



Comment Opposing Proposed Revision to the Section 4(d) Rule for the African Elephant

Property and Environment Research Center (PERC)
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Main Points

- Elephant hunting and the trophies it produces are a significant source of conservation funding in range countries subject to strict, internationally accepted standards. Imposing additional requirements will likely undermine these economic incentives for elephant conservation.
- Conditioning trophy imports on range countries' adoption of CITES-implementing legislation will have known harms for elephant conservation in the near future, while long-term benefits for elephants are speculative.
- Requiring range countries to annually certify that elephant populations are stable or increasing places an undue burden on those countries and is unlikely to benefit elephant conservation.

Introduction

The Property and Environment Research Center (PERC) appreciates the opportunity to comment on the U.S. Fish and Wildlife Service's proposal to modify the existing 4(d) rule for African elephants. PERC opposes the proposed modifications concerning trophy imports, which would impose unnecessary burdens on African nations and interfere with effective, market-based conservation.

PERC is the national leader in market solutions for conservation, with over 40 years of research and a network of respected scholars and practitioners. Through research, law and policy, and innovative field conservation programs, PERC explores how aligning incentives for environmental stewardship produces sustainable outcomes for land, water, and wildlife. Founded in 1980, PERC is nonprofit, nonpartisan, and proudly based in Bozeman, Montana. PERC and its affiliated scholars have produced extensive research on the Endangered Species Act, including research on the contributions of safari hunting to the conservation of listed species found in Africa.¹

¹ E.g.: t' sas-Rolfes, M. 2022. Reconciling the Past and Forging a Future for the African Wildlife Economy. Oppenheimer Generations Research and Conservation. Accessible at <https://ogresearchconservation.org/african-wildlife-in-the-21st-century-economy/> and Semcer, C.E.. July 18, 2019. Testimony Before the House Natural Resources Committee, Subcommittee on Water, Oceans and Wildlife on H.R. 2245, The CECIL Act. Accessible at <https://www.perc.org/2019/07/18/the-role-of-hunting-in-conserving-african-wildlife/>

Elephant conservation depends on the species being an asset, rather than a liability, to African communities

African elephants are majestic creatures. From Egyptian hieroglyphics to modern children's books, elephants have always inspired and awed us with their size, power, and intelligence. These same qualities, however, make elephants difficult to live with.² Elephants impose serious costs on African communities, which affect their willingness to tolerate the species. In a dramatic incident last year in Zimbabwe, a 23 year old woman and her baby were trampled to death by an elephant while she walked to visit relatives.³ In 2021 marauding elephants demolished 20 homes in a rural area of Tanzania.⁴ In Namibia and elsewhere, farmers live with the risk of losing their crops to elephants on a daily basis.⁵

To overcome these costs and build local support for the species' conservation, elephants must be assets instead of liabilities in the eyes of the people who live amongst them.⁶ When local communities benefit from the presence of elephants, they are more likely to tolerate the animals and support conservation measures necessary for elephant recovery.⁷

Africa's safari hunting industry is one of the most important means of making elephants an asset for rural communities. The regulated, limited hunting of elephants generates the funding and creates the incentives necessary to turn elephants into an economic asset and enables Africa's largest elephant herds to thrive. By providing opportunities for hunters from all over the world to experience Africa, the safari hunting trade brings money into African countries.⁸ Hunters typically pay more to visit Africa than photo-tourists, and hunters' dollars create a direct economic incentive for habitat conservation, species restoration, and anti-poaching efforts.⁹ For example, more than 344 million acres of wildlife habitat in Sub-Saharan Africa

² Malima, C., Hoare, R., & Blanc, J. J. (2005). Systematic recording of human–elephant conflict: a case study in south-eastern Tanzania. IUCN, 28. and Di Minin, E., Slotow, R., Fink, C., Bauer, H., & Packer, C.. 2021. A pan-African spatial assessment of human conflicts with lions and elephants. *Nature communications*, 12(1).

