

"When the Buying Stops, The Killing Can Too!"

24 May 2017

WildAid submission to Hong Kong's Legislative Council Panel on Environmental Affairs on the government's legislative proposal to phase out the local trade in ivory

a) Why the Hong Kong Ivory Trade Should Not Receive Government Compensation
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a) Why the Hong Kong Ivory Traders Should Not Receive Government Compensation

At WildAid, we are outraged by the demand from some Hong Kong ivory traders to seek compensation, given their role in decimating elephant populations in the first place

Twenty-seven years ago, the world called time on the international trade in elephant ivory, after it had halved African elephant populations within 15 years. Now the Hong Kong government is finally closing the remaining loopholes that allow domestic trade to continue and have facilitated an ivory crisis that has recently been claiming up to 30,000 elephants a year.

It is amazing that some Hong Kong ivory traders are calling for compensation for not being able to continue to sell ivory. This would be totally wrong, if not immoral, given the pivotal role of these traders in stockpiling and bending the rules to create the ivory poaching crisis in the first place. It would be like compensating a car thief for knowingly selling a stolen car, because the law had caught up with them.

Instead of rewarding those who invested and speculated in extinction and whose abuse of regulations halved elephant populations, surely it is the families of the many rangers killed by poachers, or the child victims of civil wars financed by ivory – or the African nations that have lost millions in tourism revenue and spent millions fighting poaching – who should be compensated by the traders whose activities caused the problem? They won't be, of course, and that's why its morally offensive that the perpetrators of the elephant slaughter should even suggest that they be compensated.

All kinds of industries fall into disfavour and become obsolete for moral, legal and economic reasons

and almost none, if any, are compensated. Why should the Hong Kong ivory traders, who have had 27 years' notice to sell down their stocks get special treatment? When foot binding was banned, did we compensate foot binders? Were slave owners compensated when that abominable practice was abolished? If flat owners in Hong Kong buy property at the top of the market and the market falls, does the government compensate them? Of course not.

Since the inception of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), elephant ivory has been subject to some level of control. Thus, restricting the trade in ivory is not a new, unprecedented development. Traders in Hong Kong have had 27 years to sell off their stock. And now the Hong Kong government is proposing to add on a very reasonable, though some would say over-generous, five more years to sell those stocks. That make 32 years – possibly the longest "going-out-of-business" sale in the history of the planet.

The fact that the Hong Kong ivory traders reported (but unchecked) stocks stopped declining just when demand for ivory was peaking indicates they were topping them up with fresh ivory from poached elephants, knowing that the authorities were not yet alert to their actions. Indeed, they have been selling most of their stock to mainland Chinese, in full knowledge that it will be smuggled across the border. Recent reports from WildAid, WWF and TRAFFIC have all documented that it is not uncommon for them to offer tips to tourists on how to do this.

Much of the so-called "legal" ivory, of which 670 tonnes was stockpiled in Hong Kong prior to the 1989 ban, was in fact from poached elephants. Between 1979 and 1989, half of Africa's elephants "mysteriously disappeared" into the ivory trade, the global hub of which was right here in Hong Kong. This represents in excess of 600,000 elephants, or 1.2 million tusks. So the chances are that much, if not most, of the existing stockpile in Hong Kong was from poached elephants in the first place. Should we be compensating the traders who laundered this ivory?

Traders can still sell their stocks for the time being. Even by today's standards, they paid a lot less for them before 1990 than they are charging today and they are welcome to retain their ivory after the ban – they just won't be able to sell it. The traders made a bad business decision to build up their stocks at a time when ivory prices were high, and hoped that this was a good investment. It was not a wise strategy, and they should certainly not be compensated with taxpayers' money for having taken this business risk. To re-iterate, because the Hong Kong government's proposed plan does not infringe on the traders' "*right to compensation for lawful deprivation of...property*", as protected by Article 105 of the Basic Law, the traders will still be able to hold on to their stocks, or even give them away. They just won't be able to sell them.

Giving compensation sends the wrong message to society if it is given to an industry where it is confirmed that links to illegality exist. This includes the poaching crisis in Africa, smuggling via criminal gangs, laundering, and illegal selling in Asia. No other countries, including the world's largest ivory markets US and China, are providing compensation packages as part of their ivory ban. Were Hong Kong to give compensation, this would compromise its reputation as a world leader in conservation by closing its market which has the most items on sale than anywhere in the world.

