



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
International Affairs  
5275 Leesburg Pike, MS: IA  
Falls Church, VA 22041-3803

In Reply Refer To:  
FWS/AIA/DMA

## Memorandum

To: The File

From: Chief, Branch of Permits  JUL - 3 2015

Subject: Enhancement Finding for African Elephants Taken as Sport-hunted Trophies in Tanzania during 2015

The African Elephant (*Loxodonta africana*) is listed as threatened under the U.S. Endangered Species Act (Act) with a special rule [50 CFR 17.40(e)]. In addition to other items, the special rule gives the requirements for the import of sport-hunted trophies. Under paragraph 17.40(e)(3)(iii)(C), the U.S. Fish and Wildlife Service (Service) must make a finding that the sport-hunting of elephants will enhance the survival of the species in the wild.

In a meeting in Washington, D.C. on February 17, 2011 between the Service and the Tanzania Ministry of Natural Resources and Tourism (MNRT), the Service was provided with a copy of Tanzania's Elephant Management Plan 2010 – 2015, signed and endorsed by the Minister for Natural Resources on January 15, 2011 (the last National Elephant Management Plan for Tanzania had been produced in 2001). The 2010 Elephant Plan identified nine (9) Strategic Objectives which needed to be address for the effective management of Tanzania's elephant population. The Plan also identified three major issues impacting Tanzania's ability to manage its elephants. The first was the growth in Tanzania's human population which had doubled in size since 1984, putting increased pressure on the country's natural resources and creating challenges in conserving its elephants, (e.g., increased human-elephant conflicts). The second was the threat to healthy and sustainable elephant populations from an increasing loss of connectivity between important wildlife habitat areas in Tanzania. Existing wildlife corridors were under increased pressure from expansion of agriculture lands, increased human settlement, and habitat destruction caused by logging and charcoal production. The third issue was the ability to provide increased protection for Tanzania's elephant population. There had been an upsurge in elephant poaching occurring across eastern and central African over the past three to five years, apparently fueled by the increased demand for ivory in Asia. This increase in demand had also impacted several distinct elephant populations within Tanzania. A 2009 national

elephant census showed an overall decline in Tanzania's elephant population for the first time since 1989.

Since that time, the Service has received more recent population surveys and biological information to indicate a continued decline in Tanzania's elephant population. One example is the Selous-Mikumi ecosystem that was once an elephant stronghold representing the second largest elephant population in Africa and approximately 40% of Tanzania's elephant population. A June 2015 announcement by Tanzania's Minister for Natural Resources and Tourism indicated that this ecosystem had experienced a 65% population decline in the last three years, from a population of approximately 44,000 to 15,000. Of further concern are the numerous reports of questionable government activities relating to how the elephant hunting program is being managed. While the Service recognizes that a well-managed hunting program could provide a conservation benefit to Tanzania's elephant population, there are indications that Tanzania's program is being managed in a manner whereby participation by U.S. hunters may no longer provide a conservation benefit to the species as is required under the Act. In addition, information regarding financial resources and infrastructure indicates that the Tanzania Government may no longer have the ability to effectively manage and protect its elephant population. We have also received information to indicate that ivory poaching has continued to increase in some parts of the country, and that human-elephant conflict has continued to rise with an ever increasing human population and settlement into elephant habitat for agriculture use and livestock grazing. Therefore, based on the information the Service has as of this date, we are *unable to find* that the taking of sport-hunted elephant trophies in Tanzania will enhance the survival of the species. If additional information is received, we will take any new information into consideration at that time.

#### Basis for Finding:

***Management Plan:*** On March 21, 2007, the Division of Management Authority (DMA) sent a letter to the Wildlife Division, MNRT, requesting updated information relating to their current management program for African elephants. This request was stimulated due to the Service not having any substantive communication with the government of Tanzania regarding their elephant management program and elephant hunting in Tanzania for several years. The DMA request related specifically to the following areas: (1) existence of an elephant management plan; (2) current population status of Tanzania elephants; (3) existing legislation and programs relating to elephant conservation and management; (4) elephant trophy hunting quotas for Tanzania; (5) threats of poaching and human-elephant conflicts; (6) revenue generated by trophy hunting; and (7) operations involving trophy hunting in Tanzania. The Service received an email response to this letter on July 1, 2008. While this communication indicated that Tanzania's original response had been sent to DMA on October 29, 2007, by an acting Director of Wildlife, Mr. F. Lyimo, the Service had no record of this official response having been received.

The 2008 e-mail indicated that Tanzania had an approved Policy and National Management Plan for African Elephant that was developed in 2001. This plan was also reviewed on a regular basis to accommodate new insight and other issues deemed pertinent to the conservation of the African elephant. The identified objectives of this elephant management plan were to increase elephant numbers and restore age and sex structures; promote economic value of elephants through tourist

game viewing and sustainable harvest through tourist hunting; control elephant numbers where necessary and appropriate (mitigate human-elephant conflict); and incorporate community-based conservation whereby local communities realize a direct benefit from the sustainable utilization and management of elephants. This plan was intended to be implemented throughout the entire country.

More recently, a February 17, 2011, meeting between the Service and the MNRT occurred in Washington, D.C. to discuss concerns by the Government of Tanzania and the Tanzania Hunting Operators Association (TAHAO) relating to potential changes the Service might implement regarding import permits issued to clients intending to hunt elephants in Tanzania in 2011. These concerns were based primarily on the July 23, 2010, Convention on International Trade in Endangered Species (CITES) non-detriment finding prepared by the Service's Division of Scientific Authority (DSA). In that finding, DSA raised several concerns, the first being the availability of future resources to the Wildlife Division to combat poaching in Tanzania, especially in the Selous-Mikumi ecosystem. The second involved the threats to wildlife corridors within Tanzania which allows for elephant movement throughout Tanzania and transboundary populations. These corridors were under increased pressure due to the rising human population in Tanzania, loss of these corridors due to the expansion of agricultural lands, and human expansion into elephant habitat. During this meeting, the Service received a copy of Tanzania's Elephant Management Plan 2010 - 2015, prepared by the Tanzania Wildlife Research Institute (TAWIRI) with the financial support of the Government of Tanzania. This document was endorsed by the Minister for Natural Resources and Tourism on January 15, 2010. The document identified nine key strategic objectives for a management plan: (1) human-elephant conflict; (2) elephant corridors; (3) law enforcement; (4) benefits/sustainable utilization; (5) management of ivory stockpiles; (6) research and monitoring; (7) elephant health and welfare; (8) cross-border cooperation; and (9) elephant information management.

