Photo Credit: Duncan Watson (2016)[1]

Conservation Force, Dallas Safari Club, DSC Foundation, Houston Safari Club, Shikar-Safari Club International, Shikar-Safari International Foundation, African Professional Hunters Association, International Professional Hunters Association, and Professional Hunters Association of South Africa

COMMENT ON THE STATUS REVIEW OF THE AFRICAN LEOPARD (*PANTHERA PARDUS*)

January 30, 2017

FWS Docket No. FWS-HQ-ES-2016-0131

[1] See attached description of photograph.

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January 30, 2017

Janine Van Norman
Chief, Branch of Foreign Species
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, VA 22041-3803

RE: Comment on ESA Status Review of the African Leopard, 81 Fed. Reg. 86315, November 30, 2016
SUBMITTED THROUGH WWW.REGULATIONS.GOV, DOCKET NO. FWS–HQ–ES–2016–0131

Dear Chief Janine Van Norman:

Conservation Force, Dallas Safari Club (DSC), DSC Foundation, Houston Safari Club (HSC), Shikar-Safari Club International, Shikar-Safari International Foundation, the African Professional Hunters Association (APHA), the International Professional Hunters Association (IPHA), and Professional Hunters Association of South Africa (PHASA) (together, the "Commenters") provide this information in response to the referenced status review. This information demonstrates that the African leopard (*Panthera pardus*) is not "endangered" as defined in the Endangered Species Act (ESA) in the countries where it is currently listed as threatened. Moreover, it does not warrant listing as "threatened" in the SADC countries which form a distinct population segment.[2] For this reason, the U.S. Fish and Wildlife Service (FWS) should make a twelve-month finding that up-listing is ***not warranted***.

This best available information shows that none of the listing factors are satisfied. The leopard is not and cannot be overutilized, and regulatory measures are and must be adequate, because the leopard is listed on Appendix I of the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES). Consistent with its responsibilities under CITES, the FWS' Division of Scientific Authority (DSA) has monitored this species for years, and has had no trouble making a non-detriment finding for imports of lawful hunting trophies. And offtakes and trade are monitored and controlled by an international body, as well as FWS and the range states.

Further, disease and predation are not claimed to be and are not a significant threat to this species, which leaves only Factors A and E. The best available information demonstrates that the leopard's habitat is secure and in fact, there is more protected area now than in 1982, when the leopard was down-listed to threatened. And under Factor E, the FWS must consider the range states' conservation efforts. The information attached here demonstrates that these countries have appropriately conserved their leopard populations, updated management of their sport-hunting programs, and developed incentives for rural communities to value the leopard instead of killing it as vermin. At this point and into the foreseeable future, the leopard in the SADC countries is not "in danger of extinction throughout all or a significant portion of its range," as required for re-classification to "endangered" status, 16 U.S.C.

[2] Angola, Botswana, Democratic Republic of Congo (DRC), Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. Please note that Angola, Botswana, DRC, Lesotho, Malawi, and Swaziland do not currently export leopard hunting trophies. The Commenters focus on the countries that export trophies (Mozambique, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe).

§ 1532, and the FWS should find that an up-listing is ***not warranted***. The leopard is more secure today than when it was down-listed to threatened in 1982.[3]

PRIOR DOWN-LISTING

The leopard was first listed as "endangered" – the only status available – pursuant to the Endangered Species Conservation Act of 1969. It was listed due to concerns of "drastic[ ] overutiliz[ation] in the commercial fur trade … in 1968 and 1969 alone, over 17,000 leopard hides were imported into the United States. This trade was unregulated, and the illegal poaching was widespread."[4] The listing served its purpose as the "heavy flow of leopards into the United States for the fur trade immediately ceased."[5]

The ESA was enacted in 1973 to replace the Endangered Species Conservation Act. The ESA provides for listing of species as either endangered or threatened, and mandates five-year status reviews to consider whether listed species should be de-listed, down-listed to threatened from endangered, or up-listed from threatened to endangered.[6] Also in 1973, the CITES was negotiated in Washington, DC. CITES came into force in 1975.

Given these changes in U.S. and international law and three contemporary reports on the leopard's status (one of which was commissioned by the FWS),[7] in 1980 the FWS re-evaluated the leopard's endangered listing in sub-Saharan Africa and proposed to down-list the leopard to the newly-available threatened category. The FWS evaluated the leopard's status based on these three reports, and considered the five listing factors identified in the ESA, including the threat of habitat conversion due to Africa's expanding human population, the commercial and non-commercial use of leopard, and the adequacy of regulatory mechanisms and especially CITES' new role in controlling international trade. The FWS also considered the benefits of licensed, regulated hunting for the leopard, including the comments from Daniel Sindiyo, Assistant Director of the Kenyan Division of Wildlife, and E.T. Matenge, Director of Botswana's Department of Wildlife.[8]

According to Mr. Sindiyo:

> It seems very clear to me that no one is going to conserve and manage a resource that is not going to provide some financial return to them. This applies to Masai or any other landowners. The leopard does cause damage to livestock, and it cannot be expected that the Masai will live happily with an animal that has only negative benefits. Fortunately, we are beginning to make more progress in getting revenues from wildlife back to the people … As you well know, prior to 1973 very few of the landowners had

[3] It must be noted that the recent IUCN *Red List* assessment did not find the leopard to be "endangered," but rather "vulnerable." It also determined that Southern Africa, the area discussed here, "likely has the healthiest leopard populations of their entire range." A.B. Stein et al., *Panthera pardus*, IUCN Red List (2016), p. 4, 7 (*cited as IUCN Red List*).

[4] FWS, Proposed Threatened Status for the Leopard in Sub-Saharan Africa, 45 Fed. Reg. 19007, 19008 (Mar. 24, 1980) (leopard listed "primarily because of overutilization for commercial purposes and modification of habitat").

[5] 45 Fed. Reg. 19007, 19008.

[6] 16 U.S.C. § 1538(c)(2).

[7] N. Myers, The Leopard *Panthera pardus* in Africa (1976, IUCN); R. Eaton, The Status and Conservation of the Leopard in sub-Saharan Africa (1977); J.G. Teer & W. Swank, Status of the Leopard in Africa South of the Sahara (1978, contracted by FWS). 45 Fed. Reg. 19007, 19009. Dr. Teer was on Conservation Force's founding Board.

[8] 45 Fed. Reg. 19007, 19010.

> much interest in wildlife. If they saw someone killing wildlife they Just went about their business. That has now gradually changed. They now think of wildlife as common property because money from wildlife is invested in projects that will benefit the whole community.

Mr. Matenge similarly suggested, "there are some places where they (leopards) come face to face with the cattle industry and they do damage. Now the plan for destruction of leopard in those areas is very great … The hunting of leopards in these areas is in fact, beneficial economically, because as you may be aware, the license fee for a sport hunter to hunt leopard is P300 … you can see that it is an economically important animal as well, but to say that you must just keep it conserved without utilizing it would really be destructive in the long-term to its populations."[9]

Based on its evaluation, the FWS proposed to down-list the leopard with a special rule that would allow only lawful hunting trophies to be imported without an ESA permit.[10]

After opening a 90-day comment period, re-opening it for a month, and seeking information from leopard range states, the FWS published a final rule in 1982.[11] The FWS reaffirmed the down-listing of the leopard, but reduced the applicable area based on comments received from West African range states that considered their leopard populations to be endangered.[12] The FWS again discussed the data it had previously reviewed, including the Teer and Swank report and statements from the wildlife authorities in Kenya and Botswana. The FWS then considered another recent report it had commissioned: P.H. Hamilton, The Leopard *Panthera pardus*, and Cheetah *Acinonyx jubatus* in Kenya (1981).

In that report, the author surveyed Kenya's leopard population. He identified key risks, observed how these risks were being mitigated, and concluded that the leopard was recovering in Kenya. He did not find the leopard to be endangered. These lessons were extrapolated to other countries in sub-Saharan Africa. The author also recommended that the FWS allow imports of lawful leopard trophies, because "the ban … has not served any useful purpose. The number involved has been relatively small and the ban runs counter to the concept of giving the leopard monetary value that will help to justify its continued existence in Africa."[13]

The FWS again considered the listing factors. It considered comments from range states. All those in sub-Saharan Africa with leopard populations "welcomed" the down-listing. The FWS also addressed substantive public comments received. These largely challenged the data, or opposed the special rule. The FWS specifically reaffirmed its conclusion, based on its review of the best available scientific and commercial information, that licensed, regulated hunting could benefit the leopard.[14] After reviewing this data and considering the comments, on January 28, 1982, the FWS down-listed the leopard in certain countries and adopted the special rule. The special rule incorporates all the protections of endangered-listed species for the leopard, except it allows lawfully hunted leopard trophies to be

[9] 45 Fed. Reg. 19007, 19010.
[10] 45 Fed. Reg. 19007, 19011-12.
[11] FWS, Threatened Status for the Leopard in Southern Africa, 47 Fed. Reg. 4204-01 (Jan. 28, 1982).
[12] The FWS was "taking into account" the views of range states, as required by the ESA, 16 U.S.C. § 1533(a)(3)(A).
[13] 47 Fed. Reg. 4204-01, 4206.
[14] It also noted that the Scientific Authority previously made non-detriment findings for white rhino, and had already made a non-detriment finding for import of leopard from Botswana. 47 Fed. Reg. 4204-01, 4205.

imported with a CITES permit.[15] The FWS gave only trophies this special treatment because it recognized the positive conservation benefits generated by licensed, regulated hunting, as demonstrated in its press release announcing the down-listing:

> "Studies of the leopard by four wildlife experts and information we have received from African nations indicate that the leopard is not in danger of extinction in southern Africa," [then Director] Jantzen said. "Biologically, it is more accurate to recognize the leopard as 'threatened' … in this region … Jantzen, emphasized, however, that commercial trade in leopard parts and products, such as hides and fur coats, continues to be strictly prohibited.
>
> The decision, which followed more than 18 months of public review and comment, will allow American sport hunters to import leopard trophies legally taken in the region where the leopard is now listed as "threatened." Many wildlife authorities believe that allowing importation of legally taken leopard trophies will encourage conservation of the leopard because sport hunting provides jobs and income for Africans. Presently the leopard has no monetary value and is indiscriminately killed as vermin in many areas, particularly where it preys on livestock.[16]

SUMMARY OF INFORMATION PROVIDED

The Commenters have attached the best available information to demonstrate the status of the leopard population, habitat, threats, regulatory mechanisms, etc. in the SADC countries. The information shows:

A. The leopard's habitat is generally stable or increasing in the relevant countries. The leopard's habitat in national parks, safari areas, wildlife management and communal areas, private ranches and conservancies, and Trans-Frontier Conservation Areas (TFCAs) is secure and even growing. However, this habitat can be threatened by over-regulation and international trade bans, which reduce the benefits and incentives for landholders, including governments, to maintain habitat.

B. Legal utilization of the leopard is sustainable and regulated. The DSA has repeatedly found it is not detrimental to the survival of the species. It is well under the quotas approved by the CITES Parties. The information submitted here shows: (1) that leopard offtakes are considerably lower than presented in the Petition, (2) range states and safari hunting operators are reviewing and revising quotas and policies to further ensure appropriate offtakes, and (3) the licensed, regulated hunting of leopard is adaptively managed and beneficial for the species. The leopard was not listed on the CITES Appendices or under the ESA because of the regulated, non-

[15] The countries are those "south of a line running along the borders of the following countries are reclassified as Threatened: Gabon/Rio Muni; Gabon/Cameroon; Congo/Cameroon; Congo/Central African Republic; Zaire/Central African Republic; Zaire/Sudan; Uganda/Sudan; Kenya/Sudan; Kenya/Ethiopia; Kenya/Somalia." The special rule provides that "a 'Threatened Species' permit pursuant to § 17.32" is not required. 50 C.F.R. § 17.40(f).

[16] Department of the Interior, News Release, Leopard in Southern Africa Reclassified to "Threatened" Species (Jan. 29, 1982). Notably, many organizations supported the down-listing, including the National Wildlife Federation (NWF). Among other things, the NWF pointed out that the leopard was ***not*** endangered, numerically or by threat. Maintaining the endangered status would undermine the ESA's credibility. The Commenters similarly submit that it would be inconsistent and undermine the credibility of the ESA to up-list a species that is more numerous than the lion and potentially the elephant, both of which are threatened-listed, and which has been monitored by the DSA. NWF, Comment in Support of Leopard Down-Listing (May 22, 1980).

commercial trade in hunting trophies, but rather because of the past unsustainable commercial trade in furs. That trade only exists illegally, and is being managed at sustainable levels by anti-poaching efforts, community investment, and the regulatory mechanisms discussed under Factor D.

C. Disease and predation do not threaten, much less endanger, the leopard's survival.

D. Existing regulatory mechanisms include CITES, DSA non-detriment findings, range state laws, policies, norms and standards, and other guidelines, the current ESA threatened listing, and more. These regulatory mechanisms are continuously being updated, including as mandated by the CITES Conference of the Parties (CoP) 17, and are more than adequate to protect the leopard and secure its survival.

E. No other natural or man-made factor pose a risk of endangerment to the species. To the contrary, other considerations, including range-state conservation efforts, lion conservation efforts, and the leopard's inherent adaptability, all weigh against up-listing. It would be inconsistent to list the lion as threatened, but then up-list a species with higher population estimates and greater variation in range and prey base. An endangered listing would also run against the stated interests, positions, conservation strategies and programs of range states, which oppose up-listing and non-essential management costs and restrictions.

SPECIAL EXPERTISE OF THE COMMENTERS

Conservation Force is a non-profit conservation organization with many African programs, which funds, advises, and participates in leopard conservation and management, and the conservation and management of many other relevant species including lion and leopard prey. Conservation Force is a member of the International Union for Conservation of Nature (IUCN), three of its Board Members have been or are members of the IUCN Cat Specialist Group, and its working Board members belong to the relevant IUCN Antelope (prey) and Sustainable Use and Livelihoods (SULi) Specialist Groups.

Conservation Force is an expert in conservation hunting. We partner closely with range state wildlife authorities to develop their management plans and policies, to respond to FWS information requests, to mitigate major threats to wildlife, and to improve community participation and investment such as sharing of hunting revenues and benefits.

For example, in December 2017, Conservation Force provided funding for the preparation of an update to the national non-detriment finding for leopard offtakes in Zimbabwe. We funded and participated in a preparatory workshop in March 2016 to obtain data for this national non-detriment finding update. We also recently participated in and co-funded a leopard workshop in Lusaka to develop and educate professional hunters and operators on an updated approach to cat hunting and monitoring system in Zambia.

Conservation Force partners with safari hunting operators and range state authorities in sustainable management, anti-poaching, habitat protection, and community participation and investment. In the last several years, Conservation Force has submitted thousands of pages of operator information to the FWS to demonstrate the essential role played by licensed, regulated hunting in the SADC countries. We have long-standing projects with dozens of operators such as the Dande Anti-Poaching Unit, Tashinga Initiative, and Savé and Bubye Valley Conservancies in Zimbabwe; the Robin Hurt Wildlife Foundation (leopard study) and Chunya Anti-Poaching Project in Tanzania; Bridges of Support in Zambia; Kambako

Force and the Leopard Initiative in Mozambique; and many more relevant programs in the SADC countries.

The leadership of Conservation Force in leopard conservation goes back to the early 1980s and includes direct participation in community-based natural resource management (CBNRM) strategies including CAMPFIRE (Zimbabwe), ADMADE (Zambia), LIFE Plus and its predecessor projects (Namibia), Niassa Reserve and communal programs (Mozambique), etc., which target a reduction in human-wildlife (including leopard) conflicts.

