

THE LAST OF THE MEGAHERBIVORES

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At the turn of the 20th century, there were as **many as ten million** African elephants and about **100,000** Asian elephants. Today, there are an estimated 450,000 - 700,000 African elephants and between **35,000 - 40,000** wild Asian elephants. In this paper, we elaborate on the relevance of this keystone species to the forest ecosystem and to the maintenance of global biodiversity. We then concentrate on the events that have led to the fueling of ivory poaching in recent years. We discuss the Asian nations' market for ivory and how the ivory business has thrived due to gaps and discrepancies in the domestic and international ivory law. We criticize the Convention on International Trade in Endangered Species (CITES): Their poorly defined articles have led to loopholes in the convention itself and have resulted in countries exploiting these laws and abusing the principles of the convention. Finally, we focus on the way forward proposed by the nations and how CITES needs serious overhauling if we don't want to lose this species forever.

Lineage and Consequences

The last of the megaherbivores species, **elephants** will be the end of a 60-million-year old lineage of keystone species. A keystone species is one of its kind that has a large impact on the environment. This species helps is indispensable to maintaining the biodiversity of an ecosystem. The disappearance of this species from a particular area would mean hampering the ecosystem. At one point of time *homo sapiens* shared the planet with 42 other species of megafauna or megaherbivores weighing over a ton; now only two contemporary such species remain - the African and the Asian elephant.

Elephants are remarkably brilliant: Not only do they engineer and reshape forest lands but they also aid in the survival of other species like the Osage Orange tree¹, whose fruits are eaten only by elephants. They help by eating such fruits and dispersing their seeds wherever they trample the forest lands. Scientists have discovered that forest elephants in Africa end up dispersing around 345 seeds per day which belong to 96 different flora species. Due to illegal poaching of elephants, tree species like the Osage Orange tree have struggled to survive.

After the late Pleistocene extinction, more than 11,000 years ago, most megaherbivore fauna species became extinct. Megaherbivores help create a balance in the food web by aiding and facilitating hunting for predators by trampling through dense vegetation. Because of this trampling, smaller mammals are made more vulnerable and susceptible to predators.

The ivory trade has resulted in devastating Africa's elephant population—from 26 million elephants in 1800 to fewer than a half million today. A worldwide ban on ivory sales in 1989 led to a short-term rebound in the population. But in 1999 and 2008, due to pressure from countries in Asia and southern Africa, the Convention on International Trade in Endangered Species (CITES) allowed two sanctioned sales of ivory.

Asian Demand for Ivory (China)

The soaring demand for ivory from the Asian markets is the sole reason that could soon eradicate one of the largest creatures left on this planet. Around 20,000 elephants were killed for ivory in 2015; at this rate the Asian ivory markets will bring an end to this wild species in four or five decades. This is solely because Asian markets allow the selling of ivory: Unregulated domestic markets in China, Vietnam and Hong Kong are helping to fuel the demand for ivory. China has been the epicenter for ivory crafting and ivory markets for millennia. This domestic ivory market suffered a severe shock and collapse after the 1989 CITES ban prohibiting the international ivory trade. [CITES regulates both the international commercial and non-commercial movement of elephants (African & Asian), and targets their ivory and ivory products.]

In 2005, with the economic boom, the Chinese became the main buyers of carved and worked ivory. This increase in demand amongst the Chinese led to the rebirth of ivory demand and carving in China.

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Editors

Dr. Ashish Bharadwaj
Saptarshi Mandal
jgls-lpb@jgu.edu.in
www.jgu.edu.in
www.jgls.edu.in



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* JGLS ranked 1st among all private law schools in India by **Careers360 Magazine** (2014, 2015 & 2016)

* JGLS ranked 5th among all law schools in India in **Legally India's Graduate Recruitment Rankings** (2014)

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In 2008, the second CITES approved auction allowed China to buy 62 tons of ivory to cater to the ever increasing ivory demand in the world's most populous nation.

China has a licensed legal regime that sanctions ivory trade as long as the ivory is being traded within the country. The Chinese government has stocked piles of raw ivory for official and legalized supply.

The government annually supplies ivory to licensed factories that further provide carved ivory products to limited but licensed retail outlets. These outlets sell the worked and the finished product. The problem with the legalized ivory regime is that it is acting as a façade to cater to the parallel illegal ivory trade which is highly prevalent in China and is taking its toll on African and Asian elephants.