Let's consign the bloody ivory trade to the rubbish bin of history where it truly belongs. Please support the Hong Kong government's plan to ban the ivory trade.

b) Hong Kong Ivory Trader arguments / NGO counter-arguments

On Testing the True 'Age' of Ivory

TRADERS SAY: "The government could set up a department or team to examine whether ivory products were pre 1976 and to determine whether products were made of 'new' or 'old' ivory. The Hong Kong Art Craft Merchants Association has over 40 years of ivory appraisal experience, the Association would be willing to provide such service to the government in order to eliminate dishonest traders who mix new ivory with old stock."

WE SAY: "The only way that the age of ivory can be reliably tested is by the use of radiocarbon analysis. According to Professor Sam Wasser of the University of Washington in the United States, setting up a dedicated laboratory in Hong Kong would cost around US\$5million. Annual operational costs would then be US\$1.5million a year thereafter. Is the industry offering to pay for this? Having samples tested outside of Hong Kong would cost, for ten or more samples, US\$500 per sample. For fewer than ten samples it would cost US\$750 per sample. For small items, such as a pair of chopsticks, bangles or earrings, this is more than the value of the item itself."

On Extending the Grace Period to Sell Ivory

TRADERS SAY: "If the above would not be considered or accepted, we suggest the government to extend the grace period from five to ten years which will allow ample time for the industry to handle the existing stock."

WE SAY: "The industry has already had a 27-year "grace period" to sell off its stocks. During that period, large amounts of illegal ivory have entered Hong Kong and it has been proved beyond doubt that traders have used the domestic trade as a cover for selling ivory from recently poached elephants. Why should the elephants of Africa and Asia wait any longer for the traders to make even more money?"

On Proving the Legality of Ivory Stocks

TRADERS SAY: *"The AFCD should explain to the Hong Kong public that our legal ivory stocks and raw materials are protected by laws and they are allowed to be traded."*

WE SAY: "It is up to the traders to prove that their stocks are "legal"."

On Post-1990 Pre-Convention Ivory Imports

TRADERS SAY: "The government to investigate why the AFCD officials violated the ban established by the colonial government by allowing pre-convention ivory enter into Hong Kong or re-export for profits. Legal actions must be taken."

WE SAY: "The colonial government's import ban came into effect in July 1990. It covers the importation of all ivory, except so-called "pre-Convention" ivory. Neither the colonial nor the current Hong Kong government has "violated" the ban. It is the traders who have violated it by importing ivory illegally."

On Poaching and Elephant Natural Mortality

TRADERS SAY: "Poaching is not the main reason for the decline in elephant population. Environmental groups have been conveying a negative message, they only misled the Hong Kong public to believe that "stop buying ivory can protect elephants". The public did not understand that African elephants die of natural causes too, this is supported by a African website which says about 165 tonnes of ivory came from 11,000 elephants that died from natural causes. As we all know, in the past 20 years, African countries have been rapidly developing, a lot of forests and land were developed, human population increased, all of which escalate the conflicts between humans and African elephants, for example, people killed elephants in order to protect their crops when elephants accidentally entered their farms."

WE SAY: "The traders may not have any respect for the data provided by environmental organisations but the CITES Secretariat, International Union for the Conservation of Nature and a number of other highly-respected independent scientists have all written extensively about the dire threat to elephants caused by intense poaching pressure. Respected scientists have estimated that 100,000 elephants were poached between 2010 and 2012 and that Central Africa has lost 64% of its elephants in a decade¹. The natural mortality rate for African elephants is estimated to be between 1% and 5% per annum. Do the traders believe that eminent academics from prestigious universities are also "misleading" the Hong Kong public?"

TRADERS SAY: "According to a WWF report in 2016, there were 470,000 elephants in Africa and the birth rate is 4.5 (approx. 20,000 elephants). Despite whether 30,000 elephants are killed every year is true, we can foresee African elephants will not disappear. Hence, the reasons for Hong Kong to urgently ban the local ivory trade are inadequate."