Further, we are a leader in lion conservation projects and planning, which relates to leopard conservation as both species face the same major threats (e.g., habitat destruction, loss of prey base and poaching, and conflicts with humans and livestock). Projects which benefit the lion, preserve habitat and prey base, and develop compensatory mechanisms for losses to rural communities will also benefit the leopard. For instance, Conservation Force spearheaded the research, broadcasting, and implementation of many of the best tourist safari hunting practices, including the age restriction on hunting lion now adopted by the SADC countries. Conservation Force has initiated and supported many dozens of field research and management projects across the entire African continent concerning lion aging methodology, anti-poaching, lion/human and livestock conflicts, local population surveys, and implementation of CBNRM.

DSC is a non-profit conservation, education, and hunter advocacy organization whose mission is to conserve wildlife and wild lands; to educate youth and the public; and to promote and protect the interests of hunters worldwide. DSC is a membership organization representing thousands of individual hunters and service businesses (including safari operators), who support the user-pay, sustainable use-based management system common in the SADC countries. DSC is a member of the IUCN. DSC and DSC Foundation have contributed tens of millions of dollars to conservation initiatives and habitat protection, including over $5 million in the past five years. DSC's conservation focus includes efforts to mitigate loss of leopard habitat and prey base, such as a recent grant to the Zambezi Delta Anti-Poaching Unit in Mozambique to fund its helicopter, which is used to monitor and protect extensive leopard habitat. The survival and abundance of leopard are essential to the interests of DSC.

DSC Foundation is a non-profit organization dedicated to supporting the mission of DSC and does so by funding grants around the world for various conservation, advocacy, and education initiatives, including "boots on the ground" anti-poaching projects in sub-Saharan Africa, innovative technology based anti-poaching projects, data gathering and scientific research projects related to leopard in Zimbabwe, Zambia, and Tanzania, and projects designed to mitigate the effects of human/wildlife conflict that so often result in indiscriminate and unreported killing of predators including leopard. As with DSC, the survival and abundance or leopard are essential to the interests of DSC Foundation.

HSC is a non-profit, volunteer organization whose mission is to preserve the sport of hunting through education, conservation, and protection of hunters' rights. Since 1972 HSC has provided millions of dollars in support of its mission, including a recent grant to the Tashinga Initiative to build a forward anti-poaching base in the central Lower Zambezi Valley, to enhance the efficacy and efficiency of anti-poaching units in Zimbabwe. The survival and abundance of leopard are essential to the interests of HSC.

Shikar-Safari Club International was founded in 1952 by an international group of hunters interested in exchanging ideas about the sport. In 1966, the ***Shikar-Safari International Foundation*** was formed to support projects and advance the members' interests in conservation. Shikar-Safari International Foundation has provided millions of dollars in management and research funding, including important support for carnivore studies in Tanzania and other SADC countries. The survival and abundance of leopard are essential to the interests of Shikar-Safari Club and Shikar-Safari International Foundation.

APHA, ***IPHA***, and ***PHASA*** are professional membership associations representing professional hunters, providing communication and training opportunities, and enforcing Codes of Conduct for their membership consistent with ethical hunting. They are committed to conservation through sustainable use. The survival and abundance of leopard are essential to their interests.

BIOLOGICAL CHARACTERISTICS OF THE SPECIES

"Highly adaptable and widely distributed, Leopards can persist in areas where other large carnivores have been extirpated," and exist in a range of habitats, including most African ecosystems, and even "suburban and urban environments in India and parts of sub-Saharan Africa."[17] "The leopard appears to be very successful in adapting to altered natural habitat and settled environments in the absence of intense persecution."[18]

Leopard are sexually dimorphic, largely due to size and the development of a pronounced dewlap as male leopard age. The average male weighs about 58 kg, and the average female weighs about 38 kg, although size varies greatly by region. Other differences between males and females, and older and younger males, are subtler than in species like lion.[19] The size of the dewlap may vary across regional ecosystems.[20]

Leopard are largely nocturnal and therefore "impossible" to effectively survey.[21] Their home ranges vary based on the habitat, and can be as small as 8 km^2 for a female to 15 km^2 for a male in human-dominated areas.[22] Leopards are polygynous, and one male's territory will encompass that of several females. Males can sire their first litters at 1.5 years, but the typical age of first reproduction is three.[23]

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[17] *IUCN Red List*, p. 12.

[18] FWS/DSA, General Advice on Import of Sport-Hunted Trophies of Leopards (*Panthera pardus*) from the Republic of Mozambique for the Calendar Year 2015 (Sept. 28, 2015), p. 2 ¶ 2 (*cited as DSA NDF for Mozambique*).

[19] E.g., N.W. Maputla et al., Calibrating a Camera Trap-Based Mark-Recapture Sampling Design to Survey the Leopard Population in the N'wanetsi Concession, Kruger National Park 51(3) African Journal of Ecology 422 (2013).

[20] G.A. Balme et al., Applicability of Age-Based Hunting Regulations for African Leopards, PLoS ONE 7(4) (Apr. 6, 2012) (acknowledging need for "[f]urther site specific research … regarding the relationship between dewlap size and age, particularly from forest and semi-arid environments where leopard morphology varies considerably from savanna habitats"); A.B. Stein & V. Hayssen, *Panthera* pardus, Mammalian Species (June 2013), p. 35.

[21] 47 Fed. Reg. 4204-01, 4208 ("It must be recognized that the leopard is a secretive and wary animal. There will never be surveys of leopard populations that provide precise numbers of animals simply because such surveys are impossible to make."); FWS/DSA, General Advice on Imports of Sport-Hunted Trophies of Leopards (*Panthera pardus*) from Seven Range States for the Calendar Year 2016 (Apr. 14, 2016), p. 2 (*cited as DSA NDF for Seven Countries*).

[22] *IUCN Red List*, p. 13; J.N. Chase Grey et al., Evidence of a High Density Population of Harvested Leopards in a Montane Environment, PLoS ONE 8(12) (Dec. 2013), p. 4.

[23] A.B. Stein & V. Hayssen, *Panthera pardus* (*Carnivora: Felidae*), Mammalian Species (June 2013), p. 37.

Female leopards have their first litters at approximately age three, but first reproduction can occur as of 24 months. Gestation is an average of about three months. Interbirth intervals range from 15 months to over two years, and can be shortened by the death of cubs. The average litter size is two to three cubs and the range is one to six cubs. First-year cub mortality is high, at 41-50%. Sub-adult mortality is an estimated 32% (25% for females, 40% for males), likely due to reduced hunting success.[24] The leopard's population growth rate varies based on conditions, but they can recover quickly from an event causing a population decline.[25]

"Leopards have extremely catholic diets."[26] They can subsist on practically everything: insects, reptiles, birds, small mammals, large ungulates, and domestic livestock and dogs. Their preference appears to be medium-bodied, locally abundant ungulates.[27] In sub-Saharan Africa, at least 92 prey items have been observed.[28] Leopard will cache or hoist their prey into the limbs of a tree when competitors are present.[29]

RELEVANT LISTING FACTORS

A. FACTOR A (PRESENT OR THREATENED DESTRUCTION, MODIFICATION, OR CURTAILMENT OF THE SPECIES' HABITAT/RANGE) DOES NOT WARRANT RECLASSIFICATION FOR THE LEOPARD IN THE SADC COUNTRIES.

1. The leopard's habitat is secure in a network of protected areas, communal areas, private conservancies, and TFCAs.

Up-listing the leopard is not warranted because of habitat destruction, modification, or curtailment for four primary reasons. First, the leopard still inhabits a huge range – far larger than the range of the threatened-listed African lion. The IUCN *Red List* identifies the leopard's extant range as 8,515,935 km^2. The threatened-listed lion's estimated extant range is 1,654,375 km^2.[30] In Southern and Eastern Africa, the leopard's estimated range remains between 4,329,400 and 6,274,100 km^2. The *Red List* did not conclude the leopard was endangered, in part because so much range remains. (It should be noted that in the 1982 down-listing, the FWS itself pointed out that the leopard's status was more favorable than the lion's.[31])

Second, perhaps the world's largest network of Protected Areas (PAs) (as defined by IUCN) provide suitable habitat for the leopard's long-term survival. These PAs include national parks, safari hunting areas, and wildlife management/communal areas designated for wildlife. These areas provide secure habitat where the leopard is not, at all, in danger of extinction. Leopard inhabit some of the world's largest national parks, including Kruger (4.81 million acres), Kalahari/Gemsbock (the Kgalagadi

[24] *DSA NDF for Mozambique*, p. 2 ¶¶ 4-5; K. Nowell & P. Jackson, Status Survey and Conservation Action Plan for Wild Cats (1996, IUCN), p. 26 (*cited as IUCN Status Survey for Wild Cats*).
[25] *IUCN Status Survey for Wild Cats*, p. 28 ("Martin and deMeulenaer (1988) simulated the effects of high harvests on leopards … their model also indicated that even very high offtakes … had produced only a slight decline … [t]hey considered leopard to be generally resilient to harvest up to a critical threshold, which varies with density.").
[26] *DSA NDF for Mozambique*, p. 2 ¶ 7; *IUCN Status Survey for Wild Cats*, p. 25.
[27] *IUCN Red List*, p. 13.
[28] *DSA NDF for Mozambique*, p. 2 ¶ 7.
[29] *IUCN Status Survey for Wild Cats*, p. 26. This behavior is one among several they adapted to successfully compete with other large predators.
[30] H. Bauer et al, *Panthera leo*, IUCN Red List (2015 rev. 2016).
[31] 47 Fed. Reg. 4204-01, 4206.

Transfrontier Park, 8.78 million acres), Serengeti (3.65 million acres), Hwange (3.62 million acres), Kafue (3.54 million acres), Chobe (2.89 million acres), Etosha (5.5 million acres), etc.[32] These are strictly protected areas. They are strongholds, and these leopard populations are not generally at risk from anthropogenic mortality.[33] The number and size of these areas have increased since the leopard was down-listed by the FWS.[34] (These parks are even larger when considered as part of the emerging TFCAs discussed below, which have connected protected areas across countries and created corridors between them, expanding the area under protection even more.)[35]

Similarly, the leopard's habitat is extended in licensed, regulated hunting areas, which are many times larger than the national parks in the SADC countries.[36] A few examples: the Selous Game Reserve and the Niassa National Reserve area (which comprise the Selous-Niassa TFCA) cover over 21 million acres. Zimbabwe's Safari Areas cover 4.68 million acres.[37] Hunting areas in Tanzania provide five times more habitat than Tanzania's national parks.[38]

The protected areas that allow hunting are even larger when communal areas, which largely depend on safari hunting for revenue and conservation incentives, are included. For example, in Zambia, safari hunting is permitted in most Game Management Areas (GMAs). The fees are shared between local communities and the Zambian Department of National Parks and Wildlife (ZDNPW). These areas cover 177,404 km^2.[39] Similarly, in Zimbabwe, the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) areas cover approximately 50,000 km^2, almost double the size of the country's

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[32] IUCN/UN, World Database on Protected Areas (*cited as Protected Planet*), https://www.protectedplanet.net/.

[33] L.H. Swanepoel et al., Survival Rates and Causes of Mortality of Leopards *Panthera pardus* in Southern Africa, Oryx (2014).

[34] Many new national parks have been designated or existing parks expanded since 1982, including but not limited to: Limpopo (10,000 km^2) and Magoe (3,559 km^2) National Parks in Mozambique; Bwabwata (6,277 km^2), Khaudum (3,842 km^2), and Mudumu (716 km^2) National Parks in Namibia; Richtersveld National Park (1,703 km^2) in South Africa; and Lower Zambezi (4,092 km^2) and Nsumbu (2,063 km^2) National Parks in Zambia. *Protect Planet* (also includes lists of nature reserves, game reserves, private and communal protected areas, etc.).

[35] For example, a 2010-2012 spoor survey indicated high densities of leopard in North and South East Zimbabwe, corresponding to the better soil conditions in these less-arid areas. Leopard population densities showed "little difference between the NP and SA" in most areas, as the Safari Areas are protected in Zimbabwe. Private conservancies generally maintained even higher densities than Hwange National Park. Unsurprisingly, leopard populations were denser in protected areas and less dense in human-dominated areas. Darwin Initiative, Final Report, Ecological Sustainability of Leopard Trophy Hunting in Zimbabwe (2012/2013), p. 9-10.

[36] A 2007 study found 22% more habitat was conserved for hunting purposes (approximately 1.4 million km^2) than in national parks and non-use PAs. P. Lindsey et al., Economic and Conservation Significance of the Trophy Hunting Industry in Sub-Saharan Africa, 134 Biological Conservation 455 (2007), p. 457 ("financial incentives from trophy hunting effectively more than double the land area that is used for wildlife conservation, relative to what would be conserved relying on national parks alone") (*cited as Lindsey (2007)*). But that figure is based on data through 2006, and the percentage is likely far higher given huge growth in communal conservancies and wildlife management areas and private conservancies and ranches. E.g., Namibia's conservancies have tripled since 2004 from 35,000 to over 100,000 km^2, http://www.nacso.org.na, and Tanzania's WMAs are expanding now.

[37] *Protected Planet*.

[38] Approximately 304,000 km^2 compared to ~58,000 km^2. But note that over 70,000 km^2 of hunting areas have been returned to the wildlife authority due to declining revenues from declining numbers of U.S. hunters as a result of the 2014 FWS suspension of elephant trophy imports and FWS failure to issue lion trophy import permits. Pers. comms. from hunting operators (2016).

[39] Ministry of Tourism and Arts, Department of National Parks and Wildlife, Enhancement and Non-Detriment Findings for African Lion Sport Hunting in Zambia (May 2016), p. 16 (*cited as Zambia Lion Excerpt*).

national parks.[40] In Mozambique, 20 coutadas cover more than 62,000 km^2, and the Tchuma Tchato and Chipanje Chetu community blocks provide another 36,418 km^2 for wildlife use.[41] Communal conservancies in Namibia did not exist when the leopard was down-listed in 1982, but they cover over 160,000 km^2 today (82 conservancies). This area provides vital habitat, monitored by community game guards, for increasing populations of leopard and leopard prey. And they largely depend on hunting revenue to fund their operations.[42]

Third, the SADC countries (and non-SADC countries where leopard are threatened-listed) are developing TFCAs to increase protected habitat and coordinate conservation across borders. TFCAs are "large ecological regions that straddle the boundaries of two or more countries encompassing one or more PAs as well as multiple resource use areas … founded with the aim of collaboratively managing shared natural and cultural resources."[43] These did not exist at the time the FWS down-listed the leopard. Eighteen TFCAs are in various stages of development in the SADC countries, and eight connect the terrestrial areas of leopard range states that depend on licensed, regulated hunting.[44] TFCAs evidence the countries' political will to protect habitat and migration corridors. They represent mitigation of the risk of habitat reduction. The SADC countries are binding themselves, through enforceable treaties, to maintain and coordinate conservation in these areas and to protect adjacent areas to ensure continuity.[45] "At least 12 million hectares of new land has been designated for conservation."[46] The TFCAs, as well as newly gazetted national parks and communal wildlife management areas, have expanded the PA network for leopard since the 1982 down-listing.

Most importantly, the petitioned up-listing would ***diminish*** the leopard's habitat. As explained above, most of the protected areas depend on the revenues from licensed, regulated hunting to justify their existence. Land is at a premium given Africa's population explosion, and it is frequently claimed for livestock grazing and subsistence farming.[47] However, with the revenues from hunting, both communal

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[40] *Protected Planet*.

[41] Republic of Mozambique, Non-Detriment Findings for *Panthera leo* (Africa Lion) Sport Hunting in Mozambique (Oct. 2016), p. 15 (cited as *Mozambique Lion NDF*).

