

# Study on The Decline In The Global Wildlife Population

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**ABSTRACT:** The international illegal trade in wildlife is currently experiencing the impact of a number of policy innovations. While it is probably still too early to say, tightening national and international controls appear to be showing positive results with regard to some of the best known illegal wildlife markets

**KEYWORDS:** Global wildlife, national and international controls.

## I. INTRODUCTION:

In May 2016, UNODC published its first World Wildlife Crime Report. This report was based on a global wildlife seizure database called “World WISE”, which included some 164,000 seizures from 120 countries. The Report looked in detail at eight highly significant illicit wildlife markets:[2]

- Rosewood logs used in furnishing
- African elephant ivory used in art, décor, and jewellery
- Reptile skins used in fashion items
- Agar wood used in perfumery and incense
- Pangolin and rhino horn used in medicine and tonics
- Parrots used in the pet trade
- Sturgeon caviar used as seafood

Since this time, there have been some developments in illicit wildlife markets highlighted in the report. These developments include both changes in

Previously. The difference, the IUCN concludes, is largely due to poaching (IUCN, 2016).

In addition to live elephants, The Great Elephant Census also counted carcasses visible from the air. Under savannah conditions, most elephants decompose relatively quickly, and the ratio

international and national policy, and trends within the markets themselves. In terms of international policy, a number of key decisions were agreed at CITES CoP17 (Johannesburg, 2016).

While it was not possible to update the World WISE database in time for the publication of this Research Brief, open source data reflect many of the market changes. This Research Brief provides an overview of these trends in four case study markets: African elephant ivory, African rhino horn, rosewood, and pangolins.

## II. LITERATURE REVIEW:

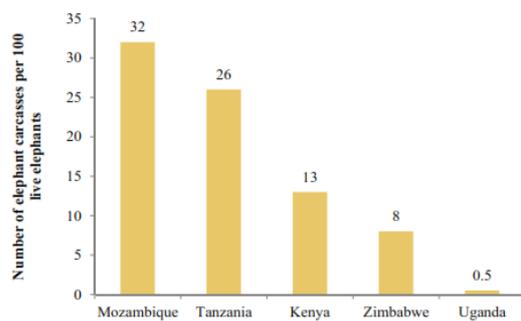
It is still rather early to determine whether the recent shift in international policy will result in less poaching. Based on the available indicators, it appears that the current wave of poaching of African elephants for ivory, which began around 2007 and saw its peak in 2011, has declined since then, though remaining above sustainable levels.[6]

The size and distribution of the African elephant population was reappraised by the International Union for the Conservation of Nature (IUCN) in the African Elephant Status Report 2016 [5]. This assessment benefitted from a recent continent-wide aerial survey of savanna elephant populations.[7]

Comparing these and other surveys to data from 2007, the IUCN concluded that the elephant population in the areas surveyed was 118,000 less than it had been a decade

counted is an indicator of recent poaching intensity. In Mozambique, for example, 32 dead elephants were counted for every 100 live elephants viewed, while in Uganda, only one carcass was seen for every 200 elephants counted.

Number of savanna elephant carcasses observed per 100 live savanna e observed in 2014 flyovers by country



The devastating loss of elephants in Eastern Africa, particularly in Tanzania but also in Mozambique, was already evident at the time of the 2016 Report, but has been confirmed by the Census and subsequent surveys. In Tanzania, the Selous and Ruaha reserves were particularly hard hit. According to the IUCN, Tanzania has lost over 60% of its elephants in the last decade, and the estimates from surveyed areas in Mozambique show a loss of about half of the comparable current population estimate, with losses particularly intense in the north (Thouless et al, 2016).

Based on World WISE data, officially provided by all Member States, China was the largest national destination of detected illegal ivory shipments between 2006 and 2015. The weight of smuggled ivory seized by Chinese customs has declined annually since 2012, down by 82% from 2012 to 2015. The number of cases involved is declining “in step.”<sup>14</sup>

Taken together, the decline in PIKE scores and the decline in ivory seizure incidents suggest good news for the African elephant. It is possible this is due to the greater restrictions in the main destination markets. As discussed above, it may be that the loss of legitimate retail markets has deeply undermined the speculative value of ivory as a value store. Continued monitoring of both source and destination indicators will be important in evaluating the impact of this major policy change. It was held in South Africa; home to some 79% of the world's remaining rhinos, at least one quarter of which are privately owned (Emslie et al, 2016). The rhino horn trade was prominent on the agenda. A late proposal by the government of Swaziland to permit the sale