WE SAY: "This statement should not be dignified with a response. The fact that the traders are arguing that trade should continue even if 30,000 elephants are killed every year shows their utter disregard for the natural resources of other countries in Asia and Africa. The trade is clearly **unsustainable**."

On Hong Kong's "Legal" Ivory Stockpile

TRADERS SAY: "When the international ban took place in 1990, there were 660 tonnes of AFCD's licensed raw materials and ivory products. Hong Kong ivory traders have been selling the stock in the past 26 years since the ban, the stock has reduced to 77 tonnes, because there is inefficient raw materials, a lot of ivory traders and industry professionals turned to other industries."

WE SAY: "The slow rate of depletion of the trader's total ivory stockpile has been due to the routine laundering of ivory tusks from recently killed elephants into their stockpile since 1990."

On Government Acquisition of Ivory Stocks, Illegality

TRADERS SAY: "The industry does not disagree with the government's policy on elephant

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G. Wittemeyer et al. 2014. Illegal killing for ivory drives global decline in African elephants <u>http://www.pnas.org/content/111/36/13117.full.pdf</u>

conservation, even that includes a trade ban, we only hope the government can understand our situation where the ivory stock owned by 386 licensees are legal pre-convention ivory, our personal asset and net worth. For the sake of fighting elephant poaching, the government is making our legal stock into illegal and turning local licensed ivory traders into scapegoats. We strongly urge the government to fully acquire all the ivory stock (including raw materials and products), the reason is that each of them is a personal asset and they were obtained with blood and sweat."

WE SAY: "Estimates by many law enforcement experts relating to the scale of the global illegal wildlife trade suggest that most governments only intercept approximately 10% of all illegal wildlife trade shipments entering their jurisdictions. Since 2003, Hong Kong has intercepted around 40 tonnes of illegal ivory, which would mean that around a massive 360 tonnes of ivory has entered the the Hong Kong SAR illegally."

On Telling Legal and Illegal Ivory Apart

TRADERS SAY: "Elephant protection should start from source, meaning to stop people from getting elephants' tusks by killing the animals, instead of stopping people from getting elephants' tusks harvested from natural deaths or after they have fallen out naturally. It is easy to tell whether a tusk was obtained from killing the animal or not - dried flesh will be attached to the bottom of a tusk; whereas if the bottom of a tusk is clean and thin, it means it was obtained from a natural source (not killing) which I believe conservationists are able to identify. Therefore, we suggest to insert chips into tusks shall be donated and used for elephant conservation. Another solution is to sedate the elephants then insert chips into their tusks in order to fight the illegal or inhumane poaching. We believe these are the ultimate solutions to the problem."

WE SAY: "Since the mid-1980s CITES has attempted on numerous occasions to find a "foolproof" method of separating legal from illegal ivory. Not one method has worked. The reason for this is that traders have always managed to find a way of circumventing the system so that they can sell their illegal ivory. In the late 1980s it was possible to buy a CITES certificate on the streets of Hong Kong for US\$1 - this is documented. Throughout the 27-year grace period Hong Kong traders have been bringing illegal ivory into Hong Kong and using the existing "legal" trade to sell it. In recent years, Hong Kong traders have been selling ivory to mainland Chinese tourists - knowing for sure that they were planning to take it back to China illegally. Indeed, it has been well documented by the media that they have been providing them with smuggling tips on how to do it. Why are the traders now arguing that conservationists will be able to identify illegal ivory simply by looking at it? This is what the traders themselves should have been doing for 27 years."

On Compensation

TRADERS SAY: "Carrie Lam and CY Leung are the problem. In May (before CY Leung's tenure) they instructed the AFCD to submit a bill to implement an ivory trade ban to make our ivory stock and the rights to transfer illegal in four years. The reason is to enhance Hong Kong's image in the eyes of foreign tourists as part of the solution to elephant conservation. CY Leung and Carrie Lam did not care about the fact that tens of tonnes of raw ivory materials that we own were sold to us by the Government prior to the convention / ban. Then the international ban took place at the time before we finished crafting our ivory stock which made our lives difficult because we couldn't make a living with

the skills that we spent our whole life acquiring. A lot of us lost our jobs because of the export ban, we changed our profession over 20 years ago or we earn a living from doing manual labour work, without any assistance from the Government, nor the Government ever offered to help. We didn't apply for any government subsidies because we have self-esteem and spine. Also, recently, the government still allows the import of European raw ivory materials and ivory products into Hong Kong while ignoring our request for an explanation."