³ I. Ignatius. January 4, 2022. Elephant Kills Woman, Baby in Zimbabwe. Channels TV. Accessible at <https://www.channelstv.com/2022/01/04/elephant-kills-woman-baby-in-zimbabwe/>

⁴ Xinhua. Marauding Elephants Destroy Farm Crops in Southern Tanzania. Accessible at http://www.xinhuanet.com/english/2021-03/11/c_139802894.htm

⁵ Xinhua. January 28, 2017. Namibian Farmers Suffer Losses As Elephants Destroy Crops. Accessible at http://www.xinhuanet.com/english/2017-01/28/c_136016845.htm

⁶ van Houdt, S., Brown, R. P., & Traill, L. W. (2021). Stakeholder attitudes toward the incentives used to mitigate human-elephant conflict in southern Africa: A news media content analysis. *Journal for Nature Conservation*, 61, 125982. and Graham, M. D., Douglas Hamilton, I., Adams, W. M., & Lee, P. C. (2009). The movement of African elephants in a human-dominated land use mosaic. *Animal conservation*, 12(5), 445-455.

⁷ Taylor, R. D. 1993. Elephant management in Nyaminyami District, Zimbabwe: turning a liability into an asset. *Pachyderm*, 17, 19-29.

⁸ Humavindu, M. N., & Barnes, J. I. 2003. Trophy hunting in the Namibian economy: an assessment. *South African Journal of Wildlife Research-24-month delayed open access*, 33(2). and Lindsey, P. A., Roulet, P. A., & Romanach, S. S.. 2007. Economic and conservation significance of the trophy hunting industry in sub-Saharan Africa. *Biological conservation*, 134(4).. and Saayman, M., van der Merwe, P., & Saayman, A. 2018. The economic impact of trophy hunting in the South African wildlife industry. *Global Ecology and Conservation*, 16.

⁹ Baker, J. E. (1997). Trophy hunting as a sustainable use of wildlife resources in southern and eastern Africa. *Journal of sustainable tourism*, 5(4). and Lewis, D. M., & Alpert, P. (1997). Trophy Hunting and Wildlife Conservation in Zambia: Caza Deportiva y Conservación de la Vida Silvestre en Zambia. *Conservation Biology*, 11(1)..

are conserved by or with revenues generated from the hunting trade.¹⁰ Countries that utilize elephant hunting as part of their conservation programs also have the largest populations of elephants on the continent.¹¹ The money supports the economic development of rural communities.¹² This investment helps make African wildlife conservation more financially self-sustaining and positions conservation as a tool for economic growth.¹³

This ability to financially benefit from elephants is a key reason why countries like Botswana, Mozambique, Tanzania, and Namibia have some of the largest elephant populations in Africa. It is also why more than 345 million acres of habitat across Sub-Saharan Africa are conserved primarily for use by hunters and, as a result, for wildlife.¹⁴ There is little question that the economic incentives for conservation created by Africa's safari hunting industry are significant and should not be downplayed, dismissed, or considered expendable.

Hunters' willingness to pay to hunt in Africa, and the incentives that produces to protect elephants and their habitat, often hinges on the ability of hunters to return home with hunting trophies.¹⁵ The majority of elephant hunters are Americans.¹⁶ If Endangered Species Act regulations discourage American hunters from patronizing Africa's safari-hunting industry, those regulations could destabilize the industry and undermine a proven model of wildlife conservation. Importantly, such regulations risk transforming elephants from an economic asset into a liability. This may lead to decreased tolerance for large elephant populations and encourage illegal killing and habitat destruction.¹⁷ Such impacts were

¹⁰ Lindsey, P., Roulet, P. and S. Romanach. 2007. Economic and Conservation Significance of the Trophy Hunting Industry in Sub-Saharan Africa. *Biological Conservation* 134: 455-469.

¹¹ C.R. Thouless, H.T. Dublin, J.J. Blanc, D.P. Skinner, T.E. Daniel, R.D. Taylor, F. Maisels, H. L. Frederick and P. Bouché (2016). African Elephant Status Report 2016: an update from the African Elephant Database. Occasional Paper Series of the IUCN Species Survival Commission, No. 60 IUCN / SSC Africa Elephant Specialist Group. IUCN, Gland, Switzerland. vi + 309pp.