[42] IUCN, Briefing Paper, Informing Decisions on Trophy Hunting, Case Study 5 (Apr. 2016); Namibian Association of CBNRM Support Organizations, The State of Community Conservation in Namibia: A Review of Communal Conservancies, Community Forests, and Other CBNRM Initiatives 2015, p. 10 (*cited as NACSO Report*); R. Naidoo et al., Complementary Benefits of Tourism and Hunting to Communal Conservancies in Namibia, 30 Conservation Biology (Jan. 8, 2016).

[43] Southern African Development Community (SADC), Webpage: TFCAs, http://www.sadc.int/themes/natural-resources/transfrontier-conservation-areas/; see also SADC, Transfrontier Conservation Areas (2016), p. 1 ("Transfrontier Conservation Areas are founded on the realization that natural resources that straddle international boundaries are a shared asset with the potential to meaningfully contribute to the conservation of biodiversity and the welfare and socio-economic development of rural communities."

[44] SADC, Transfrontier Conservation Areas (2016), p. 1, 4-39; see also World Bank, Conservation and Development in Mozambique, Lessons from the Transfrontier Conservation Areas Program and New Perspectives for the MozBio Program (2015).

[45] Treaties have been signed in a number of TFCAs. E.g., SADC, Transfrontier Conservation Areas (2016), p. 1, 4 (/Ai/Ais-Richtersveld Transfrontier Park), 6 (Great Limpopo Transfrontier Park), 8 (Kavango-Zambezi TFCA, 10 (Kgalagadi Transfrontier Park), p. 14 (Malawi Zambia TFCA). In other cases, the countries have signed an MOU and are negotiating a formal treaty.

[46] J. Hanks & W. Myburgh, The Evolution and Progression of Transfrontier Conservation Areas in the Southern African Development Community, Ch. 9, p. 15.

[47] United Nations, The World at Six Billion (Oct. 12, 1999), http://www.un.org/esa/population/publications/sixbillion/sixbillion.htm; FWS, Listing Two Lion Subspecies, 80 Fed. Reg. 80000 (Dec. 23, 2015). "For wildlife

areas and private landholders have been willing to dedicate land to wildlife. Tanzania's Wildlife Management Areas (WMAs) and Zimbabwe's private conservancies are two examples among others.[48]

In Tanzania's WMAs, rural communities set aside land as habitat and retain the benefits from the sustainable use of wildlife. WMAs provide communities with "a vested interest in conservation of natural resources because [they] benefit directly from their sustainable management," and safari hunting is the main provider of benefits in WMAs.[49] Block, permit, game, and observers' fees are shared between the wildlife authority and the WMAs, with most fees going to the WMA communities.[50] This financial incentive creates greater tolerance and conservation action among rural beneficiaries. For this reason, the U.S. Agency for International Development (USAID) concluded: "WMAs represent the best hope for conserving wildlife outside of Tanzanian protected areas while enhancing rural economic development."[51]

Currently 22 gazetted WMAs protect 36,238 km^2 (~3% of the country). When the fee-sharing percentages increased in 2013 and again in 2015, an additional 16 communities began the gazetting

conservation to be successful outside of national parks, these areas must be self-sufficient and able to generate sufficient revenue to cover the considerable costs of protecting the habitat and wildlife therein … Indeed, conservation would benefit from an incentive to utilise land for wildlife rather than the alternatives of livestock grazing, agriculture, and deforestation." B. du Preez et al., Zimbabwe Lion Conservation Research Report 2016: Sport-Hunting and Lion (*Panthera leo*) Conservation in Zimbabwe (Jan. 31, 2016), p. 8 (*cited as Zimbabwe Lion Excerpts*).

[48] Among others. There are at least 4,535 km^2 of private game farms in Mozambique, 50,000 km^2 in Namibia, and 2,556 km^2 in Zambia. *Mozambique Lion NDF*, p. 16; NACSO, Latest Statistics on Conservation Areas in Namibia, http://www.nacso.org.na/sites/default/files/Conservation%20Areas.xlsx; *Zambia Lion Excerpt*, p. 18. And of course, private game ranching in South Africa has led to the recovery of key species like the rhino and Cape mountain zebra. In South Africa, there are 18.5 million acres of state-protected land (6.1% of the country), and there are 50.6 million acres+ of private wildlife ranches (16.8% of the country). PHASA, South Africa – The Economics of Hunting, http://www.phasa.co.za/general/economics-of-hunting.html.

[49] WWF-Tanzania, Tanzania's Wildlife Management Areas (2012/2013), p. 5, 20; CWMAC, Presentation, The Role of Local Communities in Enhancing Wildlife Conservation in Tanzania (2016), p. 21, 23-24, 38, 40.

[50] In 2015, the fee-sharing percentages were amended as follows:

Type of Fee	% to TWPF	% to WMAS	% to District Council
Block fee	25%	75%	0%
Game fee	25%	65%	10%
Conservation fee	25%	70%	5%
Observer's fee	25%	70%	5%
Permit fee	25%	70%	5%

[51] CWMAC, Presentation, p. 38; USAID, Tanzania Wildlife Management Areas, Final Evaluation Report (July 15, 2013); WWF-Tanzania, Tanzania's Wildlife Management Areas (2012/2013), p. 20 ("Safari hunting provides a valuable source of revenue for WMAs…. The more animals the WMA manages and conserves, the more revenue it can generate. These tangible benefits and linkages can be easily understood at the community level and are good incentives to reduce poaching and retaliatory killings of animals such as lions.").

process. These will increase the protected area to 50,000 km^2.[52] Like TFCAs, WMAs are growing and secure habitat.[53]

Similarly, Zimbabwe's private conservancies represent the conversion of former cattle ranching operations to wildlife ranching. Two conservancies, Savé Valley (SVC) and Bubye Valley (BVC), together protect more than 6,670 km^2. This area is over three times the size of Mana Pools National Park, and provides habitat for the world's third-largest black rhino population, several thousand elephants, almost a thousand lion, and many more species including stable-to-increasing leopard populations. These conservancies depend on the income from licensed, regulated safari hunting to fund their operations and anti-poaching, including income from hunting their robust and increasing leopard populations.[54] Up-listing the leopard will reduce the income viability to these conservancies. As SVC and BVC exemplify, private land is critical for leopard conservation, in Zimbabwe and throughout Southern Africa. "Research has shown that unprotected, mostly privately owned land is extremely important for South African leopard conservation and in Limpopo Province 95% of suitable leopard habitat is still situated outside protected areas. Leopard conservation efforts should therefore be focused on private land … to preserve the status of this large carnivore."[55]

2. The best available information shows that the leopard's habitat is currently secure.

A 2016 paper cited in the IUCN *Red List*, the FWS' 90-Day Finding, and the Petition suggests the African leopard has lost 48-67% of its historical range. But this paper did not calculate ***recent*** range loss. It defines "historic" as the year 1750.[56] Of course, the leopard's range has contracted since that date – 1750 kicked off the Industrial Revolution. The U.S. did not yet exist. The world population was an estimated 791 ***million***, with only 13% inhabiting the African continent.[57] That is a mere 1.4% of the

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[52] M. Nkwame, 17 New Wildlife Areas Establishment in Offing, Daily News (July 2, 2015); WWF-Tanzania, Tanzania's Wildlife Management Areas (2012/2013), p. 11; USAID, Tanzania Wildlife Management Areas, Final Evaluation Report (July 15, 2013), p. 12, CWMAC, Presentation, p. 7.

[53] Unfortunately, WMAs are in crisis. Safari hunting revenue and the viability of 21-day safaris are way down due to the continued FWS suspension of elephant trophy imports and the de facto suspension of lion trophy imports. Instead of incentivizing habitat protection, trade barriers (as an endangered listing would create) are obstructing the flow of sustainable use benefits to communities. CWMAC, pers. comm. (2016). Additional barriers, like up-listing, will dis-incentivize communities from setting aside land as habitat and reduce potential habitat expansion. E.g., R. Naidoo et al., Complementary Benefits of Tourism and Hunting to Communal Conservancies in Namibia, 30 Conservation Biology (Jan. 8, 2016) ("… even a targeted hunting ban on elephants, or an import ban such as those that currently prevent the import of elephant trophies from Tanzania … into the U.S., is likely to have a very negative impact on Namibia's CBNRM program by severely undermining conservancy governance structures and incentives for conservation").

[54] IUCN, Briefing Paper, Informing Decisions on Trophy Hunting, Case Study 4 (Apr. 2016); P.J. Funston et al., Insights into the Management of Large Carnivores for Profitable Wildlife-Based Land Uses in African Savannas, PLoS ONE 8(3) (Mar. 20, 2013), http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0059044.

[55] J.N. Chase Grey et al., Evidence of a High Density Population of Harvested Leopards in a Montane Environment, PLoS ONE 8(12) (Dec. 2013), p. 9.

[56] A.P. Jacobsen et al., Leopard (*Panthera pardus*) Status, Distribution, and the Research Efforts Across Its Range, PeerJ 4:e1974 (May 4, 2016), p. 3 (*cited as Jacobsen (2016)*).

[57] According to the UN, "The rapid growth of the world population is a recent phenomenon … [it] started in 1950, with reductions in mortality in the less developed regions, resulting in an estimated population of 6.1 billion in the year 2000, nearly two-and-a-half times the population in 1950." In North America and most of Europe, population growth rates are low. But they remain high in Asia and Africa. By 2050, it is estimated that 20% of the world's population will inhabit Africa. UN, The World at Six Billion (Oct. 12, 1999), http://www.un.org/esa/population/publications/sixbillion/sixbillion.htm.

current world population (over 7 billion) and 8.6% of the current African population (over 1.2 billion).[58] The year 1750 is not a fair point of comparison.

We are not aware of any hard research on the contraction of the leopard's range in the last three generations. The *Red List* "estimates," "suspects," and "infers" a 21% range reduction in Southern Africa. But it does not provide a model or source for this assessment, nor does it offset that suspected range loss against the leopard's resiliency, broad prey base, and ability to live in degraded habitats and close to humans. The *Red List* does point out that the leopard, and their range and prey base, are the healthiest in Southern Africa, where most of the SADC countries are located, and acknowledges that ungulate species have increased by 24% in Southern Africa.[59] This increase is partly due to the great success of game ranching in South Africa, and the extensive protection offered in that country's national parks.[60] But South Africa is not alone. Large mammal surveys or game counts in PAs in Namibia, Tanzania, Zambia, and Zimbabwe have generally estimated stable or increasing populations of duiker, eland, impala, kudu, warthog, zebra, and other prey species.[61] Further, even upon consideration of this suspected range loss, the *Red List* does ***not*** conclude that the leopard is endangered.

The leopard's status is better in the SADC countries now than it was in 1982, when it was down-listed. More of the leopard's habitat is secure in gazetted national parks, hunting areas, and TFCAs. Even more is set aside in dedicated communal areas and private conservancies – if the incentives from licensed, regulated safari hunting continue, without increased international trade barriers.[62] Consider the correlation between North, West, and parts of Central and East Africa, compared to other parts of East Africa and Southern Africa. The areas where the leopard is already listed as endangered have experienced the greatest loss of leopard range and prey base. Yet the leopard is doing the best in East Africa and Southern Africa, where it is threatened-listed and valued as a tourist-hunted game animal.[63] The petitioned up-listing would act as a disincentive detrimental to leopard habitat and leopard. There is proven correlation between the availability of habitat and prey and sustainable use in the form of tourist safari hunting. The FWS recognized this when it down-listed the leopard to threatened, in its special rule limiting the effect of that down-listing to trophy trade, and in the consistent CITES non-detriment findings for leopard imports since the down-listing.[64] For example, in responding to a

[58] U.S. Census Bureau, Webpage, http://www.worldometers.info/world-population/#region.
[59] IUCN *Red List*, p. 7, 10.
[60] PHASA, South Africa – The Economics of Hunting, http://www.phasa.co.za/general/economics-of-hunting.html.
[61] E.g., Zambian Ministry of Arts and Tourism, Large Mammal Survey 2015; Tanzania Wildlife Management Authority, Ministry of Natural Resources and Tourism, Wildlife Division, & Tanzania Wildlife Research Institute, Non-Detriment Findings on African Lion (*Panthera leo*) in the United Republic of Tanzania, including Enhancement Findings (June 2016) (excerpt), p. 38-39 (*cited as Tanzania Lion Excerpt*); Friends of Hwange Trust, Hwange Game Count (2016), http://friendsofhwange.com/hwange-game-count-2016/; *NACSO Report*, p. 35-37.
[62] P.A. Lindsey et al., The Significance of African Lions for the Financial Viability of Trophy Hunting and the Maintenance of Wild Land, PLoS ONE 7(1) (Jan. 2012), p. 7 (*cited as Lindsey (2012)*); D. Weber et al., Unexpected and Undesired Conservation Outcomes of Wildlife Trade Bans – An Emerging Problem for Stakeholders, 3 Global Ecology and Conservation 389 (Jan. 2015).
[63] E.g., *Jacobsen (2016)*, p. 8, 13; *IUCN Red List*, p. 7; *DSA NDF for Mozambique*, p. 2 ¶ 2 ("In sub-Saharan Africa, for example, the leopard is still numerous and even thriving in some areas, while in North Africa the species is on the verge of extinction."); leopard population estimates from Namibia, Zimbabwe (attachments). Note that several of the SADC countries are estimated to have increasing lion populations, and likely also have increasing leopard populations. H. Bauer et al, *Panthera leo*, IUCN Red List (2015 rev. 2016).
[64] *DSA NDF for Seven Countries*.

comment that leopards were declining in Kenya, despite the country's national park system and ban on hunting, the FWS wrote:

> The Service feels the present regulation will have a positive effect in relation to the above points. No country can be expected to take any steps to conserve a species of wildlife which has been destructive to livestock and human life if there is no economic or other incentive to protect and preserve that animal. Only if the governments and local people receive some benefit from the species will serious measures be undertaken to conserve it. The present regulation could encourage the establishment of parks and preserves by making the leopard a valuable resource. It could discourage poaching and smuggling in that legally taken animals would now have value; governments and local agencies and individuals would have more funds and incentive to check and control harmful illegal practices.[65]

B. FACTOR B (OVERUTILIZATION FOR COMMERCIAL, RECREATIONAL, SCIENTIFIC, OR EDUCATIONAL PURPOSES) DOES NOT WARRANT RECLASSIFICATION FOR THE LEOPARD IN THE SADC COUNTRIES.

The best available information demonstrates that the leopard is not overutilized. Leopard offtakes, both legal and illegal, are not detrimental and are sustainable. Licensed, regulated offtakes are low, scientifically set, and monitored. They are well below CITES approved quotas, and even so, in an abundance of caution, range states are reviewing and revising quotas and rules for lawful leopard trophies.

At the same time, leopard range nations have relied upon the revenues generated by licensed, regulated hunting of leopard and other species to secure habitat, fund wildlife authority operations including anti-poaching, and distribute financial, infrastructure, employment, and game meat benefits to rural communities. The documented benefits of safari hunting are explained below and supported in the attachments. The offtakes from legal leopard hunting are a smart management tool of choice, if not necessary, for the leopard's continued abundance.

Problem animal and illegal offtakes for commercial purposes are being controlled, in large part (if not primarily) due to the revenues and benefits generated by hunting and the support of safari hunting operators. They do not pose a threat to the leopard's survival, and the data on which the Petition and 90-Day Finding rely are anecdotal or outdated.

1. Non-detrimental lawful utilization is not a threat to the species.

In 1982, DSA concluded "the importation of sport-hunted leopard (*Panthera pardus*) trophies taken in the following countries will be for purposes that are not detrimental to the survival of the species involved," and they have made the same finding every year since, e.g., "we are able to find that the importation of sport-hunted trophies of leopards (*Panthera pardus*) lawfully taken … during calendar year 2016 ... will be for purposes that are not detrimental to the survival of the species."[66] In making these findings, the DSA considers the "best available scientific and management information" and the "best available biological information," which includes offtakes and export figures, the range states' conservation and hunting programs for leopard, the range states' regulatory systems and CITES

[65] 47 Fed. Reg. 4204-01, 4210.