WE SAY: "Hong Kong's economy is based on capitalism, a system that does not rely on government subsidies. Why should the government have been subsidizing private businesses? Compensating the Hong Kong Ivory Traders is like compensating a car thief for the price of a stolen car."

TRADERS SAY: "The announcement of a ban by 2017 is unreasonable and oppressive, making our lives miserable. It is no different from condemning those who produced weapons when the real murderer cannot be found. If the government insists on such proposal, they should compensate us and to buy our stock with a reasonable price."

WE SAY: "If we are to enter negotiations over compensation, the traders should first come forward with a figure that they are willing to give to the African and Asian governments that have lost tens of thousands of elephants to poaching. In Africa alone, according to a recent study, US\$25million in tourism revenue is lost every year because of elephant poaching². Will the Hong Kong ivory traders compensate them for this loss?"

TRADERS SAY: *"We strongly support elephant protection, but how about our rights, our lives, our assets and dignity? Aren't they as important? In fact, what does the pre-convention has to do with elephant protection? Why not tackle the illegal smuggling of ivory?"*

WE SAY: "The ban will help to tackle the smuggling of ivory into Hong Kong because the traders will have no "legal" system into which they can launder their illegal ivory. This will greatly help Hong Kong enforcement efforts. This is because any ambiguity about ivory found entering or leaving Hong Kong will be cleared up. Apart from in some very special cases, all ivory discovered crossing Hong Kong Kong's border will become illegal."

On Government Acquisition of Traders' Ivory Stocks

TRADERS SAY: *"The government should acquire all existing licensed ivory stocks, store and exhibit them at the West Kowloon Beijing Palace Museum."*

WE SAY: "If the traders are offering to donate their ivory stocks to the government, this would be an acceptable solution, however it is unlikely the government would accept it due to security and public perception concerns. But if the traders are offering to sell it to the government, then this would mean that they are selling an illegal product, and the government cannot and should not be a part of that."

² Naidoo, R. et al. 2016. Estimating economic losses to tourism in Africa from the illegal killing of elephants.

http://www.wwf.de/fileadmin/fm-wwf/Publikationen-PDF/20170306-Article_Estimating_economic_losses_to_tourism_in_Africa_from_the_illegal_killing_of_elephants.pdf

On The Proposed Five Year Grace Period to Sell of Ivory Stocks

TRADERS SAY: "Although there are still five years before the ban takes place, it is indeed difficult for the industry to handle and get rid of the existing ivory stock. The ban will cause huge loss to all local ivory traders."

WE SAY: "Ivory traders have caused a "huge loss" to African and Asian elephant range States by smuggling large quantities of illegal ivory into Hong Kong. Now it is time to give the elephants their chance to survive. The proposed ban will not take away the traders rights to possess the ivory, its just that they will no longer be able to use it for commercial purposes."

On Legality of Pre-1990 Ban Ivory Stocks in Hong Kong

TRADERS SAY: *"We, the undersigned, are the legal owners of ivory merchandise in Hong Kong. Together we own an estimated eight tonnes of legal ivory, all licensed by the AFCD. Our stock was registered with the Hong Kong colonial Government in 1990 and they were allowed to be traded."*

WE SAY: "Up to 80% of the stock registered with the government in 1990 was from illegal sources. The fact that these traders now possess it does not make it any less illegal."

On Illegal Ivory Stocks

TRADERS SAY: "These stocks are our personal asset and cost our blood and sweat to obtain. They did not come from smuggling or illegal poaching. However, our industry has been under attacks by different elephant conservation groups, they use 'elephant protection' as an excuse to create a false impression of our industry among the Hong Kong public."

WE SAY: "If their stocks do not contain any illegal ivory, where are the estimated 360 tonnes of illegal ivory that has entered Hong Kong since 2003?"

On European Union (EU) Ivory Trade

TRADERS SAY: "The government should follow the EU countries in terms of allowing the trade of pre 1976's carved ivory products (the year is negotiable.)"