¹² Beilfuss, R. D., Bento, C. M., Haldane, M., & Ribau, M.. 2010. Status and distribution of large herbivores in the Marroneu Complex of the Zambezi Delta, Mozambique. Unpublished report. WWF, Maputo, Mozambique. and Croes, B. M., Funston, P. J., Rasmussen, G., Buij, R., Saleh, A., Tumenta, P. N., & De Iongh, H. H. 2011. The impact of trophy hunting on lions (*Panthera leo*) and other large carnivores in the Bénoué Complex, northern Cameroon. *Biological Conservation*, 144(12). and Cooney, R., Freese, C., Dublin, H., Roe, D., Mallon, D., Knight, M., ... & Buyanaa, C.. 2017. The baby and the bathwater: Trophy hunting, conservation and rural livelihoods. *Unasylva*, 68(249). and Muposhi, V. K., Gandiwa, E., Bartels, P., & Makuza, S. M. (2016). Trophy hunting, conservation, and rural development in Zimbabwe: issues, options, and implications. *International Journal of Biodiversity*, 2016. And Semcer, C.E. December 14, 2018. The Return of the King: An Entrepreneurial Approach to Conserving African Lions. Property and Environment Research Center. Accessible at <https://www.perc.org/2018/12/14/the-return-of-the-king/>

¹³ Stefanova, K. 2005. Protecting Namibia's Natural Resources. *Economic Perspectives*, 10(3), 4.2.

¹⁴ Ex Supra 6.

¹⁵ Radder, L. (2005). Motives of international trophy hunters. *Annals of tourism research*, 32(4).

¹⁶ Killing for Trophies: An Analysis of the Global Trophy Hunting Trade. International Fund for Animal Welfare. 2016. Accessed July 13, 2019 at

https://s3.amazonaws.com/ifaw-pantheon/sites/default/files/legacy/IFAW_TrophyHuntingReport_US_v2.pdf and CAMPFIRE Association. 2016. The Role of Trophy Hunting In Support of the Zimbabwe CAMPFIRE Program. CAMPFIRE Association. Harare, Zimbabwe.

¹⁷ See e.g. Di Minin, Enrico, Nigel Leader-Williams, and Corey JA Bradshaw. "Banning trophy hunting will exacerbate biodiversity loss." *Trends in Ecology & Evolution* 31, no. 2 (2016): 99-102.

witnessed in Botswana between 2014 and 2019 when safari hunting was banned in the country and incidents of poaching increased.¹⁸

Under the Endangered Species Act, regulations governing threatened species must promote the species' recovery, which requires consideration of how they affect incentives to conserve elephants and their habitat.

The Service has proposed restricting elephant hunting trophy imports to only those trophies acquired in countries with certain legislation and producing certain scientific studies. These proposed restrictions are not required by international law or the Endangered Species Act. The proposed revision to the 4(d) rule would add on to existing restrictions the Service has in place and move the goalposts African nations must clear if American hunters are to fully participate in African elephant conservation programs.

Given the important role American hunters play in these conservation programs, the U.S. Fish and Wildlife Service should consider how its proposed rule will affect the conservation incentives created by elephant hunting. By recognizing the cultural and economic realities of African elephant conservation, the Service can avoid removing economic incentives that support the recovery of the species.

Unfortunately, the proposed revisions to the existing 4(d) rule do not consider African realities or how the proposal is likely to work to the detriment of elephant conservation. Instead, it seeks to further restrict the ability of American hunters to import elephant trophies into the United States. Restrictions can reasonably be expected to decrease the willingness of Americans to pay so much to hunt African elephants and that lost revenue will remove incentives to recover elephants.

For these reasons, we urge the agency to abandon the proposal as written. In its place, we encourage the agency to work with its African counterparts to develop a 4(d) rule that enables elephant conservation with economic incentives.

Hunters visit Africa for many reasons but bringing home hunting trophies is a key motivation. Nearly 47 percent of hunters visiting Africa report trophy collection as a top reason they choose to spend their money on safari hunting.¹⁹ As discussed above, the revenue generated by Africa's safari hunting industry creates economic incentives for the conservation of elephants and other wildlife. Continent-wide, this revenue amounts to over \$200 million annually.

In countries that would be negatively impacted by the Service's proposal, elephant hunts are a dominant revenue generator.²⁰ Elephant hunts represent 56 percent of hunting-derived income in Botswana and

¹⁸ Mbaiwa, Joseph E. "Effects of the safari hunting tourism ban on rural livelihoods and wildlife conservation in Northern Botswana." *South African Geographical Journal= Suid-Afrikaanse Geografiese Tydskrif* 100, no. 1 (2018): 41-61.

¹⁹ Radder, L. "Motives of international trophy hunters." *Annals of tourism research* 32, no. 4 (2005): 1141-1144. And Mulder, Attilia Cesira. "Motivations of international trophy hunters choosing to hunt in South Africa." PhD diss., 2011.