In the 2011 meeting, Mr. Erasmus Tarimo, Director of Wildlife, MNRT, provided a summary of the strategic objectives under the national elephant plan. Mr. Tarimo noted the many challenges to the plan, including: low human resources and financing; the large area covered by Tanzania; the high demand for ivory; an increase in poverty; increased frequency of human-elephant conflicts due to human population growth; political resistance to maintaining wildlife corridors; reversing attitudes people have towards elephants; and providing local communities with a stake in managing, protecting, and conserving elephants as both a natural and economic resource. Mr. Tarimo stated that major reforms were underway to improve the management of wildlife outside National Parks and the Ngorongoro Conservation Area and Game Reserves. He also stated that trophy hunting played a major role in wildlife conservation in Tanzania. Mr. Tarimo went on to state that the Government of Tanzania was in need of United States support to help strengthen their law enforcement capabilities in protected areas and to assist with anti-poaching operations.

Based on this discussion and the document provided to the Service, we have concluded that the "Elephant Management Plan 2010-2015" was a very good starting point for Tanzania, provided that the country strived to overcome the challenges presented by Mr. Tarimo and strived to fully implement the plan throughout Tanzania. However, the presence of a plan, particularly a plan that is not fully implemented, was not sufficient in and of itself to meet the criteria established by the ESA or CITES.

**Population Status:** Tanzania's Protected Area (PA) network for wildlife includes six ecosystems: Tarangire-Manyara, Serengeti, Selous-Mikumi, Ruaha-Rungwa, Katavi-Rukwa; and Moyowosi-Kigosi. In 2006, the Tanzania Wildlife Research Institute (TAWIRI 2007, as cited in CoP15 Doc. 68, Annex 6a) estimated the African elephant populations in these six ecosystems within Tanzania at  $139,915 \pm 12,338$  (SE) animals, based on census surveys covering 227,328 sq.km using both total and sample counts. This estimate was not significantly different from the  $111,475 \pm 18,728$  (95% CL) elephants estimated in 2000-2003. It was noted that the 2006 estimate did not include 2,873 additional elephants from areas that had not been previously surveyed, providing a country-wide "best estimate" of  $142,788 \pm 12,405$  (SE) elephants in 2006 (CoP15 Doc. 68, Annex 6a). According to the IUCN SSC African Elephant Status Report 2007 (Blanc *et al.*, 2007), the 2006 elephant population in Tanzania was categorized as being an estimated 108,816 elephants identified as "definite," 27,937 "probable," 29,350 "possible", and 900 "speculative". These estimates were based upon aerial or ground counts, direct sample counts, reliable dung counts, and informed guesses. This was a reported increase from the 2002 report, which estimated 92,453 elephants as "definite," an increase of 16,363 elephants. The report attributed this increase largely due to the results of new estimates from methodologically comparable surveys. The report stated that although over 60% of the country's estimated elephant range was covered by good quality counts, over a third of the estimated range still remained unassessed. According to the 2007 IUCN report, an aerial survey of the Ruaha-Rungwa Ecosystem conducted by the Tanzania Wildlife Research Institute (TAWIRI, 2007), found an estimated  $35,409 \pm 11,507$  (95% CL) elephants. An aerial survey of the Selous Ecosystem (TAWIRI, 2007), found an estimated  $70,406 \pm 24,843$  (95% CL) elephants. These areas account for the two largest elephant populations within Tanzania and Tanzania alone accounted for about 80 % of Eastern Africa's regional population.

In 2009, a similar survey was conducted across the same six ecosystems covering 229,318 sq.km. This census produced a total population estimate of  $105,439 \pm 6,080$  (SE) African elephants (TAWIRI 2010a, as cited in CoP15 Doc. 68, Annex 6a). A "best estimate", which included an additional 3,583 elephants, provided a country-wide estimate of  $109,022 \pm 6,135$  (SE) elephants in 2009. The results of this survey suggested a significant decline compared to the 2006 estimate of 142,788 elephants and that the decline could be attributed in large part to a downward population trend recorded in the Selous-Mikumi ecosystem (CoP15 Doc. 68, Annex 6a). According to the 2013 IUCN SSC Provisional African Elephant Status Report (AESR 2013), the 2012 elephant population in Tanzania was categorized as being an estimated 95,351 elephants defined as "definite," 10,278 "probable," 10,927 "possible," and 900 "speculative." These survey numbers were based upon the same methodology used in the 2007 report. There was a clear decrease in population from the 2007 report, which estimated 108,816 elephants as "definite," 13,465 elephants. According to the 2013 IUCN report, the 2009 aerial sample counts of the Ruaha-Rungwa and the Selous-Mikumi Ecosystems (TAWIRI, 2009), replaced the 2006 survey of those systems. The Ruaha-Rungwa survey found an estimated  $31,625 \pm 5,665$  (95% CL) elephants and the Selous-Mikumi survey found an estimated  $38,997 \pm 5,183$  (95% CL) elephants. Both surveys represented a decline in those populations, with the Selous-Mikumi ecosystem experiencing a significant decline of more than 30,000 elephants. According to TAWIRI, there were methodological issues during the 2006 survey that is believed to have resulted in an overestimate of this population. Taking several factors into account, TAWIRI

estimated the actual population in the Selous ecosystem would have been approximately **50,000 elephants in 2006**. This still represents a significant decline (**approximately 11,000 elephants**) most likely resulting from illegal killing taking place in this area.