WE SAY: "Not all EU countries permit the sale and/or re-export of post 1976 raw ivory. The United Kingdom, France, Germany, Netherlands, Austria, Sweden, the Czech Republic and Slovakia all ban the trade, regardless of the age of the ivory. The UK bans trade in post-1947 ivory. Since May 2016, all raw ivory exports from the EU are banned. Furthermore, the EU is still in the process of reviewing its regulations for worked ivory and it is likely that they will soon follow the example of France and others."

TRADERS SAY: "AFCD said that the government has been planning for a ban for 26 years already, if that is so, how come Environment Secretary Wong Kam-sing said the government has no plans to ban the local ivory trade? Also, why is there a double standard over the import of European ivory whereas banning the local ivory trade? It seems that the handling of both administration and legislation are conflicting. Is there a mistake?"

WE SAY: "European NGOs are working strenuously to end all exports of ivory from Europe. Stopping the ivory trade is a worldwide initiative, it is not only confined to Hong Kong."

On Livelihood Issues

TRADERS SAY: "The proposal of a ban should be temporarily dropped before our demand is fully understood and an assessment of current ivory trade takes place. Did they ever think their selfcentered behaviour is affecting our lives? It's threatening our families. They need to know there isn't any illegal ivory in our shops. We have been affected to different extents from the series of conservation action. Some business closed down from 10 shops to now two shops. There was a wellestablished ivory trader who got a stroke after a protest that took place outside her shop, she still hasn't recovered, so is her business. We need to protect elephants, but who is protecting our living and our families? Such policy will seriously cause us a huge financial loss."

WE SAY: "Who is protecting the families of African and Asian rangers who have died trying to protect elephants? Just recently, a young ranger in the Democratic Republic of Congo was shot dead by elephant poachers. Will the Hong Kong ivory traders offer compensation to his family? The traders have failed to protect their own families. Engaging in criminal activities for 27 years was a risky strategy, but the risk should be borne by those who have benefited from the smuggling, and not by the government."

SOURCES

1 G. Wittemeyer et al. 2014. Illegal killing for ivory drives global decline in African elephants. http://www.pnas.org/content/111/36/13117.full.pdf

 Naidoo, R. et al. 2016. Estimating economic losses to tourism in Africa from the illegal killing of elephants. http://www.wwf.de/fileadmin/fm-wwf/Publikationen-PDF/20170306- <u>Article_Estimating_economic_losses_to_tourism_in_Africa_from_the_illegal_killing_of_eleph</u> <u>ants.pdf</u>

c) Countering Claims by Hong Kong Ivory Traders that to Re-open Trade in the CITES App. II Elephant Populations of Namibia, Botswana and South Africa Should be Considered

One of the main arguments used by the Hong Kong ivory traders is that because elephant populations in Namibia, Botswana and South Africa may appear at healthy levels for now, a re-opening of a legal trade in ivory derived from those elephant populations should be considered. This argument is quite meaningless for the following reasons;

- Even though elephant populations in Namibia, Botswana and South Africa are listed on Appendix II, it is highly improbable that a third "one-off" sale would ever get the necessary permission from CITES. The current international trend to protect elephants, as well as prevailing mainland China and Hong Kong government policies on ivory ban (which are both in accordance with this trend), would clearly prevent that. It should be noted that the overall mood amongst the parties to the CITES CoP17 meeting in Johannesburg, South Africa, was that ivory trade destroys elephant populations. This mood was a direct result of the horrific consequences of the CITES-sanctioned "one-off" sale in 2008, which the general consensus now views as a terrible mistake. Indeed, at Cop17, Namibia and Zimbabwe both attempted to persuade parties to allow them to re-open international trade and were refused point blank. [1]

– Furthermore, the overall Africa-wide continental population has decreased markedly over the decades due to elephant poaching. The total number of elephants left on the African continent based on the recent Great Elephant Census of 2016 is now 352,271 down from 600,000 in 1989, 1.2 million in 1979, and around 10 million in 1900. This obviously downward spiraling trend is caused directly by elephant poaching, and this trend is obvious to see.

– In the past 12 to 18 months both South Africa [2] and Namibia [3] have experienced an increase in elephant poaching, so although the Africa elephant populations in these countries may seem stable for now we cannot afford to be complacent – nor can we be complacent about any country's elephant populations.

