Pradesh
Chhattisgarh
Odisha
Daman and Diu
Dadra and Nagar Haveli
Maharashtra
Telangana
Goa
Andhra Pradesh
Karnataka
Andaman and Nicobar
Puducherry
Tamil Nadu
Kerala
Lakshadweep
Legend
Quantity of Red sanders seized in tonns
0-50
50-100
100-150
Above 150

Till 2003, data from Indian Customs recorded three different categories of *P. santalinus* products in trade: chips, powder and timber, with the chips having the greatest share of the trade.

However, since 1 April 2003, the Customs HS Code 12119027 for Red sanders chips does not seem to be in use. As such, beyond this date, it is not possible to distinguish international trade in such chips from timber.

Also, the original listing did not include "extracts' and that they were included only since September 2007. This has meant that a significant proportion of the trade in various forms of Red sanders including powder remained outside of CITES trade controls prior to that date. CITES trade data indicate the export of around 22 tonnes of extracts and 5 tonnes of sawn wood in the period 1996-2005. (CITES 2007) Indian customs data also indicate very substantial trade in wood-chips (nearly 600 t in the period April 1996 to March 2003). Wood chips have been covered by the CITES listing during this period and should therefore have been subject to CITES controls and reported in annual reports, but there is no record of this trade in CITES statistics (CITES 2007).

Thus, the information on trade in this species has suffered on both counts; firstly many of the forms in which it was traded was not covered under CITES proviso and accordingly not listed in CITES records, secondly, even when a certain form (eg Wood chips) was required to be covered under CITES, it does not appear to have been so. CITES has also noted that India shows a discrepancy in CITES and Customs data with respect to the species, with the CITES data being on the lower side. Also, while India has reported trade in Red sanders extract prior to 2007 when it was not covered under CITES proviso, it has not reported trade in Red sanders chips during the same period though it was a requirement under CITES.

Table 18: Year wise Export / Import in Red Sanders as reported by UNEP-WCMC Trade Database

YEAR	Importer reported quantity (Kgs.)	Exporter reported quantity (Kgs.)
2003	100900	0
2004	0	56000
2006	461642.16	534333.11
2007	43605.5	55785.6
2008	455386.896	158396.096
2009	33666.8	201695.348
2010	26687	57211.9
2011	19807.525	12510.88
2012	337.8	5412
2013	5412	0
2014	492558.82	532955.69
2015	0	26647
Grand Total	**1640004.501**	**1640947.624**

Chart 23: Year wise Export / Import in Red Sanders (Kgs.) as reported by UNEP-WCMC Trade Database

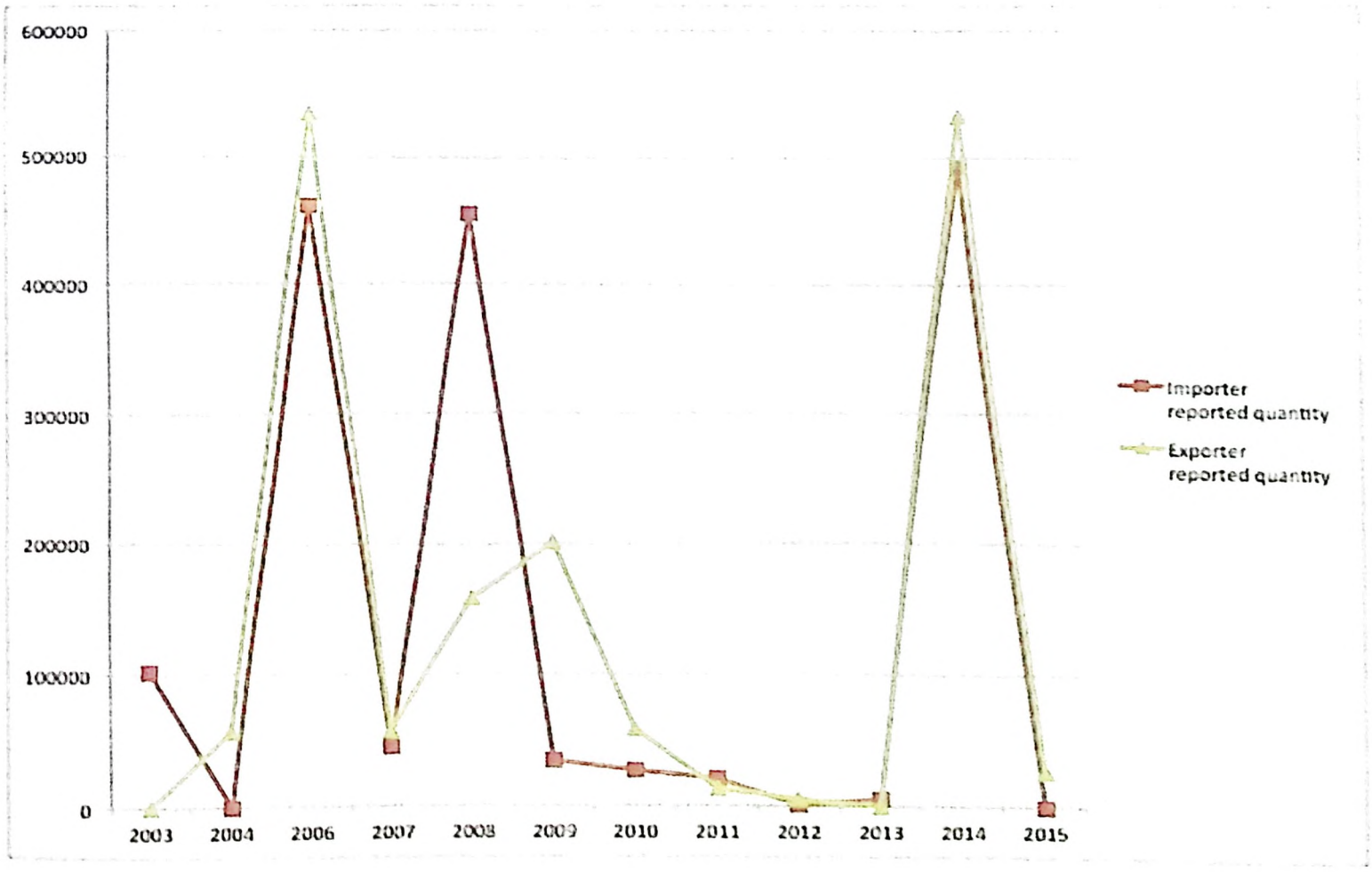


Table 19: TOP 3 EXPORTERS OF RED SANDERS ('INDIA-IN','SINGAPORE-SG' and 'MALAYSIA-MY') FROM 2004-2015

Year	Exporter	Exported (kgs.)	Imported (kgs.)
2004	SG	56000	
2006	IN	466445.16	
	SG	67887.95	2933.16
2007	SG	54600	
2008	IN	108274	
	SG	48000	177490
2009	IN	1413	
	MY	36815	
	SG	132480	
2010	SG	36020	
2011	SG	12482	
2012	MY	5412	
2014	IN	526124.29	213297

Chart 24: Top 3 Exporters of Red Sanders ('India-In', 'Singapore-Sg' and 'Malaysia-My') from 2004-2015

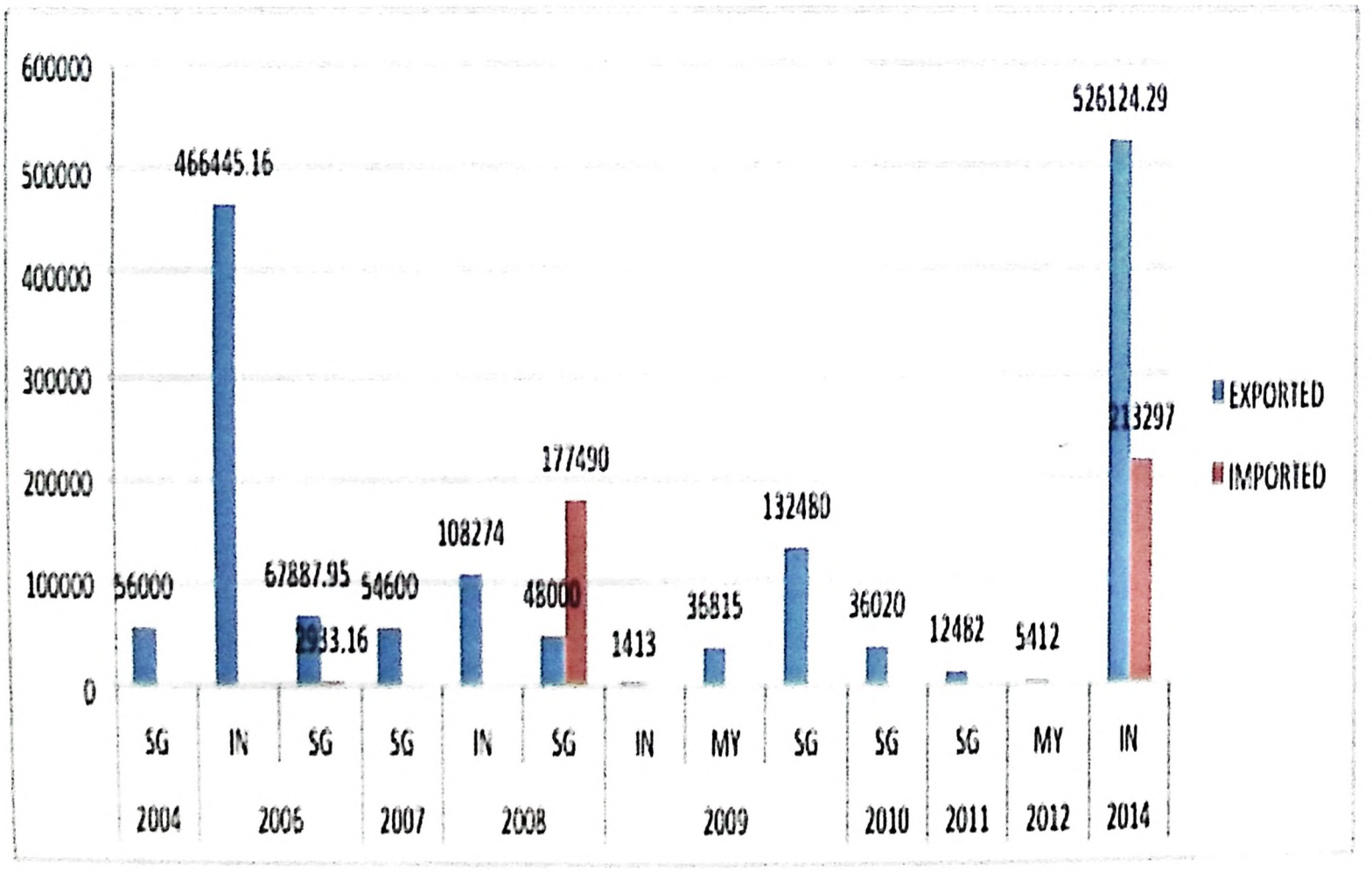
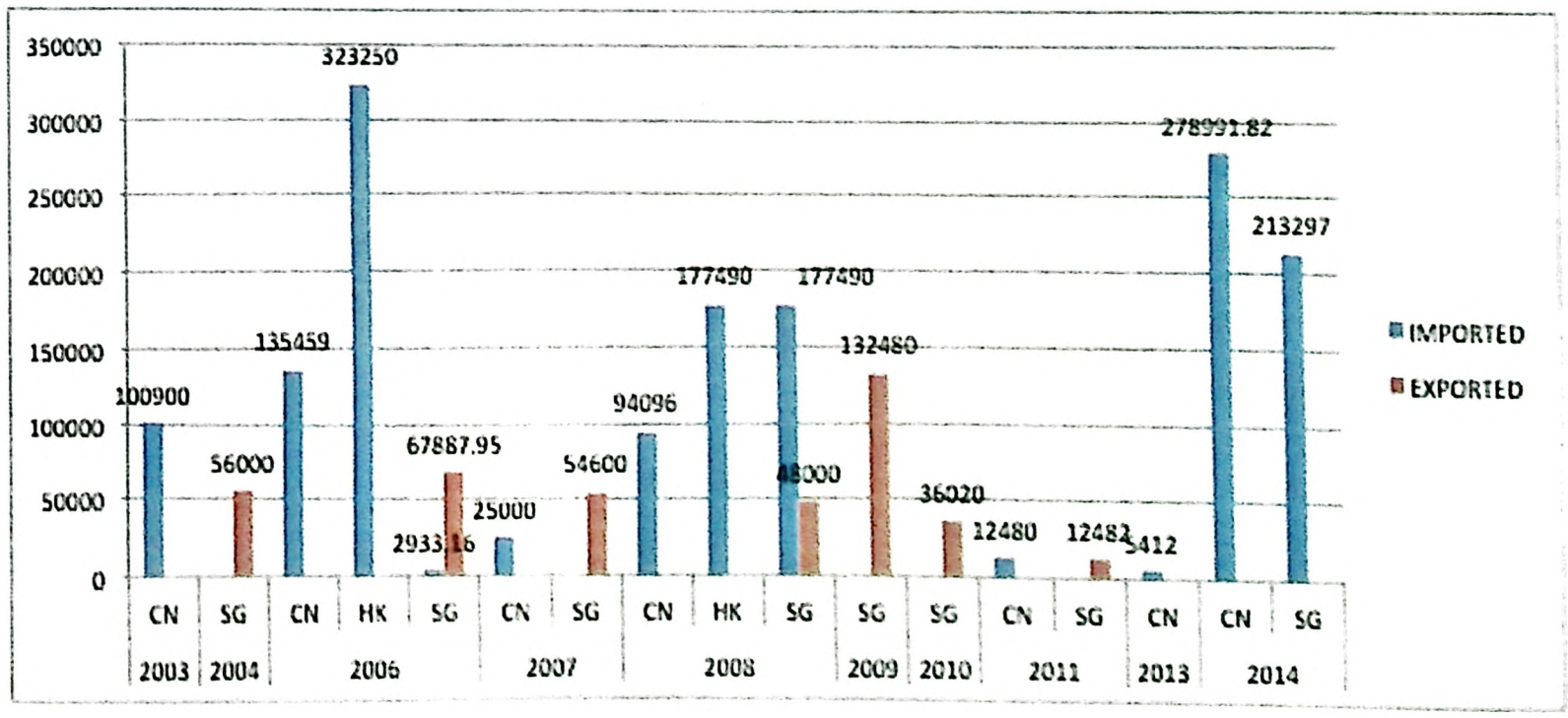


Table 20: TOP 3 IMPORTERS OF RED SANDERS (CN-China, HK-Hong Kong and SG-Singapore) FROM 2003-2015

Year	Importer	Imported (kgs.)	Exported (kgs.)
2003	CN	100900	
2004	SG		56000
2006	CN	135459	
	HK	323250	
	SG	2933.16	67887.95
2007	CN	25000	
	SG		54600
2008	CN	94096	
	HK	177490	
	SG	177490	48000
2009	SG		132480
2010	SG		36020
2011	CN	12480	
	SG		12482
2013	CN	5412	
2014	CN	278991.82	
	SG	213297	

Chart 25: TOP 3 IMPORTERS OF RED SANDERS (CN-China, HK-Hong Kong and SG-Singapore) FROM 2003-2015



A detailed analysis of the UNEP-WCMC data on Red sanders trade, which captures 70 such international transactions between 2003-2015 reveals the following:

i. Information about many of the report parameters such as Country of origin, Import unit, Import purpose, import source etc. can be missing.

ii. There is a difference in the units of quantities reported in trade, making any comparison very difficult.

iii. Also, the commodity is traded in various forms including timber, derivatives, powder, extract, roots, chips etc.

Thus,

- A 96,000 kg export of Red sanders timber from Nepal to China in 2003 is shown to have the import source as W, which stands for specimens taken from the wild! This is grossly incorrect at first glance as Nepal is not a range country for the species and thus not an option for sourcing from the wild!
- In 2006, two exports from India to China of 135,459 kgs and 323,250 kgs of timber respectively have been shown as import source O, which implies Pre Convention origin!
- A 2006 export consignment of timber from India to Singapore, later re-exported to China shows the quantity as 2933.16 cubic meters of timber. The exporter has not reported this transaction.
- Another export to China from Niger of 25,000 kgs of logs is shown as import source W, which implies sourced from the wild. Niger is not a range country for the species.
- A 2008 export of 177,490 kilos of logs from India to Hong Kong is also shown as of Pre Convention origin.
- A 2011 export of 7,322.4 kgs of powder from China to Germany does not mention the origin but marks the import source as Pre Convention origin.
- In many cases, the country of origin is shown as “Unknown”.

These snapshots only exhibit the challenges in monitoring and tracking legal trade in a species like Red sanders whose demand extends far beyond its small geographical provenance.

While the species is endemic to India, CITES records show that exports in Red sanders timber and derivatives have taken place from countries including Germany, Netherlands, UAE, Cambodia, Nepal, Saudi Arabia, USA, Korea, Great Britain, Niger, South Africa, Bhutan, Singapore & China. Many of these transactions do not show India as the country of origin, making such transactions suspect.

Illegal Trade:

Illegal international trade in Red sanders is rampant. At the international level, there is an ongoing opportunistic attempt to smuggle out Red sanders from India by using various methods including concealment, fake or altered documentation including transit passes, certificates of origin and CITES permits (WCCB 2011). In December 2013, Sri Lankan Customs seized a consignment of Red Sanders (*Pterocarpus santalinus*) from Chennai ,(India) to Jabel Ali, (Dubai) via Colombo(Sri Lanka). A total quantity is 4.5 metric tonnes of Red sanders of superior quality was recovered from a container wherein goods were declared as "Sanitary ware". The detection was made on an information received while transiting via Colombo port Jaya Container Terminal. (pers com. Samantha Gunasekara, Deputy Director of Customs, Sri Lanka Customs). This is just one of the many such examples of the attempts of smuggling Red sanders.

Since 2004-2007, Singapore has intercepted 7 shipments of a total of 116 metric tonnes of Red sanders wood from India. These were usually falsely declared as other goods e.g. coconut husks, rice, pumps etc, and transhipped through Singapore, to China (CITES 2011).

The international demand for Red sanders is thus clearly met significantly from illegal sources. At the local level, criminal elements routinely target standing trees of Red sanders, usually from government lands and , also occasionally

from private lands. These are opportunistic fellings and as such, do not have any consideration for age class, girth or even quality. While a large portion of such illegally harvested timber makes its way to the underground market, a significant quantity is also seized and confiscated by government agencies. Thus, the Andhra Pradesh Forest Department is currently holding stocks of over 9000 tonnes of logs of Red sanders, mostly those seized from illegal traders.

The disposal of such timber presents its own challenges. Such seized timber, after being seized and undergoing due process of confiscation, becomes "government property" and hence legitimate. However, such timber originally from illegal and opportunistic fellings cannot obviously meet any sustainability criterion.

In the last few years, the Andhra Pradesh Forest Department has held tenders to auction Red Sanders wood in log form. Given that the log form cannot be sold to overseas buyers by way of the EXIM Policy(which then deems it as an export), any **legal** purchases by international buyers would require a "relaxation of conditions stipulated" before they can be exported.

In March 2006 the DGFT released a Public Notice stating that only exporters having already obtained logs from the Government of AP will be provided with a onetime exemption to apply for an export license to permit the transfer of Red Sanders wood in log form out of India. In June 2007 the DGFT released another Public Notice again permitting applications for export licenses for Red sanders logs to any prospective exporter who has procured stock from the auction by the Government of Andhra Pradesh.

In December 2007, the Andhra Pradesh Forest Department again issued a global tender for sale of over 809 metric tonnes of Red sanders logs. Sealed tenders were invited from intending purchasers of Red sanders wood, whether for consumption in the country or for export. The bidders were asked to quote two rates for each lot separately, i.e., first rate in case of export of red sanders wood in Value Added Product (VAP) form (Processed form) according to ITC

(HS) Classification of Export and Import Items (1st September, 2004-31st March 2009) ie., Foreign Trade Policy published by Government of India, or for consumption within the Country and the 2nd rate for export of red sanders wood in Round Log form (Unprocessed form). Quoting the first rate for value added Product (VAP) is mandatory.

The tender document clearly stipulated that "Export of red sanders wood in round log form will be permitted only after necessary clearance is accorded by Government of India." It also mentioned that the quoting of two rates for the same Lot as above was necessitated since the proposal for export of Red Sanders wood in Round Log form (unprocessed form), in addition to the Value Added Product form, was stated to be under active consideration of the State Government. In the event of the Government of India approving the export of Red Sanders wood in Round Log form in addition to the Value Added Product form before the delivery of Red Sanders wood to the Tenderers, the highest rate out of the two rates quoted for the Red Sanders wood in Round Log form and Value Added Products form will become applicable.

About 400 metric tonnes of various grades of Red sanders wood available in the Government Sandalwood Sale Depot, at Tirupattur was offered for sale by auction on 25th April 2012 by the Tamil Nadu Forest Department. Another 330 metric tonnes of various grades of Red sanders wood available in the Government Sandalwood Sale Depot, at Tirupattur was offered for sale by auction on 11th July 2012 by the Tamil Nadu Forest Department. The tender document had a condition that the winning bidder shall transport the material under the cover of a Transit permit to be issued by the competent authority of Forest Department to the destination approved by the concerned District Forest Officer in terms of Timber Transit and other relevant Rules in force. Also, it was prescribed that the sale of Red Sanders was being conducted subject to the condition that the guidelines laid down by the Government of India with regard to the export of Red Sanders shall be followed scrupulously.

Thus, unlike the Andhra Pradesh Forest Department, the call for sale of Red sanders by Tamil Nadu Forest Department is not a "Global Tender" and it does not have any mention on export of the purchased material.

CITES and the trade in Red sanders:

For some time now, CITES has been concerned about the trade in Red sanders from India. This issue was discussed in great detail during the 17th meeting of the Plants Committee of CITES at Geneva (Switzerland), 15-19 April 2007 (PC17 Doc. 8.4, Review of Significant Trade in specimens of Appendix-II species).

The following reflects a record of proceedings at the above meeting with respect to Red sanders:

Pterocarpus santalinus: population of India

a) The Plants Committee considered this matter at PC17. The Committee determined that trade in P. santalinus was of 'urgent concern' in India. Consequently, in consultation with the Secretariat, it formulated recommendations to address the problems of implementing the provisions of Article IV, paragraphs 2 (a) or 3, with deadlines for their implementation. The short term recommendations to India were as follows:

Within 3 months (i.e by July 2008)

i) The Management Authority should clarify the legislative status of exports of specimens of P. santalinus, the level of artificial propagation, the permit process, and perceived discrepancies between reported Customs data and CITES data; and

ii) If exports of wild origin are to be continued, the Management Authority in consultation with the CITES Secretariat and the Chair of the Plants Committee, should establish a conservative quota of CITES listed specimens of this species.

b) *It also made the following long-term recommendations:*

Within 2 years (i.e. by April 2010)

If exports of wild origin are to continue:

i) carry out a preliminary inventory of standing stock, establish estimates of sustainable offtake and establish a scientific monitoring system of the harvested and unharvested populations;

ii) establish a revised conservative export quota based on the inventory of standing stock and the estimates of sustainable offtake; and

iii) the Management Authority report to the Secretariat the result of its actions to implement the provisions of Article IV, and how the Scientific Authority currently determines that levels of export are not detrimental to the populations concerned.

c) *On 19 May 2008, the Secretariat communicated the recommendations by the Plants Committee to India. The short term recommendations for India were urgent measures that needed to be implemented by this country in order to correct identified problems with the implementation of Article IV for P. santalinus.*

d) *No response has been received by the Secretariat in relation to the recommendations of the Plants Committee and the short-term recommendations of the Plants Committee have not therefore been complied with.*

e) *The Secretariat recommends that the Standing Committee recommend that all Parties* ***suspend trade in specimens of P. santalinus from India*** *until that country demonstrates compliance with Article IV, paragraphs 2 (a) and 3, for this species, and provides full and detailed information to the Secretariat regarding compliance with the recommendations of the Plants Committee .* (CITES PC17 Doc. 8.4, 2007)

Accordingly, all international trade from India in Red sanders and its derivatives was suspended.

