George Wittemyer, Professor
Department of Fish, Wildlife, and Conservation Biology
Colorado State University
and
Chairman of the Scientific Board
Save the Elephants

Testimony for the Senate Foreign Relations Subcommittee on Africa and Global Health Policy
Hearing on "Stemming Wildlife Poaching"
Thursday, July 16, 2015

Mr. Chairman, Mr. Ranking Member, and members of the Committee, I want to thank you for the opportunity to submit testimony for the record of this hearing. I am honored to appear before your committee. My name is George Wittemyer—I am a professor in the Department of Fish, Wildlife and Conservation Biology at Colorado State University and the Chairman of the Scientific Board of the Kenya based organization Save the Elephants. I have worked on elephant conservation issues in Africa for the past 19 years and have been a member of the IUCN African Elephant Specialist Group for the past 8 years. In addition, I serve as a technical advisor on elephants to the Kenya Wildlife Service.

Three years ago my colleague and mentor, Dr. Iain Douglas-Hamilton, founder of Save the Elephants, testified before this committee to draw attention to the resurgence of the ivory trade and the resulting impacts to elephants and the human communities with which they co-exist (1). At that time, he highlighted the evidence for the surge in ivory trafficking and summarized the history of ivory trade, making the point that, collectively, we successfully mobilized to stop the mass slaughter of elephants for ivory in the 1980s and can do so again. This will require working together to secure elephants in the field, disrupt trafficking, and reduce demand. We currently have a strong scientific capacity to assess what is happening across the African continent that, with continued support, puts us in a position of strength to identify problem locations and assess the efficacy of interventions. Today, for this panel, I would like to (1) summarize the peer-reviewed scientific data, quantifying the scale of this problem, (2) highlight those populations currently being decimated and flag those under threat, (3) discuss a community conservation initiative in our research site in northern Kenya that provides an example of successful engagement on poaching, and (4) highlight lessons we have learned over the past three years to curb elephant poaching and ivory trafficking.

CURRENT STATE OF ELEPHANT POACHING FOR IVORY

The scientific community has provided devastating confirmation of the scale of illegal killing. Leveraging data from a unified carcass monitoring system instituted by the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES) called the Monitoring of the Illegal Killing of Elephant (MIKE) program, last September I published with my colleagues from Save the Elephants, the CITES MIKE program and Colorado State University a peer-reviewed paper in the Proceedings of the National Academy of Sciences, that contributed to the quantitative assessment of the continental scale of illegal killing. We estimated that 100,000 elephants had been killed in the three years between 2010-2012, driving a probable decline in the world's elephant population across its range (2). This paper helped to unite sentiment regarding the severity and scope of the elephant poaching problem.

For this hearing, I conducted a follow up analysis of the CITES MIKE data collected since the publication of that paper that suggests levels of poaching continued to be unsustainable in 2013 and 2014, with poaching levels persisting at just under 7% per year for the continent (similar to that experienced in 2010, but below rates experienced in 2011-2012). This suggests tens of thousands of elephants continue to be poached every year on the African continent, a level not matched by the natural growth rate, signifying that the species has experienced declines each year for the past five years (on the order of 2-4% per annum).

We are now compairing these outputs with other data sources and finding consistent evidence regarding the fate of African elephants. Critical information from population surveys has been particularly enlightening. In 2013, a peer-reviewed paper lead by Wildlife Conservation Society scientists, with which I was involved, analyzed forest survey data collected during the previous decade, quantifying a 62% decline in forest elephants between 2002-2011 (3). The latest evidence suggest this decline continues. The picture is no better for African savanna elephants. The Great Elephant Census, a Paul G. Allen Project peer reviewed by African Elephant Specialist Group, is providing critical aerial survey data for savanna elephant populations. Most notable is the loss of over 50,000 elephants in Tanzania alone since 2009 (greater than 60%

decline), with the loss of over 7,500 additional elephants (~50% decline) in the adjoining Niassa population of Mozambique (4). Illegal killing and subsequent trafficking at this scale requires serious logistical organization, and implies government agencies in these regions are extremely ineffective at best and actively colluding at worst. The poaching problem in the Selous-Niassa region of southern Tanzania and northern Mozambique was recognized as early as 2009. Since then, the Tanzanian government's response to the problem has not met the challenge despite rhetoric on international stages to the contrary. In order to stem this 'blood bath' (the Tanzanian Minister of Natural Resources' recent label for the current situation in Southern Tanzania), serious action—law enforcement, arrests, and prosecutions—is required.

While Tanzania has been the primary location of industrial scale poaching on the continent over the last five years, censuses have now documented severe losses of over ten thousand elephants within Zimbabwe and Gabon (3-4). These losses are in addition to the killing of hundreds to thousands of elephants within many countries, including Kenya, Zambia, Cameroon, Republic of Congo and D.R.C. (3). With some of the more accessible populations having now been depleted, we are seeing signs of increased pressures in adjoining areas. This puts countries such as Zimbabwe, which holds large populations near the killing fields of Tanzania and Mozambique, and Zambia under threat. Similarly, population in Cameroon and Republic of Congo are experiencing increasing pressure. We need to mobilize resources to protect these susceptible areas as well as ensure the security of Botswana's and Gabon's elephant populations, where respectively the majority of savanna and forest elephants reside.

Long term ivory seizure records collated and analyzed by the CITES Elephant Trade Information System (ETIS) by TRAFFIC, a joint program of WWF and the International Union for the Conservation of Nature (IUCN), provides the best metric of global illicit ivory trafficking. Data from ETIS have shown a massive increase in ivory seizures starting in 2010, with 2013 showing the highest seized volume ever recorded. Large volume seizures are increasingly driving these trends, a clear indicator of organized criminal syndicates involvement in ivory trafficking (5). The vast majority of ivory seized since the surge in 2010 was trafficked out of the ports of Mombasa, Kenya and Dar Es Salam, Tanzania destined for China (5). Ivory from these seizures is being genotyped to identify their source populations. A study published last month in Science

out of the University of Washington showed recent seizures were overwhelmingly comprised of ivory from elephant poached in Tanzania and Mozambique (6). These data also provide important insights about trafficking routes within Africa, showing that most of this seized ivory originating in Tanzania was trafficked out of Kenya's port in Mombasa, potentially to hide trade routes. It is critical to end the ability of the kingpins of illegal smuggling networks to operate with impunity, but we have seen far too few successful prosecutions and therefore little disruption of this illegal trade to date.

While horrifying, these numbers do not actually capture the total impact on elephants, a deeply social species that maintain close, lifelong family bonds — a social system similar to humans in many ways (7). It is well documented that poaching for ivory tends to select older, and therefore larger tusked, individuals in a population, namely the primary breeding males and the matriarchs and mothers in families (8). Poaching, thereby, leaves behind orphaned juveniles without the support of their families. The repercussions of poaching on these orphaned survivors is not fully understood, though we know they have lower survivorship relative to non-orphaned juveniles (9-10). As such, poaching likely leads to indirect demographic effects (11). In addition, we know elephants fulfill critical ecological roles as browsers and seed dispersers (12-13), a force against bush encroachment, and in maintaining habitat components on which other species are dependent (14). The negative and varied impacts of the loss of such species that fill such important ecological roles, termed ecological engineers, is well documented (15), and a serious concern for rangeland and forest health in Africa. The loss of elephants will drive a transformation of Africa's ecology as we know it.