The importance of southern Tanzania/northern Mozambique to the illegal ivory market has been repeatedly demonstrated in DNA analysis of seized tusks (Wasser et al, 2015).[1]

It has been estimated that between 2010 and 2012, an average of about 33,630 African elephants were poached each year (Wittemyer et al, 2014). Long term poaching trends are analysed by the CITES Monitoring the Illegal Killing of Elephants (MIKE) programme, which recently found “a steady increase in levels of illegal killing of elephants starting in 2006, peaking in 2011, and levelling off and slightly declining thereafter” (CITES, 2017).[8] The share of detected dead elephants that had been poached declined in 2016 to its lowest level since 2009. More than half the elephant carcasses detected in sentinel monitoring sites were illegally killed, however, and experts believe this signifies offtake in excess of sustainable levels.[9]

of a limited amount of rhino horn was soundly defeated. In April 2017, the South African Constitutional Court denied leave to appeal to the Minister of Environmental Affairs concerning the national moratorium on rhino horn trade. This, in effect, opened the door to domestic trade in horn, despite the fact that the primary markets for this product are overseas.

The rhino trafficking situation in two countries – Viet Nam and Mozambique – has long been under special scrutiny, and at CoP17, the CITES Secretariat was directed to conduct missions to Viet Nam and Mozambique to evaluate law enforcement in both countries. The progress of Vietnam and Mozambique in addressing the illegal trade will be evaluated at the 69th meeting of the CITES Standing Committee (SC69, Geneva, November 2017).

### III. INTERNATIONAL AND NATIONAL POLICY AND LAW

The change in international policy toward legal domestic ivory markets, A recommendation was made to close legal domestic markets that might contribute to poaching or illegal trade.[2] This decision was, however, a universalisation of a movement already underway in some of the most important destination states.

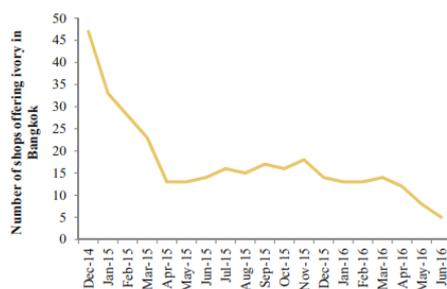
In December of 2015, the two countries generally deemed to host some of the largest markets for ivory globally – the United States and China – publically committed to effectively closing their legal domestic markets in the future.[3]

Since the publication of the World Wildlife Crime Report, this promise has been enacted in law in both countries. On 6 June 2016, the relevant rules under the United States Endangered Species Act were revised, prohibiting import, export, and interstate trade of African elephant ivory with very limited exceptions.[4]

On 30 December 2016, the Chinese government announced its decision to orderly stop the commercial processing and sale of ivory and its products by the end of 2017.[5]

In addition, Thailand has taken stringent measures to prevent trade of African elephant ivory. Thailand initiated a series of reforms at the beginning of 2015, including the listing of African elephants on the national protected species list and mandatory countrywide registration of privately owned ivory objects.

Number of shops selling ivory in Bangkok, December 2014-June 2016



In response, some 40,000 people registered over 200 metric tons of ivory with the national authorities, underscoring the importance of this market. While not a ban on domestic sales, these measures appear to have dramatically reduced retailing of ivory in Thailand (Krishnasamy, Milliken and Savini, 2016).

#### IV. FOOD AND ENERGY DEMAND DRIVES 58 PERCENT DECLINE IN GLOBAL WILDLIFE POPULATIONS

Global populations of vertebrates -- mammals, birds, reptiles, amphibians, and fish -- have declined by 58 percent between 1970 and 2012, states a new report from World Wildlife Fund (WWF). Animals living in the world’s lakes, rivers, and freshwater systems have experienced the most dramatic population declines, at 81 percent. Because of human activity, the report states that without immediate intervention global wildlife populations could drop two-thirds by 2020.

"This research delivers a wake-up call that for decades we've treated our planet as if it's disposable," said Carter Roberts, WWF president and CEO. "We created this problem. The good news is that we can fix it. It requires updating our approach to food, energy, transportation, and how we live our lives. We share the same planet. We rely on it for our survival. So we are all responsible for its protection."