In order to comply with the CITES requirements, the Govt. of India had initiated a Review of Significant Trade in Red sanders. At its 61st meeting in August 2011, the Standing Committee of CITES agreed to withdraw its recommendations to suspend trade in *Pterocarpus santalinus* from India from India once the Secretariat received the completed study being conducted in compliance with the long term recommendations of the Plants Committee at its 17th meeting in April 2008.

This study was carried out by the Institute of Forest Genetics and Tree Breeding, Coimbatore and published in 2012.

The review of trade is an important part of the CITES process. All CITES Parties must ensure that their trade in CITES-listed species is sustainable. In order to achieve this, Parties are expected to undertake a "non detriment finding" or a sustainability assessment on whether the export of a particular species will impact negatively on the survival of that species in the wild. A non-detriment finding is essentially a science-based risk assessment. It should consider a range of information including: population status; distribution; population trends; harvest; other biological and ecological factors; and trade information (CITES 2010).

India's study on Red sanders is thus a significant step in ensuring that trade in the species is held at sustainable levels.

CITES established the following national export quota for Red sanders from India on 4.4.2016:

"India will authorize the export of specimens of any type, from 310 metric tonnes of wood per year from artificially propagated source (Source "A") and a one-time export of specimens of any type, from 9090.09 metric tonnes of wood from confiscated or seized source (Source "I").

"Source A" refers to Plants that are artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP15), as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5, of the Convention (specimens of species included in Appendix I that have been propagated artificially for non-commercial purposes and specimens of species included in Appendices II and III).

"Source I" refers to confiscated or seized specimens (CITES 2013)

Thus, this export quota provided an opportunity for India to dispose upto 9090.09 metric tonnes of Red sanders in log form or in any other form, sourced from confiscated or seized specimens.

The Director General of Foreign Trade (DGFT), Government of India through its Notification No.47 (RE-2013)/2009-2014 Dated.24.10.2013, Notification No.96 (R.E-2013)/2009-2014, Dated.5.11.2014, Notification No. 6 /2015-2020, Dated. 6-5-2015 and Notification No. 24 /2015-2020, Dt. 29-8-2016, has permitted the export of Red Sanders Wood in the form of logs.

The notification dated 29.08.2016 permitted the sale and export of 9698.095 metric tonnes of Red sanders, with the Government of Andhra Pradesh permitted to sell and export 8498.095 metric tonnes of Red sanders while the Department of Revenue Intelligence (DRI)was permitted to similarly sell and export1200 metric tonnes.

This process is to be completed by 30th April 2017.

The e-sale and e-auction of Red sanders wood was to be held on December 19,21,23 of 2016. Any unsold lots would be offered for sale on December 27 and 29 of 2016 and further quantities, if any unsold would be again auctioned on January 3 and 5 of 2017. Pre-bid conferences for this sale would be held in China and at Hyderabad. This is again indicative of where the real global interest in Red sanders lies today.

It would be pertinent to point out here that the DGFT notification of 06.05.2015 as mentioned above extended the time frame laid down for exports of Red sanders logs by the earlier notification of 2013 to 30th April 2016. This was further extended to 30th April 2017 by the latest notification dated 29.08.2016.

As an indication of the high value placed on Red sanders timber, the Government of Andhra Pradesh has accepted a highest bid of USD 92,600 per tonne for one of the lots sold by e auction on 23.12.2016.

A total amount of USD 51,505,292 has been accepted from 50 lots comprising 1136.321 tonnes, corresponding to an average price of USD 45,326.357 per metric tonne!

The Hon. Supreme Court and Red sanders

In its judgment dated 13th February 2012 in the Interim Application (I. A.) Nos. 1287, 1570-1571, 1624-1625,1978, 2395, 2795-2796 in writ petition (C) NO. 202 OF 1995, with I.A. Nos. 2470-2471, 2472-2473, 2474-2475, 2476-2477, 2966-2967, in I.A. no.1287 in W.P.(C) 202 OF 1995 in the matter of T.N. Godavarman Thirumulpad.. Petitioner (s) Versus Union of India & Others Respondent(s), the Hon. Supreme Court of India has issued some very significant directions.

In this case, the Hon. Supreme Court was concerned with the question whether sandalwood (*Santalum album* Linn) stated to be an endangered species, be declared as a "specified plant" within the meaning of Section 2(27), and be included in the Schedule VI of The Wild Life (Protection) Act, 1972. On going through the various international conventions, the Hon. Court also thought it appropriate to examine the repeated requests made by the State of Andhra Pradesh to the Central Govt. to notify Red Sanders *(Pterocarpus santalinus)* as a 'specified plant' and be included in the Schedule VI of the Act.

The court opined that *"It is settled law that the provisions of the Treaties/Conventions which are not contrary to Municipal laws, be deemed to have been incorporated in the domestic law." It thus stated that "...following the ecocentric principle, we are inclined to give a direction to the Central Government to take appropriate steps under Section 61 of the Act to include Red sanders in Schedule-VI of the Wildlife (Protection) Act 1972 as requested by the State of A.P., within a period of six months from the date of this judgment. We are giving this direction, since, it is reported that nowhere in the world, this species is seen, except in India and we owe an obligation to world, to safeguard this endangered species, for posterity. Power is also vested with the Central Government to delete from the Schedule if the situation improves, and a species is later found to be not endangered."* (*Supreme Court of India*, I.A. no.1287 in W.P.(C) 202 OF 1995, 2012)

By its letter dated 5th December 2011, the MoEF has directed all states/Union Territories that any Red sanders seized anywhere in the country should be sent to the Andhra Pradesh Handicrafts Development Corporation, Hyderabad. This shows a possible shift towards promoting value addition in Red sanders within the country rather than focus on export of logs, which has largely been the norm so far.

Discussion:

The trade in Red sanders is a complex one, driven by a high international demand. While trade in CITES listed species must necessarily meet the dual criterion of legality and sustainability, the very nature of trade in this species presents an interesting challenge. There is a heavy level of illegal exploitation of this species at the local level; whatever portion of this illegal and opportunistic exploitation that is seized is further auctioned by government agencies as a "legal" product to willing buyers at a high market price. To apply the sustainability criterion to such trade is even more complex, given that artificial cultivation of the species is still in its early stages and that the bulk of the material made available for trade is from illegal, opportunistic felling with no silvicultural criterion being applicable in such criterion.

As such, the legal and policy framework for the conservation and sustainable utilisation of this species is seen as inadequate at this point in time. While CITES has guided the trade regulations at the source level, there is further need to spell out a clear, long term road map for the conservation and sustainable trade in this species of immense national, regional and international significance.

Chapter 9:
Tigers and CITES

"Few living mammals have become creatures of myth in the minds of man to as great an extent as has the tiger". These opening words to the chapter on tigers in his seminal work "The Deer and the Tiger" by Dr. George B. Schaller aptly say it all. Mel Sunquist, another well-known wildlife ecologist goes on to state, "To my admittedly biased eye, tigers are perfect".

The tiger is an embodiment of strength, awe, fear and majesty. It is an integral part of Indian ethos and finds a place in our mythology, legend, folklore and poetry. The charismatic big cat symbolizes our wilderness (Gopal 2015).

The tiger is the largest obligate terrestrial carnivore in all of the mammalian assemblages in Asia. (Seidensticker et. al 1999). Carnivores are top predators and have an important regulatory function that helps stabilize ecosystems. Many are also so-called umbrella species because their demand for large territories simultaneously enables the conservation of other species that share the same habitat (Zabel et al 2011). Thus, the significance of tiger conservation cannot be overstated.

There is one recognized species of tiger, Panthera tigris divided over six living sub species: the Bengal tiger P.t.tigris, the Amur tiger P.t. altaica, the Indochinese tiger P.t.corbetti, the Malayan tiger P.t.jacksonii and the Sumatran tiger P.t.sumatrae. the South China tiger P.t. amoyensis exists in captivity but there are no reliable records of its presence in the wild since over four decades. Three other subspecies, the Bali P.t.balica, the Javan P.t.sondica and Caspian P.t.virgata are extinct (Nyhus and Tilson 2009).

An average South Asian tiger would measure about 270-310 cm for males and 240-265 cm for females, including a tail length of 85-110 cm. Shoulder height would be 90-110 cm. Male tigers weigh between 175-260 kg and females 100-160 kg showing substantial sexual dimorphism. (Johnsingh and Manjrekar 2013).

In historic times, the species lived across 70 degrees of latitude and 100 degrees of longitude, from the Russian Far East south through Indochina, the Indian Subcontinent, south of the Himalayas and into the Indus valley (Seidensticker et. al 1999). Today, the tiger occupies just about 7% of its historical range (Dinerstein et. al 2008). Recent reports suggest that tiger-occupied tiger habitat has shrunk by as much as 41% in the last 10 years. At the same time, Asia's 14 tiger-range countries have experienced explosive growth in their human populations, which have doubled since 1965, reaching 3.2 billion in 2005. (Gratwicke et al 2008).

This situation extends to South Asia. Although the tigers' range originally covered most of the subcontinent, except for Sri Lanka and parts of Northwestern India, its current distribution is greatly restricted. Tigers have been extirpated in Pakistan. In other areas, tigers have apparently been forced into substandard habitats. The montane regions of Nepal and Bhutan as well as the mangroves of Bangladesh provide relatively poor quality habitats for tigers even though they persist in these places (Johnsingh and Manjrekar 2013).

Current wild tiger numbers across its range are as follows

Table 21: Estimated Global Wild Tiger Population (April 2016)

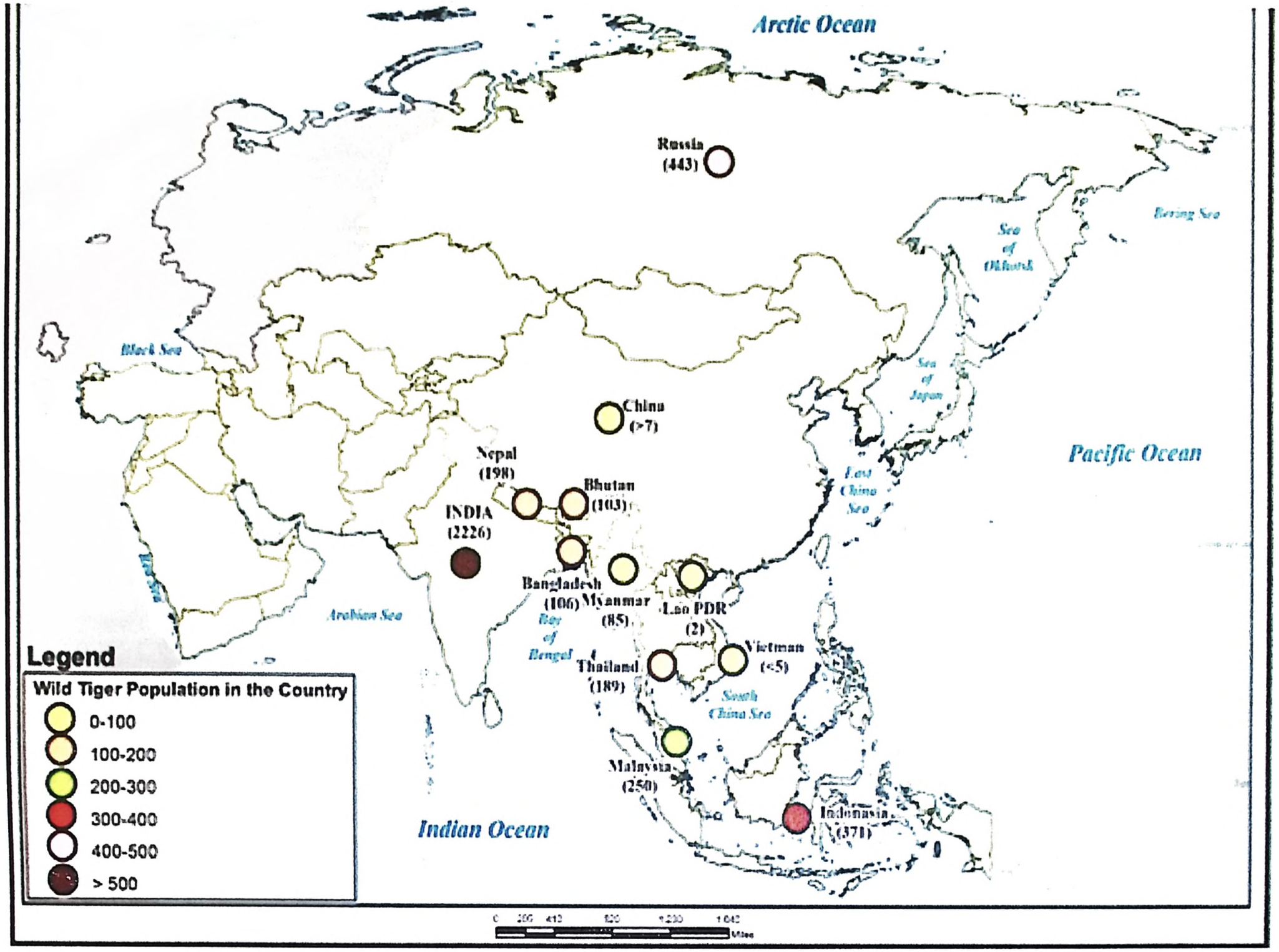
Serial	Country	Estimated wild tiger population	Source
1	Bangladesh	106	National Survey 2015
2	Bhutan 103	103	National Survey 2015
3	Cambodia	0	IUCN 2015
4	China	>7	IUCN 2015
5	India	2226	National Survey 2014
6	Indonesia	371	IUCN 2015 **(lower range)
7	Lao PDR	2	IUCN 2015
8	Malaysia	250	IUCN 2015 **(lower

Serial	Country	Estimated wild tiger population	Source
			range)
9	Myanmar	85	From a 2010 estimate
10	Nepal	198	National Survey 2013
11	Russia	433	National Survey 2015
12	Thailand	189	IUCN 2015 **(lower range)
13	Vietnam	<5	IUCN 2015
TOTAL		3890	

The cultural and social context of Tiger hunting in South Asia:

Poaching and loss of habitat and prey remain major threats to the tiger.(Jackson 2010). While habitat destruction continues to be a major cause for the decline in tiger numbers, hunting, and the way it has evolved over time has been equally important. "Shikar" or sport hunting was an ancient cultural practice and a rite of passage among certain social classes in South Asia. Kings, landlords and other nobles historically regarded it as a divine right and indulged with sometimes with profound impacts. In the first twelve years of his reign alone, Jahangir killed over 17,000 animals including 86 tigers and lions (Rangarajan 2005 pp 14). It is reported that the Maharaja of Sarguja shot one thousand seven hundred and seven tigers in his lifetime. (Sankhala 2005). Some of this indulgence was likely influenced by colonial attitudes. During the Raj, Shikar became an almost a de rigueur experience for Britishers serving in India. It was a way of affiliating colonial power with traditional nobility, expressing European notions about competitive superiority through high take hunts, and providing outposted civil servants with 'authentic' native experiences. Tigers became favored targets because of the perceived danger and the trophy value involved with taking them. Before 1990, George Yule with 400 tigers and Montagu Gerrard with 227 had amongst the largest British bags (Rangarajan 2005).

MAP 26: Estimated Global Wild Tiger Populations



Tiger hunting by Europeans likely also entailed a sense of protective paternalism, or 'white man's burden'. As powerful predators, tigers occasionally caused huge losses to human life and property. Rewards were often offered for the destruction of such animals, and hunters like Edward James "Jim" Corbett (1875-1955), became legends in their lifetime and continue to be adored by local populations even today. Between 1907 and 1938, Corbett tracked and shot twelve recorded man-eating tigers and leopards responsible for killing over 1500 people (Kala 2009). The region's first National Park and one of the strongholds of wild tigers today, Corbett National Park, established in 1936 stands a befitting testimony to Corbett.

Tiger Trade and its drivers

While sport hunting was a major cause of declining tiger numbers, hunting for human consumption was not historically part of the problem in South Asia. Across the region, tiger range countries do not have a documented history of large scale domestic use of tiger parts and derivatives in their pharmacological traditions. This stands in contrast to range states in South East and East Asia, where tiger parts and derivatives occupy an important place in traditional medicinal practice (Alves et al 2013). In China, the first references to the use of tiger bone in traditional medicines date back more than 1,500 years. In the herbal compendium, Mingyi Bielu, or Records of Famous Physicians (Tao Hongjing, circa 500 A.D.), tiger bone was said to have the properties of "warding off harmful air, killing evil pathogens, stopping convulsions, and curing carbuncles and ulcerative scrofula" (But, 1995). Such commodity value implies the existence of professional hunting and longstanding commercial markets.

Conversely, South Asian cultural acknowledgement of tigers' potency has tended to emphasize personalized trophy values. Nepalese kings occasionally gifted tiger and leopard skins to Hindu priests for religious purposes Most hunting was driven by a desire for individuals to prove their own prowess, with the trophy (skin and occasionally the skull and skeleton) retained as proof.

A trophy focus is evident in the way South Asian markets for tiger parts have developed over time. Precolonial records of commerce in tiger parts are sparse or nonexistant. In 1930, however, tiger skins in India were reported to cost Rs 200 while a rug with mounted head cost Rs 300. These were resold to shops in big cities like Bombay (present Mumbai) and Calcutta (present Kolkata) where Europeans returning home brought them as souvenirs (Sankhala 2005).

Post colonial growth only served to expand the trade. Between the1950s and early 1960s, demand for tiger trophies had grown into to a substantial international industry. During this period, it consumed an estimated 3000 tigers in India alone (Sankhala 2005 pp 12). Betweeen 1965 and 1969, a total of 698 tanned and dressed tiger and leopard skins and 18,179 kgs of non dressed skins had been exported, mostly to the USA and Europe (Jackson 2010).

Legal and Policy Responses

In response to the rising domestic and international concerns about decimation of tigers and other big cats, India banned the export of tiger and all 'spotted' skins in 1968. Shikar outfitters and traders immediately protested, presenting very high figures of economic losses in foreign exchange that would accrue if such trade was banned. They also pleaded for relaxation, citing pre-ban commitments of over 20,000 skins (Sankhala 2005).

Traders found little sympathy, though. At the tenth General Assembly of the International Union for Conservation of Nature (IUCN) in Delhi in November 1969, then Prime Minister of India, Indira Gandhi famously stated, "We need foreign exchange, but not at the cost of life and liberty of some of the most beautiful inhabitants of this continent."

In 1970, India placed a total ban on tiger hunting. The Wildlife (Protection) Act was enacted in 1972. A watershed in Indian legislation, it provides the tiger, and over 800 other species protection under its various schedules.

Around the same time, Nepal enacted its National Parks and Wildlife Conservation Act, (1973) under which the tiger was listed as one of the protected species. The first national park of Nepal, the Chitwan National Park was also established in 1973. In a parallel effort, the Tiger Ecology Project was initiated as a joint venture of the Government of Nepal, the Smithsonian Institution and World Wildlife Fund to conduct research on the tiger (Government of Nepal, 2007).

The Royal Government of Bhutan also expressed its strong commitment to conservation by stating clearly in its 1974 Forest Policy that a minimum of 60 percent of the country would be maintained under forest cover in perpetuity. This clause is now embodied in a new Constitution that was released for nationwide debate in 2005. (Royal Government of Bhutan 2005).

Bangladesh has in force the Wildlife (Conservation and Security) Act, 2012. Important Provisions include prohibition related to hunting of wild animals and collection or destruction of specified plants without authorization.

Changing national laws across South Asia provided a basis for better engagement across borders. With the emergence of CITES in 1973 as a global framework for regulating wildlife trade, the region's countries began exploring its provisions as a means for protecting indigenous species like tigers.

Resurgence of the trade

Even so, the trade in tiger products was too lucrative for some to abandon. In the face of changing national and international laws, they moved their operations underground. Correspondingly, there are indications that tiger (and other illegal wildlife) trade became better organized starting in the late 1970s. The threat of interdiction by enforcement agencies added levels of secrecy and control not previously present in Shikar related commerce. This new structure may in turn, have contributed to changes in the nature of the trade. Authorities in India began to notice in the early 90s that skins were becoming less

prominent in interdicted shipments of tigers. Instead, bones and other parts were also being traded.

Presumably changes in the products being smuggled were related to changes in end consumption. As noted previously, East Asian cultures utilize tigers, particularly their bones and organs, for medicinal purposes. The shift towards these other tiger derivatives corresponds chronologically with declining demand for trophy wildlife products in the West, and to increasing market accessibility in East Asia. As smuggling to China and her neighbours became easier, and the purchasing power in these countries improved, South Asia's illicit wildlife trade was transformed. It is interesting to note that this transformation may also have an impact on end markets in other countries. Bone purported to be from tigers also began appearing in Nigerian markets in the 1990s (Sodeinde and Soewu 1999).

Today, almost all the tiger trade in South Asian range countries is believed to be driven by external demand from China.

Nepal is well documented as a key intermediary for such illegal trade. The country is home to a comparatively small tiger population (~ 200 adults) that resides largely in protected areas along its southern border. Levels of tiger trade in Nepal are believed to be huge, though. Underground markets in Kathmandu act as transit points for shipments en route to China. Most of the parts confiscated by enforcement agencies have apparently come originally from India (Dongol et al 2012). Time series studies of tiger parts seizures across India also highlight the Nepal border as a major transit point in the trade with China. (EIA 2004, 2006, Verheij et al 2010 & Stoner et al 2013 and 2016)

Driving the Demand:

As mentioned earlier, tiger parts and derivatives occupy an important place in traditional medicinal practice in South East and East Asia, with recorded use of tiger bone in traditional medicines in China dating back more than 1,500 years. Products believed to contain tiger derivatives have been in wide acceptance and use. While wild tigers continue to face unprecedented threats today, many

tiger specialists agree that wild tigers face no greater threat than China's consideration of legalizing the trade in tiger products (Dinerstein, et al. 2008)

In 1993 China banned all trade of tiger bones in response to the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) directives and threats of international trade sanctions (Hemley & Mills 1999 This action was a significant step in managing the supply side of tiger products as CITES data show China exported more than 27 million units of Tiger medicines and wine to 26 countries and territories during 1990-1992. Of the products with reported origin, 460 000 allegedly came from Tiger bone stocks before CITES entered into force in China in 1981; 865 from captive-bred animals; and 6200 from wild Tigers. South Korea's CITES data indicate that China exported a further 1563kg of Tiger bones to that country in the first nine months of 1993 (Mills & Jackson 1994).

The most traditional form of Tiger medicine uses tiger bone powder mixed with other ingredients in various classic combinations by pharmacists and doctors. But factory techniques have modernized the production of Chinese medicines, and by the early 1990s more than 200 companies were manufacturing Tiger bone medicines and health tonics (Li and Zhang, 1997). These took the forms of Tiger bone pills, plasters, gels and wine. The annual economic value of the Tiger medicine industry at that time was estimated by industry representatives at 100 million CNY (USD12.4 million) (Jenkins, 2006 in Nowell, K. and Xu, Ling 2007).