I want to emphasize the role of science in identifying the scale, timing and location of this slaughter of elephants, information critical to mobilize global action to stem the problem. The analyses and data highlighted here have identified the hotspots of killing and trafficking hubs. These are the key nodes to be tackled in a complex illegal trade chain. More generally, these data have revealed the scale of this issue and catalyzed collaborative action by wildlife management agencies, NGOs and global policy bodies, providing the political will and funding to make an impact. Sustaining independent, scientifically rigorous data collection efforts, often carried out by international N.G.O.s and supported in many cases by U.S. funding, is fundamental for

assessing the effectiveness of investments in frontline protection as well as anti-trafficking. The success of science in identifying and monitoring elephant poaching and ivory trafficking has been a rare bright spot in efforts to combat wildlife crime. The International Consortium on Combating Wildlife Crime with other global policy bodies have recognized the successes in elephant monitoring, and are interested to replicate this model on other species to gain greater understanding of illicit wildlife trade generally.

IMPLICATIONS FOR SECURITY

The scale of the illegal wildlife trade relative to other criminal activities has been well documented, valued at billions of dollars annually with proceeds ultimately strengthening criminal networks and, in some cases, insurgent groups. Wildlife resources, like ivory, take much less infrastructure to reap than guns, minerals, drugs, or oil and are relatively easy to traffic. In addition, wildlife resources are concentrated in remote areas with limited government capacity to police or areas riddled with corruption (where poaching of elephants and illegal trade in ivory is most acute, poor governance is a serious contributing factor (16)). This confluence of factors has driven the illegal wildlife trade into the top five illegally trafficked goods globally.

Illegal wildlife trade has a number of costs to local communities. The increased militarization of poaching operations is leading to destabilization of areas and this loss of law and order has cascading effects on human populations. Illegal wildlife trade can enhance local and national corruption by altering power bases, leading to less effective judicial and governmental function. In addition, increased insecurity and resource losses undermine both consumptive and non-consumptive tourism, which is often the most important direct source of revenue from wildlife to local communities and can be a substantial contributor to local economies. In addition, militias involved in illegal killing of wildlife are often involved with other criminal activities, some of which directly prey on local communities (e.g. banditry and livestock rustling). Links to insurgent groups have been documented in multiple areas in Africa, as others on this panel will speak to. Such groups extract a serious toll on the communities and nations where they are operational.

EXAMPLE OF SUCCESS

While the numbers presented and conditions on the ground in many countries are grim, it is important to recognize that the slaughter of African elephants is not happening everywhere and that we are beginning to see successes in populations that faced severe threats just last year. The situation where we have been able to turn the tables successfully that I know best is for the elephant population of Northern Kenya, where Save the Elephants operates a field station and works in close collaboration with neighboring private organizations such as Lewa Wildlife Conservancy and the Northern Rangeland Trust, as well as the Kenya Wildlife Service. I want to summarize what we know demographically and economically about poaching in this population and then summarize the conservation model implemented in this area that has proved successful.

We have been monitoring the Samburu elephant population of northern Kenya intensively over the past 18 years, from which we have collected detailed demographic data on individual elephants that allow us to pull out highly accurate poaching rates and demographic trends. This is the finest resolution data on poaching impacts available for the species, and provides the most direct metric of intervention success. We began to experience increasing rates of illegal killing for ivory in 2009, which rapidly grew to its peak of over 8% of the population during 2011. The rapid increase closely tracked a surge in black market ivory price in Isiolo, the local trade hub, where ivory prices were below $30 /kg in 2007, but rapidly increased to $150-$180 /kg in 2011 (2). Poaching rates, at ~4% in 2012 and 2013, decreased after this peak year but were still unsustainable. Black market ivory prices remained high at over $100 /kg during this time (though lower than the peak of 2011). However, in 2014, poaching rate declined precipitously to around 1%. This is a sustainable rate of off-take, and the population increased in 2014 for the first time since 2008. While only half way through the year, we continue to experience markedly lower levels of illegal killing in 2015 with multiple signs of sustained success.

This sustained decline in poaching was driven by effective anti-poaching operations carried by the Kenya Wildlife Service in partnership with NGOs coupled with a successful community conservation model. In this ecosystem, we have been working closely as part of a public-private partnership between a consortium of pastoralist community conservancies collectively called the

Northern Rangelands Trust (NRT), Lewa Conservancy, and the Kenya Wildlife Service. NRT is a program supported by The Nature Conservancy and USAID to great effect, where a good governance model of community led decision making with co-management by partners has led to effective engagement and support for conservation among nomadic pastoralist communities. In order to be a member and access resources made available through NRT, communities must elect officials to their governing board, which serves as the primary decision makers on budget and natural resource management matters. This transparent and grass-roots governance model is fundamental to NRT's success.

The primary incentive to join NRT and subscribe to its conservation model is the provision of security. Due to northern Kenya being awash with illegal small weapons, security is a fundamental concern for the region's ethnic groups. The primary success of NRT, with USAID, support has been to bring peace between different ethnic groups in the region. Economic development is part of this model, but is directed towards bringing new economic activity through enhancing access to cattle markets (activities supported directly by USAID) and livestock husbandry efficiency, as well as tourism where tourism development has high potential (which is not in all conservancies). As a result, markets are more accessible and jobs are created.

The training and equipping of community scouts, closely vetted and overseen by community boards and co-managed through the NRT umbrella, has helped ameliorate tribal tensions. These efforts have also brought an effective informant network covering a broad and remote region. In close partnership with the Kenya Wildlife Service, these communities that were once antagonistic to the wildlife service now pass information in support of government anti-poaching activities. This collaboration has been critical in turning the tide on poaching in northern Kenya.

The importance of political will and support of the government is vital to success. From 2012, the Kenya Wildlife Service (KWS) conducted an anti-poaching surge, assisted by the private sector. KWS was effective in targeting the well armed poaching groups, neutralizing major field operators. More importantly, KWS with other Kenya governmental policing groups neutralized known local traffickers. Intelligence based interdiction of middlemen in Isiolo, the hub of wildlife trafficking in our area, has had a perceptible effect of driving down poaching rates. Most

notably, the price of black market ivory which had remained stubbornly high over the past four years has finally started to decline. It is speculated that this is because general fear of KWS intelligence on illegal wildlife trade networks has moved many individuals out of the poaching arena. In addition, recent Kenyan legislative advances that substantially increase penalties for wildlife crime likely also contribute to this fear.

Telling is an event that I experienced last month in Samburu. A tribal conflict over grazing lands and water access flared up south of the protected areas where our research is based. As a result, the area between the two ethnic groups was devoid of people, providing a void in policing of the area. Three elephants were shot in the area, our first poaching incident in direct vicinity of our research site in over a year. We responded with KWS, visiting the carcasses to identify the individual elephants killed as part of our monitoring program. To our and KWS's great surprise, the ivory was not taken from these elephants, though body parts had been removed presumably for black magic. The individuals that poached the elephants decided not to take the ivory in fear of retaliation by the KWS anti-poaching unit. None of us had seen an illegally killed elephant with its ivory in the last seven years. I believe this event speaks to the scale of the changes that have occurred in Northern Kenya over the past two years.