[66] FWS/DSA, Importation of Leopard Trophies (June 10, 1982), p. 1; *DSA NDF for Seven Countries*, p. 1, 4.

implementation, and the data collected by DSA from reports of leopard hunters mandated by certain FWS requirements.[67] This is not a rubber-stamp review. The relevant CITES resolution "does not require [the DSA] to accept imports of Appendix-I species blindly if the Parties have approved a quota for the species for the country of export. Rather, the Resolution … preserve[s] the independent authority of the Scientific Authority of an importing country to make its own non-detriment finding…"[68] These findings are being made by and for the country conceded to be by far the largest importer of leopard trophies, skins, and bodies.[69] Unlike the African lion or African elephant populations from certain countries, the leopard is and has been on CITES Appendix I, and for this reason alone, the well-monitored utilization is and has been sustainable.

2. Utilization through licensed, regulated hunting is regulated and sustainable, and lawful international trade has been overstated.

The Guide to Using the CITES Trade Database suggests a Comparative Tabulation is the most accurate assessment of reported CITES data. Conservation Force's assessment of that data demonstrates that legal international trade in leopard trophies has always been sustainable, and well under approved quotas.[70, 71] Conservation Force performed the analysis using the following search terms:[72]

[67] *DSA NDF for Seven Countries*, p. 3-4; *DSA NDF for Mozambique*, p. 1-11 (evaluating Biological and Habitat Characteristics, Population Estimates, Sport-Hunting and Conservation Status, CITES Regulation, National Management and Regulation, Associated Enforcement and Implementation Issues).
[68] *DSA NDF for Seven Countries*, p. 3-4.
[69] E.g., Petition, p. 19.
[70] The Petition's analysis of international trade in leopard trophies is not the best available information, because it does not follow the CITES Trade Database recommended parameters and relies on "gross imports" to calculate the highest number of items that could possibly have been traded – not the actual number. The "Guide to Using the CITES Trade Database" highlights the weakness of using this figure and states a gross imports/exports output type "tend to overestimate trade levels" because it reflects the largest reported quantity of an import or export. The Guide is available at https://trade.cites.org/cites_trade_guidelines/en-CITES_Trade_Database_Guide.pdf.
[71] It is also not clear on which figures the Petition relies, as page 18 cites both gross exports and gross imports, which present different figures. Compare "The most commonly-traded items were derivatives (13,968), trophies (10,211), specimens (4,352), skulls (2,045) and skins (1,928)" with the next paragraph: "Global gross imports of African leopards reported as bodies, trophies, skins and live for the period of 2005 to 2014 total 12,791, including imports of 134 bodies, 549 live leopards, 1,916 skins, and 10,191 trophies." This is an example of discrepancies in the CITES Trade Database that illustrate the lack of precision in the data.
[72] Please note: (1) there is like to be some overlap in reported numbers of skins, bodies, and trophies; (2) "skulls" was not used, as typically the skull is in trade with the skin and there is likely to be double-counting if separately included; (3) Conservation Force would not include "live" but has done so to be strictly comparable to the Petition; and (4) the FWS has adhered to the Comparative Tabulation Report as the only reliable methodology to estimate realistic trade levels. E.g., Notification to the Parties, Trade in Polar Bears (*Ursus maritimus*) (Mar. 23, 2016), https://cites.org/sites/default/files/notif/E-Notif-2016-032.pdf.

Search Selection:

Year Range:	***From: 2005 To: 2014***
Exporting countries:	***All Countries***
Importing countries:	***All Countries***
Source:	***All Sources***
Purpose:	***All Purposes***
Trade Terms:	***BOD - bodies,SKI - skins,TRO - trophies,LIV - live***
Species:	***Panthera pardus***

REPORTS

Select output type:

web
csv comma separated

Select report type:

Comparative Tabulations
Gross/Net Trade Tabulations Gross Exports

Search Reset Get report

The results for the period 2005-2014, using the above parameters, reflected the following:

Year	Importer	Exporter	Difference	% Difference
2005	1,103	974	129	11.70%
2006	1,021	963	58	5.68%
2007	997	409	588	58.98%
2008	1,167	780	387	33.16%
2009	1,285	921	364	28.33%
2010	881	762	119	13.51%
2011	755	604	151	20.00%
2012	906	845	61	6.73%
2013	725	443	282	38.90%
2014	569	546	23	4.04%
TOTAL	**9,409**	**7,247**		
Avg./Year	**855.36**	**658.82**		

These numbers are considerably lower than those offered in the Petition, and most importantly, well below the total quota of 2,648 approved by the CITES Parties.[73]

[73] Please note that, even if the Petition's analysis was not over-stated (which it is), and there was international trade on average of 10,191 leopards over ten years and roughly 4,500 leopard imports to the U.S. over ten years, that represents 1,019 leopards/450 leopards per year imported for non-commercial purposes. That figure is well below the total quota of 2,648 leopards/year approved by the CITES Parties, and far, far below the import of 17,000 skins ***per year*** for ***commercial*** purposes that initially justified the leopard's listing as endangered.
We would also note that offtakes are well below national or CITES quotas. For example, data from Zimbabwe's CAMPFIRE areas shows the following: Leopard are on quota in 14 districts. The quotas are generally set high, for marketing and problem animal control purposes. In 2011-2015, the total quota (for all five years) was 473. However, offtakes are far lower, and a total of only 185 leopards were hunted in this five-year period. These hunts generated almost $500,000 for the communities, and there were zero problem animal offtakes in these districts during this period. Zimbabwe Parks and Wildlife Management Authority & Zimbabwe Professional Hunters and Guides Association, Proceedings of a Collaborative Workshop on Leopard Management in Zimbabwe (Mar. 7-8, 2016), p. 28 (*cited as ZPWMA/ZPHGA Workshop Report*).

Further, using international trade in hunting trophies to approximate hunting offtakes is not the best available information, as it does not accurately reflect hunting offtakes for that year for several reasons. It takes time to prepare a trophy for shipment. Trophies that come from hunts conducted towards the end of the year are not likely to be exported in that year.[74] It takes time for clearing customs and transport. And it may take time to obtain the necessary CITES or ESA permits to facilitate shipment. For example, Conservation Force represents permit applicants who applied for permits to import African lion trophies in January 2016, who hunted lion in 2016, and who as yet have not received a decision on their permit applications from the FWS. Although those lion were hunted last year, they will (hopefully) be exported in 2017. When those permits are issued, there may be a spike[75] in the exports/imports of African lion trophies. It will have nothing to do with increased offtakes, and everything to do with the lag in trophy shipments. For this reason, the range states with leopard quotas approved by the CITES Parties intentionally requested quotas higher than their intended offtakes.[76] For example, although Mozambique has a CITES quota of 120, it allocates only about 40 leopards on quota in the Niassa National Reserve buffer area (approximately 1 per 1,000 km^2)[77]. In short, while the CITES quotas are biologically sustainable, the range states intended to hunt even fewer leopard, but built in "wiggle room" to account for shipment or permitting lags.

This best available information, from the range states themselves, reflects the following offtakes from licensed, regulated hunting – considerably below the quotas and well within sustainable levels. The quotas under which these leopard are harvested are adaptively set on an annual basis upon consideration of population and trend data, habitat size and assessment, trophy quality and quota utilization, offtakes from other sources, species sensitivity, recommended sustainable offtake levels, and more. Each country has a committee that sets the quotas, typically using a participatory approach by which data and comments from stakeholders are taken in a workshop and considered by wildlife authority ecologists, who make final recommendations and allocations. Compliance with the quotas are monitored through return forms and oversight by local wildlife officers and rangers that observe the hunts, as well as CITES export permits.[78, 79]

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[74] E.g., Amendment to the Quota of the United Republic of Tanzania, CoP12 Doc. 23.1.2 (2002), p. 3 ¶ 13, 7 ¶ 37.

[75] Because 2016 lion will be exported and imported, and lion trophies taken in 2017 may also enter international trade and be reported in the trade database.

[76] It must be understood that range states rely upon offtakes to guide wildlife management decisions, not CITES quotas. Further, the Petition suggests the failure to harvest up to the full CITES quotas indicates a decline in range states' leopard populations. But this is error, as a matter of fact and policy. The CITES quotas were set higher than intended offtakes to allow for lags in exports; and professional hunters and safari operators are selective about the leopard they harvest. They must comply with national laws and policies restricting sex, size, and/or age, as well as company policies. As explained in this Comment, range states and professional hunters have become even more selective to avoid exactly the kind of criticism in the Petition. Thus, leopard offtakes have been reduced, intentionally, due to selectivity and policy choices.

[77] *ZPWMA/ZPHGA Workshop Report*, p. 10; *Mozambique Lion NDF*, p. 14, 17; pers. comm. with ANAC.

[78] E.g., *Tanzania Lion Excerpt*, p. 19, 21-23; Zimbabwe Parks and Wildlife Management Authority, Legal Trade, Conservation, and Rural Livelihoods: A Zimbabwean Perspective, Presentation at the Workshop on CITES and Livelihoods (Nov. 23-25, 2016), p. 5-6 (*cited as ZPWMA Legal Trade and Conservation Presentation*); *Zambia Lion Excerpt*, p. 18-19, 30-32.

[79] A sophisticated study using computer modeling determined that a maximum offtake of 3.8% of the male leopard population is a safe, sustainable level of legal hunting. Although at times quotas in Tanzania were set above that level to allow operators to market safaris, ***the sustainable level was never exceeded***. T.M. Caro et al., Animal Breeding Systems and Big Game Hunting: Models and Application, 142 Biological Conservation 909 (2009), p. 919, 922. This is due to national law, intentional selectivity, and hunting industry or operator policy.

Country	CITES Quota	2011	2012	2013	2014	2015
Mozambique[80]	120	49	46	55	52	60
South Africa[81]	150	32	37	42	37	36
Tanzania[82]	500	200	178	189	197	139

Range state wildlife authorities, in collaboration with the tourist safari hunting community, have adopted practices that ensure the sustainability and beneficial use of the leopard, including recent efforts to address anti-hunting pressure in the media, and to protect trophy quality and a country's position in a competitive industry. For example:

- In Zimbabwe, the wildlife authority and operators' association agreed very early on that female leopards would not be hunted and no leopard with a skull smaller than 13.75 inches would be exported.[83]
- In April 2010, South Africa's Scientific Authority held a scientific workshop to prepare a preliminary non-detriment assessment for leopard and identify key information gaps. A stakeholder workshop was held in December 2010.[84]
- In 2012, Zimbabwe's Parks and Wildlife Management Authority (ZPWMA) held a workshop attended by regulators, scientists, hunting industry representatives, and other stakeholders to prepare a preliminary non-detriment finding for leopard and to identify action items for leopard conservation that are currently being implemented.[85]
- In September 2015, South Africa's Scientific Authority recommended a zero quota for leopard exports for 2016. The Authority identified threats to the leopard, but had insufficient current information on the severity and impact of those threats to make a positive finding. To address these issues, the Department of Environmental Affairs (DEA) is drafting new Norms and Standards to govern leopard hunting, including to ban the hunting of female leopard, establish leopard hunting zones, and develop specific criterion for exportable trophies. The hunting community is working closely with the DEA to provide data on leopard populations (including to aggregate data through an internet portal) and implement best practices. In 2017, the Scientific Authority recommended a continued zero quota, with a precautionary quota in 2018, in part because the Norms and Standards are still under development. Although the hunting industry

[80] Pers. comm. with ANAC. From the Niassa National Reserve buffer zone specifically:

Year	2011	2012	2013	2014	2015
Quota Allocated	41	41	40	39	39
Hunting Offtake	20	14	22	21	20

[81] South Africa Department of Environmental Affairs, statistics provided through PHASA.

[82] Tanzania Wildlife Division, pers. comm. (2017).

[83] Preliminary Non-Detriment Finding Assessment for Leopards in Zimbabwe (Dec. 2012), p. 11 (*cited as Preliminary Zimbabwe NDF*).

[84] South African National Biodiversity Institute (SANBI), Leopard Quota 2016, Presentation for PHASA/DEA Meeting (Jan. 27, 2016) (*cited as SANBI Slides*).

[85] See generally *Preliminary Zimbabwe NDF*.

opposes the zero quota, the DEA's and Scientific Authority's actions represent adaptive and cautions management of the leopard, consistent with sustainable use, not over-use.[86]

- In 2016, ZPWMA reduced the allocation of leopard quotas and did not allocate quotas to smaller properties, as part of the implementation of action items identified in the prior workshop.[87]
- Also in 2016, ZPWMA and the professional hunters and operators' associations held a follow-up workshop to assess the status of the prior non-detriment finding and implementation of the action items. Among other things, participants agreed to establish additional size or other guidelines for leopard hunting and to trial an adaptive points system. They also developed a leopard management "tree," with outputs, activities, timelines, and key performance indicators for monitoring population status/trends, lawful leopard trophies, adaptive management, policy reviews, and coordination and collaboration among stakeholders.[88]
- In 2016, Zambia's wildlife authority (ZDNPW) also held a stakeholder workshop to develop a Statutory Instrument to govern lion hunting including age-based guidelines, and leopard hunting under a specific monitoring system. Training for professional hunters in aging big cats was also provided.[89]
- In October 2016, at the CITES CoP 17, the Parties adopted the following decisions, which recommend that range states review and reconsider their CoP-approved leopard quotas and provide for a review process at the 2018 meetings of the Animals and Standing Committees:

17.114	**Quotas for leopard hunting trophies**	*Directed to Parties with quotas established under Resolution Conf. 10.14 (Rev. CoP16)*	Parties, which have quotas, established under Resolution Conf. 10.14 (Rev. CoP16) on *Quotas for leopard hunting trophies and skins for personal use* are requested to review these quotas, and consider whether these quotas are still set at levels which are non-detrimental to the survival of the species in the wild, and to share the outcomes of the review and the basis for the determination that the quota is not detrimental, with the Animals Committee at its 30th meeting.
17.115		*Directed to the Animals Committee*	The Animals Committee shall consider the information submitted by the relevant range States under Decision 17.114 and any other relevant information, and, if necessary, make any recommendations to the range States and to the Standing Committee relating to the review.
17.116		*Directed to the Secretariat*	The Secretariat shall, subject to external funding, support the reviews to be undertaken by range States, referred to in Decision 17.114, upon request by a range State.
17.117		*Directed to the Standing Committee*	The Standing Committee should consider any recommendations of the Animals Committee made in accordance with Decision 17.115, and make its own recommendations, as appropriate, for consideration at the 18th meeting of the Conference of the Parties.

In short, this best available information shows that utilization is sustainable, and being responsibly managed and monitored by the range states and CITES Parties. These are all more stringent management and controls of utilization than when the leopard was down-listed from endangered.

3. Licensed, regulated hunting is essential for controlling illegal utilization and reducing human-wildlife conflicts.

The best available scientific and commercial information reflects the off-setting benefits of licensed, regulated hunting to the conservation of leopard and other species.