Several investigations after the ban indicate a sharp decline in the availability of tiger products in the open market. There seems to be little doubt that, over time, China's trade ban policy has greatly reduced the production, sale and use of Tiger and Asian big cat medicines in that country. (See Gratwicke et al 2008, Nowell, K. and Xu, Ling 2007)

Trade in Tigers and their parts:

Trade data on tigers and their derivatives presents its own challenges. Given that tigers are listed on Appendix I of the CITES Convention, it would appear prudent that there would be hardly any significant international trade in the species and/or its parts, given the strict control and regulatory regime they would be expected to be subjected to. Nothing could be farther than the truth!

The WCMC-UNEP trade database reports a staggering 2879 transactions comprising of live tigers, skins, claws, carvings and other derivatives between 2001 and 2015. This roughly translates to one international transaction in tigers or their derivatives every two days.

Of these, a total of 1923 transactions (66.79%) related to live tigers, for the purposes of Zoos, commercial or educational purposes.

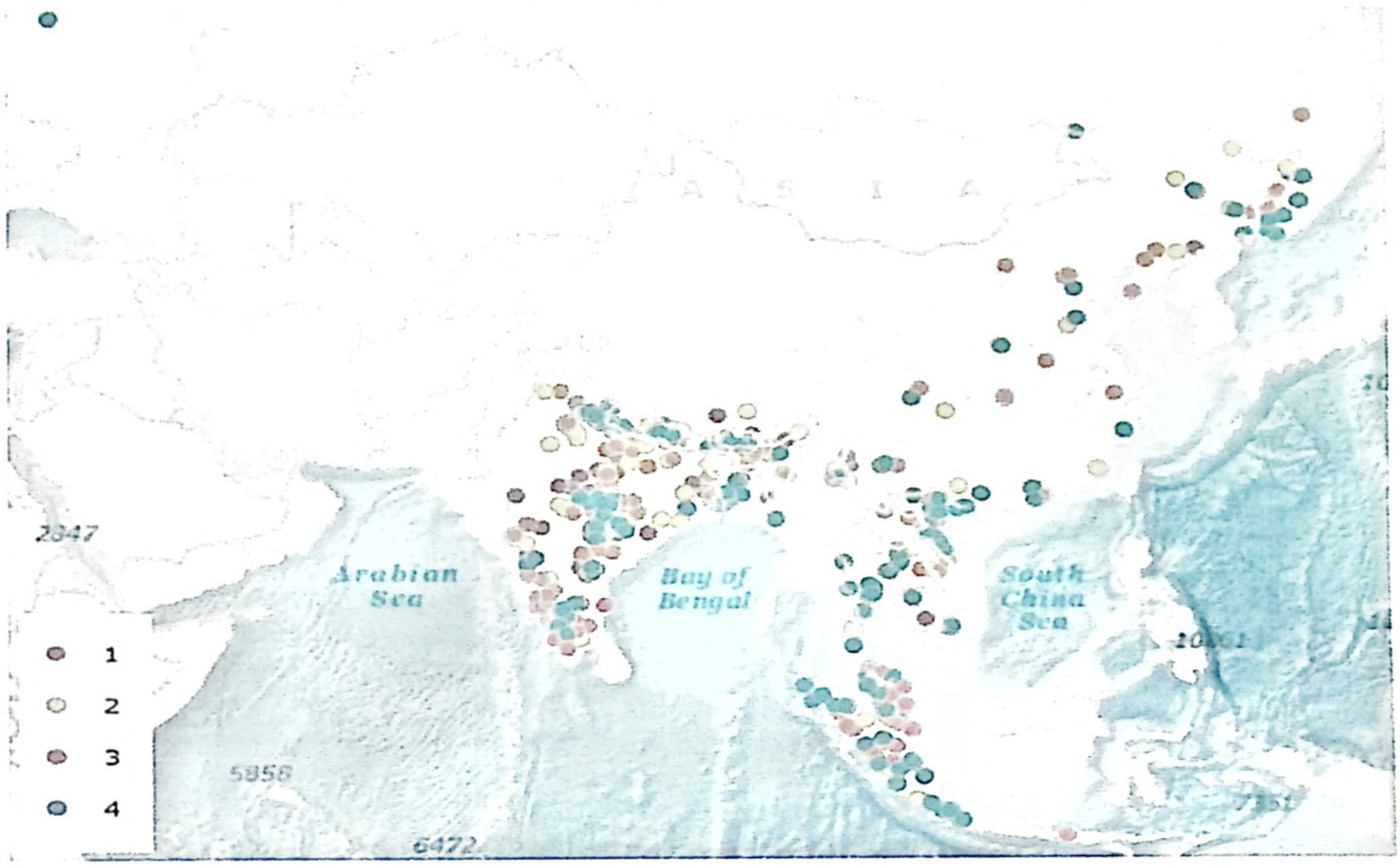
Only four transactions during this period refer to hunting trophies, of which two are reported from wild origin. Significantly, these two are reported exported from South Africa and Germany, none of which is a Range state. Both these trophies are reported imported into Pakistan.

The database also records a total of 210 transactions involving tiger skins.

The illegal trade in tigers and their parts

TRAFFIC has one of the most detailed records and analysis of seizures of tiger parts and derivatives. A recent report presents an updated situational analysis which, assesses seizure information over a 16-year period from January 2000 to December 2015 for all 13 TRCs, using a combination of government acquired data and open source media reports. The data was analysed for overall trends for the full 16 years as well as for four quarterly periods during this duration: 2000-2003 (Q1), 2004- 2007 (Q2), 2008-2011 (Q3) and 2012-2015 (Q4).

Map 27: Tiger Seizures across Tiger Range Countries (2000-2015)**



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Over the 16-year period between 2000 and 2015, a total of 801 Tiger seizures were reported across the 13 Tiger range countries, equivalent to an estimated minimum of 1755 Tigers seized. On average, 50 seizures were reported annually, equivalent to a minimum of 110 Tigers (Stoner et al 2016).

Table 22: Total number of seizures reported by Tiger Range Countries broken into four quarters (2000-2015)**

Country	Q1 2000 - 2003		Q2 2004 - 2007		Q3 2008 – 2011		Q4 2012 – 2015		Total	
Bangladesh	2	1%	1	1%	6	2%	11	6%	20	2%
Bhutan	1	1%	1	1%	1	0%	3	2%	6	1%
Cambodia	3	2%	0	0%	0	0%	1	1%	4	0%
China	11	7%	19	11%	22	8%	26	13%	78	10%
India	116	75%	89	50%	110	40%	40	21%	355	44%
Indonesia	0	0%	13	7%	21	8%	36	18%	70	9%
Lao PDR	0	0%	4	2%	4	1%	1	1%	9	1%
Malaysia	7	5%	5	3%	21	8%	7	4%	40	5%
Myanmar	0	0%	0	0%	1	0%	2	1%	3	0%
Nepal	9	6%	25	14%	36	13%	14	7%	84	10%
Russia	4	3%	6	3%	8	3%	12	6%	30	4%
Thailand	1	1%	6	3%	17	6%	17	9%	41	5%
Viet Nam	0	0%	8	5%	29	11%	24	12%	61	8%
Total	**154**	**100%**	**177**	**100%**	**277**	**100%**	**194**	**100%**	**801**	**100%**

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While China, Indonesia and Thailand were observed to be the top three countries that demonstrated a consistent increase in seizures in each four-year period quarter of the 2000 to 2015 timeframe, only Indonesia and Thailand show an increasing number of Tigers seized each quarter.

Table 23: Total minimum number of Tigers seized reported by Tiger Range Countries broken into Four Quarters (2000-2015)

Country	Q1 2000 - 2003		Q2 2004 - 2007		Q3 2008 - 2011		Q4 2012 - 2015		Total	
Bangladesh	13	4%	1	0%	9	2%	18	4%	41	2%
Bhutan	1	0%	1	0%	1	0%	3	1%	6	0%
Cambodia	7	2%	0	0%	0	0%	1	0%	8	0%
China	52	16%	35	10%	33	6%	55	11%	175	10%
India	182	57%	162	44%	147	26%	49	10%	540	31%
Indonesia	0	0%	19	5%	38	7%	79	16%	136	8%
Lao PDR	0	0%	8	2%	20	4%	11	2%	39	2%
Malaysia	15	5%	5	1%	55	10%	28	6%	103	7%
Myanmar	0	0%	0	0%	1	0%	2	0%	3	0%
Nepal	11	3%	79	21%	65	11%	31	5%	186	11%
Russia	30	9%	33	9%	15	3%	24	5%	102	7%
Thailand	11	3%	13	4%	64	11%	166	33%	254	14%
Viet Nam	0	0%	12	3%	116	21%	34	7%	162	9%
Total	**322**	**100%**	**368**	**100%**	**564**	**100%**	**501**	**100%**	**1755**	**100%**

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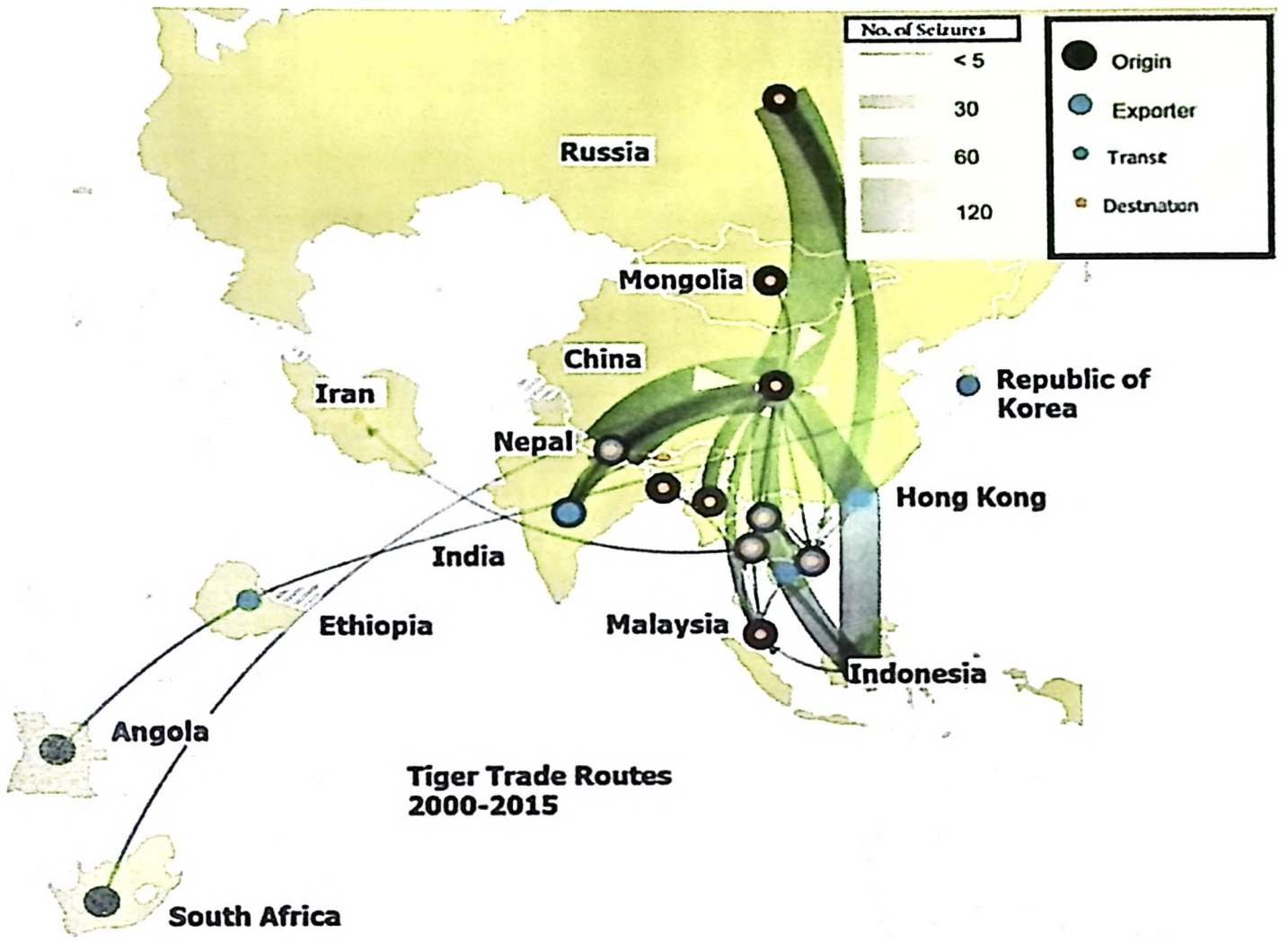
Overall, the highest number of seizures was reported by India, accounting for 44% (355) of all reported seizures. However, statistical analysis of its short-term data indicates that the relative proportion of seizures in India, compared to other TRCs, has significantly declined over this period. Analysis of density estimation to determine significant 'hotspots' of activity shows prominent clusters on the India-Nepal border and the India-Bangladesh border. (Stoner et al 2016).

Map 28: Tiger Trade Routes (2000-2015) ***



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Tigers in captivity and their role in tiger trade:

Unfortunately but true, the world's largest remaining numbers of tigers are not those found wild in Asia but in captivity. Given that wild tigers have increasingly been scarce, captive bred tigers have been seen as an alternate source for tiger products and derivative. The United States, with an estimated 5,000 captive tigers was home to a captive population far, far more in numbers to those surviving in the wild (Williamson and Henry, 2008). The other significant tiger population in captivity is in China, comprising over 6000 animals (IUCN 2015).

The legal framework for tigers in the USA demonstrates a dichotomy. While all matters related to international and interstate trade of tigers, their parts and derivatives is governed by strong federal laws and regulations, issues related to private ownership and management of captive tigers are left to the

jurisdiction of individual states. This effectively means that in the absence of any such legal directive, owners of captive tigers are not required to provide any information to federal agencies, who in turn may not have any real idea as to how many such animals continue to live across the country at a given point in time. At the state level, the focus is often largely on human safety issues, as "big cat incidents" across the country are a fairly regular occurrence. Beyond that, the degree of regulation by states varies from almost no oversight to very limited, at best. However, such captive tiger populations are mostly for commercial purposes or as pets. Importantly, the US Fish and Wildlife Service (USFWS) has not found evidence that parts or products from U.S. Tigers are entering the global trade. (Williamson and Henry, 2008).

Captive breeding is an important aspect of wildlife conservation in China, according to Chinese Government policy. Article 17 of the 1988 Wildlife Protection Law states: "The State shall encourage the domestication and breeding of wildlife." (Govt of China, 1988).

Since this ban was enacted, however, there has been serious concern about captive tiger breeding facilities in China, also known as tiger farms feeding tiger products illegally into the market. (EIA 2007, Nowel and Xu Ling, 2007). Chinese CITES management authority has occasionally floated proposals to reopen limited trade in tiger parts from captive-bred tigers (Mills & Jackson 1994; Delegation of the People's Republic of China to the CITES Standing Committee 2006). In 2007 farmed tiger populations had grown to more than 5000, and investors in tiger farms began lobbying for international support to lift China's 14-year ban. The issue of tiger farming to meet demand has evoked very strong reactions both in favour and against as also analysis of the economics of such farming. (e.g. see Mitra 2005, Damania, R., & Bulte, E. H. 2007,Kirkpatrick, R. C., & Emerton, L. 2010, Abbott et al 2011).

Those in favour of farming as a conservation tool for tiger conservation generally take a simple supply-side approach. The premise is that an increase in supply of tiger products from tiger farms leads to a decrease in price, and consequently a decline in the profits of poachers. This would reduce their

economic incentive to harvest, thus leading to a decrease in pressure on wild stocks.

Opponents to the sale of captive tigers, on the other hand argue that any weakening of the trade ban will legitimize consumption by taking away the stigma effect associated with the prohibition of tiger trade and increase the demand for tiger parts; this, in turn, will increase poaching because detection of products from poached tigers would be more difficult (Gratwicke et al., 2008).

Further, surveys on attitudes towards farmed verses wild products have always come up with a marked consumer preference for products sourced from the wild.

Table 24 : Some Arguments in favour and Against Tiger Farming

In Support of Tiger Farming	Against Tiger Farming
Conventional methods of conserving tigers have failed.	It is simplistic to aver that conventional models of tiger conservation have failed. Tiger populations across the globe are again showing an encouraging increase at some sites notably India, demonstrating that sustained efforts supported by investment along with cooperation and political will can make a difference.
Global trade bans do not work	In case of tigers, the bans have certainly slowed down the rates of decline.
There will always be a demand for tiger products	Demand has shown a marked decline over years. While the residual demand has been pushed underground, any window of opportunity for legalizing such demand will only spiral it upwards and quickly undo conservation efforts across decades.
Providing the market with a regular large and consequently cheap supply from farmed tigers will undercut the illegal	The cost of farming a tiger will always be higher than an opportunistic killing. There is also a marked consumer preference for wild products over farmed ones.

In Support of Tiger Farming	Against Tiger Farming
supply.	
Market economics at work will help establish transparent demand-supply dynamics	There is no rational pricing structure for such products. Markets are not free, usually controlled by organised crime syndicates

** (Adapted from Kirkpatrick and Emerton 2009)

In China, tiger farms have been allowed to continue intensive tiger breeding because it is ostensibly for conservation purposes—to build up stock for future reintroduction. However, the type of breeding practiced is oriented towards maximizing production of tigers, rather than maximizing genetic diversity, and there are now far more tigers than could ever conceivably be required given the limited habitat available. The high cost of maintaining them diverts conservation resources from China's remaining wild tigers. Tiger farms cannot be considered supportive of wild tiger conservation. (Nowell 2010). As such, the proliferation of such farms continues to be seen with suspicion across the conservation community.

CITES and the Tiger

In 1975, all subspecies of the tiger except the Siberian tiger, were accorded CITES' highest level of protection on Appendix I. The Siberian tiger (*Panthera tigris altaica*) was listed on Appendix II of the convention at that time. Later, in1987, it joined the other subspecies on Appendix I.

Thus, from the very beginning of the CITES convention, tigers have occupied centre stage.

During its 29th meeting, in Washington, D.C., United States of America, in March 1993 the CITES Standing Committee first approached the issue of trade in tiger parts and derivatives. It asked Parties to take any steps required to halt the illegal trade in Tigers and Tiger parts and to provide full reports to the Standing Committee on these measures (CITES Notification No. 738 of 20 April 1993).

Following up on this, at the ninth meeting of the Conference of the Parties to CITES, held in Florida in 1994, the Parties agreed on a resolution to urge countries around the world to do everything possible to help conserve the Tiger (Resolution Conf. 9.13 - Appendix I).

Acknowledging that three subspecies of tiger, *Panthera tigris*, have become extinct within the last 50 years and that the surviving populations of the species have declined sharply within the last five years, the resolution urged Parties and non-Parties, especially tiger range and consumer States to adopt measures legislation to properly control illegal killing of tigers and/or the trade in tigers and tiger parts and derivatives as a matter of urgency and include penalties adequate to deter illegal trade;

It also called upon all governments and intergovernmental organizations, international aid agencies, and non-governmental organizations to provide, as a matter of urgency, funds and other assistance to stop the illegal trade in tigers and tiger parts and derivatives and to ensure the survival of the tiger in the wild (CITES Resolution Conf. 9.13(Rev.).

Generally speaking, the response to Resolution Conf. 9.13 has been poor (TRAFFIC 1997).

At its 10th meeting at Harare in 1997, the Conference of the Parties adopted Decision 10.66, directed to the Standing Committee, regarding trade in tigers. It asked the Standing Committee to continue its review of tiger-trade issues in range and consumer States, by including illegal trade in tiger parts and derivatives as a priority issue at its 40th and 41st meetings; It also asked the Standing Committee to, in consultation with interested Parties and where appropriate, undertake technical and political missions to tiger range and consumer States, to assist in developing strategies for improving control of tiger trade and for related activities;

At its 11th meeting (Gigiri, 2000), the Conference of the Parties established the CITES Tiger Enforcement Task Force (TETF), with the objective of combating illicit trade in tigers and tiger parts and derivatives. The Conference of Parties adopted Resolution Conf. 11.5 on Conservation of and trade in tigers. It commended India, which, with co-sponsorship from the United Nations Environment Programme (UNEP), convened the first meeting of tiger range States, in March 1994, to establish a Global Tiger Forum, and also facilitated, with governmental and non-governmental support, the Global Tiger Forum in organizing a meeting of 11 tiger range States, three non-tiger range States and two donor agencies in March 1997 for the promotion of technical cooperation, inter- State tiger conservation strategies, training and capacity building programmes and developing information-sharing systems for conservation of the tiger and control of trade in tiger parts and derivatives through international cooperative efforts;

It also commended Nepal, which convened a workshop in March 1996 of 11 tiger range States to prepare a manual on systematic census techniques for tigers;

While reiterating its earlier request for Parties and non-Parties, especially tiger range and consumer States to adopt measures legislation to properly control illegal killing of tigers and/or the trade in tigers and tiger parts and derivatives as a matter of urgency and include penalties adequate to deter illegal trade, it further urged them to use fully the ECO-MESSAGE of ICPO-Interpol, which relates to standard procedures for exchange of intelligence data, for improved collaborative enforcement in the control of tiger trade (CITES Resolution Conf. 11.5).

At its 13th meeting (Bangkok, 2004), the Conference of the Parties adopted Decision 13.22, which directed the Secretariat to convene a special meeting of the TETF to "examine, in particular, the issue of illicit trade in Asian big cat skins with a view to facilitating and improving the exchange of enforcement information and the coordination of investigations".

One of the most significant moments in CITES history with respect to trade in tiger parts and derivatives was played out at the 14th Conference of Parties at the Hague, in 2007.

The Secretariat introduced document CoP14 Doc. 52, focusing on big cat issues throughout Asia. During deliberations on this resolution, the Indian delegate, Dr. Rajesh Gopal, Member Secretary NTCA made perhaps one of the most significant interventions in support of wild tigers. He stated, *"....we cannot imagine tiger conservation in a scenario where ban on trade in its body parts is lifted or relaxed. Likewise, we strongly oppose any proposal to farm wild carnivores like tiger, which are easy to breed in captivity but difficult to release in the wild. Promoting farming to satiate the demands of oriental medicine would lead to laundering of wild specimens. Further, the crave for wild body parts would deplete the insitu population under the garb of farmed ones.*

....The logic being extended by some people that satiating the demand for tiger body parts through supply of farm bred tiger body parts is dangerous. Can we advocate free production and sale of narcotics to satiate the demand for drugs to stop such crimes? We cannot imagine such a situation.

Open sale of tiger body parts through farmed specimens is detrimental to the survival of an umbrella species like tiger, which is symbolic of the well being of an ecosystem. Therefore we strongly urge the Parties to desist from the idea of captive breeding of tigers, and phase out all such programs in the interest of wild tigers.

.... We learn that China is committed to its tiger trade ban. We welcome this, and appeal to China to take the exemplary step of phasing out its tiger farms and consolidating and eliminating the stockpiles of Asian big cat body parts and derivatives. Even though this is an internal issue, it has ramifications beyond the borders by having a huge impact on wild tiger conservation in other tiger range States. Therefore, we once again urge the Parties to phase out ex-situ tiger breeding centers on a priority basis to save the remaining population

of tigers in the world." TRAFFIC India (2007).

During the deliberations, the delegate from China stated *"....In China tiger breeding is very successful. Research shows that hospitals could provide tiger bone from captive facilities. Most patients won't buy from underground markets. This would effectively cut down on profits of poachers, smugglers and illegal traders. Meanwhile, utilization could become a stable way for fund raising to support protection of global wild tiger populations.*

Although this seems an attractive way to proceed, the Govt. of China adopts a cautious attitude and has commenced a legal process to evaluate advice and has adopted a fundamental principle that the Current policy won't change unless it can be demonstrated that such change will have a positive benefit for wild tiger populations internationally.