Two more recent aerial surveys were undertaken by TAWIRI during the 2013 dry season, again looking at the Ruaha-Rungwa and Selous-Mikumi Ecosystems. The preliminary results of those surveys show a continued decline in those two populations. The census of the Ruaha-Rungwa ecosystem covered 50,889 sq.km. The results of this survey produced a total population estimate of 20,090 + 3,282 (SE) elephants. This represents a significant decline (over 11,500 elephants) from the 2009 estimates. This estimate was derived from a count of 1,247 live elephants recorded along 119 transects. In addition, a total of 214 elephant carcasses were also recorded during this survey. Using these two figures, the carcass ratio for the Ruaha-Rungwa ecosystem was 14.6%. This carcass ratio is indicative of a population suffering from unnaturally high mortality. A carcass ratio of about 7 to 8% is considered to represent natural mortality (Douglas-Hamilton and Burrill 1991).

The census of the Selous-Mikumi ecosystem covered 87,421 sq.km. The results of this survey produced a total population estimate of 13,084 ± 1,816 (SE) elephants, the lowest numbers ever recorded in this ecosystem. This represented another significant decline (over 25,000 elephants) from the 2009 estimates. This estimate was derived from a count of 712 live elephants recorded along 203 transects. In addition, a total of 314 elephant carcasses were also recorded during this survey. With these figures, the carcass ratio for the Selous-Mikumi ecosystem was calculated at 30%, twice that recorded in Ruaha-Rungwa, indicating an unnaturally high rate of mortality in the two most significant elephant populations within Tanzania. These numbers indicate significant and unsustainable levels of illegal killing taking place within the two largest elephant populations found in Tanzania.

There was new census information made available on June 1, 2015, when Tanzania's Minister of Natural Resources and Tourism, Lazaro S. Nyalandu, gave a speech in Arusha to formally announce the Tanzania 2014 Elephant Census Results (MNRT *in litt.* 2015a), stating that countrywide census results of 2014 estimated 43,330 ± 3,078 (SE) elephants. When compared with the results of the 2009 countrywide census, this indicates a 60.3% decline in Tanzania's elephant population over a 5 year period.

Based on the most recent surveys, it is apparent that Tanzania has experienced a significant increase in illegal offtake due to poaching and the increased demand for ivory in the Asian market. In response to the current conditions in Tanzania and the urgent need for wildlife protection, the Service, in collaboration with USAID-TZ, awarded \$200,310 in U.S. Government funds, matched by \$378,443 from other partners, to fund four African Elephant Conservation Fund (AFE) projects scheduled to get underway in 2014. The first project was to assess patterns of poaching risk in relation to resource-constrained distribution of Mikumi elephants, for a long-term elephant protection and management strategy in partnership with the Animal Behavior Research Unit in Mikumi National Park. This project was to support TANAPA to help improve their ability to protect elephants by assessing elephant distribution and habitat use, threats and poaching activity, and deploying patrol efforts effectively within Mikumi National Park.

The second project was to monitor the long-term effects of poaching of elephants in southern Tanzania in partnership with the Udzungwa Elephant Project. This organization, in response to widespread elephant poaching throughout southern Tanzania, is working to protect a key population near Tanzania's elephant strongholds of Selous and Ruaha. Activities were to include training staff from TAWIRI, assessing four elephant populations for early warning signs of decline, and training national park staff in monitoring elephant populations and conducting anti-poaching activities.

The third project was to support aerial operations and law enforcement activities for the Selous Game Reserve in partnership with the Frankfurt Zoological Society/Grzimek's Help for Threatened Wildlife, Inc., and the Tanzania Wildlife Division. The Selous, formerly the second most numerous elephant population in Africa, has been heavily impacted by poaching for the past decade with more recent surveys indicating a population of only 13,084 elephants, the lowest levels ever recorded in that area. This project was to reinvigorate anti-poaching efforts in the Selous by supporting operating expenses for an aircraft to conduct aerial surveillance, for patrol vehicles, and for basic equipment for rangers throughout the reserve.

The final project was to support village game scouts on the Waga Wildlife Management Area, in the Ruaha ecosystem. This was to be done in partnership with the Wildlife Conservation Society. In order to improve patrol efficiency, this project would fund village game scout anti-poaching patrols and the pilot phase of a spatially explicit law enforcement monitoring technique, SMART (Spatial Monitoring and Reporting Tool), in the community-owned Waga Wildlife Management Area bordering Ruaha National Park in Tanzania.

The funds for the first project were de-obligated due to non-response and inactivity on the part of the grantee. The remaining three projects did proceed on 2014. However, these projects have also experienced inactivity, and in the case of the Selous Game Reserve project, there has been an inability to execute some of the activities under this grant due to government partners not fulfilling their part of the arrangement.

Two additional AFE projects the Service funded in collaboration with USAID-TZ for fiscal year 2014 involved monitoring the long-term effects of poaching in southern Tanzania in partnership with the Southern Tanzania Elephant Program, as well as a project designed to protect Tanzania's elephant populations through the expansion of new and innovative law enforcement methods. The Service will continue to monitor and evaluate the progress made towards implementing these projects and evaluate their success in helping to curtail any further decline in the elephant population in Tanzania.

The significant decline in the elephant population throughout Tanzania raises grave concerns over the impact of any additional offtake, including sport-hunting, on the country's elephants and its continued survival in the country. These declines must be taken into consideration with any finding made by DMA in regards to trophy imports to ensure that U.S. hunters, while operating under the best intentions, do not adversely contribute to further elephant population declines in Tanzania.