The top threat to wildlife is habitat loss and degradation, driven primarily by increasing demand for food and energy. According to the report, global food production is the leading cause for destruction of habitats and overexploitation of wildlife. Agriculture currently occupies approximately one-third of Earth’s total land area and accounts for 70 percent of all freshwater use.

Wild animals are not the only ones at risk; the report states that increased pressure threatens the natural resources that all life -- including humanity -- depend on.

The report demonstrates the need to rethink how we produce, consume, measure success and value the natural environment, and calls for an urgent system change by individuals, businesses and governments. The report also

illustrates the positive momentum that is building by highlighting recent global agreements on climate change and sustainable development. In particular, the report recognizes the 2030 Agenda for Sustainable Development as an essential guide to decision-making that can ensure that the environment is valued alongside economic and social interests.

“A strong natural environment is the key to defeating poverty, improving health and developing a just and prosperous future,” said Marco Lambertini, WWF director general. “We have proven that we know what it takes to build a resilient planet for future generations, we just need to act on that knowledge.”

Global populations of fish, birds, mammals, amphibians and reptiles have already declined by 58 per cent on average since 1970. This is an average annual decline of two per cent, with no sign yet that this rate will decrease. Populations that have been impacted by human activity include those of African elephants in Tanzania, maned wolves in Brazil, hellbender salamanders in the USA, leatherback turtles in the tropical Atlantic, orcas in European waters and European eels in UK Rivers.

The Living Planet Report 2016 is the world’s most comprehensive survey to date of the health of our planet. It highlights how human activities including deforestation, pollution, overfishing and the illegal wildlife trade, coupled with climate change, are pushing species populations to the edge as people overpower the planet for the first time in Earth’s history. However, widespread ratification of the Paris agreement on climate change, new restrictions on the international trade in threatened species including pangolins and African grey parrots, and conservation measures that are leading to increases in global tiger and panda populations indicate that solutions are possible.

“For the first time since the demise of the dinosaurs 65 million years ago, we face a global mass extinction of wildlife. We ignore the decline of other species at our peril – for they are the barometer that reveals our impact on the world that sustains us. Humanity’s misuse of natural resources is threatening habitats, pushing irreplaceable species to the brink and threatening the stability of our climate.

“We know how to stop this. It requires governments, businesses and citizens to rethink how we produce, consume, measure success and value the natural environment. In the UK, this demands a serious plan to strengthen protection for habitats and species and new measures to fast track low-carbon growth. Britain, like all developed nations, must take increasing responsibility for its global footprint. December’s conference on the UN Convention on Biological Diversity would be a good place for the UK government to signal that it’s serious about helping tackle the global loss of species.”

Marco Lambertini, Director General of WWF International said:

“Across land, freshwater and the oceans, human activities are forcing species populations and natural systems to the edge. We have the tools to fix this problem and we need to start using them if we are serious about our own survival and prosperity.”

Professor Ken Norris, Director of Science at ZSL said:

“Human behaviour continues to drive the decline of wildlife populations globally, with particular impact on freshwater habitats. Importantly, however, these are declines – they are not yet extinctions – and this should be a wake-up call to marshal efforts to promote the recovery of these populations.”

Food production to meet the needs of an expanding human population is a key driver of the overfishing, hunting and destruction of habitats that is causing biodiversity loss. The Living Planet Report details the enormous strain agriculture places on freshwater systems, accounting for 70 per cent of water use and a substantial loss of wetlands. While large food industry interests have demonstrated they can feed the world, the report makes clear that the challenge now is to do so sustainably.

This year, international scientists recommended that humanity’s impact on

the Earth is now so profound that a new geological epoch – the Anthropocene – needs to be declared. And in the UK, the RSPB's State of Nature 2016 report shows that over the last 50 years, 56 per cent of native species have declined.

## V. CONCLUSION

While these measures make it considerably more difficult to legally purchase ivory in large consumer states, their impact on elephant poaching will depend on several factors: Not all elephant poaching in Africa is motivated by the desire to acquire ivory for these markets. As forthcoming papers illustrate, elephant poachers have many motivations, including high local demand for elephant as a meat, and traditions of elephant hunting that pre-date present ivory demand (Leggett and Silguero, forthcoming). Laundering of illegal acquired ivory through licit markets has been documented, but the size of the legal markets appears to be small relative to estimated illegal ivory production, which is likely in the hundreds of tons. It appears that most illegally imported ivory is also retailed in illegal markets. If the speculative value of illicit ivory is dependent on the existence of a legal retail market, then the closure of this market could cause prices to crash.[3]

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