..... we seek to assure parties that China will not bring any change in its exiting policy on domestic use of tiger bone unless it can be demonstrated to have positive effect on conservation of wild tigers internationally."

Finally, the CoP adopted several decisions on Asian Big Cats, which included the following;

" Parties with intensive operations breeding tigers on a commercial scale shall implement measures to restrict the captive population to a level supportive only to conserving wild tigers; tigers should not be bred for trade in their parts and derivatives."

It also directed that the CITES Tiger Enforcement Task Force shall, in conjunction with the CITES Enforcement Experts Group and in consultation with tiger range States, establish a mechanism to regularly monitor and evaluate the scale and nature of illegal trade in Asian big cats. (CoP14 Com. II. 33, Fourteenth meeting of the Conference of the Parties The Hague (Netherlands), 3-15 June 2007)

However, the CITES Secretariat itself reported at the Fifteenth meeting of the Conference of the Parties Doha (Qatar), 13-25 March 2010, "The Decisions relating to Asian big cats that were adopted at CoP14 appear to have had little impact upon the threats facing these species. Conservation concern for tigers in particular continues to increase. " (CoP15 Doc. 43.1, Fifteenth meeting of the Conference of the Parties Doha (Qatar), 13-25 March 2010, Interpretation and implementation of the Convention Species trade and conservation, Asian big cats Report of the Secretariat).

This in effect sums the story for Asian big cats and CITES.

Chapter 10:
Discussion and Conclusions

Introduction:

As discussed in earlier chapters, a MEA is a complex attempt at managing diverse , sovereign viewpoints towards a larger global good. CITES is no exception. With 183 member countries and working on a process of consensus, it has certainly not been easy for CITES to hold its ground.

Here I shall attempt to highlight certain aspects of CITES implementation through a series of key questions.

Has CITES been significant for the conservation of the species?

The above question can perhaps be better rephrased as, "Would the species in question be better off or worse in the absence of CITES?" One of the key problems identified for CITES is that the Convention tends not to take account of differences in wildlife populations and management regimes in different countries. Furthermore, from the global perspective of the CITES, it is more difficult to address the diverse local-level dynamics of human–wildlife conflicts in different locations (Duffy 2013). This has implications for impact at the grass root level against CITES actions.

Again, as has been mentioned elsewhere in this document, improved conservation status of the species in question is not necessarily an accurate or adequate measure of the effectiveness of CITES. In the present case, the status of one of the three species studied- Star tortoise has actually been downgraded from Least Concern to Vulnerable on the IUCN Red List. There is no change in the conservation status of the other two species despite decades of work by CITES and its partners.

It can be argued here that it has actually been the CITES process and the alarm bells set by it that have led to the reassessment of the status of the Star tortoise and sharpened focus on its plight. For Red sanders, the suspension of

trade and other actions triggered by CITES, including the Non Detrimental Finding (NDF) process have improved our knowledge of the species and its trade dynamics and are helping shape our collective response to it. Countries which are part of the trade flow of the species are working more closely together, seized timber is being sent back to the country of origin and in general wildlife law enforcement agencies today are better placed to respond to such challenges of trade.

Tigers and African elephants are perhaps two species that have generated the most heated debates at CITES forums. There is a wealth of information across the globe at various CITES platforms including the CoPs and the Standing Committee on deliberations on the fate of wild tigers and steps to control/regulate their illegal trade. That CITES has set up a Tiger Enforcement Task Force (TETF), as also undertaken a combination of technical and political missions to a number of tiger range and consumer States shows the importance CITES places at this "Flagship Species of Conservation" (CITES 2007). The efforts of the CITES missions led to perhaps the most significant outcome of CITES, with respect to tigers: China prohibited the domestic use of tiger parts and derivatives in 1993.

The significance of this step needs to be reiterated. CITES is an international convention that focuses on "International Trade". Yet, yielding to global public opinion, expressed largely through the CITES process, a country with a known history of widespread utilisation of wildlife products and derivatives including tigers has put in place a domestic ban on such trade. Even more important, this ban has held for over 30 years know, despite clear signals that the powers that be would like it to be "reviewed" and possibly diluted /deleted.

In 1999, the Standing Committee instructed the Secretariat to organize further technical missions. Consequently, a technical mission team, consisting of the CITES Secretariat, law enforcement officials and TRAFFIC staff members, visited 14 tiger range and consumer States. Subsequently, Secretariat staff, either alone or in conjunction with enforcement officers and TRAFFIC, have

visited other range States. In total, the Secretariat has visited 12 of the 14 countries where tigers are believed to still be present in the wild. (CITES CoP14 Doc. 52).

These missions have helped strengthen local capabilities and on occasion, directly brought about effective action on the ground. They have also helped raise awareness levels on the plight of the species across the globe.

In light of the above, it can be concluded that CITES has played a significant role in the conservation of the species in study. The degree of such role will continue to be a matter of question. In that respect, I submit that CITES has performed to its mandate, perhaps not wholly or in full measure, but certainly very substantially.

Are all species equal in CITES or some more equal than others??

At the very outset, CITES Appendices are itself a differential platform for species. On another level, even a cursory glance around the spectrum of conservation science, welfare and media will demonstrate that some species are indeed more equal than others. They receive more conservation funding, are focus of more research and receive more media attention. They also end up dominating public perception and discourse (Feber 2017). A very good example in the Indian context would be the fate of the Great Indian Bustard (GIB) (*Ardeotis nigriceps*). The species is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972, in the CMS Convention and in Appendix I of CITES, and as Critically Endangered on the IUCN Red List and the National Wildlife Action Plan (2002-2016 and 2017-2031). It has also been identified as one of the species for the recovery programme under the Integrated Development of Wildlife Habitats of the Ministry of Environment and Forests, Government of India (WWF 2017). Wild populations of this bird are estimated to be only about 200 individuals, or just about 5% of that of wild tigers. Conservation challenge for GIBs *inter alia* includes trans-border hunting. Yet, it would appear that the species lies forgotten for CITES.

"Can CITES do justice to the 33,000 species under its umbrella?".

It is evident that it cannot be so. The very nature of Appendices establish that needs of species are placed at different levels, requiring a differentiated response. Critics have argued that adding more species to the CITES Appendices is also an acknowledgement of failure of the CITES process. This would further be compounded by the possibility that once listed, most species would continue to be there on the statute, without any consequent conservation action and/or any hope of being down listed as a consequence of improvement of their conservation status. This is also in part because the CITES process is driven by consensus and thus, once a decision is made, the threshold of majority voting ensures that subsequent changes are not easy.

The counter argument is that listing on the CITES Appendices is only the first step- a tacit acknowledgement that the species is in trouble and trade in it or its derivatives needs to be regulated in order to give it a fighting chance of survival. Thus, listing is the means to an end- an end that has to be achieved by respective member States, working with partners and should not be seen as an end by itself. Also, trade is only **one** of the several factors that affect the fate of a species in the wild. As such, placing the sole responsibility of perceived conservation deficiencies of some species on the doorstep of CITES would be facetious and without merit.

How effective is CITES in ensuring "Compliance" by member States?

Quantitative research into the output of a selection of MEAs by UNEP in the period 1992–2007 shows that the COPs are extremely productive and generate an enormous amount of decisions. (Goeteyn and Maes 2011). This is equally true for CITES too, where the CoPs, Standing Committee, Animals and Plants Committees and other platforms churn out a vast number of resolutions, decisions and the like on a regular basis. All these are also rapidly contributing to the continuous evolution of international environmental law. On this criterion alone, it would appear that the process is definitely alive and kicking. However, the reams of paper generated by the CITES process do not clearly reflect the extent to which all of these decisions and recommendations have

been complied with. This is the biggest cause of concern for the CITES process.

Definition of compliance and compliance mechanisms in international environmental law

At a conceptual level, non-compliance with MEAs like CITES could be attributed to a variety of factors including but not necessarily limited to capacity issues, communication issues and unclear internal division of competences. Reasons for non-compliance could entail: (1) the authorities responsible for implementation are unaware of the existence of the treaty obligation; (2) lack of political momentum for the implementation of the treaty or unawareness of the need to implement; (3) limited technical, administrative and financial capacity, including insufficient preparation in the law-making process; (4) deficient coordination between the different national authorities involved; (5) lack of clarity of the data provided or the technical knowledge necessary to interpret and implement the data is unavailable to the authorities; (6) lack of monitoring and revision of (the need of) implementation; (7) issues with the interpretation of legal concepts (amongst others, as a result of translations), meaning that it becomes unclear which rules and instruments are to be applied in the implementation of the treaty; (8) incapacity to involve public opinion and a lack of social awareness and pressure; (9) insufficient budget; (10) changes in the economic circumstances; and (11) unforeseen and unpredictable costs that come with the implementation of the treaty obligation (Goeteyn and Maes 2011).

To further understand this process, we would need to revisit the emergence of CITES. When born, CITES was considered far ahead of its times. It aimed to regulate international trade across a wide bouquet of species of wild flora and fauna. While it speaks of science based decisions and sustainable trade, at times there appears confusion as to whether Wildlife trade is a commodity or taboo? The answer to this question is important as the treaty also recognizes that wild resources are the sovereign right of a nation and its people who are also mandated to take such steps as may be needed to conserve them. The diverging strands of this question can be clearly seen during trade

deliberations on some well-known species and groups such as African elephants, whales and some timber.

There are two clear strands of thought with regard to compliance of International agreements. One sees compliance issues more of a "management problem" rather than an "enforcement problem". This advocates the facilitation and managerial approach to compliance, which involves closely working with defaulting parties to support their efforts to build an appropriate framework to reach full compliance at the earliest. Such support could include sharing of information, technical advice, guidance, capacity building and financial support. The underlying thought is that a country which is party to any such IA is fully willing to comply with its requirements under such IA but is unable to do so on its own due to limitations of capacity and/or resources. Thus, any non-compliance is to be dealt with by managing it by collaboration and cooperation rather than coercion. (Chayes and Chayes, 1995). Punishment is sees as too costly, too political and too coercive. (Downs et al 1996).

The other approach merits that the success of any IA can only be consequent to a strong central authority with powers of coercion. Compliance measures would include punitive steps as a means of discouraging any parties which may be able, yet unwilling for whatever reasons, from compliance (Downes et al 1996).

The international system is a complex social setting, where states, even when they are seemingly acting in isolation on one level, are also on another level positioning themselves in relation to other states (Epstein 2006).

Given that parties to MEA are sovereign states, there is clearly an initial reluctance to use measures like suspension or termination as they would appear harsh, are confrontational in nature and may also be seen as a "loss of face". Also, that a large number of countries may have less than perfect records and may see themselves also on the receiving end at some point in time may also influence a softer approach towards non-compliance. Finally, the

two words- Politics and Corruption may also have a role to play in such decision-making.

It has also been pointed out that monitoring compliance of any effective International Agreement is costly and that the high cost of such monitoring must be borne by the parties themselves (McEvoy and Stranlund 2009).

The CITES process clearly identifies non-compliance by various tools such as Annual and Biannual Reports, periodic evaluations etc. These are laid out in the public domain. Here the key question emerges- After detection, what?

Despite such clear knowledge, I see a reluctance to take such non-compliance head on by using penal provisions against non-conformists.

Trade bans are one of the powerful tools in the CITES framework. However, it has been pointed out that sanctions work only against economically weak and politically vulnerable countries and unilateral sanctions can be imposed only by the major powers, and as such, their legitimacy as a tool for treaty enforcement is deeply suspect (Chayes and Chayes 1993). Here, it may be pertinent to revisit the list of Countries Subject to a CITES Trade Ban as on 5th February 2017, (See Chapter 7), which only reinforces the point.

CITES itself acknowledges that, enforcement of its statutes has long proved to be a problem among Parties. Even those Parties (mostly consumer ones) that are relatively well resourced are unable to enforce the provisions of the Convention and police effectively the large volumes of wildlife traded across their borders (CITES (2004). CoP13 Doc. 24 (Rev.1).

The CITES process also, atleast in theory, treats all member States at the same level and thus suffers from a lack of differentiated responsibilities. This is again critical as, for historical reasons different countries have different capacity to respond to the demands placed upon them by the Convention from time to time. This aspect of non-compliance needs to be acknowledged and

addressed. This is further aggravated by a lack of incentives for compliance and a corresponding lack of disincentives for non-compliance.

As the present study shows, there are very clear evidences of some member States misusing the provisions of the convention. Yet, despite such violation and non-compliance, there is very little action to deter them and any other potential violators. This must remain one of the weakest aspects of CITES.

The dynamics of wildlife crime and hence the needs of wildlife law enforcement are constantly changing- Is CITES equipped and/or ready for this role?

Recent times have seen the emergence of several other MEAs focused on biodiversity conservation and its challenges. While trade regulation remains a very important element of any efforts towards conservation of wild flora and fauna, the broad canvas of some of the other MEAs pose a challenge for CITES to keep reinventing itself in the modern world to stay increasing relevant. At its outset, while wildlife trade was largely seen through a prism of black and white, with limited gray scales, if at all, today the scene has changed. Wildlife trade involves people, some at the lowest tier being poorest of the poor, and any regulation on such trade impacts such people in several ways. Today, issues like livelihood concerns, poverty alleviation, access and benefit sharing have begun to appear on the CITES radar (Mathur A., 2009).

This has taken on a new momentum after the adoption of the UN Millennium Development Goals (UN, 2008). At the 13th and 14th Conferences of the Parties (held in October 2004 and June 2007) CITES passed decisions that accepted an obligation to take into account impacts on the livelihoods of the poor (Dickson, B. 2008).

With several MEAs jostling to occupy centre stage, there is a considerable risk of duplication, gaps, and even conflict between them and their member States. "Rivalry between secretariats" of such MEAs may only exacerbate the problem (Gillespie, A. 2002). This is leading to situations of what is described as

"Forum shopping" where member states try to chose the best forum suited for their purpose, to deal with questions of management and legal and illegal trade in certain species. This is perhaps best exemplified by the ongoing debate between CITES, the International Convention for the Regulation of Whaling and even the World Trade Organization with regard to the management of cetaceans.

CITES and its linkages with other environmental regimes:

Since the UN Stockholm Conference on the Human Environment in 1972, much effort has gone in towards establishing Multilateral Environmental Agreements (MEAs). In a world as connected as today, environmental regimes like CITES or similar MEAs cannot exist in isolation. First, regimes are connected because they often share institutional architecture, deal with different aspects of the same problem, frame issues using similar legal and policy principles, and are subject to attempts to coordinate across issues by groups of nations, NGOs and international agencies. (Ward 2006). Thus, the interrelationships of such MEAs often have a significant bearing on their effectiveness.

While there has been significant progress on various environmental issues, leading to much higher levels of awareness, there are considerable challenges in making them universally effective. According to some, one problem may be the single-issue focus of international environmental regimes (Ward 2006), of which CITES is a classic example.

Nation states, by agreeing to be members of such MEAs, aim to gain from mutual cooperation while such membership also has significant influence on their perception of their interests and of good behaviour (after Young, 1999; Hasenclever, Mayer & Rittberger, 1997: 136-211). Thus, membership of such an MEA for nations signifies both interdependence as well as a legally accepted acknowledgement to take into account the concerns of other member nations. Such regimes may be nested in some legal and institutional architecture that relates to a family of issues (Vogler, 1995: 37; Young, 1999:

183). A cluster of different regimes may deal with different aspects of the same problem (Young, 1999: 184-185).

CITES has been very much aware that as a trade focused MEA, its interactions and linkages with other MEAs are crucial to its success.

Thus, the CITES Strategic Vision: 2008-2020 (CITES Resolution Conf. 16.3 (Rev. CoP17) clearly has a goal **that aims to** contribute to significantly reducing the rate of biodiversity loss and to achieving relevant globally-agreed goals and targets by ensuring that CITES and *other multilateral instruments and processes* are coherent and mutually supportive. The strategic vision document also has specific references to contribute to the achievement of the World Summit on Sustainable Development (WSSD) target of significantly reducing the rate of biodiversity loss by 2010. At its 16th meeting (Bangkok, 2013), the Conference of the Parties extended the validity of the Strategic Vision and Action Plan from 2013 to 2020 and included amendments to contribute to the achievement of the Strategic Plan for Biodiversity 2011-2020 and the relevant Aichi Biodiversity Targets adopted by the Parties to the Convention on Biological Diversity, and to the relevant outcomes of the United Nations Conference on Sustainable Development.

The Conference of the Parties to CITES also lays out its commitment, within the context of its mandate, issues such as contributing to the UN Millennium Development Goals relevant to CITES.

The Convention on Biological Diversity (CBD):

In response to ever growing threats to the earth's natural resources, , the United Nations Environment Programme (UNEP) convened the Ad Hoc Working Group of Experts on Biological Diversity in November 1988 to explore the need for an international convention on biological diversity. Soon after, in May 1989, it established the Ad Hoc Working Group of Technical and Legal Experts to prepare an international legal instrument for the conservation and sustainable use of biological diversity. The experts were to take into account

"the need to share costs and benefits between developed and developing countries" as well as "ways and means to support innovation by local people".

By February 1991, the Ad Hoc Working Group had become known as the Intergovernmental Negotiating Committee. Its work culminated on 22 May 1992 with the Nairobi Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity.

The Convention was opened for signature on 5 June 1992 at the United Nations Conference on Environment and Development (the Rio "Earth Summit"). It remained open for signature until 4 June 1993, by which time it had received 168 signatures. The Convention entered into force on 29 December 1993, which was 90 days after the 30th ratification. The first session of the Conference of the Parties was scheduled for 28 November – 9 December 1994 in the Bahamas. Currently, CBD has 196 parties. (www.cbd.int accessed on 22nd Oct 2017).

The CBD is a broad 'framework' Convention that sets out general principles and commitments on an extensive range of issues related to biodiversity. (Cooney 2001).

The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding. (http://www.cbd.int/doc/legal/cbd-en.pdf Accessed on 22nd Oct 2017).

CITES and CBD have also entered into a Memorandum of understanding (http://www.cites.org/common/disc/sec/CITES-CBD.pdf accessed on 22nd Oct 2017).

This MoU includes the following key articles:

- Institutional co-operation with each other by the secretariat of each Convention to facilitate the participation, at meetings of the Convention, of the Secretariat of the other.
- Exchange of information and experience by instituting procedures for regular exchange of information in their respective fields of action and in preparing the documents required for each Convention.
- Co-ordination or programmes of work in preparation of the relevant parts in their respective work plans and by facilitating the reporting process of Contracting Parties under both Conventions.
- Joint conservation action including developing work plans for the implementation of joint activities such as research, training and public awareness activities with a view to encouraging integration and consistency between national strategies, plans or programmes under the Convention on Biological Diversity and plans or programmes under the convention on International Trade in Endangered Species of Wild Fauna and Flora. The Parties to this

Resolution Conf. 16.4 of CITES on Cooperation of CITES with other biodiversity-related conventions, while recognising the *Strategic Plan for Biodiversity 2011-2012*, developed and adopted by the Conference of the Parties to the Convention on Biological Diversity at its 10th meeting in Nagoya, Japan, stresses that effective implementation of CITES is needed to implement the *Strategic Plan for Biodiversity 2011-2012* and to achieve the Aichi targets.

CITES and the CBD are the products of very different political forces, negotiated 20 years apart in the context of very different perceived threats to biodiversity (Cooney 2001). This difference in timing is important as it lays down the context in which these MEAs have evolved. CITES does not have any difference amongst nation states as parties; rich or poor, neither does it place a developmental or economic context to the challenge of dealing with

wildlife trade issues. Thus, the cost of implementing the convention, which can be considerable for many countries, which may be very rich in biological resources, yet economically less developed. These costs could be by way of the actual framework of the control and command regime advocated by CITES or by way of forgoing opportunities of trading in species that now occur on CITES appendices.

By contrast, CBD's Strategic Plan for Biodiversity 2011-2020, including the Aichi Biodiversity Targets emphasise that positive incentives for the conservation and sustainable use of biodiversity are developed and applied, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention. CBD also strongly emphasises for the provision of adequate, predictable and timely financial support to developing country Parties, especially the least developed countries, small island developing States and the most environmentally vulnerable countries, as well as countries with economies in transition, through contributions from developed country Parties as well as through the Global Environment Facility. (http://www.cbd.int/sp/implementation/ accessed on 22nd Oct 2017).

While it has also been suggested that CITES could become a formal Protocol to the CBD, the relationship between CITES and CBD has been described as an "imperfect overlap'. In practicality, such an outcome would be difficult to achieve, including for reasons of a functional autonomy of CITES vis a vis as one hierarchically subordinate to CBD.

The International Tropical Timber Organization (ITTO)

ITTO is an intergovernmental organization promoting the conservation and sustainable management, use and trade of tropical forest resources. It was established under the auspices of the United Nations in 1986 amidst increasing worldwide concern for the fate of tropical forests.

The ITTO facilitates discussion, consultation and international co-operation on issues relating to the international trade and utilization of tropical timber and the sustainable management of its resource base.

ITTO's origins can be traced back to 1976 when a long series of negotiations that led to the first International Tropical Timber Agreement (ITTA) began at the fourth session of the United Nations Conference on Trade and Development (UNCTAD). These negotiations led to the first ITTA in 1983. Subsequent successors to this agreement have been concluded in 1994 and 2006.

From inception, ITTO is seen as unusual in the family of intergovernmental organizations. This is mainly because while like all commodity organizations it is concerned with trade and industry, like an environmental agreement it also pays considerable attention to the sustainable management of natural resources. While focusing on the world tropical timber economy and the sustainable management of the resource base, it simultaneously encourages the timber trade and the improved management of the forests. In addition, it contains provisions for information sharing, including non-tropical timber trade data, and allows for the consideration of non-tropical timber issues as they relate to tropical timber.

Salient features of ITTO include:

- an equal partnership in decision-making, policy formulation and project development between producing members (tropical developing countries) and tropical timber consuming members (mostly temperate developed countries);
- the active participation of civil society and trade organizations in meetings and project work;
- the formulation and implementation of projects in producing member countries, using mostly local expertise;

- frequent meetings of its governing body (the International Tropical Timber Council), meaning a comparatively rapid pace of debate, decisions and action.

The governing body of the ITTO is the International Tropical Timber Council, which is composed of all the Organization's members. ITTO has two categories of membership: producing and consuming. Annual contributions and votes are distributed equally between these two groups, which are called caucuses. Within each caucus, the dues and votes of individual members are calculated based on tropical timber trade and, in the case of producers, also on the extent of tropical forests within the country. (http://www.itto.int/about_itto/ accessed on 22nd Oct 2017).

CITES, by its Resolution Conf. 14.4 has spelt out in detail the modalities of cooperation between CITES and ITTO regarding trade in tropical timber. This acknowledges that CITES can play a positive role in promoting the conservation of timber species through trade in accordance with the requirements of Articles III, IV and V of the Convention. It also recognises that the objectives of the International Tropical Timber Agreement (ITTA), 1994, include providing an effective forum for consultation, international cooperation and policy development with regard to all relevant aspects of the world timber economy and promoting trade in tropical timber from sustainable sources.

CITES makes note of the important role that the International Tropical Timber Organization (ITTO) has played and continues to play with respect to international trade in tropical timber species and recommends that CITES Parties that are also party to ITTA, 1994, or its successor agreement, bring to the attention of the International Tropical Timber Council any concerns regarding the effects of international trade on tropical timber species. It also welcomes the work of ITTO in promoting transparent markets, trade in tropical timber from sustainably managed tropical forests and, in that context, promoting forest law enforcement; (http://www.cites.org/eng/res/14/14-04C15.php accessed on 22nd Oct 2017).