²⁰ Lindsey, P. A., Roulet, P. A., & Romanach, S. S. (2007). Economic and conservation significance of the trophy hunting industry in sub-Saharan Africa. *Biological conservation*, 134(4), 455-469.

generate more cash than any other hunted species in Mozambique.²¹ In Tanzania, the revenue generated by elephants is second only to that generated by lions.²² This revenue supports habitat conservation for elephants and other game and non-game species while also having broader benefits to remote local communities.

During these weeks-long hunts, hunters pay for lodging, food, guide fees, and other services. Relevant permits and licenses to hunt elephants also cost tens of thousands of dollars. Revenues generated by the hunting of elephants and other wildlife create jobs for the rural people who live alongside elephants. These include jobs as anti-poaching scouts, cooks, trackers, skinners, and in other professions serving visiting hunters. In Namibia, for example, approximately 24 percent of safari hunting revenues provide employment or otherwise accrue to rural people.²³ While critics argue that the number of jobs created by safari hunting is low in comparison to the overall labor market, such criticism neglects that safari hunting typically occurs in areas with low human population density and small labor pools.²⁴ At the local level, where there can be fewer than 1,000 households, the job creation resulting from safari hunting is significant.²⁵

The importance of economic incentives in conserving listed species, like those provided by elephant hunting, is well established.²⁶ Section 4(d) of the Endangered Species Act limits regulations for threatened species to those “necessary and advisable to provide for the conservation” of a species.²⁷ This “necessary and advisable” standard unambiguously requires the agency to analyze the costs this proposal will impose on the safari hunting industry by prohibiting the importation of elephant hunting trophies from countries like Botswana, Tanzania, and Zambia. Moreover, the reference to “conservation” in section 4(d) requires the agency to assess how these costs will impact the economic incentives for elephant conservation the industry provides. The Endangered Species Act defines conservation as the steps “necessary to bring an endangered species or threatened species to the point at which the measures [prescribed in the Act] are no longer necessary.”²⁸ Given the decades-long trajectory of elephant populations in countries that would be impacted by the Service’s proposal, and the role the hunting industry has played in encouraging the habitat protection and tolerance elephants require, there is little question that hunting has played a key

²¹ Ex Supra 6 and Lindsey, P. A., Balme, G. A., Booth, V. R., & Midlane, N. (2012). The significance of African lions for the financial viability of trophy hunting and the maintenance of wild land. *PloS one*, 7(1).

²² Ex Supra 7.

²³ Humavindu, M. N., & Barnes, J. I. (2003). Trophy hunting in the Namibian economy: an assessment. *South African Journal of Wildlife Research-24-month delayed open access*, 33(2), 65-70.

²⁴ Lindsey, P. A., Alexander, R., Frank, L. G., Mathieson, A., & Romanach, S. S. (2006). Potential of trophy hunting to create incentives for wildlife conservation in Africa where alternative wildlife-based land uses may not be viable. *Animal conservation*, 9(3), 283-291.

²⁵ Tchakatumba, P.K., Gandiwa, E., Mwakiwa, E. Clegg, B. and S. Nyasha. 2016. Does the CAMPFIRE Programme Ensure Economic Benefits From Wildlife to Households in Zimbabwe? *Ecosystems and People*. 15(19): 1

²⁶ National Research Council. 1995. *Science and the Endangered Species Act*. Washington, DC. and Wilcove, D. S., & Lee, J. (2004). Using economic and regulatory incentives to restore endangered species: lessons learned from three new programs. *Conservation biology*, 18(3), and Wood, J. and T. Watkins. 2021. Critical Habitat’s Private Land Problem: Lessons from the Dusky Gopher Frog. *The Environmental Law Reporter*. 51(7).

²⁷ 16 U.S.C. § 1533(d). See S. Rep. No. 93-307, at 8 (1973), reprinted in *ESA LEGISLATIVE HISTORY*, supra n.13, at 307. See also *Take It to the Limit*, supra n.2, at 28–43.

²⁸ 16 U.S.C. § 1532(3).

role in elephant conservation.

Imposing additional and unnecessary restrictions on importing elephant hunting trophies is likely to reduce incentives for elephant conservation.