– In addition, Botswana made its position very clear at CoP17 that despite having by far the world's largest elephant population, they objected strongly to ivory trade and remain strongly opposed to any re-opening of international ivory trade.

- Finally, it took only ten years for the continental population to fall by 50% (from 1.2 million in 1979 to 600,000 in 1989) and that was because of poaching for ivory. Only the 1989 CITES ban put a stop to that decline. History is repeating itself, and that's why we must remain vigilant and act now to legislate for a total ivory ban in Hong Kong.

[1] <u>http://ens-newswire.com/2016/09/27/legal-ivory-trade-rejected-in-heated-debate/</u>

[2] <u>http://news.nationalgeographic.com/2015/11/151113-south-africa-rhinos-poaching-elephants-kruger-national-park-africa-conservation/</u>

http://oxpeckers.org/2016/05/2795/

[3] http://www.thevillager.com.na/articles/10076/Anti-poaching-efforts-yield-mixed-results/

d) Countering Claims by the Hong Kong Ivory Traders on Elephant Natural Mortality

In the past few years, many countries around the world have destroyed ivory stockpiles. These include; mainland China and the Hong Kong SAR, the United States, Philippines, Singapore, Malaysia, U.A.E., Sri Lanka, Czech Republic and Thailand. The African countries which have destroyed their ivory stockpiles include; Angola, Cameroon, Congo, Malawi, South Sudan and of course Kenya, which destroyed the biggest ever ivory stockpile in April 2016, amounting to more than 100 tonnes. So we can see that this is the global trend and current international best practice policy.

The African range state governments that destroyed their ivory stockpiles did not discriminate between seized ivory and ivory taken from natural mortality elephants. In each case they destroyed all their ivory stocks in one go, all mixed up, natural mortality and seized. The net effect of these African government actions now means that there is a lot less natural mortality ivory in circulation today than there was a few years ago.

Furthermore, all ivory stockpiles from recently deceased natural mortality elephants in Africa are stored securely by the parks and wildlife authorities of African range state governments, and in many cases cannot be sold domestically, let alone be sold internationally due to CITES Appendix I restrictions. As we are well aware, all international trade in ivory is prohibited under CITES, and this actually makes the traders argument a moot point. Even if the Hong Kong government wanted to allow the ivory traders to legally import natural mortality ivory from Africa, this would be illegal under CITES, and so under international law the Hong Kong government would not be allowed to authorize any such imports.

Furthermore, and hypothetically speaking, were the 1989 CITES international ivory ban to be lifted, (which would be clearly against the current global trend and is extremely unlikely), the legal sale of any natural mortality stockpiles to the Hong Kong ivory traders would, once again, provide yet another convenient laundering mechanism for the ivory traders to flood the market with illegal ivory. This would be akin to the current legal pre-Convention ivory laundering mechanism which we all now know has proved so disastrous for elephants and will soon, we hope, be closed down in Step 2 of the Hong Kong government's plan for phasing out the local ivory trade. Anywhere there is a legal market for ivory, a parallel and hidden market for illegal ivory taken from recently poached elephants will always thrive, and that includes using ivory taken from natural mortality elephants as a laundering mechanism.

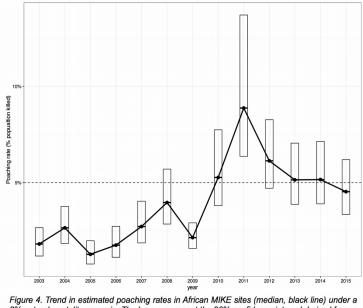
The natural mortality rate of African elephants is estimated to be between 1% and 5% per annum, whilst between 2010 and 2012 over 100,000 African elephants were illegally killed (G. Wittemeyer et al. 2014.) That number equates to 28.5% of the total population over three years, given that the Great African Elephant Census of 2016 states that only 352,271 elephants are still left in the wild on the continent.

http://www.greatelephantcensus.com/

The following document, which can be found on the CITES website, even suggests that the 'G. Wittemeyer et al. 2014' scientific paper might actually be overstating the natural mortality rate. It states that the natural mortality rate is more likely to lie in the 3% range. The document was compiled by the CITES Secretariat using the best availabledata from the world's leading elephant researchers:-

Paragraph 19 quotes "natural mortality values ranging from 1.5% to 4.5%":-

"19. The MIKE report to CoP16 (document CoP16 Doc. 53.1) provided estimates of poaching rates across African subregions. As advised by the MIKE and ETIS TAG at the time, natural mortality values ranging from 1.5% to 4.5% were used to estimate the poaching rates reported in that document. On the other hand, Wittemyer et al. (2014) used a natural mortality estimate of 3.2%, with a variance of 0.015%. This estimate was derived from seven demographic studies conducted in savannah environments, and applied to all elephant age groups, from juvenile to adult."