[86] Staatskoerant/Government Gazette, NDF for Leopard (*Panthera pardus*), South Africa (Sept. 10, 2015); S. Burger, Private Sector Participation in Leopard Monitoring (Feb. 26, 2016).
[87] *ZPWMA/ZPHGA Workshop Report*, p. 26.
[88] *ZPWMA/ZPHGA Workshop Report*, p. 45-47.
[89] *Zambia Lion Excerpt*, p. 9, 23, 25.

a. Habitat protection

The benefits generated by safari hunting justifies the protection of far more habitat in Mozambique, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe than do national parks, as explained above in Factor A. This habitat is crucial for the survival of leopard, whose range typically extends beyond national parks. And the contributions of hunting operators to securing park buffer zones, their concessions, and to assisting national authorities in securing PAs, shifts some of the great financial burden of protecting habitat to the private sector (as explained below).

b. Revenues for range-state wildlife authorities

Range states rely on hunting revenues to fund the operations of their national wildlife authorities, including most anti-poaching. For example, most of the operating budget revenue for Tanzania's Wildlife Division (TWD) and Wildlife Management Authority (TAWA) and Zimbabwe's ZPWMA comes from licensed, regulated hunting fees.[90] Two-thirds of Namibia's funding for the Game Products Trust Fund (GPTF) comes from hunting concessions, which "demonstrates the important role that legal hunting plays in conservation."[91] In Mozambique, 20% of hunting revenues accrue to the Central Treasury, 60% are used by the conservation authority to fund operations and anti-poaching, and 20% are directed to local communities.[92] The attachments reflect that licensed, regulated hunting fees have contributed at least $69,615,292 to the wildlife authorities of Mozambique, Tanzania, and Zimbabwe and Namibia's GPTF in the period 2013-2015,[93] and the revenues from leopard hunting have been a critical component of this total.[94]

c. "Unreported" anti-poaching contributions

Safari hunting operators also substantially combat poaching in "unreported" ways (i.e., not included in the fees they pay the national wildlife authority). Hunting operators staff and equip their own scouts. They contribute rations or petrol to government rangers and community scouts. These efforts increase anti-poaching coverage and reduce financial pressure on the wildlife authority. They also maintain reward funds for information on poachers and poaching activity, and support community or village

[90] *Tanzania Lion Excerpt*, p. 47-48, 60-61; *ZPWMA Legal Trade and Conservation Presentation*, p. 10. Note that a tourist hunter must book a 21-day safari to hunt a leopard in Tanzania.
[91] GPTF Fund Management Office, Report on the Activities of the GPTF: 2012-2016 (Sept. 2016), p. 4-7.
[92] ANAC, Response to FWS Letter (Nov. 28, 2016) (*cited as ANAC Response*).
[93] Revenues declined in 2015 and 2016, due to the FWS suspension of elephant trophy imports from Tanzania and Zimbabwe, and the de facto suspension of elephant trophy imports of Zambia and lion trophy imports from all range states. Zambia is not included in this calculation because hunting was closed in 2013-2014, and cat hunting was closed in 2015.
[94] *Lindsey (2007)*, p. 458 (leopard and lion generated ~20% of income from hunting for Tanzania's wildlife authority); *Lindsey (2012)*, p. 3-6, 8; Southwick Associates, The Economic Contributions of Hunting-Related Tourism in Eastern and Southern Africa (Nov. 2015), p. 50; A. Jorge et al., Costs and Benefits of the Presence of Leopards to the Sport-Hunting Industry and Local Communities in the Niassa National Reserve, Mozambique, 00 Conservation Biology (June 2013) (leopard expenditure represented 28% of all safari packages; hunting fees covered 30% of reserve's annual operating costs); R. Naidoo et al., Complementary Benefits of Tourism and Hunting to Communal Conservancies in Namibia, 30 Conservation Biology (Jan. 8, 2016).

game scouts through payment of salaries and provision of equipment, rations, and training.[95] A few examples of the operators' unreported impact are below:

- In Tanzania, individual operator anti-poaching expenditures are enormous: 13 parent companies representing a sample of 27 operating companies in ~74 concessions contributed more than $6.7 million for anti-poaching in the 2013-2015 period. Their contributions included donation of aircraft to facilitate patrols; donation of vehicles, GPS, and satellite phones to improve ranger coverage and communication; training for village game scouts and government rangers; maintaining their own anti-poaching teams; providing rewards for information on suspected poachers; and more.[96] The operators' efforts extend year-round surveillance across the hunting areas, and resulted in 7,170 patrol days, 1,409 poachers arrested, 6,233 snares and gin traps removed, 171 firearms and 1,557 rounds of ammunition collected, 704 vehicles confiscated, and 1,118 non-firearms weapons confiscated (based on 11 companies reporting).[97]
- Similarly, in Zimbabwe, the third-largest black rhino population in the world is protected at BVC and SVC. These conservancies spend over $1.1 million annually, in funds generated exclusively from sport-hunting including significant leopard hunting, to employ scouts, purchase equipment, and conduct anti-poaching operations to secure these rhino and other species.[98] The Dande Anti-Poaching Unit (DAPU) in the Mbire District of Zimbabwe has been incredibly successful in reducing poaching and increasing wildlife populations in the Dande Safari Area. In 2015, they picked up over 2,300 snares; in 2016, through concerted effort and community intervention, they only had to collect 1,479 snares. DAPU maintains 22 company scouts and funds 18 community scouts. It is wholly funded by hunting revenue and client donations.[99]
- In Zambia, a sample of only four operators has made a big impact, investing over $205,000 in anti-poaching in 2015. These operators patrol large GMAs and reserves and have helped recover wildlife populations in these areas by collecting thousands of snares, monitoring resident hunting, and arresting over a dozen poachers. They also provide rations and petrol for ZDNPW rangers and coordinate with these rangers to maintain the boundaries of the adjacent

[95] E.g., Conservation Imperative, Custodians of the Wilderness: Tanzania (Jan. 13, 2016), http://theconservationimperative.com/?p=227; Conservation Imperative, The Fate of the African Lion: Bubye Valley Conservancy (Aug. 4, 2015), https://vimeo.com/135337181; Conservation Imperative, Can Hunters Be Conservationists (Coutada 9 Mozambique) (May 1, 2016), http://theconservationimperative.com/?p=264; Conservation Imperative, Custodians of Wilderness: Zambezi Valley, Zimbabwe (May 5, 2016), http://theconservationimperative.com/?p=271; Conservation Imperative, The Fate of the African Lion: Zambia (Aug. 5, 2015), http://theconservationimperative.com/?p=118. *Tanzania Lion Excerpt*, p. 16-17 (safari operators "contributed and are contributing substantially to Tanzania's enhanced anti-poaching efforts … [by providing] funding, equipment, and technical expertise for repairs, transportation, and critical funding for government game scouts as well as their own anti-poaching patrols … Hunting companies' anti-poaching teams acting in collaboration with the [T]WD's Anti-Poaching Units, remove snares, prevent illegal logging, and arrest poachers in a coordinated and continuous effort.").

[96] M. Boguslawski, Tanzania Lion Enhancement Summary Report (2016) (*cited as Tanzania Operators Summary Report*).

[97] *Tanzania Operators Summary Report*.

[98] *Zimbabwe Lion Excerpt*, p. 17; B. du Preez, Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016), p. 5.

[99] DAPU, Year-End Report 2016; DAPU, Year-End Report 2015; Chief Senator D. Chisunga, Land Use Planning at the Local Level, Presentation at the 14th African Wildlife Consultative Forum (Nov. 10, 2015); Chiefs, EU in Wildlife Talks, The Herald (Apr. 2, 2016), http://www.herald.co.zw/chiefs-eu-in-wildlife-talks/; see also the example in the Omay CAMPFIRE Area, M. Pieters Safaris, Sustainable Use Benefiting Communities, Blog (Nov. 18, 2015); M. Pieters Safaris, Anti-Poaching … Fighting Back (African Conservancies Anti-Poaching 2015), Blog (Jan. 26, 2016).

national parks, buffering the parks from encroachment.[100] A sample of financial obligations from hunting operators in the GMAs reflects a contractual obligation of over 1.4 million ZMK in law enforcement, over 1 million ZMK in infrastructure development, and over 500,000 ZMK in resource monitoring. (This does not include the contributions made over-and-above contractual obligations). In the Luangwa GMAs, these contributions led to the collection of over 1,600 snares in the 2013-2015 period (three blocks reporting). Every single snare collected represents benefit for the leopard and other wildlife.[101]

- In Mozambique, operators are reducing poaching and rehabilitating wildlife areas following the 15-year civil war (1977-1992). For instance, one operator implemented an anti-poaching plan that exceeds $100,000 annually. The result has been massive growth (20-to-30-fold increases) in resident buffalo, sable, antelope, etc. Another operator maintains 40-50 game scouts pursuant to a written anti-poaching plan. They are paid salaries and equipped, and paid bonuses for every poacher caught or gin trap or snare removed. Annually since 2003, these anti-poaching teams have removed over 1,000 gin traps, caught on average 150 poachers, and seized numerous rifles.[102] In a separate area on the border with South Africa, safari operators have come together with the wildlife authorities of Mozambique and South Africa to develop the anti-poaching strategy for the Greater Lembombo Conservancy, which is part of the Greater Limpopo TFCA.[103] This is crucial collaboration because it prevents poachers from killing animals in one country and then fleeing across the international border. Safari operators are required to conduct anti-poaching pursuant to their management plan and contract with the wildlife authority, and an analysis of the annual activity reports of 13 operators concluded they spent over 1.22 million in anti-poaching and $955,150 on block development (which can include road openings and maintenance, which is critical to anti-poaching), in 2013-2015. This amount is undoubtedly low, as many operators do not include all anti-poaching costs in their government reports.[104]

These are all recent efforts since the 1982 down-listing, but these contributions are protecting viable wildlife populations and reducing illegal use. The commitment of hunting operators has put the leopard in a better position in 2017 than when it was down-listed in 1982.

d. Community investment, employment, empowerment

In addition to the "sticks" described above, safari operators offer "carrots" to rural communities, such funding for community projects, additional revenue sharing, employment, game meat distributions, and compensation funds, to reduce conflicts and enhance tolerance for vermin predators.[105] Leopards present a significant threat to rural communities,[106] but hunting revenues can reduce the burden of

[100] Zambia Operators Summary Report.
[101] *Zambia Lion Excerpt*, p. 27-29.
[102] Conservation Imperative, Can Hunters Be Conservationists (Coutada 9 Mozambique) (May 1, 2016), http://theconservationimperative.com/?p=264.
[103] Southern African Wildlife College, Community Development with Sabie Game Park 2013.
[104] *ANAC Response*; *Mozambique Lion NDF*, p. 19-20.
[105] E.g., *Lindsey (2007)*, p. 459 (estimating tens of thousands of jobs from hunting including 2,125 in Namibia, 5,000-6,000 in South Africa, and 4,328 in Tanzania).
[106] E.g., B.M. Kissui, Livestock Predation by Lions, Leopards, Spotted Hyenas, and Their Vulnerability to Retaliatory Killing in the Maasai Steppe, Tanzania, 1-11 Animal Conservation (2008). Note, this article was written before Tanzania enacted comprehensive and responsive Damage Consolation regulations.

living alongside dangerous game.[107] "In parts of Zambia, Zimbabwe, Botswana, Namibia, and Tanzania, revenues from trophy hunting have resulted in improved attitudes towards wildlife among communities, increased involvement of communities in CBNRM programs, requests to have land included in wildlife management projects, and in some cases increasing wildlife populations."[108] For example:

- In Tanzania, rural communities benefit from direct support from hunting operators. By law, companies provide $5,000 annually in community assistance per concession, but most operators voluntarily provide far more.[109] From 2013-2015, a sample of 27 companies contributed a total of $3.13 million in community assistance. They constructed or rehabilitated at least two dozen classrooms, four clinics or dispensaries, and three latrines. They funded over $45,000 in school supplies. They provided 254 sets of glasses, hundreds (if not thousands) of wheelchairs, a two-week clinic in which 1,575 patients received treatment, and monthly mobile immunization clinics.[110] Six of the operators shared an additional percentage of hunting fees with local villages, amounting to over $230,000. The sample operators created over 1,200 permanent jobs and thousands of seasonal jobs. They voluntarily shared harvested game meat with local villages, providing a crucial source of protein. And they voluntarily compensated for dangerous game attacks, assisted with problem animal control, and patrolled herds and fields during harvest.[111]
- In Zambia, the four operators sampled invested $100,000+ in community projects in 2015, such as construction of classrooms, rehabilitation of a traditional leader's home, development of a tourist camp business for the village, and more. Under Zambian law, the companies must share at least 50% of the game meat harvested with communities. They typically share an even higher percentage. The conservative market value of game meat shared by two companies reporting was over $50,000 in 2015.[112] The four companies employ over 150 full-time staff and several hundreds of seasonal staff. Perhaps most importantly, they all maintain compensation funds for villagers damaged by wildlife. In 2015, a child in one GMA was mauled by a leopard. The safari operator paid for the funeral and avoided a problem animal killing. In 2015, these operators together paid over $7,000 in compensation.[113] In addition, 50% of game fees are shared directly with rural communities in the GMAs. Under government guidelines, at least 20% must go to community scout salaries. Approximately 750 scouts are employed across the GMAs at a cost of

[107] L.H. Swanepoel et al., The Relative Importance of Trophy Harvest and Retaliatory Killing of Large Carnivores: South African Leopards as a Case Study, 44(2) South African Journal of Wildlife Research 115 (Oct. 2014), p. 119 ("The limited relative effect of trophy harvest on population persistence highlights its potential as a strategy to increase local tolerance for large carnivores by providing sustainable incomes … hunters need to be actively involved in management plans, landowners need to received associated benefits, and incomes need to exceed any financial losses associated with the presence of predators…").

[108] *Lindsey (2007)*, p. 463-64.

[109] Wildlife Conservation (Tourist Hunting) Regulations (16)(4) ("The Hunting Block Advisory Committee shall evaluate the application for renewal in consideration of the following: … (c) whether the applicant has been contributing to the villages within and adjacent to his hunting block an amount of not less than USD 5,000.00 for each hunting block annually as contribution to the implementation of community development projects…").

[110] *Tanzania Operators Summary Report*.

[111] *Tanzania Operators Summary Report*. A 2012 study predicted "restrictions on lion hunting could potentially reduce the tolerance of communities in some areas … [and] the funds available for … community outreach." This prediction is occurring, and it is even worse because more than one species is subject to bans or trade barriers. *Lindsey (2012)*, p. 7-8 (also noting that the leopard was even more important than the lion "in financial terms").

[112] Zambia Operators Summary Report; see also P.A. White & J.L. Belant, Provisioning of Game Meat to Rural Communities as a Benefit of Sport-Hunting in Zambia, PLoS ONE 10(2) (Feb. 18, 2015).

[113] Zambia Operators Summary Report.

approximately $38,853 per month. Thirty-five percent must be used for community projects. Operators are also contractually bound to provide community support. All of this provides significant anti-poaching support, employment, and involvement of rural residents in protecting wildlife.[114]

- In Namibia, revenues from safari hunting are essential to keep the communal conservancies operating. Fifty-two conservancies maintain hunting concessions and employ 158 full-time and 109 part-time staff. In 2015, these concessions generated over N$ 45 million.[115] A recent study compared the benefits from photo- and hunting tourism. The study found the benefits from photo- and hunting tourism accrued differently: photo-tourism largely provided jobs and salary benefits for individuals, while hunting tourism benefited the community as a whole by funding conservancy management and providing game meat. This difference mattered. The study simulated the effect of a ban on photo- or hunting tourism. It found that ~80% of the conservancies currently operating with a positive net cash flow could still cover operational costs if photo-tourism was banned but ~80% of conservancies would have to shut down if hunting was banned and its income and benefits eliminated. Approximately 50,000 km^2 of habitat would then be at risk of conversion to agricultural or pastoral use. And the leopard is a key species for conservation hunting in Namibia.[116]
- In Zimbabwe, CAMPFIRE operates on the basic principle that people are more tolerant of the negative effects of living alongside wildlife if wildlife has value to them. Thus, "hunting contributes to the conservation [of leopard and other species] via the financial revenue generated, which is ploughed back into conservation of the resource and empowers local communities to invest in their own rural development programs." Operators share revenues pursuant to concession agreements with the communities, and make additional contributions such as game meat and infrastructure projects.[117] Even in non-CAMPFIRE areas, operators voluntarily contribute: BVC and SVC each invest approximately $200,000/year in community projects and contribute (literally) tons of game meat annually to local communities.[118] Conservancies and operators also employ hundreds of residents in rural regions of Zimbabwe, in a very difficult economy.