The collection of hunting trophies is among the leading reasons hunters choose to visit Africa.²⁹ A threatened species under the Endangered Species Act, the Service regulates the import of elephant hunting trophies under a 4(d) rule. Applications to import elephant hunting trophies are assessed on a case-by-case basis.³⁰

Imported trophies must satisfy several specified criteria. First, the elephant must have been legally hunted in its country of origin. Second, the trophy must have been exported from its country of origin as part of an agreed-upon CITES quota and with a valid CITES export permit. Third, the U.S. Fish and Wildlife Service must determine that the elephant hunt “enhanced” elephant conservation. Enhancement determinations consider a range of conditions, including where the elephant was hunted, the practices of the hunting outfitter, and the extent to which hunting fees support elephant conservation. If the Service determines that a hunt enhances elephant conservation, then it issues a permit to import the trophy into the United States.

With the exception of requiring trophies to be exported under approved quotas and permits, CITES does not require the reviews conducted by the Service. Given the rigor of the CITES process, which includes a thorough scientific analysis of a species’ status and sustainable levels of trade, including trade in hunting trophies, much of the review engaged in by the agency is redundant and unnecessary.

The Service provides no scientific or economic justification for its proposal to add even more hoops for trophy imports. Additional criteria are likely to result in a near-ban on elephant trophy imports from some countries, especially criteria not required by law that will likely undermine conservation incentives..

Misguided regulations have produced these results before. Increased restrictions on the importation of lion hunting trophies by the Service in 2015 led to extensive loss of habitat for lions and other wildlife. This was because hunters stopped visiting Tanzania, resulting in the abandonment of hunting blocs by the safari-hunting industry and their conversion from wildlife habitat to agriculture by local communities.³¹

Similarly, the Service’s ban on importing polar bear trophies from Canada reduced income accruing to rural communities and harmed the effectiveness of state-tribal partnerships responsible for conserving

²⁹ Ex supra 10

³⁰ See e.g. 82 FR 54405

³¹ Johnson, P. J., Dickman, A. J. A., & MacDonald, D. W. (2017). Photo-tourism and trophy hunting of lions: A sideways look at consistency in conservation. *Conservation Biology*, 32(3) and Strampelli, P., Henschel, P., Searle, C. E., Macdonald, D. W., & Dickman, A. J. (2022). Habitat use of and threats to African large carnivores in a mixed-use landscape. *Conservation Biology*, 36

two-thirds of the global polar bear population.³² Such scenarios could easily be replicated if the Service further restricts the importation of elephant hunting trophies.

Conditioning elephant hunting trophy imports on “Category 1” legislation has no clear benefit to elephant conservation.

The Endangered Species Act aims to promote the recovery of species facing extinction in the United States. It is also the implementing legislation for the Convention on International Trade in Endangered Species (CITES). The CITES treaty governs the international legal trade in rare plants and animals, including timber, live specimens, hides, horns, and hunting trophies. Trade is governed through a system of export quotas and permits agreed to by the treaty’s 184 signatories, including the United States. These agreements are made every two to three years. Export quotas are informed by current science and expert opinion on the species to be traded.

To fully execute the treaty through national legislation, signatories are encouraged, but not required, to designate a scientific or management authority to administer the treaty, prohibit trade in violation of the convention, establish penalties for illegal trade, and confiscate specimens that are illegally traded or possessed.³³

The quality of this legislation is regularly assessed by the treaty’s governing body. This body, known as the Secretariat, places countries that are party to the treaty in one of three categories based on their legislation implementing the treaty. Category 1 nations have legislation deemed generally adequate to implement the treaty. Category 2 nations possess laws that meet some but not all of the requirements for implementation. Category 3 countries either have no legislation or have laws that do not meet the necessary standards.

A key portion of the Service’s proposal is to make future enhancement findings for elephant-hunting trophy imports into the United States conditional on an exporting country holding category 1 status. This condition is in addition to the existing conditions the agency places on approving an import permit.

Attaining category 1 status is a laudable ambition, but linking that status to enhancement findings is problematic. First, CITES does not require exporting countries to possess national-level implementing legislation. The desire to see countries adopt such legislation is merely the subject of a non-binding resolution adopted by the convention’s signatories. Any effort to impose requirements that countries adopt CITES implementing legislation of a particular standard should be the result of deliberation by CITES parties and be part of the CITES process, not in an Endangered Species Act rulemaking. This is especially true if that requirement is tied to the ability of CITES parties to trade in a species under established

³² Lokken, N. A., Clark, D. A., Broderstad, E. G., & Hausner, V. H. (2019). Inuit attitudes towards Co-managing wildlife in three communities in the Kivalliq region of Nunavut, Canada. *Arctic*, 72(1) and Meek, C. L. (2018). Putting the US polar bear debate into context: The disconnect between old policy and new problems. *Marine Policy*, 35

³³ Ex Supra 1.