The example of collaboration between the private sector, communities and government forces in Northern Kenya demonstrates the success of a model where force against poachers is conducted with the enhancement of community programs. The genuine interest in people's welfare on the part of the conservation community has helped engender a conservation oriented management scheme by the local government and people, where poachers are viewed as destructive to the communities' welfare and, therefore, ostracized. U.S. support through USAID in northern Kenya has played a significant role in catalyzing a whole chain of events from peace to reducing the wildlife trade, with new economic incentives to sustain the gains.

KEY SOLUTION COMPONENTS

It is critical to recognize that the conditions that facilitate poaching and wildlife trade vary by country and even within national sites across Africa. As such, there is not a single prescription

that can solve the issue of illegal wildlife trade in Africa. However, we have a number of approaches that are being applied with effect, which need to be supported, amplified and augmented where appropriate. Across Africa, we see evidence of the importance of healthy collaboration between the private sector, conservationists and the national wildlife management authorities. The success of such public-private conservation models requires sustained funding and monitoring of project objectives. In addition to funding and monitoring, I wanted to highlight four fundamental tenets for success that are often overlooked:

(1) Good governance: Examples of successful community engagement uniformly invest in good governance fundamentals, being (i) community engagement/leadership in decision making, (ii) co-management models with external oversights to increase transparency and reduce options for corruption, and (iii) functional legal frameworks/institutions that provide license to operate (or facilitation of legal processes where functionality is lacking as exemplified by the activities of the Last Great Ape Foundation — LAGA).

(2) *Land Use Planning*: Africa is experiencing rapid agricultural and infrastructural development, and we have evidence of communities facilitating wildlife trafficking where it is perceived wildlife are strictly a cost to livelihoods, as can occur where conflict with wildlife is high (often in relation to crop raiding). To ensure success, conservation projects need to address underlying problems between local livelihoods and wildlife and be located in areas with long term prospects for wildlife. With enormous development aid and investment in sub-Saharan agricultural expansion, it is critical that wildlife-sensitive land use planning is a core part of development implementations. A danger is where conflicting development projects implemented in the same community undermine the goals of one another.

(3) *Incentives*: Development of the appropriate incentive model for a site is key for success. Incentives must address underlying needs of the communities, which are highly varied across locations. In Northern Kenya, enhancing security and promoting peace across the ecosystem has been the primary attractant. In Namibia, we see economic benefits from hunting being core to successful community conservation projects (the wildlife sector is a primary contributor to GDP

in multiple elephant range nations). Another part of this is ameliorating the costs of wildlife to communities where they exist.

(4) *Security and Policing*: It is critical to have effective security and policing activities in place to protect wildlife and dis-incentivize criminal activity. Where policing activities also provide security to local people, as in northern Kenya, greater community support for efforts to reduce poaching emerge. In addition, community buy-in to policing efforts provides critical lines of communication for procuring intelligence. Accurately targeted intelligence based interventions are fundamental to disrupting illegal wildlife trade and maintaining community support. However, the risk exists that trained and armed local scouts can facilitate or conduct illegal wildlife trade and concerns over the increased militarization of anti-poaching forces have been raised. Effective anti-poaching only works if oversight is in place.

It is increasingly important to build out these tenets for success in areas that are at greatest risk from illegal wildlife trade. We are seeing increased evidence that poaching moves to points of least resistance quite fluidly. Elephant poaching was targeting areas outside protected areas in Central Africa, with core protected areas providing the few safe havens in this region. But increasing evidence suggests these core areas are now under threat. It is critical to provide immediate investment in these core areas that are serving as the final strongholds of elephants in this region, in particular Odzala and Nouabale-Ndoki in Republic of Congo, Lobeke, Boumba Bek and Nki National Parks in Cameroon, and Minkébé National Park in Gabon. In savanna systems, evidence suggests increasing pressures on Zimbabwe and Zambia as well as continued poaching across Tanzania and Mozambique.

In recognition of the need for rapid targeted responses to the fluid pressures of the illicit ivory trade, Save the Elephants with the Wildlife Conservation Network created the Elephant Crisis Fund (see Appendix 1). This is a zero overhead model to support targeted and catalytic projects on the ground in Africa. The model relies on implementing partners that are deeply knowledgeable and experienced in the areas under threat, building on decades of individual relationships within wildlife conservation circles across Africa, as well as global cross-sectoral networking. In just over two years, the ECF has deployed $4.2 million to support 25 different

partners implementing projects ranging from Africa to Asia addressing poaching, trafficking and demand reduction. It has seen marked successes in difficult to work regions, highlighting that investing directly in experienced on the ground partners is the most effective way to address the wildlife crime problem. Programs like U.S.F.W.S. Multinational Species Conservation Funds apply this same theory to great effect.

Save the Elephants has also been at the forefront of using GPS animal tracking technology to enhance conservation effectiveness. Our novel technological approach leverages real time GPS data on the location of elephants to deploy anti-poaching assets in the field, identify when elephants enter danger zones to ready interventions, and monitor individuals (great tuskers) that are at high risk. A real-time analytical system sends alerts to wildlife managers and partners via text messages and emails when individuals approach or enter high risk areas. We also disseminate alerts when elephant behaviors suggest problems, such as prolonged immobility which can mean poaching. These tracking data also are put to task for land-use planning, including the identification of important, unprotected areas and corridors connecting hotspots across the ecosystem. We are working closely with Paul G. Allen's Vulcan to further develop this system and make it publically available to all conservation organizations.

Higher up the trade chain, the impunity of kingpins in trafficking networks remains a serious problem in addressing this issue. We have seen models of success from other agencies that can be replicated to impact wildlife trafficking networks. One example is a collaboration between the U.S. D.E.A. with Kenya's Anti Narcotics Unit, and others, whereby a drug trafficking ring out of East Africa run by the Akasha family was dismantled. A specialized, 16 man investigative unit was formed, in which all personnel were highly screened using lie detectors and drug tests. Some of the biggest drug busts of the year have been directly attributed to this small focused unit. Means to attack the underlying financial basis of these trafficking networks is another important aspect to be mobilized. U.S. departments like the Department of Defense Counter Threats Office and the Treasury Department are already engaged in this work for other types of criminal networks. Their expertise could be highly effective in disrupting wildlife trafficking networks.

At a macro scale, the African elephant range State led African Elephant Action Plan, agreed upon by all 38 range States, prioritized objectives and actions to address the threats facing African elephants, with particular reference to poaching, ivory trafficking and habitat loss. This is an initiative needing funding and technical assistance support from the global community. The Elephant Protection Initiative (EPI) seeks to raise the support needed for implementation of the African Elephant Action Plan from global partners, including the inventory and securing of ivory stockpiles and submission of stockpile data to CITES. In addition, the EPI calls for a closure of domestic ivory trade, which has been linked to international smuggling of ivory. A number of range states have signed onto the EPI, with many now conducting ivory stockpile inventories mandated by CITES. This includes Kenya which is conducting a national level inventory starting this week. Diplomatic support of this effort would greatly enhance its effectiveness.

The International Consortium on Combating Wildlife Crime (ICCWC), a collaborative partnership of the CITES secretariat, INTERPOL, UNODC, the World Bank and the World Customs Organization was established to enable a more coordinated response to wildlife crime, including a mechanism to collect robust data on illegal trade. This effort seeks to enhance monitoring of ivory trade, but also build on what we have learned from the monitoring efforts of ETIS and MIKE to implement more effective monitoring of illegal wildlife trade in general. Such science based initiatives are critical as discussed previously.