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[114] *Zambia Lion Excerpt*, p. 16-17, 27-29, 33-34, 43-45.

[115] NACSO Report, p. 51.

[116] R. Naidoo et al., Complementary Benefits of Tourism and Hunting to Communal Conservancies in Namibia, 30 Conservation Biology (Jan. 8, 2016).

[117] DAPU, Year-End Report 2015; Chief Senator D. Chisunga, Land Use Planning at the Local Level, Presentation at the 14th African Wildlife Consultative Forum (Nov. 10, 2015); M. Pieters Safaris, Sustainable Use Benefiting Communities, Blog (Nov. 18, 2015) (contributing over $200,000 annually "straight to the producer communities for community developmental projects"; in 2013-2014, for example, these funds were used for building or repairing five teachers' houses, ten classrooms, and four offices, obtaining school supplies, rehabilitating water infrastructure, constructing feeder roads, obtaining and repairing heavy equipment, and funding traditional ceremonies). See also *ZPWMA Legal Trade and Conservation Presentation*, p. 11-22.

[118] Zimbabwe Lion Excerpts, p. 12, 15 (listing community contributions), 17 (describing SVC's community projects); Conservation Imperative, The Fate of the African Lion: Bubye Valley Conservancy (Aug. 4, 2015), https://vimeo.com/135337181 (game meat donations are a "direct spinoff" of the hunting program, and help build strong relationships with local chiefs); R. Groom, Lion Hunting in Zimbabwe's Savé Valley Conservancy (Jan. 27, 2013), p. 5 ("the conservancy recently entered into a mutually dependent agreement with the Chiefs representing the communities surrounding the Savé Valley Conservancy. The agreement links the communities to the Natural Resource Utilisation that occurs through the business operation of the conservancy and opens up opportunities for the local indigenous populations to share in any wealth creation. This agreement strengthens relations between the conservancy and the surrounding local communities and creates an environment that helps to protect, conserve, and sustain the natural assets of the area.").

- In Mozambique, local communities receive 20% of hunting fees by law, with a higher percentage (33%) sharing in community program areas. Forty-five registered communities currently benefit from these revenues. Hunting operators are also significant employers, and are obligated by law to primarily hire locally, which results in over 800 jobs for local residents. Operators are also obligated by law to distributed game meat to communities. And they contribute to community development projects, investing $830,300 in community development in the 2013-2015 period (13 operators reporting).[119] Operators have developed even more robust community programs to discourage poaching and enhance community tolerance of dangerous game. For example, one operator has partnered with the local chief to create a multi-use district, in which the operator maintains the main hunting area and contributes 25% of fees to the community and ***all*** game meat, and the community manages its own hunting area where it retains 75% of fees. There are also zoned areas for agriculture and grazing. Similarly, to discourage community support for rhino poaching along the border with South Africa and Kruger National Park, one operator pays 20% of revenues directly into village bank accounts. Further, the operator has established a Rhino Fund, in which payments are made when rhino are safe, and not made when rhino are poached. Forty percent of those funds are used for community scouts, and 60% for community projects.[120]

These direct and indirect benefits linked to sustainable safari hunting incentivize tolerance, reduce human-leopard conflict, and improve rural livelihoods. And overall, these examples demonstrate that regulated hunting plays a crucial role in wildlife management, anti-poaching, and reducing conflicts. The correlation is empirically proven. In the SADC countries that permit hunting, wildlife populations are generally stable or increasing, habitat is generally secure, poaching is generally controlled, and conflicts are manageable and mitigated. In the countries that do not allow hunting, wildlife and habitat are depleted. The best available scientific and commercial information supports the continued threatened listing or de-listing, and does not support the imposition of trade barriers that will reduce the benefits generated for the leopard from its regulated sustainable use.

e. <u>Hunting offtakes are compensatory, not additive.</u>

Research has shown that trophy hunting revenues and benefits like game meat and infrastructure projects can incentivize tolerance for leopard among local ranchers or herders and rural residents.[121] This tolerance has two components. By connecting benefits with licensed, regulated hunting, ranchers, herders, and rural residents become more willing to accept the presence of predators like leopards on the land. Further, as the rancher, herder, or villager benefits by a certain amount or an increased

[119] *Mozambique Lion NDF*, p. 19-20.
[120] *ANAC Response*.
[121] IUCN, Briefing Paper, Informing Decisions on Trophy Hunting (Apr. 2016); P.A. White & J.L. Belant, Provisioning of Game Meat to Rural Communities as a Benefit of Sport-Hunting in Zambia, PLoS ONE 10(2) (Feb. 18, 2015) (citing N. Leader-Williams & J.M. Hutton, Does Extractive Use Provide Opportunities to Offset Conflicts Between People and Wildlife? In: R. Woodroffe et al. (eds.), People and Wildlife: Conflict or Coexistence? (2005)); P.A. Lindsey et al., Determinants of Persistence and Tolerance of Carnivores on Namibian Ranches: Implications for Conservation on Southern African Private Lands, PLoS ONE 8(1) (2013); M. Kotierk, Dep't of Environment, Gov't of Nunavut, Public & Inuit Interests, Western Hudson Bay Polar Bears and Wildlife Management: Results of a Public Opinion Poll in Western Hudson Bay Communities (May 2012); P.A. Lindsey et al., The Significance of African Lions for the Financial Viability of Trophy Hunting and the Maintenance of Wild Land, PLoS ONE 7(1) (Jan. 2012); A.B. Stein et al., Farm Management and Ecosystem Analyses of Leopard Conservation in North-Central Namibia, 13 Animal Conservation 419 (2011).

amount, he or she becomes more willing to accept a larger number of predators.[122] For example, the largest populations of wild cheetah inhabit freehold farms in Namibia. When "recently introduced CITES export quotas allowed trophy hunting to take place on private ranches – where previously, because of livestock predation, cheetah had been viewed solely as a pest species … [t]he potential financial benefit of tolerating cheetahs … led to reduced levels of mortality and an increasing cheetah population."[123] For this reason, the offtakes from licensed, regulated hunting are compensatory, not additive to the offtakes for retaliatory killing or problem animal/predator control. As the cheetah's example demonstrates, in the absence of the incentives from hunting, the leopard would be removed and its numbers reduced. Due to the benefits, the leopard not only persists, but its population growth is encouraged to increase its concomitant benefits. The leopard is not and cannot be overutilized when the legal take is compensatory and preventative of the illegal/retaliatory take. The "cultural carrying capacity" of leopard is greater when rural people benefit from their sustainable use.

4. No form of utilization has a population-level effect.

As explained above, retaliatory killings are one of the primary threats to leopard, but are mitigated through the anti-poaching and community investment programs described above.

The leopard was ESA-listed and CITES-listed out of concern for extensive legal commercial trade in leopard skins. The listings, especially on Appendix I of CITES, essentially put an end to legal commercial trade.[124]

Illegal offtakes for commercial trade in leopard skins are generally low, and are also being mitigated and controlled through the anti-poaching contributions of safari operators described above. One researcher cited in the Petition found incidents of leopard skin poaching in South Africa, although that data is between seven and fifteen years old. Researchers agree that members of the Nazareth Baptist Church have traded in leopard skins for ceremonial use, but there is ***not*** agreement on the age of those skins. Many are likely old. Church members are also being educated in the unsustainability of the skin trade and synthetic skins are becoming more widely distributed for ceremonial purposes, as Panthera has donated over 14,000 synthetic skins.[125] South Africa's DEA is mitigating this threat, and it is not having a population-level impact there, or in any other country. For example, "in Zimbabwe, such killing appears to be relatively rare and there are few records of seizures of skins by ZPWMA (ZPWMA unpublished data). Three such incidents have been recorded since the formation of the authority…"[126] One paper suggesting that leopard skins are "widely traded in some Central and West African countries" is

[122] P.A. Lindsey et al., Determinants of Persistence and Tolerance of Carnivores on Namibian Ranches: Implications for Conservation on Southern African Private Lands, PLoS ONE 8(1) (2013); A.B. Stein et al., Farm Management and Ecosystem Analyses of Leopard Conservation in North-Central Namibia, 13 Animal Conservation 419 (2011); P.A. Lindsey et al., Attitudes of Ranchers Towards African Wild Dogs *Lycaon pictus*, Conservation Implications on Private Land, 125 Biological Conservation 113 (2005).

[123] A. Loveridge, C. Packer, A. Dutton, Science and Recreational Hunting of Lions, in B. Dickson et al. (eds.), Recreational Hunting, Conservation and Rural Livelihoods: Science and Practice (2009).

[124] The Petition claims that 135 leopards were traded commercially in 2005-2014, but that analysis suffers from the same deficiency as the trophy analysis discussed above. It also admits that most of these alleged commercial specimens were traded to the U.S. and confiscated. In short: CITES controls are working, and illegal trade is being properly interdicted.

[125] C. Torchia, In South Africa, Conservationists Offer Fake Leopard Hides, Associated Press (Jan. 28, 2017), http://www.sfgate.com/news/crime/article/In-South-Africa-conservationists-offer-fake-10890867.php.

[126] *Preliminary Zimbabwe NDF*, p. 10.

irrelevant to the requested up-listing, because the leopard is ***already*** listed as endangered in most of these countries. Importantly, the leopard also is a species with high fecundity, wide range, and a catholic diet, thus capable of rapid recovery. In short, it is resilient to over-harvest or over-utilization.[127] There are a few other examples of insignificant trade in live leopard, but most of these involve captive-bred specimen that should not be considered in the status review.

C. FACTOR C (DISEASE OR PREDATION) DOES NOT WARRANT RECLASSIFICATION FOR THE LEOPARD IN THE SADC COUNTRIES.

The IUCN *Red List* does not identify disease, predation, or infanticide as a threat to the viability of leopard populations, and neither did the FWS' 90-Day Finding.[128] The Commenters fully agree that this Factor does not warrant any change in the leopard's listing status.

It should be noted that the increasing use of trail cameras and development of guidelines for huntable leopards reducing the effect of infanticide. Trail cameras allow professional hunters to view leopards on a bait, roads, trails, and riverbeds. They provide more opportunity for a PH to assess an animal's size and age, compare different leopards, and target specific individuals who satisfy age or size guidelines. And age or size guidance is being tested in different areas, as leopard size and characteristics appear to vary regionally.[129]

D. FACTOR D (INADEQUACY OF EXISTING REGULATORY MECHANISMS) DOES NOT WARRANT RECLASSIFICATION IN THE SADC COUNTRIES, AS THE INTERNATIONAL, REGIONAL, AND NATIONAL MEASURES ARE MORE THAN ADEQUATE TO PROTECT LEOPARD POPULATIONS AND ENSURE SUSTAINABLE, NON-COMMERCIAL INTERNATIONAL TRADE.

1. CITES provides more than adequate oversight of international trade in a limited, biologically sustainable number of leopard trophies for personal use.

The leopard's inclusion on CITES Appendix I is more than adequate to control lawful, non-commercial trade in the species. Under the Convention, both an export and an import permit is required for international trade in a leopard specimen. The export permit can only be issued when the exporting country's Scientific Authority finds that export will not be detrimental to the survival of the species and its Management Authority is satisfied the specimen was legally obtained. The import permit can only be issued when the importing country's Scientific Authority makes a similar finding that the import will be for purposes that are not detrimental to the species, and its Management Authority concludes the specimen is not to be used for primarily commercial purposes.[130] These evaluations are taken seriously by the CITES Parties; for example, the DSA makes these findings annually, based on an independent review of the information, as explained below.

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[127] *IUCN Status Survey for Wild Cats*, p. 28.

[128] *IUCN Red List* (no mention of disease as threat); FWS, Federal Docket No. FWS-HQ-ES-2016-0131, 90-Day Finding on a Petition to Reclassify Leopards Currently Listed as Threatened Species to Endangered Species (Nov. 15, 2016), p. 3 (*cited as FWS 90-Day Finding*). The Petition also concedes that neither disease, predation, nor infanticide has a population level effect. Petition, p. 38.

[129] It should also be noted that professional hunters have long had their own ways of assessing the age of a leopard, such as the size of the back paw. Pers. comm. with PH in Zimbabwe/Mozambique. These assessments have succeeded in sustainable harvests of older animals, but are given little credit in the scientific literature, which tends to focus on traits common in the region where most of the research has been conducted (e.g., South Africa).

[130] CITES Convention, art. III.

The leopard was listed in the plenipotentiary CITES conference in 1973, and the listing "was not wholly based on documented scientific data."[131] Accordingly, at the request of range states and to facilitate non-commercial international trade in licensed, regulated hunting trophies, the CITES Parties adopted a series of resolutions to establish, control, and oversee exports of such trophies for personal use.[132] The Parties also approved, and approve revisions to, maximum export quotas proposed and justified by range states.[133] This regulated trade in leopard trophies is sustainable and non-detrimental, and has been repeatedly confirmed by the Parties, leading scientists, and the FWS.[134] This process is adaptive and monitored. For example, as explained above, the current quotas will be reassessed and reviewed in 2017/2018.

Importantly, the SADC countries that permit safari hunting have CITES processes in place. They justified their current quotas with the best available scientific and commercial information.[135] They make non-detriment assessments,[136] or they do not make them and set a zero quota if they do not have sufficient information (as in South Africa in 2016).[137] They monitor hunt return forms and reconcile these against the quotas to ensure sustainability and compliance with the CITES controls.[138] They issue export permits in conformance with the non-detriment assessments, the quotas, and the requirements of the Convention.[139] This degree of international and national oversight is more than adequate, and even more robust than in 1982 when the leopard was down-listed. The best available information demonstrates that the leopard is not endangered based on this factor.[140]

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[131] *DSA NDF for Mozambique*, p. 4 ¶ 15.

[132] The most recent is CITES Conf. Res. 10.14. See also, e.g., Secretariat, Review of Resolution Conf. 6.9, Doc. 7.28 (1989); Trade in Leopard Skins, CoP 5 Doc. 5.23 (1985); Draft Resolution from Zambia, Trade in Leopard Trophies, CoP5 Doc. 5.23.1 (1985).

[133] E.g., Summary, First Session of Committee I 5 October 2004: 09h05-11:50, CoP13 Com. I Rep. 1 (Rev. 1) (2004); Summary Record of the Second Session of Committee I 05 June 2007: 14h00, CoP14 Com. I Rep. 2 (Rev. 1) (2007).

[134] *DSA NDF for Mozambique*, p. 5 ¶ 17; *DSA NDF for Seven Countries*, p. 1.

[135] E.g., Supporting Statement from Zambia, CoP5 Doc. 5.23.2 (1985); Secretariat, Quota Requests, CoP6 Doc. 6.28 (1987); Amendment to the Quota of the United Republic of Tanzania, CoP12 Doc. 23.1.2 (2002); Leopard: Export Quotas for Namibia, CoP13 Doc. 19.1 (2004); Leopard: Export Quotas for South Africa, CoP13 Doc. 19.2 (2004); Leopard Export Quotas for Mozambique, CoP14 Doc. 37.1 (2007); see also Transfer of the Sub-Saharan Population of (Panthera pardus) from Appendix I to Appendix II, Subject to an Annual Export Quota.

[136] *Preliminary Zimbabwe NDF*, p. 20.

[137] Staatskoerant/Government Gazette, NDF for Leopard (*Panthera pardus*), South Africa (Sept. 10, 2015).

[138] Required by all SADC countries that permit hunting: Mozambique, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe. Mozambique, Tanzania, and Zambia requires annual reports as well. Tanzania has established an on-line system where permits are electronically issued and hunt return forms and their attachments are electronically filed. Other countries are working towards electronic systems for immediate reconciliation.