CITES quotas that the United States has agreed to, as it has with elephants.

Second, while adopting CITES implementing legislation may or may not produce some broad conservation benefits, the agency does not make clear what benefits will be produced for elephants, the focus of the 4(d) rule. 4(d) rules must advance the conservation of specific species. They cannot be used to advance the Service’s policy goals unrelated to the conservation of the species subject to the rule.

Indeed, any assertion linking increased elephant populations with category 1 legislation is speculative at best. As Figure 1 shows, there is no clear or coherent link between a country having category 1 legislation and the size of its elephant population.

Importantly, some of the countries with the largest elephant populations have recovered them to their current size in the absence of category 1 legislation. For example, in 1990, Botswana was home to an estimated 50,000 elephants and has more than doubled that number since.³⁴ Similarly, elephant populations in Tanzania have increased from an estimated 43,000 individuals in 2014 to an estimated 60,000 in 2021 without category 1 legislation in place.³⁵ These increases were primarily driven by investments in habitat conservation and other elephant management practices in response to the market for elephant hunting and the money to be made in it.

Finally, even if elephant-exporting governments were able to act expeditiously to pass category 1 legislation, it would likely not be fast enough to spare the safari-hunting industry negative consequences and avoid undermining conservation incentives. It took the United States six months, from introduction to adoption, to pass the Endangered Species Act. That is the equivalent of an entire hunting season in Southern and East Africa that would be lost immediately if the proposal is adopted. Assuming African countries followed a similar timeframe for passing their own legislation, they would then need to wait for CITES Secretariat to certify their legislation as category 1. Due to the timing of the convention’s meetings, this would mean that even under the most optimistic circumstances elephant hunting trophies might not be imported into the United States for a year or possibly even more.

While safari-hunting operators wait for the politics to align and the bureaucracy to unfold, American hunters will be discouraged from visiting those countries awaiting category 1 recognition. A central source of revenue for

Figure 1: Elephant Population Size and CITES Implementing Legislation
Category (min. 1,000 elephants)

Country	Category	Elephant Population
Botswana	2	131,626
Zimbabwe	1	82,630
Tanzania	2	50,433
Kenya	2	22,809
Namibia	1	22,754
Zambia	2	21,967
South Africa	1	18,841
Mozambique	2	10,834
Gabon	2	7,058
Cameroon	1	6,830
Rep. of Congo	2	6,057
Uganda	3	4,923
Angola	1	3,396
Benin	2	2,984
Burkina Faso	2	2,123
D. R. of Congo	1	1,794
Malawi	1	1,307
Ethiopia	1	1,017

³⁴ Botswana Environment Statistics: Wildlife Digest 2014. Statistics Botswana. Gabarone, Botswana.

³⁵ African Wildlife Foundation. 2022. Elephant Conservation Report.

the industry that underwrites critical elephant conservation incentives will vaporize. The shuttering of safari-hunting businesses and the conservation benefits they provide will become more likely in the absence of revenue. This is especially true given safari-hunting businesses' current financial vulnerability stemming from the Covid-19 tourism shutdown.³⁶ Ultimately, elephant populations will have fewer friends and less support than they did before.

CITES is the appropriate venue for determining whether CITES parties must possess category 1 legislation to trade under quotas agreed to by the United States. There is no visible correlation between category 1 legislation and success in elephant conservation. Two of the more significant elephant recovery stories, Botswana and Tanzania, have occurred in countries without category 1 legislation. Any benefit category 1 legislation may provide elephants is purely speculative on the part of the agency. Requiring an exporting country to possess category 1 legislation for hunters to legally import elephant trophies into the United States is likely to discourage elephant hunting and undermine incentives for elephant conservation. With all of this in mind it is difficult to understand how imposing this additional hurdle on elephant trophy imports will enhance the conservation of African elephants.

Requiring countries where elephants are found to annually certify their elephant populations are stable or increasing places an undue burden on those countries.