U.S. ROLE

The U.S. has played a profound role in conserving African elephants and continues to be a global leader in conservation efforts. I would like to thank Congress for providing the funding for U.S. agencies that are working to conserve elephants in the wild. Many of my colleagues highlight the U.S. Fish and Wildlife Service Elephant Conservation Fund as having the greatest return on investment of any government program on the ground in Africa. In addition, USAID has done tremendous work helping to conserve the large landscapes elephants and other species across Africa require. The rapid agricultural expansion across Africa is possibly the next greatest threat to elephants after ivory trafficking and the work of USAID in facilitating proper land use planning will be critical to the well being of the species in the long term.

The White House Executive Order on Wildlife Trafficking with the activities of the U.S. State Department have played a central role in bolstering wildlife trade enforcement efforts around the world and bringing high level diplomatic attention to this issue. Convening the collective abilities of U.S. government departments via this action increasingly appears to be the key to disrupt wildlife trafficking networks. It is vital this support continues and is increased to deal with the current crisis. Funding is needed to enhance core area protection in the areas under threat, catalyze judicial oversight and reform, and activate specialized criminal investigative units to attack criminal networks.

U.S. leadership on wildlife trafficking has been critical in galvanizing the broader global community. Repeated diplomatic engagement with China on wildlife trafficking has significantly increased the attention and discussion paid to this issue. It is critical for the U.S. to continue on this constructive course. China, the destination of the vast majority of illegal ivory, has directly expressed that the steps they are making on handling their domestic ivory trade problems need to be matched by the US. The critical game changer in turning the tide on ivory poaching would be a ban on domestic ivory trade by China. Institution of a domestic trade ban by the US, being the second largest consumer globally, appears to be the most likely action to catalyze this.

U.S. diplomacy in Africa has also been critical to stimulate action by range states. President Obama's upcoming trip to Kenya offers a great opportunity to publically recognize the political will that has been expressed and demonstrated through support of anti-poaching efforts from President Kenyatta and judicial reforms regarding wildlife crimes. At the same time, the continued role of Mombasa in wildlife trafficking needs to be raised at the highest levels. Increasing diplomatic pressure on those countries demonstrating catastrophic failures to address this issue need enhancing. In particular, the criminal activities operating in Tanzania and Mozambique with impunity need to be 'called out' at high levels with threats of further actions. Where diplomacy is not bearing fruit, it is time to back it up with tangible penalties such as withholding USAID dollars and discussing sanctions. It appears that the realistic threat of such actions is necessary to elicit movement by these governments and save elephants.

Thank you.

REFRENCES

1. Douglas-Hamilton I (2012) Ivory and Insecurity: The Global Implications of Poaching in Africa (Washington D.C.), (U.S. Congressional testimony).
2. Maisels F, et al. (2013) Devastating Decline of Forest Elephants in Central Africa. PLoS One 8(3):e59469.
3. Wittemyer G, et al. (2014) Illegal killing for ivory drives global decline in African elephants. Proceedings of the National Academy of Sciences of the United States of America 111(36):13117-13121.
4. Underwood FM, Burn RW, & Milliken T (2013) Dissecting the Illegal Ivory Trade: An Analysis of Ivory Seizures Data. PlOS ONE 8(10):e76539.
5. Wasser SK, et al. (2015) Genetic assignment of large seizures of elephanve ivory reveals Africa's major poaching hotspots. Science.
6. African Elephant Specialist Group (2015) African Elephant Database (http://www.elephantdatabase.org).
7. Wittemyer G, Douglas-Hamilton I, & Getz WM (2005) The socioecology of elephants: analysis of the processes creating multitiered social structures. Animal Behaviour 69:1357-1371.
8. Wittemyer G, Daballen D, & Douglas-Hamilton I (2011) Rising ivory prices threaten elephants. Nature 476(7360):282-283.
9. Gobush KS, Mutayoba BM, & Wasser SK (2008) Long-Term Impacts of Poaching on Relatedness, Stress Physiology, and Reproductive Output of Adult Female African Elephants. Conservation Biology 22(6):1590-1599.
10. Foley CAH, Pettorelli N, & Foley L (2008) Severe drought and calf survival in elephants. Biology Letters 4:541-544.
11. Wittemyer G, Daballen D, & Douglas-Hamilton I (2013) Comparative Demography of an At-Risk African Elephant Population. PLoS One 8(1):e53726.
12. Blake S, Deem SL, Mossimbo E, Maisels F, & Walsh P (2009) Forest elephants: tree planters of the Congo. Biotropica 41(4):459-468.
13. Jordano P, Garcia C, Godoy JA, & Garcia-Castano JL (2007) Differential contribution of frugivores to complex seed dispersal patterns. Proceedings of the National Academy of Sciences of the United States of America 104(9):3278-3282.
14. Pringle RM (2008) Elephants as agents of habitat creation for small vertebrates at the patch scale. Ecology 89(1):26-33.
15. Terborgh J & Estes JA (2010) Tophic Cascades: Predators, Prey and the Changing Dynamics of Nature (Island Press, Washington D.C.).
16. Burn RW, Underwood FM, & Blanc J (2011) Global Trends and Factors Associated with the Illegal Killing of Elephants: A Hierarchical Bayesian Analysis of Carcass Encounter Data. *PLoS One* 6(9).

SAVE THE ELEPHANTS

WCN
Wildlife Conservation Network

ELEPHANT CRISIS FUND

MARCH 2015 PROGRESS UPDATE

Africa's elephants are in crisis. Driving the killing is a complex, international ivory trade that thrives on poverty and insecurity, organized crime, corruption, and greed. Approximately 100,000 elephants were killed for ivory in just three years between 2010 and 2012. In 2014, a record weight of ivory was seized at border controls around the world and ivory prices in China reached unprecedented highs. As a result, frontline intelligence indicates that many local populations are at risk of imminent extinction. Without urgent international action, elephants could disappear from the wild within a generation.

A global coalition is needed to confront the threat. Individuals, scientists, conservation organizations and governments are uniting behind the strategy to stop the killing, stop the trafficking and stop the demand for ivory. The Elephant Crisis Fund exists to fuel this coalition.

The ECF is on track to achieve its $5 million fundraising goal by early 2015, nine months ahead of schedule. This report highlights the victories, challenges, surprises and setbacks that the Elephant Crisis Fund has encountered to date through 36 projects with 23 partners.

In the Activities and Outcomes section below, we dive into the detail of the astonishing work of the partners funded by the ECF, complete with close-fought battles against brutal rebel militias, aircraft that have flown patrols equivalent to two and a half circumnavigations of the world, and community rangers who – guided by the latest elephant-tracking technology – have turned an entire landscape from an elephant killing field to a relative sanctuary.

The Power of the ECF

The ECF is not a fundraising tool for a large organization with a host of priorities and high operating costs. It is a platform to support all elephant conservation projects doing important work, no matter their size. Save the Elephants has more than half a century of single-minded focus on elephant conservation that is deeply rooted in its on-the-ground work and yet also reaches the uppermost corridors of power. The ECF combines this experience with the efficient support of the Wildlife Conservation Network and has only one goal: to end the crisis. Once we have achieved this and the fund is wrapped up, our organizations will be no richer, except in having helped solve one of the great conservation challenges of our time.