One of the most important factors fueling the ivory poaching and demand is the price hike of the commodity: The price for 2.5kg African elephant tusk smuggled into China in 2000 was USD 150/kg; fast forward to the year 2010 and that same tusk would cost USD 750/kg. The value of raw ivory in Beijing almost tripled in the four years up to 2014, reaching an average wholesale price of **USD 2,100** per kilo. By November 2015 this had dropped to USD 1,100, as revealed in a recent new study by *Save the Elephants*.¹ These soaring prices have been a major incentive for intermediaries in Africa as well as Asia for more poaching and smuggling ivory into the Chinese domestic market. This price hike has cost many thousands of elephants their lives: In each of the last six years over 25,000 elephants have been illegally poached for their ivory.² From 1990 to 2013, approximately 21% of the world's total recorded ivory seizures by the Elephant Trade Information System (ETIS), listed China as the world's largest importer of illegal tusks and ivory.³

The cities of Beijing and Shanghai represent the main centers for ivory trade in China: Beijing has more registered ivory factories and ivory retail outlets, 156, than any other city in China. Shanghai is almost as busy and as large an ivory center as Beijing with as many retail outlets. Relying on a survey report, Beijing has three times more illegal retail outlets than legal ones. Shanghai had eight times more illegal outlets than legal ones.

Discrepancies and Loopholes Fueling Illegal Ivory Market

Out of Beijing's 156 outlets, only 45 are licensed. The rest are all illegal retail stores selling illegally procured ivory products. The issue arises when it comes to distinguishing mammoth ivory with elephant ivory. Since mammoths are an extinct species of megaherbivores, it makes the trading of mammoth ivory legal. Mammoth ivory and elephant ivory can only be distinguished by an expert; retail outlet owners are using this discrepancy to sell illegally obtained ivory under the façade of mammoth ivory. Grade A mammoth ivory is called 'ice'; this mammoth ivory when carved into smaller trinkets of ivory makes it virtually identical to elephant ivory. When polished, painted or wrapped in plastic to protect the ivory from drying out, no person can make out the difference. By keeping both ivory products on the same shelf, it is easy to sell elephant ivory as mammoth ivory. Since only experts can distinguish mammoth and elephant ivories, the checking and inspection process is undermined.

With this ever-increasing demand for ivory products in China, the number of outlets procuring and selling illegal ivory is also ever increasing. This makes it difficult for the inspection and monitoring authorities to investigate the matter, considering the limited resources and workforce of the relevant authorities. The lack of transparency about the government-held ivory stock, from the information on raw ivory prices and the quantities being sold to factories, to the information on mammoth ivory makes it difficult to monitor and regulate the trade. Another drawback prevalent in China is the absence of an effective mammoth and elephant ivory business association, to help regulate and to get the ivory dealers and carvers in connection with each other so they can jointly work out and keep illegal traders out of the market. This sort of collaborative association has been prevalent and effective in Japan¹¹. Until and unless a cost effective and a simpler method is devised to distinguish elephant from mammoth ivory, the domestic ivory markets will continue to be a haven for illicit ivory products.

Recent Ivory Update: In December 2016, China announced that it would completely terminate its domestic ivory trade by the end of 2017. This news would close the world's largest market for elephant ivory, and help preserve the world's remaining 400,000 elephants.

Hong Kong Ivory Scenario

No fresh stocks of raw ivory have been legally allowed to be imported into Hong Kong after the 1989 CITES ban on ivory trade, which took effect in 1990. But there are a few exceptions to this rule, including ivory for research and scientific purposes, ivories to be displayed in museums or for educational & training purposes. Pre-1990 registered ivory stock is the only legal ivory available for retail and selling purposes. Ivory possession and sale is overseen and regulated by Hong Kong local legislation which is the Protection of Endangered Species of Animals and Plants Ordinance, Cap. 586. This local legislation empowers and gives effect to CITES in Hong Kong. This Ordinance declares that the possession of ivory for commercial purposes merely requires a license to possess ivory for trading and commercial purposes for each outlet, which is issued by Hong Kong's Agriculture, Fisheries and Conservation Department (AFCD).