***Regulations and Enforcement:*** In Tanzania, wildlife resources are protected under several Acts of Parliament, providing the authority for all aspects of wildlife management, including law enforcement. The Wildlife Conservation Act (WCA) of 2009, which replaced the original WCA of 1974, provides the legal framework for operation of the Wildlife Division under the MNRT, including the appointment of the Director, as well as the establishment of Game Reserves, Game Controlled Areas, Wildlife Management Areas, and other protected areas such as wildlife corridors (not including national parks). The WCA also provides for the establishment of a Wildlife Authority to address the management of wildlife occurring outside the National Parks or the Ngorongoro Conservation Area, with the added responsibility for meeting international obligations involving wildlife conservation. There is also a Wildlife Protection Unit that is granted paramilitary status under the WCA, with the duty of protecting wildlife against unlawful utilization.

In addition, the National Parks Act (CAP 282 RE 2002) establishes the legal authority for the creation and management of national parks, granting powers to the Director General to enable maintenance and security within national parks, as well as the responsibility for the protection of their wildlife resources. The Ngorongoro Conservation Act (CAP 284 RE 2002) provides the legal framework for the existence of the multiple land use in the Ngorongoro Conservation Area and its management Authority under the direction of the Conservator, and also provides the authority for its maintenance and security. The Tanzania Wildlife Institute (TAWIRI, CAP 260 RE.2002), grants powers to the Director General who is responsible for research involving wildlife, and for providing this information to the Wildlife Authorities. The TAWIRI also functions as the CITES Scientific Authority for Tanzania.

The responsibility for managing Tanzania's wildlife falls under four institutions. The first is the Tanzania National Parks (TANAPA). This Parastatal Organization is responsible for managing 15 National Parks with a total area of 50,872 sq.km. In the national parks, only the non-consumptive utilization (tourism game viewing) of wildlife resources is allowed. The second is the Ngorongoro Conservation Area Authority (NCAA). This is also a Parastatal Organization which is responsible for management of only one area, the Ngorongoro Conservation Area covering 8,300 sq.km. It is the only multiple land use wildlife area in Tanzania in which the consumptive utilization of wildlife is not permitted.

The Wildlife Division under the MNRT is responsible for the management of 28 Game Reserves (GRs) with an area of 112,564 sq.km., approximately 38 Game Controlled Areas (GCAs) covering about 161,521 sq.km, and Ramsar sites covering 249,856 sq.km. There are also District Councils, Local Government institutions that work in collaboration with the Wildlife Division. These Councils oversee wildlife conservation issues and facilitate the establishment and management of Wildlife Management Areas (WMAs) on village lands that are outside Protected Areas (PAs). The framework for WMAs was outlined in Tanzania's Wildlife Policy of 1998 (revised in 2007), with legislation established under the Wildlife Management Areas Regulations of 2002, authorizing the formal establishment of WMAs. The goal of this policy is to allow for rural communities and private land holders to manage wildlife on their land for their own benefit and to transferring management responsibilities of settled and unsettled areas outside PAs to rural people and the private sector.

The WMAs are used by communities for conservation and benefit sharing in conjunction with the Wildlife Division. These local communities run the WMAs as a business venture. In the past, 50% of any hunting revenue generated was retained by the Wildlife Division which also sets quotas and

tariffs for any hunting that occurs in the WMAs. The facilitation of these WMAs commenced in 2003, with 12 of 16 original proposals achieving Authorized Association (AA) status. As of June 2010, there were an additional 12 proposals in process. The establishment of these WMAs has resulted in an additional 23,700 sq.km. of Tanzania's land area being added to its conservation network and increased capacity for protected area management through the training of village game scouts and WMA managers. As of June 2010, six out of the ten WMAs with user-rights had entered into business agreements with the private sector worth over \$3.3 million, however, it appears that only a small proportion of this money has been made available to the local communities. Over \$1.7 million was allocated to nine WMAs and several districts in which hunting took place between 2005 -2008. There have been ongoing challenges identified that need to be addressed. There is a need to investment in training and capacity development to increase the number of qualified personnel with the relevant skills needed to manage the Community-based Organizations (CBOs) and AAs. Communities need the ability to hold the CBO management accountable and ensure transparent decision-making involving WMA processes. There is also a pressing need to increase the economic benefits realized by local communities from utilization of wildlife resources. Overall, the WMAs have had a low capacity for generating income for socio-economic development, and as such, have not provide an incentive to local communities to support or even tolerate wildlife as a potential source of renewable revenue.

In 2012, Tanzania amended its Wildlife Management Area Regulations (2012), to provide a new basis for strengthening the links between local communities and wildlife management by addressing the issues of benefit sharing and control over concession allocations. Under the new regulations, the WMA's receive 75% of the block fees, whereas 25% of the block fees go to the Wildlife Division's Tanzania Wildlife Protection Fund. The WMA gets 45% of the game fees, observer fees, and conservation fees, while the remainder of these "lesser fees" is divided between the Wildlife Division, Treasury, and the District government. These new provisions provide the WMA's with approximately 60-65% of the total hunting revenue. Despite these improvements in administering the WMA system, there is information indicating that revenue retention by WMA's is still insufficient to finance and encourage sound management decisions within these areas.

Both the consumptive and non-consumptive utilization of wildlife resources contributes to about 10% of Tanzania's annual Gross National Product. The tourist industry generates approximately 1.3 billion per year with about 80 million annually going to TANAPA, NCAA, and the Wildlife Division to fund their operations. The two parastatal organizations, TANAPA and NCAA retain 100% of their revenue share. As a result, both TANAPA and NCAA are generally self-sustaining and consequently, National Parks and equivalent areas such as Ngorongoro Conservation Area, with an area covering approximately 57,387 sq.km., or 38% of all PAs in Tanzania, are adequately funded.

By contrast, the Wildlife Division's revenue share is paid to the central treasury, and the Treasury is then responsible for distributing the budgeted monies to the Wildlife Division. The Wildlife Division is responsible for the management and protection of Game Reserves with an area covering approximately 109,471 sq.km., (62% of all PAs). The Wildlife Division over a three year period covering 2007-2009, received only 63% (\$2,634,975 per year) of its approved budget from the central Treasury. This is equivalent to US\$ 24 per sq.km which, when compared to the generally accepted norm of ca. US\$ 200 per sq.km required to protect PAs across southern and eastern Africa (Cummings, 2004), is completely inadequate. With regards to the Selous Game Reserve, the equivalent figure is US\$ 19 per sq.km based on an annual actual budget of \$928,597. Based on this

level of funding, it is apparent that the Wildlife Division has not had adequate resources to be able to meet its obligations to conserve, manage, and protecting Tanzania's wildlife resources.