A principal goal of the ECF is to foster collaboration. Without concerted action from the wide spectrum of individuals and organizations involved, the tangled web of the ivory trade may never be unwound. At diplomatic levels this is being achieved through Save the Elephants' catalytic role in the Clinton Global Initiative's Partnership to Save Elephants, United for Wildlife. The most recent challenge in this realm has been to create consensus among the various elephant experts and range states who disagreed over the best strategy. STE had a key catalytic role in the solution, a triumphant meeting in London in February where the Elephant Protection Initiative was agreed and signed into a charter by an initial group of five African nations.

Through its unique, no-overhead model and close operational partnerships with all players, the Elephant Crisis Fund is able to create collaboration where there once would have been competition.

Science to Save Elephants
The Elephant Crisis Fund represents a deeply experienced, coalition-building source of finance that is above all led by the facts. Save the Elephants stands for the most accurate figures on the African Elephant and its status, in full awareness that data are often incomplete and at times contradictory. Through deep involvement with both the African Elephant Specialist Group (STE has four serving members) and as Official Advisor to the Great African Census that is currently re-surveying populations across the continent, we have a direct feed of the best and most up to date information on the status of Africa's elephants.

Without accurate figures, no one can gauge the full severity of the elephant crisis and what needs to be done to halt it. Until recently, some quarters challenged the claim that poaching was depleting Africa's elephants. This challenge was met with hard data and resulted in a victory for science in the form of a universal endorsement that the rate of killing is unsustainable.

Good information on what is happening with elephants in different areas might seem a simple matter but in fact requires an enormous collation of facts and inspiration of people to do the work. The very process of gathering data from the wide network of contacts that we have collected over the past 50 years improves our knowledge both of the current situation and of what can be done to improve it. The ECF has played a catalytic role in this process because, in the process of discussing specific populations, we entered into a position to fund workable solutions.

Once it was established that the poaching was unsustainable, our next challenge was to put a verifiable figure to how many elephants were being killed. STE's close monitoring of the poaching-hit elephant population of northern Kenya allowed us to understand the metrics coming out of less well understood areas, providing the heart-stopping estimate of 100,000 elephants killed in just three years. Released mid-2014, it is an achievement that this figure has now become one of the standard measures used to describe the crisis, quoted by senior figures across the spectrum of those involved in the issue.

In the last year Save the Elephants published two other highly influential analyses that guide not only our strategy but also those of decision-makers around the world. Other landmark reports exposed ivory trafficking networks in East Africa and the full scale of China's ivory boom, both of which made waves to the highest levels of diplomacy.

Getting conservation work done in Africa often relies on individuals and organizations that have long local experience and deep relationships, allowing them to sidestep the hurdles of bureaucracy and corruption. These field-based operations often lack the office staff to chase funding and so lose out to bigger outfits that employ specialist grant writers but are less effective on the ground. The ECF has met this challenge head on, and we are proud to present the work being done by the small, deeply-rooted organizations that we have identified and supported so far.

Big does not always mean bad, however. In areas where large organizations are already embedded, the ECF has also been able to contribute in a highly effective way. This can mean working with partners that are putting extra efforts into protecting elephants (e.g., National Parks Agency in Gabon). It can also come in the shape of bridge funding, when existing donors have changed criteria (e.g., WWF in Cameroon) or a big grant is taking too long to reach the ground (e.g., Foundation Lukuru in the DRC), leaving elephants exposed as a result. Some funders are unable to support critical work, such as intelligence-gathering networks or armed patrolling, and the ECF is able to plug these gaps.

Finally, a key challenge met by the ECF is that of providing rapid and catalytic finance. Funding radical ideas to provide proof of concept is an important step toward creating change and bringing about long-term support. The speed with which ECF support can reach the ground is also critical in some cases, where an intervention within 48 hours can save a situation that might have been vastly more expensive – or perhaps impossible – to save otherwise (e.g., Dzangha Sangha and the Tsavo Air Wing).

The Future

The first phase of the Elephant Crisis Fund has proved the effectiveness of the model for catalysing change at all three levels of intervention.

With the nature of the ivory trade continually evolving, a united, fact-based and collaborative approach between actors is crucial to securing the support of the Chinese Government to lower the demand for ivory. We are expanding our reach and understanding of who the most important potential partners are.

The ECF's role in thwarting ivory trafficking will be to continue gearing up intelligence and interception efforts through partners who have deep relationships with national governments, improving systems by pushing new forensic methods and getting advances into the field as rapidly as possible.

On the ground in Africa, two general trends for the ECF's anti-poaching efforts have emerged as priorities. Firstly, the key elephant strongholds in the forests and savannahs have to be given intensive protection. Secondly, we should defend outpost elephant populations whose numbers may be small but whose location makes them important. These 'Elephants on the Edge' may be remnants, but – as with those from the forest strongholds – they can act as seeds for the future.

Projects Funded by the ECF

While some projects have been completed and the results are clear, others have only recently begun. In this list, the descriptions of more nascent projects lay out the issues to be tackled. Some projects have been excluded from this list for reasons of confidentiality.

<u>Anti-Poaching</u>

1. Protecting Dzangha Sangha (Central African Republic): Following an invasion by rebels who began killing elephants in the World Heritage Site of Dzangha Bai, rapid deployment of ECF support helped to recapture the world's best-known forest elephant population before the situation escalated.
Implementing Partner: Wildlife Conservation Society.

2. Defending Ivindo National Park (Gabon): Greater patrol activity and training for rangers in Gabon's Ivindo National Park, together with a new intelligence unit, is protecting forest elephants from an increased poaching threat. High rates of illegal killing in Gabon over the past decade make Ivindo a priority as the country's most strategic frontline to secure elephant strongholds. *Implementing Partner: Gabonese National Parks Agency.*

3. Supporting Air Patrols in Tsavo (Kenya): Tsavo is home to one of the last concentrations of Great Tuskers left in Africa. The ECF pays for fuel and a pilot to fly a Supercub bush aircraft over the vast Tsavo Ecosystem. The ECF has also donated a vehicle to the Kenya Wildlife Service for integrated ground operations to protect these iconic animals. The last two years have seen the plane cover over 67,000 miles in 900 hours of patrolling. Over that time, there were 17 armed contacts, 47 arrests, 65 tusks recovered and 90 poachers' hide-outs discovered. *Implementing Partner: Tsavo Trust.*

4. Defending the Babile Elephant Population (Ethiopia): Ethiopia is a friend to elephants in international negotiations but will only be at the table as long as there are elephants within its borders. The population of the Babile Elephant Sanctuary was recently thought to be beyond rescue. However, a ground survey discovered 200 surviving elephants. The ECF mobilized rapid support to revitalize ranger forces with training, six motorbikes, and other equipment. With a new outpost under construction, morale is now high, and only one elephant has been reported lost in the last six months, compared to eight in the previous six months. *Implementing Partner: Born Free.*

5. Reinforced Patrolling in Niassa (Mozambique): One of Africa's biggest protected areas – home to one of the continent's most important elephant populations – is in trouble. Poachers have hit hard, aided by Niassa's remoteness and vast size. A disparate group of interests hold 'concessions' in the conservation area, and uniting them in common cause is critical. Initial ECF funding supported increased aerial patrols and an advanced data collection platform to plan scout patrols and analyze threats. We are now undertaking detailed negotiations to help tackle some of the systemic problems, starting with a proper communications network. *Implementing Partner: Wildlife Conservation Society and Niassa Lion Project.*