Hong Kong is a gateway to China and located at the heart of Asia geographically. Massive amounts of illicit poached ivory removed from recently poached and butchered elephants in Africa are transported through Hong Kong's ports. Around 33 tons of unlawful ivory was seized in Hong Kong between 2000 and 2013.⁴ Nearly 8 tons of ivory was seized and intercepted during the year 2013, worth approximately 80 million Hong Kong dollars. Hong Kong is the only Asian city with the world's biggest ivory retail domestic market. A 2014-2015 review established that 72 retail shops in Hong Kong carried 30,856 elephant ivory products. The quantity of ivory products available to be purchased was much more than any other studied city in the world, including Bangkok, Shanghai, and Beijing.⁵ After the global ban of 1989/90 by CITES outlawing global trading in ivory products, a listing came out by CITES which made the possession of ivory prior to 1990 legal for trading and selling purposes. The government of Hong Kong has been regulating the trade from the remaining legal stockpile with the aid of a licensing regime. The issue here is that with the growing demand for ivory the legal stockpile also keeps growing with some illegal ivory additions.

Fundamental Loopholes and Lapses

We aim to uncover the irregularities and fundamental lapses in the regulatory mechanisms of the aforementioned Asian countries that are fueling the poaching crisis in Africa. From the year 2000 to 2013, an estimated 33 tons of illegal ivory were seized in Hong Kong, making it the 5th country in rankings in terms of quantity of illegal ivory confiscated. Handling over 20 million TEUs (twenty-foot equivalent units) yearly, it is next to impossible to inspect all of the incoming cargo and thereby detect illegal wildlife shipments to confiscate at the Hong Kong port.¹⁴ Therefore, one can easily infer from the above facts that huge quantities of illegal ivory are still entering the city of Hong Kong undetected and find their way to the local retailers and traders in the city.

Relying on a study⁵ of the number of ivory items on display in a city, Hong Kong came out on the top with more than 30,000 ivory products on display. Bangkok was the second country with less than half the numbers when compared to Hong Kong. The surprising part is that ivory traders in Hong Kong claim these ivory products to be legal as they are derived from a stockpile which was supposedly imported before 1990. Now according to the AFCD, the current size of the 'legal' stockpile stands at 111.3 tons of ivory and these numbers haven't declined in the past 4 years.

This makes us question whether the legal ivory is being used as a façade for pushing illegal ivory in the market. There does exist a licensing regime in Hong Kong for registering the commercial stock of legal ivory acquired prior to 1990. Hong Kong has no stringent requirements. The only requirement that there be in place the serial number marking of the tusks. Radio-carbon dating technology can easily tell the age of an ivory piece. The Hong Kong government can easily use this technology in a laboratory to determine whether an ivory piece belongs to pre-1990 stock.

However, Hong Kong doesn't have the requisite resources or even a local laboratory to conduct this radiocarbon test. The ivory traders exploit this lack of oversight from the government and are running their businesses with the illegal ivory stockpile. Also, the government relies on the stockpile reports filed by the traders themselves. This, combined with the lack of ivory age verification, has enabled illegal ivory laundering by the traders.

With the fate of the last megaherbivores hanging in the balance, there is a lot that needs to be done to make the species survive during this century. The loopholes in the licensing system need to be shut. This can be done by closely monitoring the legal ivory stockpile in Hong Kong using serial numbers. Frequent random checks should take place, creating a system of reporting and tracking transactions for each ivory piece. The ivory trade policing ought to be strengthened by providing more resources to enforcement personnel at the customs and the AFCD which would aid in monitoring domestic ivory markets. The ivory trade for the legal stockpile needs to be transparent, and ivory dealers need to publicly display their licenses indicating the amount of ivory in their possession. Recent ivory update : Hong Kong officials have pledged to gradually eliminate the ivory trade in Hong Kong, with a full phase-out by 12/31/2021.

Indian Pachyderm Scenario

The Asian elephant (*Elephas maximus*), was once distributed throughout India. Now they are found in fragmented spots around the country, due to mainly to habitat loss. The Asian elephant's

habitat ranges from wet tropical evergreen forests to semi-arid thorn and scrub forests. However, highest densities of the elephant population are found in tropical deciduous forests. Elephants are 'mega-herbivores' that require vast tracts of forests, rich in food and water to survive.