The ITTO-CITES Program for Implementing CITES Listings of Tropical Timber Species is a multi-year collaborative project between ITTO and CITES jointly implemented by the two Secretariats since 2007 with financial support of the European Union through the European Commission together with other ITTO donors that provides specific assistance to countries throughout the tropics to design forest management plans, forest inventories, provide guidelines and case studies for making "Non Detriment Findings" (NDFs) for CITES listed tree species, and to develop and disseminate tools for timber identification. This project, plays an important role in implementing the recommendations of the CITES Mahogany Working Group (MWG) and CITES Plants Committee on mahogany and other tropical tree species such as ramin and afrormosia listed in CITES Appendix II.

The CITES Secretariat and International Tropical Timber Organization (ITTO) have in January 2013, launched a report entitled *Tracking sustainability: review of electronic and semi-electronic timber tracking technologies*. This report has been produced within the framework of the joint ITTO-CITES Programme for Implementing CITES Listing of Tropical Timber Species and is part of the ITTO Technical Series (TS-40). Timber tracking technologies are relatively new and are gaining increasing importance as a result of changing consumer behaviour and market demands. The report is a practical guide to using these rapidly evolving technologies.

The number of tree species included in the CITES Appendices has grown from 18 in 1975 to more than 350 today, with close to 200 of these used and traded for timber. Interest in including timber species in the CITES Appendices has particularly increased since the beginning of the 1990s and amplified in the last few years. CITES listing of close to 200 new timber species was to be proposed at the 16th meeting of the Conference of the Parties to CITES (Bangkok, 3-14 March 2013). (http://www.cites.org/eng/news/sundry/2013/20130131_CITES_ITTO_timber_tracking.php accessed on 22nd Oct 2017).

ITTO as an IGO provides valuable inputs to the CITES process and the mutual relationship seems to be much valued.

The International Whaling Commission (IWC)

The International Whaling Commission is an Inter-Governmental Organisation tasked with the conservation of whales and the management of whaling. It is set up under the International Convention for the Regulation of Whaling signed in 1946 . The Commission has a current membership of 89 Governments from countries around the World.

The Convention includes a Schedule which, amongst other things, sets out catch limits for commercial and aboriginal subsistence whaling and also lays down various regulations including for capture of whales, management of stocks, supervision and control of whale catching operations, seasons for factory ship and land station etc. (http://iwc.int/iwcmain accessed on 22nd Oct 2017).

Whereas the International Convention for the Regulation of Whaling (ICRW) provides for the conservation and management of whale stocks, many whale species are also listed on CITES appendices, by virtue of which CITES regulates international trade in whales and whale products. As international organizations providing for different types of regulations regarding the same species, it is imperative that the two organizations co-operate as closely as possible.

Article XV of the text of the CITES Convention, regarding Amendments to Appendices I and II stipulates that, when a proposal for a marine species is received for consideration by the Conference of the Parties, the Secretariat must consult "inter-governmental bodies having a function in relation to those species" for their comments on the proposal. This information is to be provided to the Parties.

For whale species, the IWC is the most appropriate forum towards this.

In 1978, the International Whaling Commission (IWC) passed a resolution requesting that CITES "take all possible measures to support the International Whaling Commission ban on commercial whaling for certain species and stocks of whales as provided in the Schedule to the International Convention on the Regulation of Whaling". The CITES Parties responded, at the second meeting of the Conference of the Parties in 1979, by adopting Resolution Conf. 2.9, which recommends that "the Parties agree not to issue any import or export permit or certificate" for introduction from the sea under CITES for primarily commercial purposes "for any specimen of a species or stock protected from commercial whaling by the International Convention for the Regulation of Whaling." (http://www.cites.org/eng/cop/11/doc/15_02.pdf accessed on 22nd Oct 2017).

At its 59th annual meeting held during May 28-31, 2007, in Anchorage, Alaska., the IWC, through Resolution 2007-4, reaffirmed the important role of CITES in supporting the IWC's management decisions with regard to the conservation of whale stocks and the importance of continued cooperation between CITES and IWC.http://www.cites.org/common/cop/14/inf/E14i-57.pdf

However the equation between CITEs and the IWC could be described as an uneasy one. The tension between CITES and the IWC is expressed in a draft resolution submitted by the UK on 28/05/2007 during the 14th CoP at the Hague that requests contracting governments to respect the relationship between the two conventions and not to seek the transfer of cetacean species from CITES Appendix I while the moratorium remains in place. http:// www.cites.org/common/cop/14/inf/E14i-44.pdf

In actuality, it is not so much a conflict between two MEAs but between countries trying to take advantage of the best playing field that suits their current agenda.

Article VIII of the IWC convention text states that " Notwithstanding anything contained in this Convention, any Contracting Government may grant to any of

its nationals a special permit authorizing that national to kill, take and treat whales for purposes of scientific research subject to such restrictions as to number and subject to such other conditions as the Contracting Government thinks fit, and the killing, taking, and treating of whales in accordance with the provisions of this Article shall be exempt from the operation of this Convention. Each Contracting Government shall report at once to the Commission all such authorizations which it has granted. Each Contracting Government may at any time revoke any such special permit which it has granted.

Without going in further detail, it is evident that the provisions of the IWC may be seen as in conflict with the mandate of CITES. The IWC acknowledged the divergence in opinions even amongst its own members when The 'Future of the IWC' process established at the Commission's 59th Annual Meeting in 2007 agreed to :

- Encourage continuing dialogue amongst Contracting Governments regarding the future of the International Whaling Commission
- Continue to build trust by encouraging Contracting Governments to coordinate proposals or initiatives as widely as possible prior to their submission to the Commission
- Encourage Contracting Governments to continue to co-operate in taking forward the work of the Commission, notwithstanding their different views regarding the conservation of whales and the management of whaling.

International Criminal Police Organization (ICPO-INTERPOL):

The International Criminal Police Organization (ICPO-INTERPOL) is the world's largest police organisation, with 190 member countries. It is responsible for providing and developing mutual assistance between all the criminal police authorities across different countries. Interpol has an Environmental Crime Program and a Wildlife Crime Working Group to initiate targeted responses to such crime.

In 1976, the 45th session of the General Assembly of ICPO-Interpol urged the National Central Bureaus of Interpol to assist in cases involving illegal trafficking in specimens of wild fauna and flora, by either taking enforcement action or, where appropriate, asking other authorities to intervene. The 62nd session of the General Assembly (1993) of ICPO-Interpol also recommended that the members of ICPO-Interpol urge their governments to do their utmost to ensure that measures are taken to control the illegal wildlife trade;

The first meeting of the ICPO-Interpol Sub-Group on Wildlife Crime in February 1994 recommended that among the main objectives of the Sub-Group should be the dissemination of information on illegal wildlife trade and the making of appropriate recommendations to the CITES Secretariat and to bodies responsible for the enforcement of laws for the protection of wild fauna and flora;

Resolution Conf. 9.8 (Rev.), adopted at the ninth meeting of the Conference of the Parties (Fort Lauderdale, United States of America) and amended at the tenth meeting (Harare, Zimbabwe, June 1997), directs the CITES Secretariat to pursue closer international liaison between the Convention's institutions, national enforcement agencies, and existing intergovernmental bodies, particularly the World Customs Organization and ICPO-Interpol;

The ICPO-Interpol and the CITES Secretariat have entered into a Memorandum of Understanding in 1998 to strengthen the co-operation between them and to jointly draft and implement measures to improve collaboration, co-operation and information exchange between Police authorities and CITES Management Authorities. http://www.cites.org/common/disc/sec/CITES-Interpol.pdf

ICPO Interpol currently runs four long-term projects to protect threatened animal and plant species:

- **Project Leaf (Law Enforcement Assistance for Forests)** – to combat illegal logging and other forest crime. Led by INTERPOL and the United Nations Environment Programme, it supports enforcement operations, provides training and tactical support and improves intelligence gathering.
- **Project Predator** – to improve conservation efforts of the world's remaining Asian big cats, through enhanced communication of intelligence, development of a global picture of the criminal activity threatening Asian big cats, disruption of criminal networks, and apprehension of criminals.
- **Project Scale** – to detect and combat fisheries crime. It assesses the needs of vulnerable member countries, conducts region- or commodity-specific law enforcement operations, develops the Fisheries Crime Working Group, enhances expertise, and expands INTERPOL's international marine enforcement network.
- **Project Wisdom** – to combat elephant and rhinoceros crime and the illegal trade in ivory. It seeks to conserve these species through international operations, intelligence led policing, increased public awareness and training of local police to effectively fight this type of crime.

It is also a very active participant of the ICCWC.

The International Consortium on Combating Wildlife Crime (ICCWC):

The ICCWC is the combined effort of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), ICPO-INTERPOL, the United Nations Office on Drugs and Crime (UNODC), the World Bank, and the Customs Cooperation Council (known as the World Customs Organization (WCO)),

It was established in response to the growing realisation that illegal wildlife trade may demonstrate very real threats to the national security and the bio-security of States. The ICCWC has also made note of the involvement of organized crime, and sophisticated techniques and structures, in the illegal harvesting, smuggling and subsequent unlawful sale of wildlife and wildlife products, and that the association of general crimes such as conspiracy, fraud, counterfeiting, money-laundering, racketeering, violence and corruption are regularly encountered by wildlife law enforcement officers;

Noting that the member States and Parties of CITES, ICPO-INTERPOL, UNODC, World Bank and WCO have expressed a desire that the agencies liaise together more closely, ICCWC members have agreed to work collaboratively to support national law enforcement agencies, and regional wildlife law enforcement agreements, bodies and networks in responding to transnational wildlife crimes through, *inter alia*, the provision of our available expertise and resources, and to raise awareness of wildlife crimes and other related violations in the wider law enforcement community.

http://www.cites.org/eng/news/pr/2010/ICCWC_memo.pdf

Other Partnerships:

CITES also has formal partnerships with other institutions such as the United Nations Environment Programme (UNEP), the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (SBC), the Vienna Convention for the Protection of the Ozone Layer, the Montreal Protocol on Substances that Deplete the Ozone Layer, the Convention on the Conservation of Migratory Species of Wild Animals (CMS), FAO, UNCTAD, World Customs Organisation, Lusaka Task Force Agreement, Commission for the Conservation of Antarctic Marine Living Resources, Department for Environment, Food and Rural Affairs (DEFRA) of the United Kingdom, U.S. Fish and Wildlife Service Office of Law Enforcement/Clark R. Bavin National Fish & Wildlife Forensic Laboratory USA, TRAFFIC International, WAZA - the World Association of Zoos and Aquariums, Royal

Botanic Gardens, Kew, UK, the University of Kent, UK and the International University of Andalucía, Spain.

An Ideal Legal Framework:

The ESA and the WLPA and the lessons from them have been dealt with in some detail in a previous chapter. Considering that India's umbrella wildlife conservation legislation, the Wildlife (Protection) Act 1972 is being considered for a review, it would be pertinent to list some of the desired changes such a review would do well to consider:

i. Given the global acknowledgement of illegal wildlife yrade as a form of organised transnational crime, it strongly recommended that the WLPA 1972 (and IFA 1927) should include statutory protection to forest officers and staff engaged in protection of forests and wildlife under Section 197 of the Criminal Procedure Code, as is available for police.

ii. The issue of carrying and use of firearms by forest and wildlife staff also needs to be uniformly codified across the country. In many states, forest officers are expected to apply for personal licenses for carrying government issues firearms, which is not appropriate.

iii. There is also a serious need to rethink about and rationalize the number of schedules under the WLPA. Currently we have six, with one for plants, one for vermin and the others for animals, including birds. There is very little distinction between Schedules II, III and IV while there is a separate set of sections applicable to species listed in Part II of Schedule II because of the threats to them on account of trade.

The following is suggested:

Schedule I: Species threatened by extinction; could also include any species which are under serious threat due to illegal trade

Schedule II : Species under a lesser degree of threat as compared to Schedule –I but still in need of stautory protection.

Schedule III: This would include flora species with special protection

needs

Schedule IV: This would include all species listed in Appendix I and II of CITES as well as those listed on Appendix III by India. The list would be linked to the CITES Appendices directly so that any amendments to the CITES Appendices would automatically apply here.

iv. The listing and delisting of species on the various schedules of the WLPA are shrouded in an element of mystery for the public. In today's world in order to bring about greater transparency in such decision making as well as seek greater public participation, it is suggested that a mechanism be put in place for seeking suggestions, including from field managers, scientists and common people for listing and delisting of species, as well as for their up gradation and down gradation across Schedules. Any such proposal received should be dealt with in a time bound manner, inviting information from all concerned, after which an expert group could take a call, for reasons to be recorded in writing and placed in the public domain. In cases requiring urgent intervention, the Ministry may initially list a species for a period of two years, within which the review as mentioned above, may be carried out retrospectively.

v. Merely listing a species in the schedule does not do much for its conservation. All listings in the Schedules will be compulsorily subject to a technical and scientific review after a specified period, say 10 years.

vi. For violations of the WLPA, while there is a provision of fines or imprisonment, there is no mention of civil damages (as under the law of Torts). Thus, individuals and companies must be made liable for damages arising out of their actions deemed negligent but not necessarily intentional or even criminal. This would be in addition to their liability under various existing provisions of the WLPA.

vii. Given the potential adverse impact of many industrial and other activities there is a need to build in a compensation, restitution and restoration regime within the Wildlife (Protection) Act, 1972 to ensure that in addition to criminal penalties there is appropriate civil liability of the violators to meet costs towards the above.

viii. The existing provisions of the WLPA, depend too much on the individual wisdom of one person i.e. the Chief Wildlife Warden. However, for being designated the CWLW, no specific qualifications or experience in wildlife is laid down. Similarly, the WLPA lays down that the State Govt may appoint Wildlife Wardens and any such officers as required to assist the CWLW. Many states have declared Deputy Chief Wildlife Wardens, Asisstant Wildlife Wardens etc. but their specific roles and responsibilities are nowhere defined. That renders such a designation largely ornamental. Also, all powers to be utilised by such officials are to be delegated by the respective central or state government, as may be the case (Sec 3,4 of the WLPA). Two things should be considered here: The WLPA should also define specific roles of officers other than the CWLW. As and when any person is appointed to discharge any role under the WLPA, the order should not only carry the designation (eg Hon. WLW, Deputy Chief WLW, AWLW etc.) but also his/her specific roles as best defined.

ix. The WLPA 1972 is silent on the issue of specific provisions for identification and protection of wildlife corridors. Presently, corridors including Eco Sensitive Zones are being demarcated and declared under provisions of the EPA. Considering that the WLPA is the umbrella legislation on this theme, it should be self sufficient in these. There is a need to bring about greater synergy between the provisions of Wildlife (Protection) Act, 1972 and other related laws such as the Environment (Protection) Act, 1986 together with its various notifications such as Ecologically Sensitive Area, Coastal Zone Regulations, Environment Impact Assessment and related notifications. Unless wildlife conservation issues are looked within the broader context of environmental decision making, wildlife habitats and species will continue to be lost.

x. Illegal Wildlfe Trade is a major threat to the safety and security of our wild species and their habitats. As mentioned above, wildlife crime is globally being acknowledged as a form of Transnational Organised Crime with linkages to other forms of organised crime such as terrorism, human trafficking and trafficking of narcotic drugs and arms. Such organised crime needs an organised response. Thus, illegal wildlife trade or any such attempt needs to be distinguished as a crime calling for a higher degree of punishment.

xi. In case of regulation of trade in specified plants and their derivatives, especially those that have a long standing traditon of use, cultivation and a ready market, it is seen that while the regulatory provisions are enacted, the administrative provisions that may facilitate cultivation and marketing of the species and thus easing up on collection from the wild, are missing. The immediate effect is that the legal trade goes underground, thus dealing a double blow to conservation as well as closing a good livelihood option for local communities.

xii. The WLPA 1972 needs to urgently include a new chapter in consistence with the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The terms, phrases and definitions etc. in the Chapter would have the same meaning as these have in the Convention. As one of the earliest members of the Convention, it is a much needed step for India to bring in relevant legislation to facilitate implementation of CITES. This would mean also providing a legal role to the Management Authority(ies) and Scientific Authority(ies) as required under CITES provisions.

xiii. While PAs are crucial for our biodiversity, wild animals do not follow human= made boundaries. A significant number of our wildlife populations, including that of many threatened and endangered species, are found outside our Protected Area network, in areas including Reserved Forests, Revenue Forests and Lands, Village Forests and commons, Private Forests and Lands, and Community Areas. Such lands can also act as corridors, connecting wildlife habitats. It is seen that such areas are extremely vulnerable both from the perspective of high mortality of wildlife as also very high human-wildlife conflict. Human-wildlife conflict is a growing challenge, which is increasingly alienating a large number of people living around PAs/forests because of their inability to adequately deal with species that threaten human life or property including standing crops. Decisions with respect to hunting/ trapping of atleast a few species which are clearly recognised as threats (such as bluebull, wild pig) found outside PAs or forest areas on private lands should be made very liberal. We should acknowledge that we cannot protect everything, everywhere and the attempt to do so is leading to adverse public opinion amongst local communities who see themselves as bearing the immediate direct costs of conservation which is seen as an “urban centric hobby”. There is thus a need

for a comprehensive policy on management of wildlife outside PAs.

xiv. Linking policy documents with legal instruments: Linkages of related policy documents such as the National Wildlife Action Plan (NWAP) should also be made to the WLPA wherever appropriate and applicable. The NWAP (2017-2031) is a step in the right direction.

In conclusion

Ensuring compliance is and will continue to be a challenge for CITES in a rapidly changing world. The CITES process must also address issues such as livelihood opportunities, access and benefit sharing of biological resources and implications of human-wildlife conflicts.

Wildlife crimes have come of age. The changing face of wildlife crime is also a huge challenge, with illegal wildlife trade increasingly being acknowledged as a form of Transnational Organised Crime. Organised crimes merit an organised response. A 21st century crime cannot be fought with a 20th century mindset or 19th century tools. CITES must thus engage more and with specialists including from the field of crime mitigation and forensic science.

The human dimensions of wildlife trade also need to be addressed. When CITES speaks of science based decisions, the assumption is that such science refers to the ecology of the species in question. This must change and social science must also contribute to the decision making process under the convention. In the present day, politicians are rarely elected for protecting the environment, but rather for what they do to improve the economy, human security and human health. Therefore, if we are to successfully promote the importance of conserving biodiversity to decision- makers and the wider public, we need to link biodiversity loss to the issues of most concern to current decision-makers, i.e. the economy, security and human health. (Watson 2005). The linkages indicated in the NWAP(2017-2031) with the Sustainable Development Goals must be strengthened to promote human well being while also promoting development and conserving the environment.

In recent times, CITES has taken up many new and significant initiatives, including becoming a part of the Global Tiger Initiative (GTI) and the establishment of the ICCWC. It has made considerable efforts to reach out and establish close linkages with a series of other MEAs, IGOS and the like. This collaboration is to generate synergy amongst the aims and objectives of CITES and its partner(s) while also helping keep CITES relevant in changing times. While the relationship has not always been clear and free of friction, it has also to do between the differences in focus between the partners, as also their mutual aim to protect their individual significance. It can be safely concluded that the CITES process has benefitted from such partnerships and seems better placed to deliver on its aims and objectives with them.

In a world where environmental protection is increasingly being seen as a global public good, the success of CITES should emerge from the fact that member states/parties consider compliance to be important for the future and general well being of member states and their people. That, in effect will be the ultimate litmus test of the effectiveness of this global treaty as it faces up to the challenges of tomorrow.

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Annexure 1

Wildlife Trade in South Asia: A perspective

Samir Sinha

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Introduction

South Asia comprises Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. Considered one of the most dynamic regions in the world, it is home to 1.649 billion people, which include 570 million, or 44%, of the world's poor (World Bank 2014). Countries of the region have been known since historical times as suppliers of naturally sourced products such as spices. These products remain globally coveted commodities.

South Asia's status as a supplier of wild plant and animal products is unsurprising. With its diversity of habitats, ranging from the world's 'Third Pole' - the mighty Himalayas - to coastal waters on the Indian Ocean and the Arabian Sea, the region is home to high biological diversity. Some of the most iconic wildlife species in the world, including tiger, Indian rhino, Asian elephant and Snow leopard are indigenous to South Asia. Following the diversity of habitats, a large variety of birds, amphibians and reptiles, medicinal plants and other floral species of economic significance are also present. Although the biodiversity is unsurprising, its persistence into modern times is remarkable. Three of South Asia's countries are amongst the most populated on the globe (Population Reference Bureau 2013). Despite human pressure from within the region, major elements of its biodiversity are still intact.

This persistence of South Asia's biodiversity is certainly related to indigenous attitudes. As in most regions across the globe, wild animals and plants have played an important role in culture and history in South Asia. The region

stands out, however, in the way these traditions have carried forward into modern contexts. The Rig Veda, believed to have been written in India between 4800 and 1600 BC is considered one of the oldest guides to utilization of plant products for human health Such ongoing notions of utility have contributed to biological conservation. Plants used by traditional medical systems account for 28 percent of the region's flora (Lambert et. al 1997). This situation fairly well assures continuing basic protections for forested areas.

Although local consumptive demand for wildlife products is legally and socially bounded, Southeast Asia nevertheless faces problems of illegal wildlife trade similar to other biodiverse regions. Lying between currently well-publicized crisis areas in Africa and South East Asia, the region's own problems of illegal trade in wildlife are easy to overlook from a distance. Nevertheless, South Asia has become an important supplier of illegal wildlife. Like Africa and South East Asia, a large part of this contraband is destined for foreign markets (Sinha 2010). This situation has historical underpinnings. Even prior to the restriction of wildlife trade by modern international treaties, international commerce in plant and animal products was robust. Archaeological evidence and written records indicate that wild commodities have been major exchange items between South and South East Asia and China for more than two millennia (Donovon 2004).

Interactions with European powers have also figured prominently in the evolution of South Asia's international wildlife trade. In the not too distant past, one of the major drivers of the Anglo-Nepalese War, also known as the Gorkha War (1814-1816), was the resistance of the rulers in Nepal to British trade with Tibet through their kingdom. Amongst the products that the British East India Company hoped to gain access to was the fabled shahtoosh wool, derived from the Tibetan Antelope and woven into exquisite shawls by artisans in the Kashmir valley (Pemble, John 2009). This is interesting historical episode illustrates how demand for a wildlife derivative can become the primary driver for territorial conquest. In recent times, the trade in Shahtoosh wool has evolved into a barter economy, with the wool entering India in exchange for other wildlife products like tiger bones. (Wright and Kumar 1997).

US citizens and others residing temporarily in Afghanistan have been documented purchasing snow leopard skins as souvenirs for friends and loved ones back home (USFWS 2010). This behavior mirrors that of Europeans serving in the subcontinent during the British Raj. Colonists in those days were often keen to take home a few tiger skins as souvenirs of their sportsmanship.

Of course luxury and souvenir outlets are not restricted solely to American or European markets. In many Asian societies, conspicuous consumption has an important cultural role in determining status of individuals or families. Consequently, economic growth in the parts of Asia where wildlife goods hold luxury status may drive poaching and smuggling out of South Asia.