6. Masai Mara Quick Response Unit (Kenya): The Masai Mara, the northern section of the cross-border Mara-Serengeti Ecosystem, is enduring Kenya's most serious ongoing poaching pressure. The ECF funds an SAS-trained quick response team guided by the real-time elephant tracking data provided by STE. This project has also served to unite various disparate conservation organizations working in the area. *Implementing Partner: Mara Elephant Project.*

7. Northern Kenya Security Matrix (Kenya): Samburu in Northern Kenya is home to one of Africa's best-studied elephant populations, but the elephant social structures that STE studies there have been badly fractured by poaching. STE, the Northern Rangelands Trust and other partners have been using high-tech elephant tracking technology (supported by the ECF) to guide ranger deployment, building strong community engagement, and working in tight collaboration. Poaching has now been reduced to the point where births exceed deaths for the first time since the crisis began. *Implementing Partner: Save the Elephants with Northern Rangelands Trust.*

8. Protecting a Forest Elephant Stronghold in Cameroon: Boumba Bek & Nki National Parks in the southeastern corner of Cameroon are rich in biodiversity, with significant populations of forest elephants as well as western lowland gorillas and chimpanzees. Ivory poaching has been rampant in the TRIDOM area of which the parks are part, fuelling further insecurity. The ECF gave direct support to security staff costs, training, and the creation of an informant network. Throughout the course of 68 patrols (5,779 man days), 91 guns were captured, 155 poachers' camps were destroyed and 10 poachers were sent to court. *Implementing Partner: World Wildlife Fund.*

9. Boosting Security in the Tutu Basin (Democratic Republic of Congo): When conservationists John & Terese Hart contacted us in July 2014, their situation was intense. Their small organization had created a successful coalition with government forces that was quelling the spread of poachers in a key stronghold of forest elephants, but a funding shortfall meant they were about to have to disband anti-poaching units and intelligence-gathering efforts. The ECF intervention bridged this gap. Building on success in the northern area of their project zone, the team is now securing the south, where signs of elephants are being seen for the first time in over a decade. *Implementing Partner: Foundation Lukuru.*

10. Securing Thuma Forest Reserve (Malawi): Thuma is one of the only forest reserves in Malawi where elephants still roam. An ECF grant provided funding for 20 anti-poaching scouts to secure the elephants in this rugged forest reserve. *Implementing Partner: Wildlife Action Group.*

11. Amboseli Air Support (Kenya): With the Kenya Wildlife Service (KWS) central office in disarray, it is important to support those field officers who are still trying to do their job. Part of this grant puts diesel in the tanks of Amboseli National Park's anti-poaching vehicles (without it, they run out in the first few days of the month). The rest funds aerial patrols by Big Life, run in close collaboration with local KWS officers. *Implementing Partner: Big Life Foundation.*

12. Virunga Elephant Tracking (Democratic Republic of Congo): Emanuel Demerode, Virunga National Park's charismatic warden, is engaged in a life or death struggle for the future of this most celebrated of Africa's National Parks. Fewer than 100 elephants are thought to remain. Demerode has requested Save the Elephants to deploy tracking elephant collars to feed data into the ranger command center to help protect the elephants of Virunga. *Implementing Partner: Save the Elephants / Wildlife Conservation Society.*

Anti-Trafficking

13. Increasing Penalties for Wildlife Crimes (Kenya): When the Wildlife Crime Watch program began, only four percent of suspects in ivory and rhino horn cases went to jail, and the maximum fine received for ivory possessions was just $350. This program has now fought for tougher sentencing, trained magistrates, and created a watchdog system in Kenya's courtrooms. A year later, maximum sentences are now life in prison and fines up to $230,000, and 13 percent of those found guilty are jailed. Kenya's Chief Justice has thanked Save the Elephants personally for the work, which has laid the foundation for the current project, the Ongoing Courtroom Monitoring project. *Implementing Partner: WildlifeDirect.*

14. Identifying Wildlife Crime Routes (Kenya): A rapid assessment of the movement of wildlife trophies (elephant tusks, cat skins and rhino horns) through Kenya has been undertaken to establish entry, route and exit points of ivory as well as the modus operandi of dealers and cartels. *Implementing Partner: WildlifeDirect.*

15. Ongoing Courtroom Monitoring (Kenya): Building on the success of Wildlife Crime Watch, Wildlife Direct has begun monitoring every ivory crime court case in county courts across the country. The ongoing Feisal Ali Mohammed case is the most high-profile, and Wildlife Direct have been pivotal in keeping this case in the news. Putting eyes in the courtroom makes it more difficult to corrupt magistrates and gives authorities data from which to identify problem courts. A CCTV option is also now being explored. *Implementing Partner: WildlifeDirect.*

16. Reviewing Sniffer Dog Programs (Africa-wide): Sniffer dogs used to prevent trafficking are expensive and require careful management. To ensure the best value for money on future projects, this review investigated how best to use sniffer dogs in detecting both poachers and ivory. *Implementing Partner: Working Dogs for Conservation.*

17. Ivory Seizure Analysis (USA): An ivory tusk's DNA can give an accurate idea where the elephant that the tusk belonged to lived. Analyze a seized shipment and you get a snapshot of the smuggling network that collected it, which is invaluable information for shutting down future activity. Dr. Sam Wasser of the University of Washington was a pioneer of the profiling technique and has built a lab in Kenya to expand its use. This grant provided training Kenya Wildlife Service technicians to learn to do the work. *Implementing Partner: Dr. Sam Wasser.*

Demand Reduction

18. Changing Public Opinion Through Celebrity Outreach (China): Finely-tuned television and cinema spots by stars like Yao Ming, Jackie Chan, David Beckham, Prince William and Li Bingbing have gained widespread publicity and are shifting government policy. In January 2014, a six-ton ivory stockpile was destroyed, and in March, Yao Ming presented the National People's Congress with a petition in support of an ivory ban that was backed by many of China's business leaders. *Implementing Partner: WildAid.*

19. Introducing Li Bingbing to Elephants on Film (Kenya): When popular Chinese actress Li Bingbing visited Kenya as a Goodwill Ambassador for the United Nations

Environment Program (UNEP), Save the Elephants was asked to introduce her to wild elephants and the impacts of buying ivory. The trip risked collapsing because UNEP funds could not be released fast enough, but the ECF stepped in to support her visit and the creation of a film to document it. Bingbing returned to China as an ardent advocate for elephants, and her Say No To Ivory campaign became the fastest-growing social media topic in China in four years. *Implementing Partner: Save the Elephants.*

20. Surveying the Ivory Trade (China): This investigation by seasoned ivory trade researchers determined long-term market price trends and presented them in a solid, incontrovertible fashion. The report showed that average retail prices for raw ivory in China had tripled in just four years, reaching $2,100 per kilo by May 2014. The report was front-page news in Hong Kong's leading newspaper and also received significant media attention in the west. *Implementing Partner: Independent consultants.*

21. Influencing Government Policy Through Key Opinion Leaders (China): Leaders from sectors like business, media and the arts connect with government influencers to encourage a ban on ivory sales. Major websites, law enforcement agencies and volunteer organizations are all trained in how to combat the online wildlife trade. This campaign also extends to the US, where 450,000 people have signed a petition asking Obama to ban domestic ivory trade. *Implementing Partner: International Fund for Animal Welfare*