Of further concern is the situation with the elephant population in the Selous-Mikumi ecosystem. Prior to 2005, a Revenue Retention Scheme was in operation in the Selous Game Reserve. This was an agreement between the Government of Tanzania and the German government aid agency, GTZ, whereby a special project status was granted to Selous GR (IUCN-UNESCO, 2007). This allowed for 100% of revenue from photographic tourism, and 50% of revenue from hunting operations to be retained for management of the area. Over the 10 year period from 1994-2004, this retention scheme provided and operational and development budget totaling \$ 15.8 million, an average of \$1,576,000 annually. However, following National budget reductions in 2004, this amount retained by the Reserve declined dramatically to approximately \$800,000 in 2008. This drop in revenue coincides with a period of increased poaching in the Reserve suggesting that anti-poaching operations are severely underfunded.

In 2012/2013, the Government of Tanzania re-established the Selous Game Reserve Revenue Retention Scheme, whereby 50% of the revenue generated from photographic tourism and tourist safari hunting is retained in order to meet management and enforcement costs in the Selous Game Reserve. The government indicated that the percentage of revenue retained can be increased if needed to cover these costs. The Government of Tanzania also indicated that 85% of the Selous' revenues come from tourist safari hunting, with a major portion of this revenue coming directly from elephant hunting. They have expressed concerns that the retained revenue will not be sufficient to meet the enforcement needs in the Selous Game Reserve without elephant tourist hunting.

The hunting of elephants is permitted in Game Reserves, Game Controlled Areas, and Wildlife Management Areas where designated hunting blocks exist. The trophy hunter is required to pay of a license fee that ranges from \$7,500 to \$25,000, the fee being determined by the tusk size of the animals shot and the type of weapon used. The minimum tusk size of a trophy animal had been 15kg for males and females. In 2014, the minimum requirement for a legal trophy was raised to a weight of at least 20 kg or a length of at least 1.6 meters. In 2007, Tanzania notified the CITES Secretariat that it had established and export quota of 200 elephants (400 tusks), an increase of 100 bull elephants a year. This quota remained in place until 2014, when Tanzania notified the Secretariat that it had lowered its annual CITES export quota to 100 elephants (200 tusks) to improve the overall management of its elephant population. Historically, the legal off-take has been less than 50% of the established quota.

U.S. hunters are the primary recipients of licenses in Tanzania. It is the belief of these hunters, as well as the DMA, that the funds generated from these licenses are being used for conservation purposes. If, however, only a limited portion of these funds are actually utilized for conservation, it raises further concerns that U.S hunters are not actually contributing the level of conservation funding they are led to believe, and therefore, are not likely to meet the ESA criteria of showing that imports of their trophies contribute to the enhancement of the species.

**Sustainable Use:** The elephant deaths that occur in Tanzania are a result of several factors, including: 1) natural mortality; 2) trophy hunting; 3) problem animal control; and 4) poaching. In considering whether any level of off-take from trophy hunting is sustainable, the level of both legal and illegal take, as well as the rate of natural mortality throughout the country, must be taken into consideration. As previously stated, in 2014, Tanzania established an export quota of 100 bull

elephants (200 tusks), half the quota established from the previous year. This export quota has remained unchanged for 2015. From 2007-2013, Tanzania had an established export quota of 200 bull elephants (400 tusks). From 2003-2006, the export quota was set at 100 elephants (200 tusks). During the period from 1997-2002, the quota was set at 50 elephants (100 tusks). Typically, Tanzania has not exported its full quota allotment in sport-hunted trophies or tusks. During the period covering 1997-2009, elephant tusks exported annually amounted to about 40-45 % of the allowed quantities and never exceeded the approved annual quota. In 2010, in conjunction with Tanzania's request to have their elephant populations down-listed to Appendix II, a CITES Panel of Experts was convened to determine whether a down-listing was warranted. At the time, records of natural mortalities covering the entire country were not available and the MNRT Wildlife Division failed to provide data that the Panel requested on the killing of problem elephants. An analysis of the Wildlife Division and TANAPA ivory store databases in 2010 showed the accumulation of 9,705 whole tusks from natural mortality and 12,057 from Problem Animal Control (PAC) in the period from 1989-2009. When averaged over the 21-year period, this was equivalent to 231 elephants dying from natural causes and 287 elephants taken as problem elephants annually. Based on these numbers and the number of trophy animals taken each year, it was estimated that a minimum of 718 elephants were taken annually by legal means. This was equal to 0.7% of the 2009 elephant population estimate of 109,022. Based on what was considered very low carcass detection rates for the country overall, it is likely that the number of natural mortalities was much higher. However, the Panel believed that the level of off-take from legal killings still fell within the expected rate of increase of the elephant population, 3 to 5% annually, which was considered sustainable.