[139] E.g., the following reports from the CITES Secretariat: Secretariat Report on Leopard Quotas, CoP6 Doc. 6.27 (1987); Secretariat Report on Leopard Quotas, CoP7 Doc. 7.27 (1989); Report from the Secretariat: Exports of Leopard Hunting Trophies and Skins, CoP8 Doc. 8.20 (1992); Export of Leopard Hunting Trophies and Skins, Doc. 10.42; Quotas for Species in Appendix I/Leopard, CoP11 Doc. 11.28.1 (2000); Report on Implementation of Resolution Conf. 10.14 on Quotas for Leopard Hunting Trophies and Skins for Personal Use, CoP12 Doc. 23.1.1 (2002).

[140] It should be noted that the 90-Day Finding runs counter to the Division of Scientific Authority's recent non-detriment findings for Mozambique and the other range states, which have found an adequate regulatory environment. Moreover, the 90-Day Finding is markedly vague on this Factor in citing sources. The only document it cites specifically is a 2015 DLA Piper review of range state legislation, which is already out-of-data, as both Zambia and Mozambique have enacted legislation since that review. *FWS 90-Day Finding*, p. 4.

2. Range state regulations are robust, and range state wildlife authorities are dutiful enforcers of these laws.

The SADC countries have implemented state-of-the-art national legislation to carry out their CITES obligations, regulate the use and control of wildlife, and promote biodiversity conservation, among other goals. Most of this regulation has been enacted since 1982, when the leopard was down-listed. There is better protection and oversight of the leopard now, and de-listing is warranted, not up-listing. For example:

- Conservation of natural resources and sustainable use are uniquely enshrined in Namibia's Constitution. Safari hunting is regulated by the Nature Conservation Ordinance (1975).[141] Namibia's community conservancy system, which relies on sustainable use, was established by the Nature Conservation Amendment Act (1996). The Game Products Trust Fund, which collects and aggregates hunting and other fees to be reinvested in Board-approved wildlife management projects, anti-poaching, and other critical conservation uses, was created by the Game Products Trust Fund Act (1997). Hunting regulations and quotas are set by the Ministry of Environment and Tourism (MET), in collaboration with the Namibian Association of Conservancy Support Organizations (NACSO), which provides technical assistance to the 82 communal conservancies, and other stakeholders. Namibia's regulatory structure is rated "Category I" by the CITES Secretariat, and the laws are well-enforced. This is one of the many reasons why poaching is low in Namibia and why the FWS has repeatedly concluded that Namibia's regulatory system is more than adequate to successfully conserve and recover species, including through sustainable use programs.[142] This is the country that has brought back the black rhino.
- South Africa has in place both a National Environmental Management Act, No. 107 (1998), to generally regulate wildlife and create a permitting system for ownership and use of listed species, and a National Environmental Management: Biodiversity Act, No. 10 (2004) (NEMBA), which provides for the management and conservation of biodiversity, and ensures all use is sustainable. NEMBA is implemented through the Threatened or Protected Species (ToPs) Regulations (2007). These establish the conditions for ownership and use permits for listed wildlife. CITES is implemented through the CITES Regulations (2010), which revised the permitting system and required publication of non-detriment findings for CITES-listed species, among other things.[143] South Africa's primary environmental authority is the DEA, but its provinces also regulate wildlife, including sustainable use. Each province has its own biodiversity conservation ordinance and oversight body.[144] This second tier provides a second check on the sustainability and effectiveness of different measures. South Africa's laws are rated "Category I" by the CITES Secretariat, and South Africa's effective and efficient wildlife management was consistently recognized and complimented at the recent CoP 17.[145] The DEA, in collaboration with PHASA and other stakeholders, is developing Norms and Standards to

[141] Available at http://www.ecolex.org/details/legislation/nature-conservation-ordinance-1975-no-4-of-1975-lex-faoc018007/.

[142] E.g., F. Ngulu, Wildlife Can Contribute More to Economic Growth, Economist (Namibia) (Dec. 5, 2016); FWS, Enhancement Finding for the Import of a Sport-Hunted Black Rhino Trophy Taken in Namibia During 2013 (Apr. 6, 2015).

[143] DEA, Website, Regulations Governing Wildlife, https://www.environment.gov.za/legislation/actsregulations.

[144] PHASA has provided the regional ordinances n its website at http://www.phasa.co.za/legislation/provincial-nat-conservation/ordinances.html.

145 E.g., Dr. Rosemarie Gnam commented on South Africa's successful recovery and management of the Cape mountain zebra. Summary Record of the Sixth Session of Committee I 09:30-12:00, CoP17 Com. I Rec. 6 (2016).

better govern the sustainable use of leopard. These will be published very soon.[146] This is the country that brought back the white rhino, bontebok, and other species.

- Wildlife in Tanzania is protected under the Wildlife Conservation Act No. 5 (2009), the National Parks Act (2002), the Ngorongoro Conservation Area Act (2002), and various regulations including the most recent Wildlife Conservation (Tourist Hunting) Regulations (revised 2015) and the Wildlife Conservation (Dangerous Animals Damage Consolation Regulations). CITES is implemented through the Wildlife Conservation (CITES Implementation) Regulations (2005). The Wildlife Conservation (Tourist Hunting) Regulations (2015) govern allocation of hunting blocks, supervision of professional hunters, quotas, penalties, and size/age/other criteria for legal offtake of certain species including leopard (such as restricting the size of legal leopard trophies).[147] Hunting areas are overseen by the TWD and now TAWA. Tanzania has a well-qualified Wildlife Research Institute (TAWIRI), and Tanzania's mainland wildlife regulations are rated highly by the CITES Secretariat.[148] Perhaps most importantly, the Ministry of Natural Resources and Tourism (MNRT) has proven responsive to conservation challenges. For example, to reduce poaching it has: developed and implemented a National Strategy to Combat Poaching and Illegal Wildlife Trade[149]; deployed over 1,000 additional wildlife wardens in PAs; equipped these wardens with high-tech gear and over 60 new vehicles and drones; and formed a Serious Crimes Intelligence Unit to focus on poaching "kingpins". It reinstated the Selous Revenue Retention System, which has enhanced the management of the Selous Game Reserve.[150] To reduce the incentives to poach, the MNRT also raised the community's share of trophy fees in WMAs. And in 2016, TAWA went live, to serve as an autonomous, efficient, and independently funded – primarily by hunting fees – wildlife management/conservation authority.[151, 152]
- For leopard specifically, Tanzania developed a Lion and Leopard Conservation Action Plan through a participatory workshop that "brought together key stakeholders to assess existing information and establish a consensus on priorities for research and conservation of lion (*Panthera leo*) and leopard (*Panthera pardus*) in Tanzania."[153] Among other things, the Action Plan identifies objectives, targets, activities, specific actions, and the responsible party or parties for achieving the primary goals in lion and leopard conservation and mitigating the main threats.

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146 DEA, Press Release (Jan. 16, 2017).

147 Wildlife Conservation (Tourist Hunting) Regulations ("25.-(1) … no person shall (e) hunt the young of any animal or any female animal … 27.-(1) … no person shall: (b) hunt leopard whose length from the tip of the nose to the base of the tail is less than 150 cm …").

148 CITES Secretariat, Status of Legislative Progress for Implementing CITES, CoP17 Doc. 22, Annex 3 (Updated Sept. 1, 2016).

149 MNRT, National Strategy to Combat Poaching and Illegal Wildlife Trade (Oct. 30, 2014).

150 *Tanzania Lion Excerpt*, p. 48.

151 E.g., Tanzania Intensifies War Against Poaching, 13 African Indaba 1 (Feb. 2015); MNRT, Press Release, Wildlife Census Results for Elephant Populations in Tanzania 2014 (June 1, 2015); F. Kapama, Four JNIA Security Officers in Court over 267 Million Ivory Haul, Daily News (Sept. 15, 2015), http://allafrica.com/stories/201509150696.html. R. Kriel & B. Duggan, 'Queen of Ivory' Arrested in Tanzania, CNN (Oct. 9, 2015), www.cnn.com/2015/10/09/africa/tanzania-elephant-ivory-queen-arrest/; E. Payne, Tanzania Gets 'The Devil' as It Cracks Down on Elephant Poaching, CNN (Oct. 31, 2015), http://www.cnn.com/2015/10/31/africa/tanzania-elephant-poacher-devil/; Tanzania's War on Poaching Pays Off, The Guardian (Nov. 13, 2015), http://www.ippmedia.com/frontend/?|=86136.

152 As Tanzania recently informed the FWS, elephant poaching is greatly reduced in the country after reaching a high point in 2011, five years ago, and elephant populations are stabilizing or increasing.

153 TAWIRI, Tanzania Carnivore Conservation Action Plan (2009), containing C. Packer et al., Tanzania Lion and Leopard Conservation Action Plan.

The MNRT, TWD, and Wildlife Research Institute have been working to implement the Action Plan.[154]

- Wildlife in Mozambique is protected under the Forests and Wildlife Act (1999) and the Forestry and Wildlife Regulations (2002).[155] It is now further protected by the Conservation Law 16/2014 (amended 2016), which increased the penalties for poaching and streamlined the management of natural resources under the Ministry of Land, Environment, and Rural Development (MITADER) and the National Administration for Conservation Areas (ANAC). Tourist hunting is permitted under specific conditions, pursuant to quotas now allocated by ANAC, and monitored through return forms and comprehensive annual reports that require descriptions of habitat protection, anti-poaching contributions, community investment, hunting clients, offtakes, trophy quality, etc. Economic incentives for community support of wildlife, including dangerous game, are set out in the Strategic Plan for the Development of Tourism in Mozambique (2004-2013, being updated with support from the UN World Tourism Organization).[156] Community-based conservation was initiated in 2005 with a Ministerial Decree that required sharing of hunting fees with communities. The 2014 Conservation Law changed this 20% to the ***minimum*** that can be shared. It also created "Community Conservation Areas," in which rural communities and private investors can partner. In 2014, Mozambique received support for updating its conservation programs from a $40 million World Bank grant in 2014 (MozBio), which includes funds for expanding sustainable use and for providing technical advice and equipment for natural resource management to rural communities.[157] The CITES Secretariat has reported "[c]ommendable progress" by Mozambique in revising its legislation and implementation of CITES.[158] The 90-Day Finding cites a 2015 survey of Mozambique's law; however, a number of identified weaknesses have been addressed in 2014-2016, and that survey is therefore not the best available or most current information. It is expected that Mozambique's laws will now be rated Category I,[159] especially as the new laws improve rural benefits-sharing, establish strong controls over wildlife use and international trade, and set out tough enforcement mechanisms, which will be effectively implemented through MozBio funding and technical assistance.[160]

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[154] The Action Plan is being implemented through population and offtake monitoring and a "pioneering" trophy monitoring system (including an e-permitting system), human-wildlife conflict mitigation and the establishment of a consolation system for human and livestock losses from dangerous game, continued implementation of the WMA program, disease tracking, and "efforts to ascertain and map" the lion and leopard range, among other things. *Tanzania Lion Excerpt*, p. 33-34.

[155] *DSA NDF for Mozambique*, p. 8 ¶ 23.f.

[156] UN, World Tourism Organization, Preparing a New Strategic Tourism Development Plan For Mozambique (May 27, 2014), http://cooperation.unwto.org/news/2014-05-27/preparing-new-strategic-tourism-development-plan-mozambique.

[157] *Mozambique Lion NDF*, p. 20; World Bank, Mozambique Conservation Areas for Biodiversity and Development Project (2014), http://projects.worldbank.org/P131965/?lang=en&tab=overview; Mozambique National Ivory and Rhino Action Plan Progress Report, SC66 Doc. 29 (2014-2015), https://cites.org/sites/default/files/eng/com/sc/67/E-SC67-13-A13.pdf.

[158] CITES Secretariat, National Laws for Implementation of the Convention, CoP17 Doc. 22 (2016), p. 7 ¶ 37.

[159] CITES Secretariat, Status of Legislative Progress for Implementing CITES, CoP17 Doc. 22, Annex 3 (Updated Sept. 1, 2016), p. 7 ("CITES-specific legislation enacted. A comprehensive implementing regulation has been approved by the Government and is in process of publication. Participated in CITES/UNEP workshop. Next Steps: Publication of implementing regulation. Agreement between MO and Secretariat on revised legislative analysis, including possible Category 1 status.").

[160] *Mozambique Lion NDF*, p. 20; pers. comm. with ANAC.

- In 2015, the Zambia Act No. 14 (2015) was adopted to update Zambia's wildlife management laws and transfer the former wildlife authority to a government department. This Act is the principal legislation guiding wildlife management, protecting habitat, and regulating tourist and resident hunting and other wildlife uses. To ensure the sustainability of the wildlife sector, the Act creates a Wildlife Fund dedicated to research, conservation, and management purposes and composed of hunting and other fees. Several Statutory Instruments (SI) implement or refine the Act, including an SI on Big Cat Hunting prepared in 2016. This SI restricts lawful lion hunting to certain ages, and requires submission of sighting forms and hunt returns for leopard, among other things. Zambia's wildlife management is overseen by the new ZDNPW, formerly the Zambia Wildlife Authority, which monitors mandatory compliance measures and maintains an Enforcement Unit to combat poaching.[161] ZDNPW has already demonstrated its responsiveness and adaptive management: it closed hunting while collecting information for quota-setting. It maintained the closure of predator hunting for an additional year to develop the SI, and set conservative quotas to be adaptively revised. It held the workshop on lion and leopard hunting described above. And it has fully responded to information requests from the FWS, maintaining the transparency of its processes.
- Zimbabwe has enacted comprehensive legislation to ensure the long-term survival of wildlife and to implement CITES.[162] Its laws are rated as Category I by the CITES Secretariat. They include the Parks and Wildlife Act, Ch. 20:14 (1996, as amended), the principal legislation governing the protection, use, import and export, and conservation of Protected and Specially Protected wildlife and protection of the Parks Estate. The Act prohibits hunting and removal of live animals without a permit. This is implemented through Statutory Instruments, including SI 362 (1990, as amended), the general parks and wildlife regulations; SI 26 (1998), providing for the monitoring of hunting and submission of hunt returns; and SI 76 (1998), regulating import/export of wildlife, among others.[163] The ZPWMA is the primary wildlife management authority. It monitors wildlife, allocates quotas, oversees safari operator/professional hunter compliance, and combats poaching. It collaborates with the hunting industry, as explained above, and with the photographic tourism industry.[164] The ZPWMA's commitment to adaptive management is exemplified in the two leopard workshops and the 2012 national leopard survey conducted by Oxford University's WildCRU, in collaboration with ZPWMA ecologists.

3. The leopard is already protected by the ESA threatened listing.

The leopard in SADC countries is not an unlisted species subject to intensive international commercial trade. The leopard is already regulated by an ESA threatened listing and a special rule.[165] Leopard trophies may only be imported into the U.S. if the hunter receives an import permit. In some cases, the hunter must also submit a report of conditions in the range state.[166] The DSA makes annual non-detriment findings before approving import permits. It does not accept or rely upon the CITES quota (approved at the full CoP and subject to the periodic review process) or an exporting country's non-detriment finding. The DSA has ***repeatedly*** found the import of leopard trophies from Mozambique,

[161] *Zambia Lion Excerpt*, p. 5-8, 10-12, 26, 32, 43-44.
[162] Available at http://www.ecolex.org/details/legislation/parks-and-wild-life-act-chapter-2014-lex-faoc008942/.
[163] *ZPWMA Legal Trade and Conservation Presentation*, p. 5-6; ZPWMA, Conservation Status of the African Lion (*Panthera leo*) in Zimbabwe (Jan. 2015), p. 23-28.
[164] ZPWMA, Conservation Status of the African Lion (*Panthera leo*) in Zimbabwe (Jan. 2015), p. 20, 22-23.
[165] 50 C.F.R. § 17.50.
[166] *DSA NDF for Mozambique*, p. 10.