Indian elephants have lost habitat to economic growth and development. Rampant construction has encroached on elephant habitat, resulting in the fragmentation of the herds and the habitat. The human-elephant conflict is also another reason for the declining population of the Asian elephant in India. When elephants lose their habitat, they resort to taking detours, trampling and raiding plantations and villages, resulting in subsequent retaliation from the villagers and locals.

Poaching continues to be a dominant threat to the elephants in India, even when habitat loss isn't threatening the species. The poaching crisis has led to a highly deteriorated and unbalanced male-female sex ratio. The fundamental reason is that only male elephants have tusks making them prone to poaching and leaving the prospects of population restoration in jeopardy. The ban on ivory trade has existed since 1989, although we have shown that there are unmonitored and thriving black markets in a number of Asian countries that are fueling the illegal ivory trade internationally. The conservation issues being faced by the elephants in India is that elephant reserves aren't adequately protected and monitored by the government.

The viability of the elephant population has come under threat due to the targeted elimination of male elephants, disrupting the sex ratio. Another reason for elephant mortalities in India is railway accidents in West Bengal, Assam and Uttaranchal. Some 50 elephants have been killed in railway accidents between 1988 and 2005.

CITES and its Underlying Flaws

CITES (the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora), is an international agreement on trade pertaining, *inter alia*, to wildlife and their body parts. The main aim of this convention is to ensure the survival of endangered species by regulating and restricting trade in such species and parts. The states that are parties to the convention have to adhere to it voluntarily. To implement the convention at a national level the framework provided by the convention has to be adopted and respected by each party member.

CITES seeks to counter the illegal trade in wildlife and species loss by restricting the trade to exceptional circumstances only. The endangered species are listed in Appendix I⁷ and under exceptional circumstances an import and export permit is granted from the designated scientific authorities and is only permissible for a non-commercial use only. There are a lot of weaknesses in the convention which can be exploited to its detriment. The convention doesn't specifically prescribe sanctions for enforcement and makes the enforcement by parties highly subjective by using the word 'appropriate'⁸ when it comes to sanctions.

*Also, there is much guess work in determining whether a population of a species has reached a critical level of endangerment. An extremely high burden of proof has been placed on the proponents of listing an endangered species, and such listing require a two-thirds majority at the biennial conference of the parties.

The process of listing has been made more time consuming by the Berne criteria, which were adopted at the first CITES conference. These criteria emphasize statistical data as evidence of a species population, its numerical decline, and its geographical distribution when determining whether there is a threat of extinction. The requirement of a two-thirds majority along with the Berne criteria has delayed the process of listing an endangered species rather than expediting the process. The mere proposal of listing a species encourages consumers to obtain a specimen before the species become extinct. It will likely lead to a substantial increase in the price of the specimen, since listing makes the species' specimen rarer and lucrative. This, in turn, incentivizes the trade in such listed species, increases the trade volumes and increases the poaching activities. An example would be the case of African elephants: at least 30,000 African elephants' species have been poached annually since they've been listed in appendix 1.

CITES allows a 90-day period before the decision to list a species can take effect.⁹ This period becomes problematic: the listing of a specific species has been declared but the listing doesn't take effect for 90 days, which acts a free for all period before the actual trade restrictions come into force. The justification for the 90-day period was that with prior intimation, traders are given an advance warning to dispose of their stockpiles. CITES member-states seem occupied with conserving the economic interests of the traders rather than conserving and protecting the endangered species per se.

Another loophole prevalent in the treaty is the exemption of specimens in transit from the inspection provisions of the treaty.¹⁰ This helps in preventing inspections and checks of specimens crossing a border, thus aiding traffickers and smugglers. Re-inspection of wildlife products can act as better enforcement tactic; states like the Netherlands have such re-inspection laws in place.

This re-inspection law acts as a measure of double checking the illicit trade in wildlife specimens, and also publicizes the member states that are avoiding such enforcement obligations.

According to Article VII (2), pre-convention specimens have been exempted from the treaty's control. This exemption has proven to be the biggest loophole as it has allowed traders to trade the pre-convention specimen at a premium price and also to pass off post-convention specimens as pre-convention stocks. Getting rid of this exemption would help enforcement as it would then be appropriate to enquire when a specimen had been acquired by the trader. The definition of the term 'pre-convention' is also a subjective matter left to the states to define according to their national laws, rather than opting for a uniform definition in the convention.