With regards to illegal off-take, official elephant poaching statistics provided to the Panel by the Wildlife Division indicated that 258 reported poaching incidents were documented during 2005-2009, including 82 poaching incidents in 2009. This was the highest reported number of elephants poached in any one year during that time period. The Panel noted, however, that total number of poaching incidents was considered to be greatly underestimated given the low elephant carcass detection rates for the country (CoP15 Doc. 68, Annex 6a). Evidence cited by the Panel showed that poaching had led to elephant population declines in the Selous-Mikumi ecosystem, based in part, on the Proportion of Illegally Killed Elephants (PIKE) values collected at the Selous Mikumi Monitoring Illegal Killing of Elephants (MIKE) site, showing a progressive increase in poaching activities between 2003 and 2009 (CITES Secretariat, 2010). In addition, the joint Wildlife Division/Selous Rhino Project aerial observations and foot patrols recorded more than a threefold increase in encounter rates of recently dead elephant carcasses between 2007 and 2008 (TAWIRI, 2010b). There had also been reports from tourism operators in the northern Selous of increased elephant and other wildlife poaching since 2007/2008, including several incidents close to tourist camps. There were also a significant proportion of the large seizures of ivory made in Asia in 2006 that were traced by forensic DNA work to elephants killed in the Selous-Niassa area (Wasser et al., 2009). The ivory confiscations served to highlight that the Selous-Mikumi ecosystem was a hotspot for elephant poaching. In the Udzungwa National Park, all ivory collected by wildlife enforcement officials was from confiscations. According to wildlife officials, these confiscations consisted of illegally-sourced ivory coming out of nearby Kilombero Game Controlled Area in the Selous-Mikumi ecosystem. In addition, the highest numbers of tusks confiscated by field-based Wildlife Division offices were found to originate from Morogoro and Lindi, both areas which are adjacent to the Selous-Mikumi ecosystem (CoP15 Doc. 68 Annex 6a). Given these factors, the Panel of Experts came to the conclusion that the level of off-take at that time was not sustainable in the Selous-Mikumi ecosystem, an area containing about 40% of Tanzania's total elephant population. However, the Panel did note that the legal and illegal off-take appeared to be sustainable in the five other elephant ecosystems, including Ruaha-Rungwa, where populations were stable or increasing,

but there were concerns that the situation in the Selous-Mikumi ecosystem could affect long-term elephant population sustainability.

MIKE collects data at representative sites throughout Asia and Africa to measure trends in the levels of illegal killing of elephants, as well as identifying factors associated with those trends. MIKE evaluates relative poaching levels based on the PIKE, which is calculated as the number of illegally killed elephants found divided by the total number of elephants carcasses encountered by patrols or through other means, aggregated by year for each site (CITES Secretariat *et al.* 2013). A PIKE level of 0.5 or higher translates to a level of illegal annual off-take that is likely to be higher than the annual natural birth rate and, therefore, indicates that the elephant population is very likely to be in net decline (CoP16 Doc. 53.1). An analysis of MIKE data indicates that the levels of killing across the African elephants' range are of serious and increasing concern, and populations throughout Tanzania are declining due primarily to rampant poaching. At the Selous-Mikumi Mike site, the 2011 PIKE level was 0.64 (based on 224 carcasses), a nearly 27% increase over the 2002-2010 average of 0.50. At the Ruaha-Rungwa MIKE site, the 2011 PIKE was 0.94 (based on 34 carcasses), the highest ever recorded for that site. The PIKE was 0.86 (based on 29 carcasses) at the Katavi-Rukwa MIKE site (CoP16 Doc. 53.1).

More recently, at the Selous-Mikumi MIKE site, the 2013 PIKE level was 0.74 (based on 118 carcasses), which was higher than the 2012 PIKE level for this site (0.51 based on 156 carcasses). At the Ruaha-Rungwa MIKE site, the 2013 PIKE level was 0.84 (based on 57 carcasses), which was also higher than the 2012 PIKE level for this site (0.66 based on 110 carcasses)(SC65 Inf.1). This trend raises concerns as to the effectiveness of Tanzania's management and enforcement capabilities in protecting their elephant populations and the country's wildlife resources in general.

Of additional concern is the distribution of elephants in relation to existing wildlife corridors in Tanzania, and the impact these corridors have on the mobility of these populations. These wildlife corridors are being destroyed by rapid agricultural expansion, unplanned land use, unsustainable resource utilization, and road construction, resulting in increased isolation of protected areas within Tanzania. The Panel of Experts noted that associated human settlements were increasing in size and number around protected areas, the result being increased human-elephant conflicts. These settlements and the associated conflicts were probably the most important factors limiting the elephant's mobility and range. It was the opinion of the Panel at the time, based on the rates of habitat change and land conversion, that those wildlife corridors still remaining in Tanzania would be converted to unsuitable habitat (would disappear) in less than 5 years (CoP15 Doc. 68, Annex 6a). The current National Elephant Management Plan lays out a strategic objective to restore lost corridors and to increase protection for corridors that are still in use (TAWIRI 2010). The Wildlife Conservation Act (WCA) of 2009, Part IV (b), Section 22. (1-3), provides the legal framework for conserving Tanzania's wildlife corridors. However, it is not clear whether regulations for implementing this section of the Act were ever written, published, or are currently being implemented.

Based on the most current information available, there is particular concern about the viability of the Selous (Tanzania)-Niassa (Mozambique) corridor. The Selous-Niassa ecosystem extends across southern Tanzania and northern Mozambique, and is one of the largest trans-boundary ecosystems in Africa covering ca. 154,000 sq.km of diverse miombo woodland and supporting a rich mammalian and avian fauna (Jones *et al.*, 2009). According to the 2013 survey of the Selous ecosystem, there were only 32 elephants counted within the Selous portion of the corridor, which resulted in an estimate of  $1,006 \pm 810$  (SE) elephants (TAWIRI 2013a). Additionally, poaching in

the Niassa Reserve has reached crisis levels, as evidenced by high carcass ratios (18%; population of 12,000 elephants) observed during October 2011 aerial surveys (WCS Mozambique *in litt.* 2014).