Another potential hurdle the proposal would impose on importing elephant hunting trophies is requiring that countries annually certify that their elephant populations are stable or increasing. While this may sound reasonable on the surface, this requirement would be unreasonable and not support good wildlife management.

First, population studies are resource intensive. Surveying just a single protected area can cost over \$100,000.³⁷ With African conservation agencies already severely underfunded, especially following the decline in tourism stemming from Covid-19, it is unclear where this money will come from.³⁸

Second, the Service does not do such population accounting itself and has, until very recently, struggled to complete the five-year status reviews required by the Endangered Species Act for U.S. listed species. While it has been making progress, five-year reviews for many species are still outstanding.³⁹ This is in spite of the fact that the resources at the Service's disposal are significantly greater than those of their African partners. To ask African wildlife agencies to do what the Service cannot and does not is unreasonable.

³⁶ See e.g.: Hambira, Wame L., Lesego S. Stone, and Vincent Pagiwa. "Botswana nature-based tourism and COVID-19: transformational implications for the future." *Development Southern Africa* 39, no. 1 (2022): 51-67.

³⁷ See eg: Save the Elephants. Elephant Census in Tsavo to Cost SHS 20 Million. Accessible at <https://www.savetheelephants.org/about-elephants-2-3-2/elephant-news-post/?detail=elephants-census-in-tsavo-to-cost-shs-20-million-kenya>

³⁸ Lindsey, P., Allan, J., Brehony, P., Dickman, A., Robson, A., Begg, C., ... & Tyrrell, P. (2020). Conserving Africa's wildlife and wildlands through the COVID-19 crisis and beyond. *Nature Ecology & Evolution*, 4(10), 1300-1310. and Lindsey, P. A., Miller, J. R., Petracca, L. S., Coad, L., Dickman, A. J., Fitzgerald, K. H., ... & Hunter, L. T. (2018). More than \$1 billion needed annually to secure Africa's protected areas with lions. *Proceedings of the National Academy of Sciences*, 115(45).

³⁹ Defenders of Wildlife, Center for Conservation Innovation. December 2019. Timeliness of Five Year Reviews Under the Endangered Species Act. Accessible at <https://defenders-cci.org/publication/five-year-review/>.

Third, elephant populations, like all wildlife populations, naturally fluctuate in response to drought, disease, and other factors. The total elephant population in any given year is not indicative of the overall health of the species. Achieving the level of statistical power to accurately determine how a species population is trending can take a minimum of 10 years.⁴⁰ So while annual reports can provide information and insight into what is happening with elephant populations, they should not be used as a basis for determining individual hunting trophy import approvals.

Fourth, when population trends are used to make policy determinations, those trends must be judged in relation to the ecological carrying capacity of the places where they are found. In some countries, notably Botswana and Zimbabwe, elephants have exceeded local carrying capacity.⁴¹ In such cases, small declines have little bearing on the overall conservation of the species. For example, Zimbabwe's Hwange National Park has nearly three times more elephants than the ideal carrying capacity, which is one to four elephants per square mile.⁴² Not all population declines are detrimental to wildlife conservation, even for a listed species. The context of the population in relation to local carrying capacity is critical to developing sound elephant conservation policies. This context should be reflected in any population metrics the agency might develop, as well as any policy determinations it might make based on population numbers.

Conclusion

PERC believes the U.S. Fish and Wildlife Service can be a valuable partner of African wildlife agencies in conserving elephants and other species. As the Service recognizes, however, the proposed modification of the existing 4(d) rule will negatively impact African wildlife agencies' ability to effectively manage elephant populations. It will undermine economic incentives for elephant conservation created by the safari-hunting industry. Such impacts risk making the United States an obstacle to African-led conservation efforts at a time when more cooperation is needed. We urge the U.S. Fish and Wildlife Service to abandon this proposal and work with their African counterparts to find a more constructive way forward.

⁴⁰ White, E. R. (2019). Minimum time required to detect population trends: the need for long-term monitoring programs. *BioScience*, 69(1), 40-46.

⁴¹ Van Aarde, R. J., Pimm, S. L., Guldmond, R., Huang, R., & Maré, C. (2021). The 2020 elephant die-off in Botswana. *PeerJ*, 9, e10686.

⁴² Zimbabwe Parks and Wildlife Management Authority. Zimbabwe National Elephant Management Plan. 2021-2025.