In addition to China, wildlife derivatives from legally protected South Asian species also find their way to markets in Japan, South East Asia and the Middle East. To understand the broader dynamics of this transnational crime, I will focus on two comparatively well-documented species, tigers (*Panthera tigris*) and Red Sanders (*Pterocarpus santalinus*). Unlike many other illicitly traded animals and plants, they have been monitored by conservation organizations and given corresponding priority by law enforcement agencies. As such, they provide insights into the complex knots and linkages of the region's illegal wildlife trade.

Tigers

"If there is magic in an animal, it is contained in the tiger".

In these words, George B. Schaller, arguably the best-known large mammal ecologist today, captures succinctly what the tiger represents. As the largest of the living cats, lithe and massively muscled, they are a natural wonder, an embodiment of power and beauty (Sunquist 2010). Consequently, tigers have captured human attention. They may be both the most charismatic and the most feared of all animals (Luo et al, 2010).

The tiger is the largest obligate terrestrial carnivore in all of the mammalian assemblages in Asia. (Seidensticker *et. al* 1999). In historic times, the species lived across 70 degrees of latitude and 100 degrees of longitude, from the Russian Far East south through Indochina, the Indian Subcontinent, south of the Himalayas and into the Indus valley (Seidensticker *et. al* 1999). Today, the tiger occupies just about 7% of its historical range (Dinerstein *et. al* 2008).

Tis situation extends to South Asia. Although the tigers' range originally covered most of the subcontinent, except for Sri Lanka and parts of Northwestern India, its current distribution is greatly restricted. Tigers have been extirpated in Pakistan. In other areas, tigers have apparently been forced into substandard habitats. The montane regions of Nepal and Bhutan as well as the mangroves of Bangladesh provide relatively poor quality habitats for tigers even though they persist in these places (Johnsingh and Manjrekar 2013).

Current wild tiger numbers across South Asia are as follows (GTF 2014) (NTCA 2015):

Serial	Country	Tiger Population estimate	Year
1	Bangladesh	440	2010
2	Bhutan	115-150	2010
3	India	2226	2014*
4	Nepal	198 (163-235)	2013

The above numbers represent approximately 60% of the total global population of wild tigers.

The cultural and social context of Tiger hunting in South Asia:

While habitat destruction continues to be a major cause for the decline in tiger numbers, hunting, and the way it has evolved over time has been equally important. Attitudes about the rights of priveledged classes, concerns about human safety, foreign luxury purchasing, and market opportunism in have all contributed to an ethic that clashes with internationally concomitant protection efforts.

"*Shikar*" or sport hunting was an ancient cultural practice and a rite of passage among certain social classes in South Asia. Kings, landlords and other nobles historically regarded it as a divine right and indulged with sometimes with profound impacts. As an illustrative, it is reported that the Maharaja of Sarguja shot one thousand seven hundred and seven tigers in his lifetime. (Sankhala 2005). Some of this indulgence was likely influenced by colonial attitudes. During the Raj, Shikar became an almost a *de rigueur* experience for Britishers serving in India. It was a way of afliating colonial power with traditional nobility, expressing European notions about competative superiority through high take hunts, and providing outposted civil servants with 'authentic' native expereinces. Tigers became favored targets because of the percieved danger and the trophy value involved with taking them.

Tiger hunting by Europeans likely also entailed a sense of protective paternalism, or 'white man's burden'. As powerful predators, tigers occasionally caused huge losses to human life and property. Rewards were often offered for the destruction of such animals, and hunters like Edward James "Jim" Corbett (1875-1955), became legends in their lifetime and continue to be adored by local populations even today. Between 1907 and 1938, Corbett tracked and shot twelve recorded man-eating tigers and leopards responsible for killing over 1500 people (Kala 2009) . The regions's first National Park and one of the strongholds of wild tigers today, Corbett National Park, established in 1936 stands a befitting testimony to Corbett.

Tiger Trade and its drivers

While sport hunting was a major cause of declining tiger numbers, hunting for human consumption was not historically part of the problem in South Asia. Across the region, tiger range countries do not have a documented history of large scale domestic use of tiger parts and derivatives in their pharmacological traditions. This stands in contrast to range states in South East and East Asia, where tiger parts and derivatives occupy an important place in traditonal medicinal practice (Alves et al 2013). In China, the first references to the use of tiger bone in traditional medicines date back more than 1,500 years. In the

herbal compendium, Mingyi Bielu, or Records of Famous Physicians (Tao Hongjing, circa 500 A.D.), tiger bone was said to have the properties of "warding off harmful air, killing evil pathogens, stopping convulsions, and curing carbuncles and ulcerative scrofula" (But, 1995). Such commodity value implies the existence of professional hunting and longstanding commercial markets.

Conversely, South Asian cultural acknowledgement of tigers' potency has tended to emphasize personalized trophy values. Nepalese kings occasionally gifted tiger and leopard skins to Hindu priests for religious purposes[1]. Most hunting, however, was undertaken as a means for individuals to prove their own prowess. Tiger skins, fat, claws and whiskers were considered more than ample reward for the killing becasue of their supposed value for treatment of leprosy and rheumatism in Traditional (East) Asian Medicine.

A trophy focus is evident in the way South Asian markets for tiger parts have devloped over time. Precolonial records of commerce in tiger parts are sparse or nonexistant. In 1930, however, tiger skins in India were reported to cost Rs 200 while a rug with mounted head cost Rs 300. These were resold to shops in big cities like Bombay (present Mumbai) and Calcutta (present Kolkata) where Europeans returning home brought them as souveniers (Sankhala 2005).

Post colonial growth only served to expand the trade. Between the1950s and early 1960s, demand for tiger trophies had grown into to a substantial international industry. During this period, it consumed an estimated 3000 tigers in India alone (Sankhala 2005 pp 12).

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[1] The author has dealt with cases involving Hindu priests seeking permission under CITES to import skins into India with appropriate CITED documentation. The incidents took place when Nepal still had a monarchy, and the skins were gifts given by then King of Nepal.

Legal and Policy Responses

In response to the rising domestic and international concerns about decimation of tigers and other big cats, India banned the export of tiger and all 'spotted'[2] skins in 1968. Shikar outfitters and traders immediately protested, presenting very high figues of economic losses in foreign exchange that would accrue if such trade was banned. They also pleaded for relaxation, citing pre-ban commitments of over 20,000 skins (Sankhala 2005).

Traders found little sympathy, though. At the tenth General Assembly of the International Union for Conservation of Nature (IUCN) in Delhi in November 1969, then Prime Minister of India, Indira Gandhi famously stated, "We need foreign exchange, but not at the cost of life and liberty of some of the most beautiful inhabitants of this continent."

In 1970, India placed a total ban on tiger hunting. The Wildlife (Protection) Act was later enacted in 1972. A watershed in Indian legislation, it provides the tiger, and over 800 other species protection under its schedules.

Around the same time, Nepal enacted its National Parks and Wildlife Conservation Act, (1973) under which the tiger was listed as one of the protected species. The first national park of Nepal, the Chitwan National Parkwas also established in 1973. In a parallel effort, the Tiger Ecology Project was initiated as a joint venture of the Government of Nepal, the Smithsonian Institution and World Wildlife Fund to conduct research on the tiger (Government of Nepal, 2007).

The Royal Government of Bhutan also expressed its strong commitment to conservation by stating clearly in its 1974 Forest Policy that a minimum of 60 percent of the country would be maintained under forest cover in perpetuity. This clause is now embodied in a new Constitution that was released for nationwide debate in 2005 (Royal Government of Bhutan 2005).

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[2] Spotted skins include: leopard, snow leopard, clouded leopard, marbled cat, Asiatic wildcat, Eurasian lynx, leopard cat, and fishing cat.

Bangladesh has in force the Wildlife (Conservation and Security) Act, 2012. Important Provisions include prohibition related to hunting of wild animals and collection or destruction of specified plants without authorization.

Changing national laws across South Asia provided a basis for better engagement across borders. With the emergence of CITES in 1973 as a global framework for regulating wildlife trade, the region's countries began exploring its provisions as a means for protecting indigenous species like tigers.

Table: Date on which various South Asian Countries joined CITES

Serial	Country	Date of Joining CITES
1	Nepal	18/06/1975
2	Pakistan	20/04/1976
3	India	20/07/1976
4	Sri Lanka	04/05/1979
5	Bangladesh	20/11/1981
6	Afghanistan	30/10/1985
7	Bhutan	15/08/2002
8	Maldives	12/12/2012

In 1975, all subspecies of the tiger except the Siberian tiger, were accoded CITES' highest level of protection on Appendix I. The Siberian tiger (*Panthera tigris altaica*) was listed on Appendix II of the convention at that time. Later, in1987, it joined the other subspecies on Appendix I.

Resurgence of the trade

Even so, the trade in tiger products was too lucrative for some to abandon. In the face of changing national and international laws, they moved their operations underground. Correspondingly, there are indications that tiger (and other illegal wildlife) trade became better organized starting in the late 1970s. The threat of interdiction by enforcement agencies added levels of secrecy and control not previously present in Shikar related commerce. This new structure may in turn, have contributed to changes in the nature of the trade. Authorities

in India began to notice in the early 90s that skins were becoming less prominent in interdicted shipments of tigers. Instead, bones and other parts were also being traded.

Presumably changes in the products being smuggled were related to changes in end consumption. As noted previously, East Asian cultures utilize tigers, particularly their bones and organs, for medicinal purposes. The shift towards these other tiger derivatives corresponds chronologically with declining demand for trophy wildlife products in the West, and to increasing market accessibility in East Asia. As smuggling to China and her neighbours became easier, and the purchasing power in these countries improved, South Asia's illicit wildlife trade was transformed. It is interesting to note that this transformation may also have an impact on end markets in other countries. Bone purported to be from tigers also began appearing in Nigerian markets in the 1990s (Sodeinde and Soewu 1999).

Today, almost all the tiger trade in South Asian range countries is believed to be driven by external demand from China. Nepal is well documented as a key intermediary for such illegal trade. The country is home to a comparatively small tiger population (~ 200 adults) that resides largely in protected areas along its southern border. Levels of tiger trade in Nepal are believed to be huge, though. Underground markets in Kathmandu act as transit points for shipments *en route* to China. Most of the parts confiscated by enforcement agencies have apparently come originally from India (Dongol et al 2012). Time series studies of tiger parts seizures across India also highlight the Nepal border as a major transit point in the trade with China. (EIA 2008, Verheij et al 2010 & Stoner et al 2013).

Tibet and the illegal trade in Tiger Parts

Accessibility of borders, coupled with Nepal's longstanding status as a cultural and trade intermediary between South Asia and the Tibet Autonomous Region (TAR) has facilitated smuggling into eastern China. Interestingly, the intermediary role of TAR in tiger trade has apparently also changed as these

smuggling routes have developed. In recent years, the region has gained dubious status as an outlet in its own right for tiger parts. Here again, demand based on cultural values coupled with newfound purchasing power seems to be the main driver.

Unlike Eastern China, the TAR does not have a strong history of tiger consumption for medicinal reasons. Neither does it have a Western-style history of trophy collection and display. Rather, cat skins have long been used as fur trim on traditional Tibetan robes called *chubas*, which are worn on ceremonial occasions.

The chuba trim market was not a major end destination for tiger trade however, until China's "Open up the West" campaign in Tibet led to an emphasis on tourism. Local governments in the TAR soon found themselves competing with each other to organise "cultural events" such as horse racing where participants decked in fine jewelry. Tiger and leopard skin lined robes added to the exotica. The robes were also seen as indicators of the wealth and development status of the region.

The demand was also likely fuelled by the spiraling price of Yarsa gambu, another wild product cloaked in mystery that is collected in large quantities from the Tibetan plateau. "Yarsa gambu" is a a Nepalization of the Tibetan, "dbyar rtswa dgun'bu" (summer grass, winter worm). Despite its common nomenclature, Yarsa gambu is neither a grass nor a worm, but a parasitic complex formed by the relationship of the fungus *Ophiocordyceps sinensis* with the larval stage of several species of moth belonging to the genus Thitarodes. (Shrestha & Bawa 2013).

The harvesting of caterpillar fungus is perhaps the largest and fastest growing source of cash on the Tibetan plateau today (EIA 2006). The collection of this expensive commodity has provided communities a sudden influx of money. Some of this newfound capital has subsequently found its way to the illegal tiger trade. With more wealth, families began competing with each other to be seen in more and more finery, creating a spiraling demand for big cat skins.

Considering that Tibet has no wild tigers, and other areas under Chinese control have very, very few, the demand could only be met from elsewhere. Traders in Tibet have on occasion stated that all the tiger skins and most of the leopard skins came from India, usually via Nepal (EIA 2006).

On 8th October 2003, at Sangsang TAR, a seizure involving 31 tiger skins, 581 leopard skins, 778 otter skins, 2 lynx skins and one fake tiger skin was made. Many of the skins were wrapped in the Delhi edition of a newspaper, indicating India as the source of this consignment (EIA 2004).

Many conservation groups approached the Fourteenth Dalai Lama, considered by many to be the spiritual leader of the Tibetan people under exile in India, to seek his support. At the thirtieth Kalachakra Initiation Ceremony, held in Amaravati, India, in January 2006, the Dalai Lama stated, "You should tell them in Tibet that because of foolish activities such as the craving for ostentatious jewelry and the making of garments out of carnivore pelts, the collective Tibetan reputation is being ruined, and the Dalai Lama is ashamed." (Yeh 2013).

The Dalai Lama chose an important religious gathering to emphasize environmental and wildlife protection. (The Office of His Holiness the Dalai Lama, 2006). By publicly decrying the wearing of endangered skins and ostentatious display of material wealth, he positioned these activities as contra to Tibetan national identity and harming Tibetans' reputations.

His words had immediate effect.

"On February 13, 2006, the herders of Tangkor Township in Sichuan Province's Dzögé County gathered together to publicly burn what they estimated to be one million U.S. dollars worth of pelts of endangered animals, including tiger, leopard, and otter. In an area where average per capita annual income is officially estimated at roughly 400 U.S. dollars, these pelts, which were used to decorate Tibetan robes, were in some cases investments made with a family's life savings This was only one of many such bonfires across culturally Tibetan areas of the People's Republic of China (PRC) in the spring

of 2006." (Yeh 2013).

It is believed that over $75 million worth of wild animal skins were burnt in the eastern Tibet alone during this period (Associated Press 2006).

The message was also disseminated by the efforts of various environmental groups, and it resonated widely amongst Tibetans. At the government level, however, the burnings were seen as a show of loyalty to the Dalai Lama. They did not sit well with the officials of the region, and many of those who had helped organise burning events were arrested. Tibetan government employees were also forced to continue participating in festivals, and even appear on television broadcasts wearing tiger skin *chubas* (Yeh 2013).

While the environmental message of the Dalai Lama was perfectly in line with international conventions such as CITES and even China's own domestic laws, it was seen in the immediate context as a threat to Chinese sovereignty over Tibet. Conversely, others saw the destruction of *chubas* as a destruction of Tibetan culture and argued that the skins could have been preserved rather than destroyed. These critics recalled historical references when the highest of warriors were rewarded with tiger pelts and bemoaned that the burnings were reminiscent of previous cultural vandalism.

This perspective is not shared by all. Perhaps because of forced *chuba* wearing by the Chinese authorities, burning wildlife skins has a sign of protest in the TAR. Reports from the Amdo, eastern Tibet revealed that in February 2009, during Tibetan New Year, a large number of wildlife skins were again burnt publicly in a dramatic assertion of Tibetan identity and as a form of political dissent (International Campaign for Tibet, 2009).

The situation with tiger trade in the TAR underlines the complexity of transnational wildlife crime. Changing cultural values and the opportunistic nature of the crime present a shifting landscape for enforcement and crime prevention. Moreover, even actions taken in accordance with international protocols and local laws can be viewed with suspicion when they are perceived to affect local identity or sovereignty.

Recent Trends in the Tiger Trade

A recent analysis by TRAFFIC reveals some interesting facts about the pattern of seizures of tiger parts and derivatives:

Between 2000-2009, India reported a total of 294 seizures, which amounted to 58% of the total number of seizures during this period. Between 2010-2012, this fell to 29% (n=42) out of the total 145 seizures recorded. For Nepal, between 200-2009, a total of 49 seizures were made which amounted to 10% of the total number of seizures during this period. Between 2010-2012, this rose to 13% (n=19) out of the total 145 seizures recorded. Similarly, Bhutan had reported a total of 2 seizures between 2000 – 2009 and 1 seizure during 2010-12. (Stoner et al 2013).

Meanwhile, the trade in tigers continues, including in newer forms. A website buytigers.com offers live captive bred tigers from India. They advertise a chance to own " a lovely pet loyal, friendly and totally harmless, as also the most fashionable animal in earth; a five month old tiger cub." The pet comes trained to be nice with its owner and can be shipped by sea everywhere in the world. While the listing is clearly a ruse as no centres breeding tigers for the international pet trade operate in India, the fact that such a listing continues to be displayed openly itself is an indicator of the lure of the tiger and of the brazenness and impunity with which such traders -genuine or fake - continue to peddle their illegal wares.

Red Sanders

Red Sanders (*Pterocarpus santalinus*) is another species subject to illegal international trade. It is endemic to a relatively small part of India, where it occurs in the southern parts of Eastern Ghats in the State of Andhra Pradesh with sporadic populations in Tamil Nadu and Karnataka.

The biology, cultural significance, and history of Red Sanders utilization are much different to those of tigers. As such, the illegal trade in this species has taken markedly different forms.

Red Sanders is a small to moderate sized deciduous tree, appearing with a dark brown bark divided into rectangular plates by deep vertical and horizontal cracks (Troup, 2001). This species thrives under harsh environmental conditions characterised by dry hilly, often rocky ground from 150 - 900 m above sea level and requires perfect drainage. On low hills it can be found on all aspects, but as the elevation increases the species seems to prefer chiefly northern and easterly aspects. Troup (2001) estimated the extent of natural occurrence of the species as extending over an area of 9600km². Kadappa, Chittur and Nellore districts in the Rayalseema Region of Andhra Pradesh are major areas where Red Sanders occurs.

A Historical Perspective on Red Sanders Demand and Trade

Red Sanders has been in demand as a high quality timber, a source of dyes and, less prominently, for other uses such as incense. The colorant is extracted from heartwood, which is first reduced to chips or powder, then extracted. (CITES 2007). The wavy grain of the timber of this species also puts it in high demand. These attributes have imparted to Red Sanders a place not only in Indian markets, but also across the globe. Modern domestic consumption of Red Sanders is largely considered insignificant; small amounts are used by Indian Ayurvedic pharmacies (Mulliken et al 2008).

The demand for Red Sanders in its various valued forms has caused such depletion to the species that it is classified as 'Endangered' (IUCN Red List, 2012). It was first assessed in 1998.

Conversely, the global trade in Red Sanders is significant. It dates back at least 400 years. As early as 1602-1617 the East Indian Company sent consignments of Red Sanders wood from the Madras Coast to Europe. Trade to other parts of Asia certainly predates the European exchange.

In modern times, international trade in Red Sanders involves many tens if not hundreds of tonnes of wood, wood-chips and powder each year. Legal export of wild-sourced material is limited to value-added products, (i.e. items other than raw timber). They have been imported into Germany in the form of

powder or as an oleoresin extract (CITES 2007). In recent times, though, the main international trade in Red Sanders has been with Japan and China. In Japan, the heartwood is used to make musical instruments, 'hankos' (name seals), picture frames, traditional dishes and carvings. (Mulliken et al 2008). Musical instruments fashioned out of Red Sanders have been considered important traditional items, especially in weddings. While Japan appears to remain an important market for timber, this is not supported by CITES or Customs data (Mulliken et al 2008, *pers. obs.*).

More recently, there has been a surge in demand in Red Sanders from China, where it is believed to be used mostly for furniture making (*pers. obs*).

The popularity of the species in trade is also illustrated by the large number of trade names in various national and international languages attributed to it: Over forty trade names exist in different languages for Red Sanders!

Until 2003, data from Indian Customs recorded three different categories of Red Sanders - chips, powder and timber - with the chips having the greatest share of the trade. However, since 1 April 2003, the Customs HS Code 12119027 for Red Sanders chips does not seem to be in use. Beyond this date, it is not possible to distinguish international trade in such chips from timber.

It is interesting to note here that CITES trade data reveals products from time to time originating in Cambodia, Brazil, Nepal and Madagascar, none of which are range States for the species. Either the these trade records are a case of mistaken identity, or, more likely, a case of laundering illicit timber through other countries.

Changing Routes in the illegal trade in Red Sanders

It has been believed that the major markets for Red Sanders have been Singapore and Japan. However, in recent times, the fulcrum of this market seems to have shifted to China. This is also an indication of China's growing

economic might as also its appetite for natural resources, irrespective of source or even price.

Traditionally, the Indian ports of Chennai and Mumbai were the main export points for Red Sanders. Gujarat has also recently emerged as an important region for smuggling by sea. However, given that Nepal offers land route connectivity between India and Nepal, it was perhaps inevitable that this route would come to be heavily exploited for illegal trade in Red Sanders. Some quantities of Red Sanders were transported by road across Nepal into China annually. However, the first seizure of illegal Red Sanders was reported in Nepal only as recently as 2006. Since then, over 400 tonnes has been seized by various enforcement agencies in Nepal. (D. Chapagain, *pers comm*.) The Government of India has worked closely with the Government of Nepal to seek return of this seized wood, some of which has already found its way back to India. The border with Myanmar is another hot spot in this trade, the border point of Moreh particularly sensitive towards this. Recently, several tonnes of Red Sanders has also been seized in Leh in Jammu & Kashmir, while on its way during winter across the frozen lakes on the Indo China border (J. Takpa *pers comm*). This only indicates the tremendous planning and investment being made by such smugglers.

Legal and Policy Framework

At the domestic level, Red Sanders is protected in India under state-level laws and regulations. It is restricted from trade by the Red Sanders and Sandalwood Transit Rules of Andhra Pradesh Forest Act, 1967. It is also categorised as a Reserved Tree under the Andhra Pradesh Preservation of Private Forest Rules 1978 and its felling from private lands is permitted only under a prescribed procedure when the tree exceeds a given height and girth class.

Red Sanders is not listed under any of the schedules of the broader national-level Wildlife (Protection) Act 1972, and the act's provisions do not apply in regulating Red Sanders trade. However, given that demand for the species in its various forms and derivatives lies largely outside India, Red Sanders has been listed on CITES Appendix II since 1994.

As a species listed under Appendix II of CITES, Red Sanders' international trade is regulated jointly through the provision of the Foreign Trade Policy of Government of India and the country's 1962 Customs Act. Chapter 12 of the Export Import Policy of India (Exim Policy) stipulates that Plants, plant portions, their derivatives and extracts as specified in Appendix I & Appendix II of CITES as well as those specified below at Export Licensing Note 1 and orchids from the wild may not be exported, *except under special exemption granted for the purpose of research and life-saving drugs* on case by case basis by the Directorate General of Foreign Trade (DGFT) on the recommendation of the Ministry of Environment & Forests, Government of India.

Red Sanders is listed in Export Licensing Note 1, which includes 29 species. As such, its export is generally prohibited. Similarly, Chapter 44 of this policy mentions that *export of wood and wood products in the form of logs, timber stumps, roots, bark, chips, powder, flakes, dust and charcoal is prohibited.* However, with a relevant license, Red Sanders can be exported in value added formulations consisting of such items as extracts, dyes and musical instruments/parts.

Given the high value attributed to this timber in international markets, there has been an effort to dispose any available timber by way of global auctions.

Seized and confiscated logs are sold by way of tender. Between 1987-2007, over 9000MT has been confiscated by Andhra Pradesh Forest Department, of which about 1400MT is held at depots across the state.