22. Evaluating Ivory Trade Policies (China): The technicalities of banning ivory in China would be complex. To prevent such complexity from derailing momentum for the ban that elephants so urgently need, the ECF funded a review of wildlife trade laws, China's overseas ivory trade policies and the domestic ivory market. These reviews were used to provide guidance to the CITES Management Authority of China and the country's State Forestry Administration. *Implementing Partner: National Resources Defense Council.*

23. Surveying the Ivory Trade (Hong Kong/Philippines): Although China is the largest consumer of ivory, secondary markets cannot be ignored. The same team behind the China study has completed field research in Hong Kong and is visiting the Philippines in February 2015 to assess the status of ivory demand in these markets. Provisional results from Hong Kong indicate that this is the largest single ivory market in the world, with most ivory being illegally imported to China following purchase. *Implementing Partner: Independent consultants.*

24. California Ivory Ban Support (USA): The fate of the US ivory market is likely to serve as a model for government policy elsewhere in the world, most importantly China. Without a functioning ban in the US, there is less pressure on China to close the ivory trade within its own borders. This small grant supports lobbying and advocacy, partner activation, and digital campaigns including email, advertising and petitions. *Implementing Partner: Wildlife Conservation Society.*

25. Changing Public Opinion Through Celebrity Outreach (Thailand): Ivory prices in Bangkok tripled during 2013, with the number of shops also increasing by 40% during that year alone. This joint project by WildAid and WWF will combine forces in an awareness campaign, building support for an ivory ban and legislative

work. With the seismic political shifts in Thailand, the partners are waiting for the most opportune moment to move forward. *Implementing Partner: WildAid / WWF.*

Stories from the Field

Ray of Light in the Heart of Darkness (Anti-Poaching)

Deep in the heart of the Democratic Republic of Congo lies a remote landscape that is one of the few remaining 'hope spots' for forest elephants. Across Central Africa, this subspecies has lost two-thirds of its population in just a decade, but here – thanks largely to the Lukuru Foundation, founded by John and Terese Hart in 2007 – there is a ray of hope.

The 23,000 square mile area does not yet have formal protection, or even a formal name. Dubbed the Tshuapa-Lomani-Lualaba (TL2) landscape after the three river basins that form its drainage, the area is home to an estimated 670 elephants. When a funding shortfall threatened to derail the Lukuru Foundation's work, the Elephant Crisis Fund stepped in.

In 2008, poaching pressure in TL2 began to increase. Guards from a nearby national park were drafted in as reinforcements but proved ineffective. Poaching gangs strengthened their occupation of the northern sector of the region. Intimidated and outgunned, guards and project staff became reluctant to venture far from their field base. Elephant populations declined by an estimated 28% between 2008 and 2012.

Things changed in early 2013 when a company of 200 soldiers from the 10th brigade of the Congolese military special security force arrived at the TL2 base camp. They had come on a short-term security mission in pursuit of army deserters suspected of being anti-government rebels. But the deserters had joined forces with the poachers, so the poachers became a target too.

The poachers were led by Colonel Thoms, an escaped convict who belonged to the infamous Mai Mai militia. Following a number of shoot-outs and deaths on both sides, the military settled semi-permanently next to the Lukuru Foundation's Obenge base camp. Their involvement in patrols has improved security and provided protection for elephants in the sector.

This is dangerous work. To the northeast, in the Okapi Wildlife Reserve, a field station of the Institute for the Congolese Conservation of Nature was attacked by the Mai Mai in retaliation for its success in elephant protection. Six people were killed, including two wildlife rangers. To the west in Salonga National Park, it is endangered bonobos that are paying the price - they are being targeted by ivory poaching gangs as a source of food during raids of the park.

From February 2013 to the present, Lukuru has recorded no case of elephant poaching, nor any evidence of elephant poaching in the areas patrolled. This improvement was only possible because the Lukuru Foundation was able to keep the TL2 teams on the ground and supply logistical support and rations to the military.

In the southern sector of the landscape, ECF support has focused on protection for remnant populations of elephants in areas where they had been depleted during Congo's civil war a decade ago. With the return of security and patrolling, this area has the potential to host a significant elephant recovery in the future. The ECF supported legal pursuit of a poaching gang that had links to traditional chiefs and military from garrisons in Lodja, in East Kasai Province, and has helped to strengthen relations with security services and provincial authorities.

Lukuru's work in DRC highlights the difficulty of providing security over more than a small area in the forest and the complexity of working with the civil and military authorities in a nation with the challenges that DRC presents. Their success hinges on their inside knowledge of local power-brokers and complex politics and on cooperation with government forces, a partnership made possible by Lukuru's deep roots in the region. The ECF's grant was timely and, having weathered this difficult period, the core elements of the project will now be self-financing.

The Fall of an Ivory Crime Kingpin? (Anti-Trafficking)
When a warrant was issued in June 2014 for the arrest of Feisal Ali Mohammed, an ivory trade kingpin, after a large ivory shipment was discovered in Mombasa, Kenya, a dramatic test case for Kenya's reformed wildlife laws began.

Things didn't start well. Despite the warrant, police appeared unwilling to arrest the suspect. Paula Kahumbu, Director of ECF grantee WildlifeDirect, confronted the head of Kenya's police force about the case. She was ignored by the official, but not by the press.

In the midst of mounting public pressure on the police to make an arrest, Feisal Ali Mohammed fled the country. Meanwhile, ivory samples from the seizure were shipped for DNA analysis at the University of Washington, where Dr. Sam Wasser specializes in isolating where in Africa elephants that were killed for their ivory had lived. Such data is important both for the prosecution of the individual case and for understanding the trafficking trends behind the trade to enable better enforcement.

In November 2014, Feisal Ali Mohammed appeared on Interpol's list of the 9 most wanted environmental criminals. A month later he was finally arrested in Tanzania and extradited to Kenya. There, a newly-formed wildlife crime unit under the Director of Public Prosecutions took the case, and – thanks partly to the ECF-funded Courtroom Monitoring project by Wildlife Direct – the world's eyes are on the case. In January the prosecutors persuaded the court to refuse bail while we await verdict and, hopefully, sentencing.

Ivory's Journey from Culture to Commodity (Demand Reduction)
When ECF-grantees and ivory market researchers Lucy Vigne and Esmond Martin spent a month visiting over 1,000 ivory retail outlets and factories in Beijing and Shanghai in 2014, they not only charted a huge escalation in prices but also noticed a surprising surge in a hitherto little-seen feature of the trade.

Increasingly, the most valuable and prestigious items on offer in shops selling ivory are not traditional, carved ivory items but whole, uncarved tusks. The finding is corroborated by work conducted by Yufang Gao, another ECF grantee (he received top-up funding for an information-exchange visit between African and Chinese conservationists).

In his research, Gao found that ivory price rises were increasingly being driven by investors attracted by the rise in the value of ivory as a commodity rather than solely an influx of newly-wealthy buyers seeking status symbols in carved ivory artwork.

Understanding the evolving demand for ivory is critical to keeping work to share awareness with China tightly-focused and impactful.

Monitoring & Evaluation

One great strength of the Elephant Crisis Fund is its rapid and efficient deployment of funds to provide an immediate response to the most urgent needs. We strive to minimize the administrative burden on our field partners in order to allow them to focus on effective implementation rather than dealing with paperwork. We can afford to do this because of our broad-reaching networks and long experience in elephant conservation. In almost all cases, we are dealing with trusted partners that we have worked with for many decades. While we do have formal reporting requirements, we keep these as light as possible and focus on collecting information on the performance of projects through regular personal communications with field implementers.