3% natural mortality scenario. The boxes represent the 90% confidence interval derived from a Monte Carlo simulation framework. The dashed line at 5% represents the normal growth rate of elephant populations. Poaching rates above this level are likely to result in net population declines.

Looking at the graph above, in any year where the poaching rate goes above the 5% line, there is likely to be a population decline. Obviously it is currently indisputable that the poaching rate is far higher than the natural mortality rate, and is unsustainable beyond doubt. If further evidence is required, one has only to look at illegal ivory seizures. There was a particularly alarming poaching spike in 2011 (see graph above). Nor surprisingly, 2011 was also the worst recorded year for seizures of illegal ivory (<u>http://www.traffic.org/home/2011/12/29/2011-annus-horribilis-for-african-elephants-says-</u>traffic.html), showing a direct relationship between poached elephants and illegal ivory trade.

The Hong Kong ivory traders say that "20,000 African elephants die of natural causes every year". This is clearly untrue, and it is likely that they are using out of date data, perhaps extracted from an old scientific journal of the early 1980's when the total number of African elephants was obviously much higher. That's because if you look the total number of elephants left on the African continent based on the recent Great Elephant Census of 2016, which is 352,271, and using the generally accepted natural mortality rate, we arrive at 10,568 elephants dying each year of natural mortality. That's almost half of what the 20,000 that the traders are saying.

⁽Source: CITES CoP17 Doc. 57.5)

We can see easily from the graph in G. Wittemeyer's paper below (Table 1, page 13119) that;

29,124 elephants were poached in 2010, that's almost **three times** the amount that died of natural mortality (10,568).

41,044 elephants were poached in 2011, that's almost four times the amount that died of natural mortality (10,568).

31,616 elephants were poached in 2012, that's *three times* the amount that died of natural *mortality* (10,568).

Table 1. Regional and total estimates of population change, illegal killing rates, and number of elephants poached for 2010–2012

| Region | Empirical method, 12 sites | | | Model-based method, 306 sites | | |
|------------------------|----------------------------|--------|--------|-------------------------------|--------|--------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Africa | | | | | | |
| Population growth rate | 0.978 | 0.976 | 0.977 | 1.001 | 0.971 | 0.979 |
| Poaching rate | 0.063 | 0.083 | 0.065 | 0.045 | 0.077 | 0.077 |
| No. poached | 29,124 | 41,044 | 31,616 | 21,477 | 39,692 | 38,828 |
| Central Africa | | | | | | |
| Population growth rate | 0.979 | 0.795 | 0.790 | 0.969 | 0.926 | 0.932 |
| Poaching rate | 0.142 | 0.248 | 0.235 | 0.100 | 0.160 | 0.177 |
| No. poached | 11,228 | 21,148 | 16,148 | 7,871 | 13,649 | 13,607 |
| East Africa | | | | | | |
| Population growth rate | 0.988 | 0.988 | 0.983 | 0.994 | 0.960 | 0.979 |
| Poaching rate | 0.054 | 0.054 | 0.059 | 0.042 | 0.074 | 0.059 |
| No. poached | 7,187 | 7,763 | 8,695 | 5,645 | 10,631 | 8,515 |
| Southern Africa | | | | | | |
| Population growth rate | 0.978 | 0.974 | 0.980 | 1.019 | 0.996 | 0.996 |
| Poaching rate | 0.064 | 0.068 | 0.062 | 0.023 | 0.046 | 0.048 |
| No. poached | 15,800 | 18,176 | 16,583 | 5,740 | 12,285 | 13,303 |

The variations around these estimates are presented in SI Materials and Methods.

(G. Wittemeyer et al. 2014. Illegal killing for ivory drives global decline in African elephants)

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