**Summary:** The most recent national elephant management plan, “Elephant Management Plan for Tanzania 2010-2015”, was prepared by TAWIRI with the financial support of the Government of Tanzania. The Plan identified nine strategic objectives to be addressed in order to effectively manage Tanzania’s elephant population. The Plan also identified three major issues impacting Tanzania’s ability to manage its elephants: (1) the country’s increasing human population which is putting pressure on natural resources and presenting challenges to conserving its elephants; (2) the threat to healthy and sustainable elephant populations from an increasing loss of connectivity (wildlife corridors) between important wildlife habitat areas in Tanzania; and (3) the ability to provide increased protection for Tanzania’s elephant population. In a meeting between the Service and representatives from Tanzania that took place in Washington, D.C. in 2011, then Director of Wildlife, MNRT, Erasmus Tarimo, acknowledged that there were many challenges to the plan, including: low human resources and financing; the high demand for ivory; increase in the level of poverty; increased human-elephant conflicts related to human population growth; political resistance to maintaining wildlife corridors; and providing local communities with a stake in managing, protecting, and conserving elephant populations in Tanzania. Mr. Tarimo indicated at the time that major reforms were underway to improve the management of wildlife resources outside National Parks and Game Reserves.

However, since that time, the situation involving Tanzania’s elephant population has grown increasingly worse based on current information from a number of sources. Aerial surveys undertaken by TAWIRI conducted during the 2013 dry season covered the two most important ecosystems for elephants in Tanzania, the Ruaha-Rungwa and Selous-Mikumi Ecosystems. The resulting data shows a continued and rapid decline in the two largest elephant populations in Tanzania. The census of the Ruaha-Rungwa ecosystem showed a decline of over 11,500 elephants from the 2009 population estimate of 31,625. The census of the Selous-Mikumi ecosystem showed a decline of over 25,000 elephants from the 2009 survey estimate of 38,997. The carcass ratios resulting from the survey data from each area was indicative of populations suffering from unnaturally high mortality, with the Selous-Mikumi ecosystem having a mortality rate twice that of the Ruaha-Rungwa ecosystem. These ratios indicate significant and unsustainable levels of illegal off-take occurring in these ecosystems.

More recently, new census information provided by Tanzania’s Minister of Natural Resources and Tourism, Lazaro S. Nyalandu, in June of 2015, involving Tanzania’s 2014 elephant census results, indicated that the countrywide census from 2014 estimated  $43,330 \pm 3,078$  (SE) elephants. When compared with the results of the 2009 countrywide census, this indicated a 60.3% decline in Tanzania’s elephant population over a 5 year period.

In 2010, the CITES Panel of Experts, in its findings on Tanzania’s CoP15 (2010) proposal to down-list its elephant population from CITES Appendix I to Appendix II, raised concerns that the level of off-take due to poaching in the Selous-Mikumi ecosystem was not sustainable and could potentially affect long-term population sustainability throughout Tanzania. However, the Panel also determined that legal and illegal off-take appeared to be sustainable in other ecosystems where elephant populations were found to be stable or increasing, namely the Tarangire-Manyara, Katavi-Rukwa, Moyowosi-Kigosi, Serengeti, and including the Ruaha-Rungwa ecosystem. However, since that time, new information indicates that the elephant declines in Tanzania are no longer restricted to the Selous-Mikumi ecosystem. A more recent analysis of MIKE data indicates that the levels of

killing across the elephant's range are serious and on the rise, and that elephant populations throughout Tanzania are declining due primarily to rampant poaching.

Of further concern are recent reports of political corruption at high levels within the government, as well as allegations of Wildlife Division staff within MNRT being in collusion with poachers in the illegal killing of elephants. In October of 2013, under orders from the President of Tanzania, Jakaya Kikwete, a countrywide anti-poaching operation was undertaken to combat the illegal taking of elephants. However, the operation, named "Operation Tokomeza", was suddenly terminated after human rights violations, including homicide and rape, were reported to have been committed during the operation, mainly by army personnel involved in the operation. The victims were semi-nomadic pastoralists who illegally, but quite often, utilize national parks and reserves for grazing their livestock. It was also reported that livestock was confiscated by force, and that unlawful collection of money from both farming communities and pastoralists occurred. On December 20, 2013, four cabinet ministers, including Ambassador Khamis Kagasheki, the Natural Resources and Tourism Minister, were forced to resign over this incident. Mr. Kagasheki assumed the political responsibility for the misdeeds of the army. However, it is not believed he was responsible for what occurred, based partly on his reputation for wanting to combat rampant poaching in Tanzania. There are concerns being voiced of strong political and business forces within Parliament, and elsewhere, possibly involved in local poaching or actively protecting such illegal operations.

There are also questions as to the ability of the Wildlife Division to combat poaching. It was announced in January of 2014 that MNRT had suspended 21 Wildlife Division staff for allegedly colluding with poachers to kill elephants. The Deputy Minister, Lazaro Nyalandu, MNRT, stated that investigations had shown certain members of the ministry's staff were directly involved in illegal acts in collaboration with wildlife criminals. The suspended staff were comprised of eleven individuals from the Anti-Poaching Unit in Arusha, four from the Rukwa-Lwari Forest Reserve, one from the Anti-Poaching Unit in Bunda, three from Maswa Forest Reserve, one from Selous Forest Reserve, and one from the Lukwika-Lumesule-Msanjesi Forest Reserve. These recent events put into question the country's commitment and ability to conserve and protect its natural resources, including elephants.

It was announced in early January of 2014, that the government planned to establish a new agency, the Tanzania Wildlife Authority (TWA), charged with the security of wildlife within all game and forest reserves in the country. The TWA would be granted full authority to hire, fire, and carry out official functions as opposed to the present framework under the MNRT. This new body would be charged with eliminating poaching and other illegal acts harmful to the country's natural resources and would be given full autonomy to set its own salaries and provide incentives to staff to perform their duties efficiently and effectively. It would operate as a parastatal organization much like TANAPA and NCAA. It was estimated that over 4,000 new staff would be needed to cover the over 20 game reserves and 50 forest reserves country wide.