In the last few years, the Andhra Pradesh Forest Department has held several tenders to auction Red Sanders wood in log form. Given that the log form cannot be sold to overseas buyers (which is then deemed as an export) by way of the EXIM Policy, any **legal** purchases by international buyers would require a "relaxation of conditions stipulated" before they can be exported.

In March 2006 the Directorate General of Foreign Trade (DGFT) released a Public Notice stating that only exporters having already obtained logs from the Government of Andhra Pradesh will be provided with a onetime exemption to apply for an export license to permit the transfer of Red Sanders wood in log form out of India. In June 2007 the DGFT released another Public Notice again permitting applications for export licenses for Red Sanders logs to any prospective exporter who has procured stock from the auction by the Government of Andhra Pradesh.

In December 2007, the Andhra Pradesh Forest Department again issued a global tender for sale of over 809 metric tonnes of Red Sanders logs. Sealed tenders were invited from intending purchasers of Red Sanders wood, whether for consumption in the country or for export. The bidders were asked to quote two rates for each lot separately, i.e., first rate in case of export of Red Sanders wood in Value Added Product (VAP) form (Processed form) according to ITC (HS) Classification of Export and Import Items (1st September, 2004-31st March 2009) i.e. Foreign Trade Policy published by Government of India, or for consumption within the Country and the 2nd rate for export of Red Sanders wood in Round Log form (Unprocessed form).

The tender document clearly stipulated, "Export of Red Sanders wood in round log form will be permitted only after necessary clearance is accorded by Government of India." It also mentioned that the quoting of two rates for the same Lot as above was necessitated since the proposal for export of Red Sanders wood in Round Log form (unprocessed form), in addition to the Value Added Product form, was stated to be under active consideration of the State Government. In the event of the Government of India approving the export of Red Sanders wood in Round Log form in addition to the Value Added Product form before the delivery of Red Sanders wood to the Tenderers, the highest rate out of the two rates quoted for the Red Sanders wood in Round Log form and Value Added Products form will become applicable.

Some Recent Developments

For some time now, CITES has been concerned about the trade in Red Sanders from India. This issue was discussed in great detail during the 17th meeting of the Plants Committee. The following reflects a record of proceedings at the above meeting with respect to Red Sanders:

Pterocarpus santalinus: population of India

a) The Plants Committee considered this matter at PC17 in April 2008. The Committee determined that trade in *P. santalinus* was of 'urgent concern' in India. Consequently, in consultation with the Secretariat, it formulated recommendations to address the problems of implementing the provisions of Article IV, paragraphs 2 (a) or 3, with deadlines for their implementation. The short term recommendations to India were as follows:

Within 3 months (i.e by July 2008)

i) The Management Authority should clarify the legislative status of exports of specimens of P. santalinus, *the level of artificial propagation, the permit process, and perceived discrepancies between reported Customs data and CITES data; and*

ii) If exports of wild origin are to be continued, the Management Authority in consultation with the CITES Secretariat and the Chair of the Plants Committee, should establish a conservative quota of CITES listed specimens of this species.

b) It also made the following long-term recommendations:

Within 2 years (i.e. by April 2010)

If exports of wild origin are to continue:

i) carry out a preliminary inventory of standing stock, establish estimates of sustainable offtake and establish a scientific monitoring system of the harvested and unharvested populations;

ii) *establish a revised conservative export quota based on the inventory of standing stock and the estimates of sustainable offtake; and*

iii) *the Management Authority report to the Secretariat the result of its actions to implement the provisions of Article IV, and how the Scientific Authority currently determines that levels of export are not detrimental to the populations concerned.*

c) On 19 May 2008, the Secretariat communicated the recommendations by the Plants Committee to India. The short-term recommendations for India were urgent measures that needed to be implemented by this country in order to correct identified problems with the implementation of Article IV for *P. santalinus*.

d) No response has been received by the Secretariat in relation to the recommendations of the Plants Committee and the short-term recommendations of the Plants Committee have not therefore been complied with.

e) The Secretariat recommends that the Standing Committee recommend that all Parties **suspend trade in specimens of *P. santalinus* from India** until that country demonstrates compliance with Article IV, paragraphs 2 (a) and 3, for this species, and provides full and detailed information to the Secretariat regarding compliance with the recommendations of the Plants Committee.

Accordingly, all international trade from India in Red Sanders and its derivatives was suspended. In order to comply with the CITES requirements, the Govt of India initiated a Review of Significant Trade in Red Sanders. At its 61st meeting in August 2011, the Standing Committee of CITES agreed to withdraw its recommendations to suspend trade in Pterocarpus santalinus from India once the Secretariat received the completed study being conducted in compliance with the long term recommendations of the Plants Committee at its 17th meeting in April 2008.

The review of trade is an important part of the CITES process. All CITES Parties must ensure that their trade in CITES-listed species is sustainable. In order to achieve this, Parties are expected to undertake a "non detriment finding" or a sustainability assessment on whether the export of a particular species will impact negatively on the survival of that species in the wild. A non-detriment finding is essentially a science-based risk assessment. It should consider a range of information including: population status; distribution; population trends; harvest; other biological and ecological factors; and trade information (CITES 2010).

India's study on Red Sanders is thus a significant step in ensuring that trade in the species is held at sustainable levels.

Recent Judicial and Policy Interventions

India's Supreme Court has repeatedly been making progressive pronouncements for the cause of conservation. In a recent judgment dated 13th February 2012, the Hon. Court examined the repeated requests made by the State of Andhra Pradesh to the Central Govt. to notify Red Sanders (*Pterocarpus santalinus*) as a 'specified plant' and be included in the Schedule VI of the Wild Life (Protection) Act, 1972.

The court opined that *"It is settled law that the provisions of the Treaties/Conventions which are not contrary to Municipal laws, be deemed to have been incorporated in the domestic law."* It thus stated that *"...following the ecocentric principle, we are inclined to give a direction to the Central Government to take appropriate steps under Section 61 of the Act to include Red Sanders in Schedule-VI of the Wildlife (Protection) Act as requested by the State of A.P. (Andhra Pradesh), within a period of six months from the date of this judgment. We are giving this direction, since, it is reported that nowhere in the world, this species is seen, except in India and we owe an obligation to world, to safeguard this endangered species, for posterity. Power is also*

vested with the Central Government to delete from the Schedule if the situation improves, and a species is later found to be not endangered."

By its letter dated 5th December 2011, the Ministry of Environment and Forests (Now renamed as the Ministry of Environment, Forests and Climate Change), Government of India has directed all states/Union Territories that any Red Sanders seized anywhere in the country should be sent to the Andhra Pradesh Handicrafts Development Corporation, Hyderabad. This shows a possible shift towards promoting value addition in Red Sanders within the country rather than focus on export of logs, which has largely been the norm so far.

More recently, by a office memo dated 9th July, 2014, the Government of India has laid down detailed procedure for export of Red Sanders. It states that at the 61st Meeting of the Standing Committee of CITES, the CITES Secretariat accepted the recommendations of the Government of India in this regard which primarily stated that,

a) No harvest from the wild is contemplated and hence no export quota is recommended

b) India will authorize the export of specimens of any type from 310 metric tonnes of wood per year from artificially propagated sources

c) A one time export of specimens of any type from 11806 metric tonnes of seized wood from confiscated or seized source.

Discussion

Both tigers and Red Sanders wood, though very different biological products, offer important pointers to the current state of illegal wildlife trade in South Asia. Firstly, that the major demand drivers for high value wildlife products lie outside the region and there is very little domestic consumption. Secondly, the markets have undergone a significant shift in recent times, with those closer home and in the immediate vicinity acquiring prominence. It has also led to a shift in the nature of the products and derivatives in demand. This has also to do with the fact that the wealth map of the world has been slowly but surely

redrawn, with many eastern economies now commanding sufficient money power to dictate such demand. Thus Money has not only defined consumption but has also helped bring new markets to prominence in certain cases. (eg Tiger skin *chubas* in Tibet). With markets literally next door in most cases, the shortening of supply chains has also important implications for law enforcement.

The Quadrat of "M"s: Money, Myth, Mythology and Marketing as drivers.

Both tigers and Red sanders represent very high value products, which find ready markets across some parts of the globe. The enormous sums of money involved in such trade are no doubt one of its strongest drivers.

The cultural context of wildlife consumption is an important consideration in any understanding of it. It is especially true in this case, where the myths associated with wildlife consumption and the mythological association with such products continues to be a strong part of local markets. Apart from the perceived health benefits, the "social benefits" of conspicuous consumption of wildlife products in determining status of individuals has to rank as an important driver for the illegal trade. Clever marketing, where consumption of such products, often irrespective of legality is tied to a cultural and social identity only adds to the challenge in dealing with it. Amongst diaspora, such consumption may also be seen as a means of staying connected to one's roots and thus have a strong emotional draw. This is true of both tigers and Red sanders.

On another level, the law enforcement approach for tigers and Red Sanders is as different as chalk and cheese. Tigers, the poster boys of the global conservation community, evoke very strong reactions and thus have received much attention to its fate over the years. Today, all international trade in tiger parts and derivatives is illegal. Current conservation wisdom places a very high emphasis on "Demand Reduction" but getting into the minds of a consumer, who remains largely behind the scenes due to the illicit nature of the product in demand, is never easy. Managing the source population has proved to be relatively much easier. Recent conservation success in rebuilding tiger

populations across India and to some extent Nepal show that this is working for now, but given the low global numbers of wild tigers, such successes can only be sustained by a continuous, high investment on the ground. We must also remember from past experiences that such successes can be easily reversed unless intelligence led proactive efforts across enforcement agencies and countries receive global, regional and local support and attention.

The trade in Red Sanders presents a different type of complexity; of a species endemic to a small range in India, driven by a high international demand. Unlike trade in tiger parts and derivatives, trade in Red Sanders is an accepted fact and while highly regulated, is not completely illegal. While trade in CITES listed species must necessarily meet the dual criterion of legality and sustainability, the very nature of trade in this species presents an interesting challenge. There is a heavy level of illegal exploitation of this species at the local level; whatever portion of this illegal and opportunistic exploitation that is seized is further auctioned by government agencies as a "legal" product to willing buyers at a high market price. To apply the sustainability criterion to such trade is even more complex, given that artificial cultivation of the species is still in its early stages and that the bulk of the material made available for trade is from material seized from illegal, opportunistic felling with no silvicultural criterion being applicable in such case.

Ground level enforcement is again the key here but in my opinion the legal and policy framework needs to spell out a clear, long-term road map for the conservation and sustainable trade in this species of immense national, regional and international significance.

Trade in both species ticks all the right boxes in defining Transnational Organised Crime. The involvement of highly organised gangs in such illegal trade, exploitation of local communities, the sophisticated and highly adaptive smuggling techniques and routes, use of mules and couriers and the growing use of violence against enforcement personnel are some of the disturbing pointers in this direction.

The Regional Response

The South Asian response has tended to maintain a focus on within country and within region remedies. India has established a Wildlife Crime Control Bureau, which is working with various enforcement agencies at the state and national level to provide them support in training and investigation of wildlife offences. It also monitors the backward and forward linkages of illegal trade chains. While the bureau is still in its early days, it promises to make a telling difference to wildlife crime networks.

Nepal has also established a Wildlife Crime Control Bureau that is working across agencies to prevent poaching and illegal wildlife trade. The country has also established a National Tiger Conservation Committee (NTCC) under the chairmanship of Prime Minister. The Committee consists of a total 11 members including Ministers of Home, Finance, Environment, Defense and Law and Justice Ministries, with the Minister for Forests and Soil Conservation as Member Secretary. (Karki et al 2013).

On a regional level, the countries of South Asia have formed a South Asia Wildlife Enforcement Network (SAWEN) to coordinate a regional response to illegal poaching and trafficking (Parr 2011).The South Asia Wildlife Enforcement Network (SAWEN) was formally launched during the Second Meeting of the South Asia Experts Group on Illegal Wildlife Trade held from 29-30 January 2011 in Paro, Bhutan. The meeting agreed to an action-oriented work plan for joint activities; establishment of the SAWEN Secretariat, hosted by the Government of Nepal, governance and operational structure of SAWEN, and the need for strategic collaboration on communications and fund-raising. The SAWEN Secretariat was formally established on 20 April 2011 in Kathmandu, Nepal, and housed under the Department of National Parks and Wildlife Conservation (DNPWC), Ministry of Forests and Soil Conservation, Government of Nepal. The Director-General of DNPWC serves currently as Chief Enforcement Coordinator (CEC) of SAWEN. Its mission is," to strengthen, promote and co-ordinate regional co-operation for Curbing illegal wildlife trade that threatens the wild flora and fauna of South Asia." (SAWEN 2015).

Regional enforcement responses are centered around developing structured institutional mechanisms of collaboration and cooperation across the region. It is also important to note here that in South Asia such a process is largely driven internally. While such an approach may appear slow, in my opinion, it may certainly prove to be more robust and realistic in its achievements over time. SAWEN has slowly begun to find its feet, with joint training programmes and information sharing mechanisms in place. However, SAWEN has begun on a cautionary and realistic note, with its Chief Enforcement Coordinator candidly stating, "SAWEN is making its efforts to enhance capacity of wildlife enforcement agencies of South Asian countries and combine such capacities through better coordination for a stronger, more coordinated and more effective national and regional response to the burgeoning wildlife crime. However, our capacity and efforts remains far from enough to take on the current scale and nature of wildlife crime (SAWEN 2015).

Conclusion

In conclusion, while efforts to mitigate wildlife crime across South Asia are receiving attention as never before, such attention may need to be viewed with caution. Public attention can also be deceptive, giving rise to complacency and false hope, often because such attention is not always backed by appropriate proactive action. There are many aspects which need to be ironed out for long term success. Cooperation across countries and agencies has been identified as vital, yet the absence of clear-cut nature of command and mechanisms of sharing power and responsibility has the ability to jeopardize such effort.

While institutional mechanisms are emerging, there is urgent need to have a realistic assessment and mapping of needs such as of human resources, legal and policy initiatives, specific roles and responsibilities of agencies and individuals in the flow of information and resulting action as also the capacity building over a realistic time frame. Despite all the global talk, resources for fighting wildlife crime are sparse and in a region like South Asia, it is even more difficult to ramp this up on national priorities.

And finally, fighting the effects of Money, Myth Mythology and Marketing is never going to be easy. In growing economies, the logic for conserving natural resources is not always evident for those who fight a daily battle of subsistence. In India, for example the best-forested areas also overlap with some of the poorest areas. Against this backdrop, externally driven demand, which brings in quick and very high returns can be a potent threat to conservation efforts. In effect, wildlife law enforcement agencies have to keep running faster and faster even to stay in the same place.

Despite all challenges, the fact that South Asia continues to hold significant populations of many threatened and endangered wild species is a telling tribute to its people and that of their cultural and social acceptance of wildlife. The relationship has been frayed on occasion but it continues to hold and hopefully will do so for times to come.

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Witnessing the WENs

Observations on the Origins of ASEAN-WEN and SAWEN

**William Schaedla and Samir Sinha

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Introduction

Regional Wildlife Enforcement Networks (WENs) have gained increasing prominence over the past decade as mechanisms for addressing transnational wildlife crime. These initiatives vary in scope, functioning, and structure, but are consistent in their stated objectives. All are founded on the idea that single agency, single country approaches are insufficient in an age when illicit wildlife supply chains span the globe. WENs aspire to create mechanisms for better enforcement cooperation between nations. Most also include provisions for improved interagency cooperation within their participating countries.

Because of their particular topical focus on conservation issues, most WENs are heavily invested with inputs from nongovernmental organizations (NGOs). Engagement by NGOs has been important to their creation, their functionality, and their funding. Many WENs would not exist, or would fail to function, in the absence of this civil society engagement.

Less evident is the fact that the WENs' development has been influenced by a set of United States policy and foreign assistance objectives. Their conceptual and practical origins can be traced to U.S. involvement with the Association of Southeast Asian Nations Wildlife Enforcement Network (ASEAN-WEN). ASEAN-WEN was funded initially by grants from the United States Department of State (DoS) and the United States Agency for International Development

(USAID). ASEAN-WEN was not the first regional agreement on regional wildlife enforcement issues[3], but it was the first agreement to carry the WEN designation. Its structure and the format for its early implementation has since become a template for other WEN agreements in South Asia, Central America, South America and Africa.

ASEAN-WEN also relied heavily on the support of a champion country, Thailand, during its inception period. Without strong backing from parties within Thailand's elected government and career civil service sectors, it is doubtful that this first WEN would have achieved functional status.

Similarly, the South Asian Wildlife Enforcement Network (SAWEN) grew from collaboration between NGOs, the U.S. Government, and a strong within-region country champion (India). As the second 'WEN', SAWEN had the benefit of ASEAN-WEN's structural example, but it also sought to avoid some of the weaknesses inherent in heavy reliance on extra-governmental stimulus and foreign funding. From its beginnings, SAWEN has remained stubbornly independent and resistant to foreign directives.

Here we examine and contrast the early histories of ASEAN-WEN and SAWEN. Our observations are based very much on insider experiences. We were each involved directly in the events described.[4] By sharing our experiences, we aim to provide insight into the unpublicized, but nevertheless important, circumstances underlying the WENs' uptake. We also hope to illustrate how regional differences affected two ostensibly similar approaches to TEC.

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[3] The Luaska Task Force, or Lusaka Agreement on Co-operative Enforcement Operations, predates other regional enforcement networks on wildlife trade. It was agreed in 1994, nearly a decade before ASEAN-WEN. The Agreement bears similarities to ASEAN-WEN, SAWEN, and their later counterparts. The network operates on the ground through muli-agency task forces, shares information across borders through national bureaus, and is coordinated by a regional governing council. Grant proposals submitted by WildAid and TRAFFIC for ASEAN-WEN's early development included references to these features of the Lusaka Task Force.

[4] William Schaedla was employed by WildAid, WWF and TRAFFIC during the establishment of ASEAN-WEN. Samir Sinha is a wildlife law enforcement officer of the Indian Forest Service who was seconded by the Indian government to work with WWF/TRAFFIC during 2006-2011, when SAWEN was established.

ASEAN-WEN

At the time of its creation, ASEAN-WEN was the most ambitious regional approach to wildlife law enforcement ever attempted. Previous efforts had either been components of trade-related agreements, or of more general agreements on regional crime prevention.

As noted, Thailand has been a strong champion to ASEAN-WEN since the agreement's beginnings. Yet Thailand's commitment to anti-wildlife crime measures has historically not been consistent. The country became a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1983. In joining, it agreed to update its national wildlife legislation in support of the Treaty[5]. This process was delayed repeatedly by special interests and legislative infighting. Consequently, the first amendments to Thai wildlife laws took nearly a decade and were promulgated only under duress. They followed concerted campaigning by a number of local and international NGOs,[6] and a last-straw call in 1991 from the CITES Secretariat to ban all CITES related trade with Thailand. The United States was a proponent of this ban, and was among the first CITES parties to implement it (Glennon and Stewart, 1998, Schaedla, *pers. obs.*). Immediately after the ban came into force, Thailand's Parliament mustered speedily and passed WARPA, the *Wild Animal Reservation and Protection Act B.E. 2535 (A.D. 1992)*.

WARPA took important steps to promote cooperation between agencies and to protect native Thai wildlife. It was, however, not effective against international wildlife crime. Problems remained, and Thailand continued to draw criticism for its ineffective protection of CITES listed species of fauna and flora. Elephant-related issues were among the most publicized examples. A myriad of conflicting national laws made it difficult for Thai authorities to interdict live elephants and elephant products being smuggled into the country. Thailand became a hub for illicit African ivory trade (Milliken, et al. 2002; Stiles 2004;

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[5] Alignment of national legislation to support CITES is part of the Treaty commitment.
[6] The main campaigners for reformation of Thai wildlife law included: the Seub Nakasathian Foundation, Wildlife Fund Thailand, WWF and TRAFFIC.

Stiles, 2009; Doak 2014), and for many other types of wildlife (Roe, 2002; Srikosamatara et al., 1992; Nijman and Shepherd, 2007).

Unsurprisingly, anti-wildlife trade campaigning remained a major activity for NGOS in the early 1990's. WWF[7] and TRAFFIC were active lobbyists of the Thai Government during this period. They were joined in these efforts by WildAid/FREELAND[8], which established an initial presence out of the WWF Thailand office in 2000, then immediately set about developing local and regional programs of its own.

A substantial part of WildAid/FREELAND's strategy involved courting grants from the United States Department of State (DoS) and the United States Agency for International Development (USAID). Partnering with TRAFFIC, WildAid/FREELAND submitted a funding concept to USAID for an 'Asian Wildlife Enforcement Academy' (AWLEA), which was envisioned to address capacity and skills training needs in the region's wildlife enforcement agencies. The proposed institution was to be associated with the U.S. sponsored International Law Enforcement Academy (ILEA) in Bangkok (Galster, *pers. com.* 2004).

Although the AWLEA concept was not funded in its original form, it led eventually to substantive U.S. involvement with the NGOs, and ASEAN-WEN. There were several factors that began this process. The first was a drive by the Bush Administration to restructure U.S. foreign policy in the wake of the September 11th terrorist attacks. This restructuring sought to make USAID subject to oversight by the DoS, and to refocus its programs in direct support of American foreign policy objectives. At the time, American foreign policy was

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[7] WWF was established in 1961 as the 'World Wildlife Fund.' In 1986, the organization renamed itself the 'World Wide Fund for Nature' to better reflect the scope of its global activities. However, its U.S. and Canada offices opted against this change and retained the original name. To avoid confusion, the network is known globally as 'WWF.'

[8] WildAid underwent a number of organizational splits and changes between 2005 and 2010, eventually becoming three distinct entities: WildAid, Wildlife Alliance, and FREELAND Foundation. The offices and personnel responsible for most events described in this chapter are now part of FREELAND Foundation. They maintain a strong interest in supporting and fostering the development of ASEAN-WEN. This chapter refers to them collectively as WildAid/FREELAND.

decidedly hawkish (Jervis, 2003; Lieber and Lieber, 2002), and rule-of-law initiatives resonated well. The administration was also politically disinclined to provide funding for climate change mitigation or adaptation projects (Donaghy, *et al.* 2007; Piltz, R. 2007). USAID was forced to round its portfolio with alternative environmental activities, and AWLEA was an appealing option.

Against this backdrop, USAID had recently established a Regional Development Mission for Asia (USAID/RDM-Asia) in Bangkok. The move was another departure from longstanding practice. Most previous USAID programs in Southeast Asia had been bilateral, operating via primarily as single country projects or activities. USAID/RDM-Asia aimed instead to work on a multilateral model. It sought to foster regional development by strengthening entities like the ASEAN Secretariat (USAID, 2008). Somewhat incongruously however, its prescribed method for delivering regional assistance was not through direct grants to the Secretariat or to ASEAN member states. USAID/RDM-Asia was restricted mostly to funding proposals from U.S. based contracting firms and NGOs. WildAid/FREELAND held registered tax-exempt status in the U.S. and its AWLEA proposal was, again, appealing.

All that was missing was a clear indication of need from within ASEAN.

Thailand made the call during Thaksin Shinawatra's first term as Prime Minister. His government sought to elevate Thai leadership in ASEAN, was aggressive in its approach to law enforcement, and generally supportive of Bush administration policies (United States Department of State, 2005). The government's public relations strategy during this period (2001-2006) included creation of many high-profile initiatives to counter criticisms from political opponents, civil society organizations, and the international community. Volunteering to host CITES events was one tactic. It had become an established approach for heading-off international criticism.