The projects below have helped us learn how to better shape future projects selected for ECF funding. In addition to the 'Stories from the Field', below are a few projects that have provided some learning opportunities for us as we consider future ECF grants:

Loss of an Icon - Tsavo Air Wing

Satao was an iconic Great Tusker from Tsavo. It is increasingly rare to see Great Tuskers such as these, as ivory from extra-large male elephants like Satao is a high-value target for poachers. He was even mentioned in some of the initial proposals and marketing materials for the Elephant Crisis Fund.

A year later, Satao lay dead in Tsavo's red earth, the victim of a poacher's poisoned arrow. Despite all of the investment the ECF had made in supporting anti-poaching efforts in the parks, the price on Satao's head had been too high. In the press there were questions raised about the effectiveness of anti-poaching efforts, mainly directed against the Kenya Wildlife Service (KWS). His death caused us to look at our strategy again, to re-evaluate our project. Were we succeeding or failing?

Analyzing the situation in Tsavo, it is apparent that Satao's death was more a statistic than a trend. Although we mourned his death, there are still 11 other Great Tuskers under the surveillance of our ECF project, and many other promising younger bulls coming up. The extra aerial patrolling that our grant covers can never provide 100% safety. We have been able to measure the risk landscape through the ratio of

carcasses to live elephants derived from an aerial count conducted in early 2014, and this shows that Satao lived in one of the safer areas of the Tsavo Count.

Since Satao's death, we have increased the capacity of KWS ground forces to act on information provided by the aerial patrolling through the donation to KWS of a new Landcruiser outfitted for and dedicated to anti-poaching. We have also funded a ground-based elephant monitoring unit (trained by Save the Elephants field staff) that concentrates on building a database of individuals and their habits for improved patrolling as well as awareness.

Through the loss of Satao, we have felt and learnt the lesson that, although we might reduce the casualty rate, in this war there are still casualties. His death was not in vain, however, for through it we have increased our ability to help protect the tuskers that remain in Tsavo.

Reviewing Sniffer Dog Programs - Working Dogs for Conservation
As part of this project, Working Dogs for Conservation visited nine conservation practitioners across Africa to assess the successes and challenges of detection dog programs. The review encompassed programs in South Africa, Gabon, Republic of Congo, Democratic Republic of Congo, Kenya, Tanzania, and Zambia. Most of these programs reported successes, such as apprehending poachers and wildlife contraband. It is clear that every conservation canine program, regardless of the type of dog used or type of work performed, required good technology, infrastructure and information in order to succeed. Through this project we were better able to understand the limitations of detection dog programs, and some of the factors that we should consider when making decisions about future funding for detection dog projects, including:

- Primary limitations in this industry include lack of equipment and sufficiently trained staff, and, occasionally, disease. Another major limitation included lack of motivation in dog handlers, primarily due to lack of sufficient training and deployment opportunities or lack of financial incentives or adequate equipment.
- The shortfalls of many detection dog programs, primarily due to insufficient access to current information, techniques, and training. We found that there was a lack of transparency and information exchange both within and among canine programs, despite the fact that many programs asked for help in building regional and continent-wide information-sharing networks to assist handlers, trainers, and operations. Future projects should include external training audits and information exchanges, regional meetings and regionally agreed-upon standards to provide measures of effectiveness, safety, and success.
- Future project implementers must also have good relationships with national law enforcement agencies, which this survey found to be essential to working effectively with conservation canine unites. Strong relationships between wildlife authorities and law enforcement can allow evidence collected by canine teams to be incorporated into criminal cases and to inform other investigations (e.g. drugs; human trafficking); these relationships also create potential for canine teams to be added to ongoing human patrols.

One other area we've not experienced success in is the creation of a master list of all projects being undertaken by all NGOs in order to help guide us in our triage

decision-making. Such a document is important for the coalition of agencies involved in addressing the crisis to be able to cross-reference with population, threat level and other criteria. While we had hoped to be able to achieve this through an informal alliance with one other NGO (the Zoological Society of London), we now realize that, in order to overcome the challenge of sharing this information, we will need a wider coalition created at a higher level than initially anticipated.

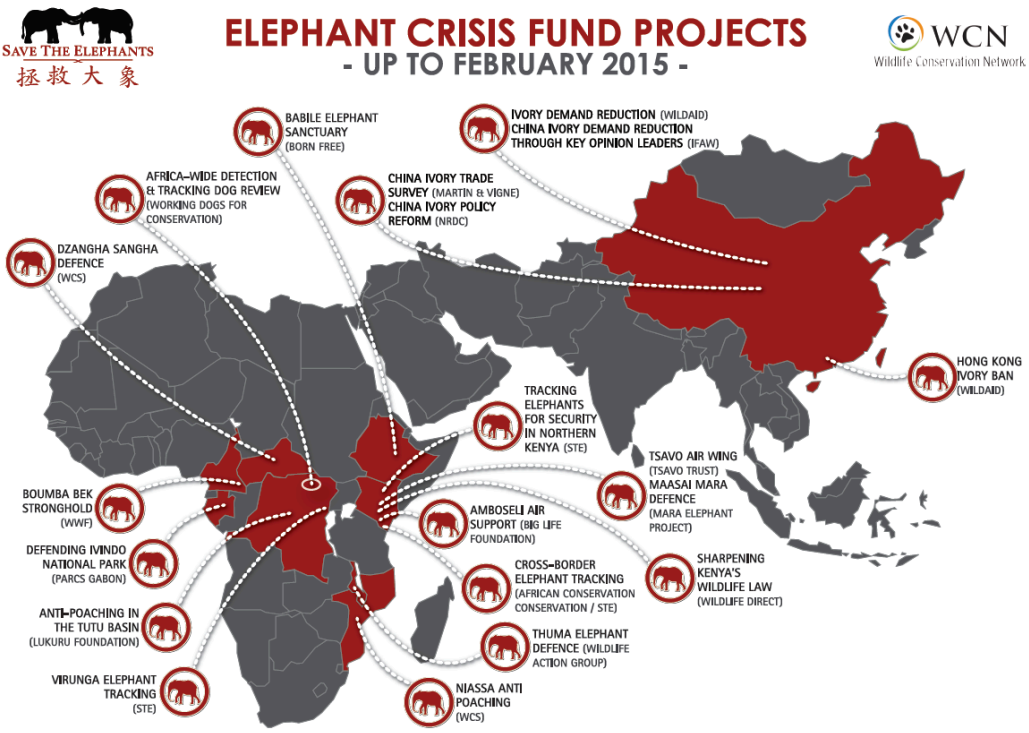
In the initial phase of the Elephant Crisis Fund, we responded where we knew there were issues and we could identify effective partners to address them. We needed to do as much as possible, fast.

As we move forward, we will strive to keep the light-footed and catalytic approach that has proved so powerful while also taking a more systematic approach to identifying places and priorities. As part of this, we are in the process of analyzing every elephant population in Africa. In addition, we are continuing to fine-tune the criteria for ECF projects, which will guide future selection processes.

Budget

$4.85M for the Elephant Crisis Fund to date.

Of these funds, $3.05M has been allocated to ECF projects, $950,000 tentatively committed to projects and $300,000 unrestricted funds currently available for allocation to urgent projects.



Map showing Elephant Crisis Fund partnerships across the world as of February 2015