As part of the Service's ongoing efforts to obtaining current and up to date information on Tanzania's elephant management program and progress made towards combatting rampant poaching, letters were sent to the Tanzania Ministry of Natural Resources and Tourism, date June 19, 2014 and November 13, 2014, requesting information regarding the management and conservation of elephants in Tanzania. The Service received a response to those letters on January 28, 2015, from the Minister of Natural Resources and Tourism, Lazaro Nyalandu. In his response, Mr. Nyalandu confirmed that the Government of Tanzania had authorized the Tanzania Wildlife Authority (TWA) through Government Notice 135, published in the Government Gazette of May 9,

2014, and that it was established to manage all wildlife resources outside the jurisdiction of the Ngorongoro Conservation Area and Tanzania National Parks. Mr. Nyalandu indicated that TWA was expected to be fully operational by July 1, 2015. TWA's funding would come directly from user fees such as hunting license fees, hunting concession and block fees, and daily conservation fees. It was stated that the viability of TWA will depend on sufficient revenue from safari hunting, and may ultimately fail without elephant and lion hunting revenue. While the Service is hopeful that this organization will greatly improve the situation in Tanzania, it is too soon to determine what impact the creation of TWA will have on anti-poaching efforts in Tanzania and whether it will function and operate successfully.

While the Service recognizes that sport-hunting, when conducted as part of a sound management program, can provide an important conservation benefit to elephant populations, current conditions in Tanzania put into doubt whether any level of legal take is sustainable. The CITES Panel of Experts concluded in 2010, that the level of off-take occurring in the Selous-Mikumi ecosystem could not be considered sustainable based on a decreasing population and the high level of poaching taking place within that ecosystem. The panel further noted that the legal and illegal off-take appeared to be sustainable in the other five elephant ecosystems based on stable or increasing elephant populations, but voiced concerns that this situation could affect the long-term elephant population sustainability. Since that time, data has shown that populations throughout Tanzania are in severe decline and that poaching appears to be out of control. Based on these factors and the information currently available to us, DMA is **unable to find** that the sport-hunting of elephants in Tanzania in 2015, for import as personal trophies is likely to enhance the survival of the species. The Service will continue to monitor elephant population levels in Tanzania, progress made by the Government in implementing its management plan and addressing the strategic objectives identified in that plan, as well as efforts made to deal with rampant poaching and government corruption that is negatively affecting African elephants in Tanzania.

#### REFERENCES:

- Blanc, J.J., R.F.W. Barnes, G.C. Craig, H.T. Dublin, C.R. Thouless, I. Douglas-Hamilton, and J.A. Hart. 2007. African Elephant Status Report 2007: An Update from the African Elephant Database. IUCN/SSC African Elephant Specialist Group. IUCN, Gland, Switzerland. Available online at: <http://www.african-elephant.org/aed/pdfs/aesr2007.pdf>.
- CITES Secretariat, IUCN/SSC African Elephant Specialist Group, and TRAFFIC. 2013. Status of African elephant populations and levels of illegal killing and the illegal trade in ivory: A report to the African elephant summit, December 2013. 19pp. Available online at: [https://cmsdata.iucn.org/downloads/african\\_elephant\\_summit\\_background\\_document\\_2013\\_en.pdf](https://cmsdata.iucn.org/downloads/african_elephant_summit_background_document_2013_en.pdf).
- CITES Secretariat (2010). *Monitoring of Illegal hunting in elephant range States*. Document CoP15 Doc. 44.2 presented at the 15th meeting of the Conference of the Parties to CITES.
- CoP15 Doc. 68 Annex 6a). 2010. Report of the Panel regarding the proposal of the United Republic of Tanzania. 19 pp. Available online at: [http://www.cites.org/sites/default/files/eng/cop/15/doc/E15-68A06a\\_.pdf](http://www.cites.org/sites/default/files/eng/cop/15/doc/E15-68A06a_.pdf).

- CoP16 Doc. 53.1. 2012. Monitoring the Illegal Killing of Elephants (MIKE). Sixteenth meeting of the Conference of the Parties, Bangkok (Thailand), 3-14 March 2013, 15 pp. Available online at: <http://www.cites.org/sites/default/files/eng/cop/16/doc/E-CoP16-53-01.pdf>.
- Cumming, D.H.M (2004). Performance of Parks in a century of change. In: *Parks in transition: biodiversity, rural development and the bottom line*. Ed. B Child. Earthscan, London.
- Douglas-Hamilton, I. and Burrill, A. (1991). Using elephant carcass ratios to determine population trends. *African Wildlife: Research and Management*, pp. 98-105. International Council of Scientific Unions.
- IUCN Provisional African Elephant Status Report 2013: An Update from the African Elephant Database. IUCN/SSC African Elephant Specialist Group. IUCN, Gland, Switzerland. Available online at: [http://www.elephantdatabase.org/preview\\_report/2013\\_africa/Loxodonta\\_africana/2012/](http://www.elephantdatabase.org/preview_report/2013_africa/Loxodonta_africana/2012/).
- IUCN-UNESCO (2007). *Report of the reactive monitoring mission: Selous Game Reserve, United Republic of Tanzania*.
- Jones, T., T. Caro and T.R.B. Davenport (eds.). 2009. Wildlife Corridors in Tanzania. Unpublished Report. Tanzania Wildlife Research Institute (TAWARI), Arusha. Available online at: <http://www.tzwildlifecorridors.org/TzWildlifeCorridors.pdf>.
- TAWIRI. 2013a. Aerial census of large animals in the Selous-Mikumi ecosystem, dry season 2013, population status of African elephant. Arusha, Tanzania, 11 pp.
- TAWIRI. 2010. Tanzania Elephant Management Plan 2010-2015. TAWIRI, Arusha, Tanzania, 95 pp. Available online at: [www.tawiri.or.tz/images/Conference/elephant\\_plan.pdf](http://www.tawiri.or.tz/images/Conference/elephant_plan.pdf).
- TAWIRI. 2010b. Presentation to CITES Panel of Experts, 25 January, 2010, Dar es Salaam.
- Wasser, S.K., B. Clark and C. Laurie. 2009. The Ivory Trail. *Scientific American*, July 2009. Pp. 68-76.
- WCS Mozambique. 2014. *in litt*. Niassa Reserve expanded elephant protection program. USFWS WWB-AECF FY14 grant proposal (F13AS00357).