There is a need for a more rational selection process to list the most endangered species. 'Keystone' endangered species should be prioritized, e.g. elephants and sea otters. Both play an important role in preserving ecosystems.

Another article of the treaty which has significantly led to the development of another loophole is article x that allows for trade to take place between parties to the treaty and non-parties. The only requirement for this is to issue a 'comparable documentation' that 'substantially conforms' with the provisions of the convention. The vagueness of the text allows for illegal specimens to be legalized by procuring documentation from a non-party; this procurement allows for legal export of the illegal specimens.

CITES also permits the member parties to use 'reservations' against the listing of a species. By making a reservation, international attention is focused on the particular species, encouraging the demand and making enforcement more difficult.

By common agreement, the European Union has withdrawn all reservations from its 28 member states. There are numerous examples of these reservations being made for political or local economic reasons. For example, Japan's reservation of the hawksbill sea turtle was made because of the adverse effect the reservation was poised to have on the local economy of Nagasaki. Another notable example is the British reservation entered on behalf of Hong Kong on the listing of the African elephant. This reservation was intended to allow Hong Kong to get rid of its ivory stocks. The CITES provisions pertaining to reservations should be eliminated.

The world we live in today has changed drastically compared to the early 1970s when the drafting of CITES took place. That was a time when states were able to assert and impose their sovereign right over wildlife and natural resources. That time is gone and the ivory trade has become robust. Elephants are killed for their tusks, often with impunity, and ivory is traded with similar impunity. Only concerted international action can halt or reverse these trends. Otherwise, the elephants of Africa and Asia will be lost forever. ■

¹ <http://savetheelephants.org/about-ste/press-media/?detail=iucn-releases-latest-update-on-the-status-of-africa-s-elephants> (9-26-2016).

² UNEP, CITES, IUCN, TRAFFIC. 2013. Elephants in the dust: The African elephant crisis. A rapid response assessment. United Nations Environment Programme. Arendal, Norway.

³ Milliken T. 2013. Progress in implementing the Elephant Trade Information System (ETIS). *Pachyderm* 54:85–90.

⁴ TRAFFIC. 2014. Ivory trade hot spot Hong Kong plans huge ivory stockpile burn. 14 May 2014. URL <http://www.traffic.org/home/2014/5/14/ivory-trade-hot-spot-hong-kong-plans-huge-ivory-stockpile-bu.html>

⁵ Martin, E., Vigne, L., 2015. Hong Kong's Ivory: More Items for Sale Than in Any Other City In The World. Save The Elephants. URL <http://savetheelephants.org/press-releases/hong-kongs-ivory-more-items-for-sale-than-in-any-other-city-in-the-world/>

⁶ Martin, E., Vigne, L., 2015. Hong Kong's Ivory: More Items for Sale Than in Any Other City In The World. Save The Elephants. URL <http://savetheelephants.org/press-releases/hong-kongs-ivory-more-items-for-sale-than-in-any-other-city-in-the-world/>

⁷ Art. II (1)

⁸ Art. VIII (1)

⁹ Art. XV(1)(c).

¹⁰ Art. VII (1).

About the Authors

Armin Rosencranz A.B. (Princeton University); J.D., M.A. and Ph.D. (Stanford University) is a professor of law at Jindal Global Law School and the co-author of *ENVIRONMENTAL LAW AND POLICY IN INDIA* (third edition forthcoming).

Dhiren Sehgal graduated from Jindal Global Law School in 2016 and has a special interest in environmental law and concerns. He currently works as a junior lawyer in the Punjab & Haryana High Court and CESTAT.

Editors and Conveners of the Law and Policy Research Group

Dr. Ashish Bharadwaj, Assistant Professor, Jindal Global Law School Ph.D. (Max Planck Institute, Munich), LL.M. (Rotterdam, Hamburg, Manchester), M.Sc. (Chennai), B.A. Hons. (Delhi)

Saptarshi Mandal, Assistant Professor, Jindal Global Law School LL.M. (Central European University, Budapest), B.A. LL.B. Hons. (National University of Juridical Sciences, Kolkata)