Hence, when Thailand offered to host CITES' 13th Conference of the Parties (CoP 13), the NGOs were prepared. Quiet, long-term lobbying by TRAFFIC in national CITES offices and at the ASEAN Secretariat fostered collective public

messaging from the region's governments. They issued a joint ministerial statement declaring the need for improved collaboration and wildlife law enforcement at CITES' 13th Conference of the Parties (CoP 13) (ASEAN Secretariat, 2004). This statement allowed opportunities for WildAid/FREELAND and TRAFFIC to work with the Thai government and influence CoP proceedings. The NGOs were even able to suggest wording for Prime Minister Shinawatra's opening remarks, as he called for establishment of a "Southeast Asian Regional Wildlife Enforcement Network to Combat Nature Crimes" (CITES Secretariat, 2004).

The Prime Minister's speech, coupled with the ASEAN ministerial statement, provided sufficient basis for U.S. engagement. WildAid/FREELAND and TRAFFIC subsequently became 'implementing partners' to a USAID cooperative agreement. AWLEA was rejected as an acronym for the grant because it no longer entailed creation of a simple training facility.[9] The ASEAN-WEN Support Program was born and a precedent was set for NGO involvement in regional wildlife enforcement. Almost every aspect of ASEAN-WEN's early development was either orchestrated or promoted heavily by WildAid/FREELAND and TRAFFIC.

The rest, as the ASEAN-WEN website indicates, is history.

ASEAN-WEN launched officially on 1 December 2005. All 10 Southeast Asian Nations (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam) joined. Their commitment to the network entails development of national task forces comprised of CITES, police, and customs officers. Cross-border linkages between the task forces intended to promote regional information exchange on wildlife crime.

The network maintains an ASEAN-WEN Program Coordination Unit (PCU), located in Bangkok, Thailand. The PCU is an office of the ASEAN Secretariat. It is hosted by the Thai government and serves to facilitate regional

[9] The fact that the AWLEA's default pronunciation, 'aw-lee-ah,' sounded much like the Thai words for 'wanting a lick' probably also had something to do with the name change.

communication, encourage information-sharing, coordinate training, and run workshops. A Law Enforcement Extension Office (LEEO) within the PCU leads partnership building with INTERPOL, the World Customs Organization (WCO), ASEANAPOL and other enforcement agencies.

SAWEN

In April 2004, a South Asia Wildlife Trade Diagnostic workshop organized by the TRAFFIC in close cooperation with the CITES Secretariat was attended by 70 representatives from all countries of South Asia. While the workshop suggested that the key approach for regional cooperation was Coordination, Co-operation and Communication between countries, it stopped short of suggesting any institutional framework for the same.

The actual origins of SAWEN can be traced to the 10th Meeting of the Governing Council of the South Asia Cooperative Environmental Programme, SACEP, held in Kathmandu, Nepal on 25th January 2007. At this meeting, based on a suggestion from India, the Governing Council decided "...SACEP should incorporate Work Programme for combating illegal trading in wildlife and its products. This will help strengthening enforcement of CITES in the region and in controlling illegal domestic and international trading Fauna and flora which is seriously impending biodiversity conservation efforts by all countries." (SACEP, 2007).

SACEP is an inter-governmental organisation established in 1982 by the South Asian governments to promote and support protection, management and enhancement of the environment in the region (SACEP 2015). It is based in Colombo, Sri Lanka. Prior to its 2007 statement on wildlife crime, SACEP activities tended to focus on regional coordination and support for treaties, but not necessarily on enforcement. Activities had included: hosting the Basel Convention Regional Centre for South Asia, setting up of a regional biodiversity clearing house mechanism, preparing oil spill contingency plans, marine and coastal invasive species plan and climate change adaptation issues.

SACEP attention to illegal wildlife trade broke new ground. Following the 2007 directive from its Governing Council, the SACEP Secretariat went looking for suitable partners against wildlife crime. Early support for the initiative came at the 14th meeting of the Conference of Parties to CITES (CoP14). This event took place in The Hague, Netherlands, from 03-15 June 2007. CoP14 resolutions strongly supported the development and strengthening of regional networks. CITES Conf. 11.3 (Rev. CoP14) on Compliance and Enforcement highlighted the need for improved cooperation and coordination among CITES authorities and wildlife-law enforcement agencies at regional levels.

TRAFFIC played an important role in these discussions. The organization had strong local ties in South Asia, though a WWF hosted presence in India. At the time, it was also headed by an official seconded from the Government of India[10]. These linkages allowed TRAFFIC to work closely with the Indian Government, which was the original champion of SAWEN at SACEP.

During CoP14 meetings, deliberations between the Secretary General of SACEP and a TRAFFIC team led a Memorandum of Understanding (MoU) on collaboration. This document, signed in July 2007 stated that, "SACEP has agreed to collaborate with TRAFFIC International in establishing a regional network for combating illegal trade in wild flora and fauna and ensuring that the trade is maintained at sustainable levels in South Asia." Article I of the MoU agreed the parties would work jointly to develop and implement a South Asia Regional Strategy for combating illegal trade in wild flora and fauna. The strategy includes creation of a 'South Asian wildlife enforcement network'.

A subsequent Workshop on Wildlife Trade in South Asia was hosted jointly by SACEP, TRAFFIC and WWF at Kathmandu, Nepal from 31 January -1 February 2008. The meeting aimed to establish a South Asia Wildlife Trade Initiative (SAWTI), under SACEP, with technical and other assistance from TRAFFIC. It was a crucial first step towards realizing SAWEN.

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[10] Samir Sinha, coauthor of this chapter, managed the TRAFFIC India office from 2006-2011. During this period, he remained a serving member of the Indian Forest Service.

The 11th Meeting of the Governing Council of SACEP held at Jaipur, India on 22 May 2008 subsequently adopted SAWTI and SAWEN with statement which would become known as "The Jaipur Declaration." Regional Environment Ministers unanimously agreed to, "support the South Asia Initiative for Combating Illegal Trade in Wildlife and Regional Action Plan and the Formation of South Asia Wildlife Enforcement Network (SAWEN)." (SAWEN, 2015).

SAWEN was reaffirmed repeatedly in later regional meetings. The Global Tiger Workshop held at Kathmandu in October 2009 saw additional endorsement of regional cooperation against wildlife crime in South Asia (Global Tiger Initiative, 2009). This was reiterated at the First Asia Ministerial Conference on Tiger Conservation in January 2010 at Hua Hin, Thailand (Global Tiger Initiative, 2010).

The actual allocation of resources to develop and support SAWEN came via the authority of the South Asian Association for Regional Cooperation (SAARC). SAARC is South Asia's premier platform for regional economic and geopolitical cooperation. It includes eight countries[11], and was established formally in December 1985 with headquarters in Kathmandu, Nepal. SAECP operations fall under the SAARC umbrella, and SAWEN operations were included as a focal component in the SACEP scope of work in October 2009, following a proposal by India. SAARC member states adopted the SAARC Convention on Cooperation on Environment in April 2010 at Paro, Bhutan. The scope of cooperation under this convention included, "Wildlife conservation and combating illegal trade in wildlife and bio- resources" (TRAFFIC, 2011).

NGOs and foreign donors were involved in many of the above activities. WWF was a key instigator of World Bank funding to the Kathmandu Global Tiger Workshop, and FREELAND Foundation (the successor to WildAid/FREELAND) uitlised USAID funding to support First Asia Ministerial Conference on Tiger Conservation (Schaedla, *pers. obs*). More directly, a grant

[11] The current membership of SAARC includes: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.

to TRAFFIC from the DoS facilitated the first SAWEN meetings (Sinha, pers obs). It must be noted, however, that this support was very small as compared to the sums invested in ASEAN-WEN. Moreover, the DoS had little role in any decision making process in the development of SAWEN. This was due largely to the fact that individual countries in South Asia are very conscious of sovereignty issues. India, in particular, has been very sensitive to external funding driving regional agendas (Adeney and Wyatt, 2010; Chaturvedi, 2012). Throughout SAWEN's adoption period, there was vehement insistence on the primacy of regional decision-making (Sinha, *pers. obs*).

SAWEN launched formally during the Second Meeting of the South Asia Experts Group on Illegal Wildlife Trade, held from 29-30 January 2011 in Paro, Bhutan. With backing through SAECP and SARRC resolved, participants at the Expert's Group meeting proceeded to agree on an action-oriented work plan for joint activities; establishment of the SAWEN Secretariat hosted by the Government of Nepal; governance and operational structures for SAWEN; and a framework for strategic collaboration on communications and fundraising.

In his message dated 24th January 2011, on the launch of SAWEN, India's Minister of Environment and Forests, Jairam Ramesh stated, "The establishment of SAWEN is crucial, timely and much needed step forward to institutionalize the collaborative efforts of members nations in controlling wildlife crime in the region. India had taken the lead in flagging the need to control wildlife crime at various forums leading to the establishment of SAWEN" (WWF India, 2011).

SAWEN presently operates out of the permanent Secretariat established in Nepal. A Chairman, appointed on a rotational basis every year among the eight South Asia member countries, leads it. The day-to-day operations of the General House of SAWEN are managed by an Executive Committee, which consists of one representative from each of the member countries. The Director General of Nepal's Department of National Parks and Wildlife Conservation (DNPWC) also serves as the *Ex-Officio* Chief Enforcement Officer to the network.

Where Then, With the WENs?

U.S. advocacy and funding for the establishment of WENs may have begun with the Bush administration, but it has shown no signs of abating during Barack Obama's presidency. In 2010, then Secretary of State, Hillary Clinton, called publicly for the establishment of SAWEN. Her speech came as the DoS was providing funding for the meetings described earlier in this chapter. In the same speech, she also called for establishment of a Central America WEN (Clinton, 2010). This latter network has since been established as the Red de Observancia y Aplicación de la Normativa Silvestre para Centroamérica y República Dominicana (ROAVIS). Funding for its earliest meetings came via U.S. Government support to TRAFFIC. Likewise, a South America WEN initiative has also seen DoS money granted to TRAFFIC. In Africa, FREELAND Foundation has received similar grants for its promotion and technical assistance to a burgeoning Horn of Africa WEN (HA-WEN).

This paradigm for establishing anti-wildlife crime networks carries a number of potential benefits. The actors involved with the WENs' creation and support have been very consistent. This may give different networks a better chance at coordinating across geographies. It may also allow for better sharing of lessons learned by their participating agencies, avoid repeat mistakes, and facilitate more rapid establishment of new agreements.

From the standpoint of the granting agencies involved, funneling money through U.S. registered NGOs is a winning proposition. Civil society presence in the chain of foreign assistance delivery can send a strong about the importance of transparency. NGOs are perceived to be less corrupt than government offices in aid receiving countries, even if that perception is not always true (Economist, 2000). Perhaps counterintuitively, NGOs tend also to be more easily influenced by U.S. donor money than foreign governments. To obtain funding, they are customarily willing to subject themselves to rigorous fiscal and programmatic oversight, which may result in profound changes to their planned work-streams, and unanticipated engagements with new partners. This flexibility keeps NGOs accountable to donor priorities. Arguably,

it also makes them similar operationally to contractors. Yet compared to profit driven contracting firms, NGO overheads tend to be attractively low (Abiew and Keating; 1999, Christie, 2013; Doh, *et al.*, 2003). They are bargain partners whose engagement sends all the right signals. Such reckoning was part of the discussions between USAID, WildAid/FREELAND, and TRAFFIC around the implementation of USAID's first ASEAN-WEN Support grant (Schaedla, pers. obs).

Yet from a delivery perspective, NGOs may not be the best vehicles for all WEN related activities. They play important roles advocating for laws, but coordinating, training, and implementing actual law enforcement is not generally within their purview[12]. Even when they are able to provide skilled personnel for these tasks, their legal authority to execute them is frequently lacking. Liability issues are a related concern. If NGO instigated enforcement actions result in injury or loss of property criminal and civil lawsuits may ensue (Nurse, 2013, White 2012). USAID raised concerns about these possibilities prior to disbursement of the first WildAid/FREELAND/TRAFFIC ASEAN-WEN grant. The NGOs addressed them in two ways. The first was through officer secondments of U.S. Fish and Wildlife agents to WEN related activities (USFWS, 2010). The second was by relying heavily on local police and customs agents as instructors for the training components of the program. While not a perfect solution, this model may also have helped downplay perceptions of foreign influence over the new WEN.

When ASEAN-WEN was established, U.S. support alleviated objections from some ASEAN representatives about the financial feasibility of a new regional initiative. On a less positive note, very strong perceptions of American influence over the network played badly with other representatives. These negative views persisted even after grant funding was no longer a major sustenance mechanism for the network. WildAid/FREELAND and TRAFFIC each took steps to downplay the foreign funding factor. WildAid/FREELAND

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[12] There are exceptions to this rule. Perhaps the best example is The Last Great Ape organization (LAGA) in Cameroon. It is an NGO that operates under an enforcement mandate from Cameroonian Ministry of Forestry and Wildlife (MINFOF).

was, perhaps, less convincing because of its face-forward role as the primary implementing partner to the USAID grant. The culture of the organization at the time was marked by adventure-themed media programming and heavily oriented toward generating publicity for ASEAN-WEN. TRAFFIC, in contrast, was focused more on brokering agreements to ensure the stability of the network (Schaedla, *pers. obs.*).

SAWEN was influenced by, and modeled after, ASEAN-WEN. Representatives from ASEAN-WEN attended its formative meetings to share their experiences and thoughts. They engaged in heavily in discussions at the regional wildlife workshop in Katmandu, Nepal. As noted above, this workshop was facilitated by TRAFFIC and WWF engagement with SAECP. It was supported financially by the DoS, and U.S. government money brought the ASEAN participants to participate. In spite – or perhaps because – of these contributions, SAWEN rapidly distanced itself from foreign funding. Even before the network was agreed, its parties focused on creation of regional funding mechanisms to ensure its functionality.

This deliberate approach was partially a matter of necessity. Adoption of resolutions within SACEP and SAARC requires active and unanimous affirmation by their participating parties (Asian Legal Information Institute, 2015, International Environmental Agreements (IEA) Database Project, 2015, Sáez, 2011). Conversely, at the time ASEAN-WEN was established in 2005, ASEAN was a much more loosely structured agreement (ASEAN Secretariat, 1967). It allowed for the functional acceptance of resolutions via *ad referendum* procedures. Tabled resolutions could come into force if member countries opted simply not to object (Woon, 2015, Schaedla, *pers. obs.*). A formal charter for ASEAN with structured rules of procedure did not come into force until two years later, in 2007 (Centre for International Law, 2007).

It was a given from the onset that SAWEN would require more discussion and bureaucratic preparation than ASEAN-WEN. Certain enabling conditions, like membership in SAARC and CITES had to be fulfilled by parties prior to their entry into the agreement (Sinha, *pers. obs.*). The downside to this *sine qua non*

environment has been a comparatively slow, low-profile start to the network.

ASEAN-WEN, on the other hand, gained public recognition very quickly on the back of high profile media activities. These were driven largely by WildAid/FREELAND and relied heavily on interactions with Thai government agencies, including: the Royal Forest Department (RFD) and the Natural Resources and Environment Crime Division of the Royal Thai Police (NRECD).[13] During this period, the Government of Thailand committed to hosting and staffing the ASEAN-WEN Program Coordination Unit, but the network as a whole faced challenges moving past U.S. government financial support. Although member countries agreed to provide necessary financial and human resources at the network's first meeting in 2006, the mechanisms for embedding those allocations in national budgets are, in some cases, still not clear (Schaedla, *pers. obs.*).

In fairness, both ASEAN-WEN and SAWEN have been enormous undertakings. It should also be remembered that SAWEN was never entirely insulated from NGO and donor related prerogatives. It was, however, established in a very different funding environment than ASEAN-WEN. According to recent self-reporting by the U.S. government, Pakistan and India fell second and twentieth, respectively, on the list of countries benefitting from USAID funding (USAID, 2013). Yet both nations have uneven relationships with international civil society. They place regular restrictions and on NGO activities. India has lately drawn criticism from the U.S. government for revoking the licenses of more than 8,000 foreign funded NGOs, including Greepeace (al Jazeera, 2015; Lakshmi, 2015). Concurrently, Pakistan banned activities by NGOs working 'against the interests of the state' (Shams, 2015). Nepal has a less contentious history with international civil society groups and its position as host to the SAWEN Secretariat is at least partially a function of the interplay between foreign funding and this NGO friendliness. Aid delivery is relatively straightforward in Nepal. Most bilateral donor agencies have offices in Katmandu. WWF, which was instrumental in supporting many of the

[13] The Discovery Channel's 'Crime Scene Wild' television series was among these. It featured WildAid's Bangkok lead, Steve Galster, working with authorities around the world to thwart wildlife crime.

meetings prior to SAWEN's establishment, is very different in Nepal than in India or Pakistan. In both of these latter countries, it operates as a locally registered organization. In Nepal, its office is a subsidiary of WWF U.S.

Other Influences

As noted earlier in this chapter, several WEN related meetings have been linked closely with Global Tiger Initiative (GTI) events. The GTI is global alliance led by the World's 13 remaining tiger range countries (TRCs), seven of which (Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam) are ASEAN-WEN members, and five of which (Bangladesh, Bhutan, India, Nepal and Pakistan) are SAWEN members. The GTI was launched in 2008 by the World Bank, the Global Environment Facility (GEF), the Smithsonian Institution, Save the Tiger Fund, and the International Tiger Coalition (a body that includes representation from more than 40 NGOs).

WWF, in particular, backed GTI formation as part of a push to secure high-level government commitments to tiger conservation. The organization helped drive a series of meetings in the run-up to a GTI Tiger Summit in St. Petersburg, Russia (November 2010). These meetings included: the Workshop on Wildlife Trade in South Asia in Kathmandu, Nepal (January and February 2008); the Global Tiger Workshop held at Kathmandu, Nepal (October 2009); and the First Asia Ministerial Conference on Tiger Conservation, Hua Hin, Thailand (January 2010). Both Nepal meetings were World Bank funded. They doubled as SAWEN events and were important its formation. The final meeting Thailand meeting was bankrolled by USAID, and carried an ASEAN-WEN banner. All of them carried promises of broader World Bank financial support for transnational wildlife crime initiatives.

This support has been forthcoming, just not in ways anticipated by many of the WEN representatives. Instead of financing for country and regional law enforcement initiatives, the World Bank has provided International Development Association (IDA) credits to the TRCs. These loans and grants are designed to boost economic growth, reduce inequalities, and improve people's living conditions. They tend not to be focused on biological conservation, transnational coordination, or improving law enforcement.

Instead, the World Bank's most concerted engagement in these areas has come through participation in the International Consortium on Combating Wildlife Crime (ICCWC) (van Asch, this volume). ICCWC's formation was motivated by many of the same factors that fostered the WENs, namely the increasingly transnational nature of wildlife crime and the need for coordinated multi-national, multi-agency responses. It is therefore not surprising that ICCWC originated during roughly same period as the WENs[14], that it relies like the WENs on CITES resolutions for validation, or that it employs language similar to the WENs in its self-descriptions. Many of these commonalities are doubtless linked to the intensification of wildlife crime securitization rhetoric identified by Elliott in this volume.

Beyond these contextual convergences, it is noteworthy that even ICCWC's partnership structure is similar to that of the WENs. ASEAN-WEN and SAWEN are built around national level task forces that include representation from CITES, police, and customs agencies. All participating agencies have similar status within their respective networks, but the main WEN focal points reside in CITES offices. This structure is reflected at regional levels. ASEAN-WEN's international coordination is through the Royal Forest Department hosted PCU in Bangkok. SAWEN's international coordination is through Nepal's Department of National Parks and Wildlife. Each of these secretariat bodies is linked closely to a national CITES office. In ICCWC, the CITES Secretariat, INTERPOL, the United Nations Office on Drugs and Crime (UNODC), the World Bank and the World Customs Organisation (WCO) all act as equal partners. The CITES Secretariat is the Chair of the group, however, and has plays a coordination role as part of its duties.

Management of WENs and ICCWC work is likewise comparable. In much the same way that decision-making in the WENs has been guided by Senior Forestry Officials and Experts Groups, ICCWC is informed by a 'Senior Experts Group' (SEG), comprised of technical authorities from its various member organisations. Both the WENs and ICCWC meet annually to discuss and

[14] ICCWC's formal establishment in 2010 makes it five years younger than ASEAN-WEN, and three years younger than SAWEN.

decide future actions, which may be initiated by any partner. All network activities are agreed by consensus prior to their implementation, and agencies take responsibility for them based on their respective sectoral expertise and willingness to lead.

Finally, ICCWC seems to have taken a page from the WENs' public relations driven playbooks. The consortium broadcasts its activities consistently through promotional press releases, Internet outlets, and high-profile expert interviews.

Connecting and Synchronizing the WENs

If ICCWC apes the WENs, it also complements them. As a consortium of international organizations, its scope is global. There are officially designated ICCWC offices in more than 25 countries (CITES Secretariat, 2015), but this number fails to fails to represent accurately the coordination potential of the consortium. Local enforcement counterparts to any of the five partners may theoretically be engaged on ICCWC projects. Their capabilities include secure communication through INTERPOL's Ecomessaging system and the WCO's Regional Intelligence Liaison Offices (RILOs). The WENs are much less even in their information sharing capacities.

Similarly, ICCWC has enormous convening power. It has demonstrated this already by acting as host for a gathering of WENs at the 16th Conference of the Parties to CITES (CoP16). In the words of the meeting's organisers, this event was, "aimed at enabling existing and proposed Wildlife Enforcement Networks (WENs) to share experiences and to discuss the need for enhanced cooperation and coordination amongst these WENs" (CITES, 2013).

WEN proliferation has led to a need for the development of inter-network linkages. In spite of their multinational compositions, all the current WENs are geographically restricted. They grew out of preexisting regional defense or trade pacts. While such previously established arrangements provide (relatively) easy entry into international cooperation on wildlife crime, there is no reason to expect enforcement activities will be functional if they remain

restricted solely to nearest neighbor geographies. Inasmuch as transnational wildlife crime spans countries, it also spans regions.

NGOs, even large international NGOs, are not well placed to foster such coordination. They may call meetings, but they lack the collective standing, enforcement authority, and secure communication mechanisms provided by the CITES Secretariat, INTERPOL, the UNODC, the WCO, and the World Bank. This point has not been lost on U.S. donors. Both DoS and USAID have made funds available to support ICCWC activities, which include globalizing network approaches against wildlife crime.

Closing Thoughts

The WENs represent a sea change in transnational wildlife crime remediation. They have set new expectations for geographic coordination and interagency cooperation. Their creation has elevated policy discussions about wildlife crime and forced governments to reevaluate their financial allocations to enforcement. The WENs have also helped set the stage for similar coordination between intergovernmental organizations such as CITES, INTERPOL, the UNODC, and the WCO.

Heavy dependence by WENs on civil society organizations and foreign assistance has been the model for their formation. It carries both plusses and minuses. On the positive side, it can serve to overcome perceived financial and political barriers to new international initiatives. On the negative side, it can render the continuation of those initiatives contingent on external guidance and funding. Going forward, it remains to be seen whether the WENs will develop the sort of self-sufficiency that allows them to operate independently. Relatedly, NGO driven publicity presents mixed blessings for the WENs. By virtue of the way they are funded, NGOs are under considerable pressure to self-promote. They must look constantly toward future grants in order to sustain themselves. At best, grant chasing imposes varying levels of distraction on already funded projects. At worst, it subverts entire work streams, turning them into mere public relations or branding exercises. In the case of the

WENs, dependence on NGO generated publicity has at times been a motivator for enforcement actions. While this is not necessarily bad, it risks creating a culture of expectation that fame flows freely from enforcement.

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