Namibia, South Africa (through 2015), Tanzania, Zambia, and Zimbabwe ***is not detrimental to the survival of the leopard***.[167] If this activity is not detrimental, it cannot be endangering the leopard. It would be wholly inconsistent to up-list the leopard when the only lawful trade is not detrimental to its viability and approved by the FWS' Scientific Authority.[168]

In short: The international, national, and FWS controls in place all monitor leopard offtakes, exports, and imports, and keep them to a sustainable, scientifically supervised level. The range states' regulatory frameworks have all been updated since the leopard was found to warrant down-listing by the FWS. These countries have implemented multiple checks-and-balances. They require permits before a listed species is hunted; they monitor the hunt and the hunt return form; they adaptively manage offtakes; and they oversee all the steps through the CITES process. The FWS should consider de-listing the species. None of these Factors demonstrate that the leopard is in any jeopardy of extinction, now or in the foreseeable future.

E. FACTOR E (OTHER NATURAL OR HUMAN-MADE FACTORS AFFECTING THE SPECIES' EXISTENCE, INCLUDING RANGE STATE MITIGATION AND PROTECTION EFFORTS) DOES NOT WARRANT RECLASSIFICATION BECAUSE RANGE STATES ARE ALREADY CONSERVING THE LEOPARD, ITS STATUS IS EVEN BETTER THAN THE THREATENED-LISTED LION, AND IT IS NOT IN CRISIS.

1. The FWS must take into account the range states' efforts at leopard conservation.

The ESA mandates that the conservation program and practices of foreign nations be taken into account in the listing process. 16 USC § 1533(b)(A)(a)(1). It also encourages "international cooperation." 16 USC §§ 1537 & 1531(a)(5). As explained above, the SADC countries are developing data on their leopard populations, conserving habitat, implementing best practices for leopard hunting, and producing incentives for rural communities to reduce conflicts. These efforts rely on the revenues and benefits of licensed, regulated hunting. As the FWS acknowledged in 1982, "sport-hunting will benefit the species as a whole," because it provides economic value and conservation incentives.[169] An endangered listing would obstruct those efforts.

For this reason, the range states have spoken out against additional restrictions or bans on hunting. Namibia's Minister of Environment and Tourism has raised the issue repeatedly, and Namibia's Cabinet took the unprecedented step of voting to ban hunting bans.[170] South Africa's Minister of Environmental Affairs has emphasized the importance of hunting for biodiversity conservation in that country, and especially for habitat protection and restocking.[171] So has Zimbabwe's Minister of Water, Climate, and Environment.[172] These Ministers, and Zambia's Permanent Secretary, expressed their views against additional limits on international trade in hunting trophies at two press conferences during the CoP

[167] *DSA NDF for Mozambique*, p. 1, 10; *DSA NDF for Seven Countries*, p. 1, 4.
[168] E.g., NWF, Comment in Support of Leopard Down-Listing (May 22, 1980).
[169] 47 Fed. Reg. 4204-01, 4209.
[170] E.g., Namibia: Cabinet Decisions – International Pressure to Ban Hunting and the Import of Wildlife Products, New Era (Mar. 7, 2016, http://allafrica.com/stories/201603070833.html.
[171] E. Molewa, Minister of Environmental Affairs, Legal, Regulated Hunting has a Role to Play in Conserving Species, Daily Maverick (Aug. 4, 2015), https://www.dailymaverick.co.za/opinionista/2015-08-04-legal-regulated-hunting-has-a-role-to-play-in-conserving-species/.
[172] E.g., O. Muchinguri-Kashiri, Minister of Water, Climate and Environment, The Case for Zimbabwe, Southern Times Africa (Aug. 29, 2016), http://southernafrican.news/2016/08/29/the-case-for-zimbabwe/.

17.[173] (It should be noted that many scientists agree with the range states that bans on hunting or regulated trade in hunting trophies are counterproductive, including representatives of Panthera[174], WWF[175], IUCN[176], and universities around the world.[177]) When the leopard was down-listed in 1982, the FWS twice reached out to range states to obtain comments. All SADC countries responding "welcomed," "supported." or "approved" the down-listing. Zimbabwe emphasized that the down-listing was "in the best interest of the leopard and felt that it would promote proper conservation."[178] The FWS listened to the range states in 1982, and it should listen to them now. The SADC countries are doing the best because of their user-pay, sustainable use approach.

2. The FWS should also take into account the range states' efforts at *lion* conservation.

In December 2015, the FWS published a final rule, effective January 2016, that listed the lion in Southern and Eastern Africa as threatened. The same primary threats were identified for the lion as for the leopard.[179] The FWS found the severity of these threats did not render the African lion (*Panthera leo melanochaita*) endangered, in part due to the range states' efforts. Threats to the leopard have been mitigated in the same way.

[173] CITES: Keep Calm and Let Africa Speak, 14 African Indaba 4 &5 (Nov. 2016).

[174] *Lindsey (2007)*, p. 466 (overly strict CITES quotas and bans reduce conservation incentives from hunting); L. Hunter et al., Comment in Response to African Lion Listing Proposal (2015) (hunting can justify conservation of large tracts of land and incentivize shift in land use to wildlife ranching; "practitioners … whose primary concern is the status of populations ... question whether bans achieve intended conservation outcomes," as bans may cause the following impacts: "removing/reducing the economic justification for retention of large blocks of state land for wildlife … Removing/undermining the massive potential that exists for developing wildlife-based land uses in areas in addition to the current wildlife estate in countries such as Zambia, Mozambique … Removing/reducing funds available for anti-poaching … Reducing tolerance for lions …").

[175] L.C. Weaver et al., The Catalytic Role and Contributions of Sustainable Wildlife Use to the Namibia CBNRM Programme, in M. Abensperg-Traun et al. (eds.), Proceedings of an International Symposium on The Relevance of CBNRM to the Conservation and Sustainable Use of CITES-Listed Species in Exporting Countries (2011), p. 69 ("The importance of CITES listed species to the success of the communal conservancy movement is significant. In fact, the viability of the communal conservancies would be seriously jeopardized if it were not possible to consumptively utilize CITES listed species … During 2009, communal conservancies had CITES approved trophy hunting quotas for elephant, leopard, … Removal of these animals from trade would have seriously affected conservancy operational incomes and benefits streams…"); R. Naidoo et al., Complementary Benefits of Tourism and Hunting to Communal Conservancies in Namibia, 30 Conservation Biology (Jan. 8, 2016).

[176] R. Emslie & M. Knight, Prince William is Talking Sense – Trophy Hunting is Crucial to Conservation, The Independent (Mar. 18, 2016) ("In South Africa and Namibia hunting has played a role in the significant expansion of wildlife outside Parks. Limited hunting has been credited with helping to encourage the increase in southern white rhino range and numbers … hunting can provide livelihoods and a good revenue stream – and importantly an incentive to maintain wildlife – for people living outside the tourism trail…").

[177] D. Weber et al., Unexpected and Undesired Conservation Outcomes of Wildlife Trade Bans – An Emerging Problem for Stakeholders, 3 Global Ecology and Conservation 389 (Jan. 2015); E. DiMinin et al., Banning Trophy Hunting Will Exacerbate Biodiversity Loss, 31 Trends in Ecology and Evolution 99 (Feb. 2016).

[178] Botswana, Malawi, Mozambique, Tanzania, and Zimbabwe responded favorably. Lesotho also responded, but stated: "There are no leopards in Lesotho. The Government of Lesotho appears to have no interest in the subject." 47 Fed. Reg. 4204-01, 4207.

[179] FWS, Listing Two Lion Subspecies, 80 Fed. Reg. 80000 (Dec. 23, 2015).

3. The leopard is not in crisis.

The Commenters respectfully suggest that the leopard is not in "crisis." The leopard is the most adaptable and versatile of the large cats. It can and does inhabit degraded habitat, including areas with high human densities. Over 90 African species have been identified as leopard prey. Leopard can also subsist on domestic livestock.[180] Leopard have long been considered resilient, adaptable, and not at risk of extinction.[181]

The Commenters fully admit that the leopard deserve protection and attention, but the leopard's adaptability is ignored in the Petition and even in many of the research papers that "infer," "estimate," or "suspect" worst-case scenarios.[182] The Petition criticizes the Martin and deMeulenaer study on which leopard quotas were based. But that study remains the only large-scale effort to estimate leopard populations, "it represents the most practical and quantitative attempt to date [still] to estimate potential cat numbers across a large geographic area,"[183] and its efficacy has been confirmed because comparable leopard densities to those it predicted have been repeatedly observed.[184] The model is not generally considered to be based on an incorrect premise. It is considered simplistic, because it did not model other factors assumed to impact leopard densities. Even giving the Martin and deMeulenaer estimate a haircut of ***75%***, there are still over 178,000 leopards in sub-Saharan Africa. To put that in perspective, 178,000 leopards is over seven times the threatened-listed lion population (assuming it is 25,000). This minimum is very close to the "absolute minimum estimate of leopard numbers" in 1980, when the FWS proposed down-listing. As the FWS acknowledged then:

> Given the facts that an absolute minimum estimate of leopard numbers in the region under consideration is over 200,000 animals … that the species is widely distributed and that an effective international regulatory mechanism (the Convention) now exists, the leopard in Sub-Saharan Africa can hardly be in danger of extinction (the definition of an Endangered species).[185]

Even better protections are in place today, with a comparable "absolute minimum" of leopard. Simply put, the leopard is not in crisis.

The Commenters note that it helps both Petitioners, and certain scientists, to find a crisis in leopard populations. It opens the door to dramatic headlines and fundraising opportunities. The Commenters note that the SADC countries do not believe their leopard are endangered (or even threatened), and neither do hunting operators, who are frequently in the field and observe leopard.[186] As examples:

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[180] *DSA NDF for Mozambique*, p. 2-3 ¶ 7.
[181] *IUCN Status Survey for Wild Cats*, p. 24-25, 27-29.
[182] E.g., *IUCN Red List*, p. 5, 10.
[183] *IUCN Status Survey for Wild Cats*, p. 28.
[184] E.g., J.N. Chase Grey et al., Evidence of a High Density Population of Harvested Leopards in a Montane Environment, PLoS ONE 8(12) (Dec. 2013), p. 6-7 & Table 4 (reflecting leopard densities of 30.3 leopard per 100 km^2 in Kruger, 10.7 leopard per 100 km2 in Western Soutpansberg, Limpopo Province, 5.5-8.5 leopard per 100 km2 on game ranches in Kenya, among other examples of density estimates).
[185] 45 Fed. Reg. 19007, 19009 ("Given the facts that an absolute minimum estimate of leopard numbers in the region under consideration is over 200,000 animals … that the species is widely distributed and that an effective international regulatory mechanism (the [CITES] Convention) now exists, the leopard in Sub-Saharan Africa can hardly be in danger of extinction (the definition of an Endangered species)."
[186] This statement is supported by the Commenters' knowledge of the hunting industry, as representatives of safari operators and professional hunters. Notably, the Hamilton report on which the FWS relied in 1982 interviewed

Catspotter, a website database that collects and tracks leopard sightings, registered over 400 postings in under 20 days.[187] Namibian professional hunters and trackers use both a smart-phone app[188] and an interactive website. The Carnivore Atlas of Namibia (the first of its kind) is one of the most advanced diversity monitoring exercise in Africa and part of the vast Atlasing of Biodiversity in Namibia.[189] Over 605 records of leopard are recorded in the database.[190]

In short, the leopard is simply not endangered in the SADC countries, and the current split-listing remains a far better option than an up-listing, which has proven counterproductive. In fact, because the leopard is better positioned and protected in 2017 than in 1982, when it was down-listed to threatened, the Commenters respectfully request that the FWS consider de-listing the leopard and repealing the special rule.

4. The comment period is too short for fulsome submissions by the range states and other parties.

The Commenters respectfully point out that the mere 60-day comment period, scheduled across the December/January holidays, is far too short for interested parties to prepare and provide sufficient information. The notice given to the range states was much shorter, as the FWS did not email them until December 8, eight days after publication in the Federal Register. The range states had only 34 business days (at the most) in which to prepare a response. The comment period should be reopened for this reason alone.

It must also be noted that, at the October CITES CoP, the range states were encouraged to review their current leopard quotas and provide the results of that review at the Animals Committee meeting in ***2018***. The range states were given until 2018 for two reasons. First, it takes time to aggregate data, especially when there is admittedly limited research and monitoring of leopard populations.[191] Further, at the urging of the scientific community, the range states have been stepping up their research and monitoring, so they will have better data to report. The FWS' timeline is too short to benefit from this process.

LEOPARD IN THE SADC COUNTRIES COMPOSE A DISTINCT POPULATION SEGMENT

The FWS' Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act[192] considers three components of a distinct population segment (DPS):

"professional hunters, game wardens, wildlife biologists, tour operators, and farmers, as well as a number of herdsmen and other local people. The most valuable single source of information he found were the 21 professional hunters that he interviewed." 47 Fed. Reg. 4204-01, 4206.

[187] S. Burger, Private Sector Participation in Leopard Monitoring (Feb. 26, 2016), p. 2-9; Namibia Large Carnivore Atlas (2012).

[188] Carnivore Tracker App Description (Mar. 31, 2016); http://www.carnivore-namibia.org/tracker.html.

[189] Environmental Information Service (EIS), Namibia, Atlas of Mammals/Large Carnivores, http://www.the-eis.com/atlas/?q=atlas-of-carnivores.

[190] EIS, Tracking Data on Leopard Reported, http://www.the-eis.com/atlas/?q=mammal-records&dynamic-taxon_meaning_list=1374.

[191] A sample of scientific publications demonstrating range state leopard monitoring are included in the attachments.

[192] 61 Fed. Reg. 4722, 4725 (Feb. 7, 1996).

(1) Discreteness of the population segment in relation to the remainder of the species to which it belongs;
(2) The significance of the population segment to the species to which it belongs; and
(3) The population segment's conservation status in relation to the ESA's listing/de-listing standards.

A population segment is "discrete" when it "is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D) of the Act." A population segment is "significant" when there is "[e]vidence that loss of the discrete population segment would result in a significant gap in the range of a taxon."

The leopard (*Panthera pardus*) in the SADC countries is both a discrete and significant population. Based on the best available information discussed above, the leopard in the SADC countries should be removed from the ESA' listings or at the very least, remain as a threatened-listed species, as none of the listing Factors are satisfied.

The leopard in the SADC countries is a "discrete" population because it is delineated by SADC and the TFCA initiatives. By creating this regional organization and by joining conservation areas, the SADC countries have agreed to co-management of habitat and coordinating conservation goals. They have committed to accepting each other's management strategies, including the use of tourist safari hunting as a management tool in Mozambique, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe. These recognitions and regulatory connections are crucial for the future development of trans-boundary protected areas that will incorporate a range of habitat types (national parks, safari areas, communal land, private conservancies, etc.), and continue to expand and secure the PA network.[193]

The leopard in the SADC countries is a "significant" population because the leopard in these countries is the healthiest of all subspecies. Southern and parts of Eastern Africa – the SADC countries – represent the leopard's stronghold.[194] If the negative effects of greater international trade restrictions on leopard trophies are brought to bear, the leopard in these countries will lose their acknowledged value for landholders. Loss of secure habitat, loss of prey base, and increased conflicts will result. For this reason, it is appropriate to maintain the status quo of the threatened listing and special rule or even down-list the DPS, to facilitate the continued recovery and management of the species where it is doing the best.

CONCLUSION

The status of the country populations of leopard listed as threatened does not warrant further review. The Petition should be denied. If anything, the status of leopard populations in the SADC countries warrant their de-listing from the ESA. De-listing is more warranted than up-listing. There are more protected areas, regulatory measures and strategies today to secure the leopard than when it was down-listed in 1982. Up-listing would be inconsistent with the years of FWS DSA Non-Detriment Findings. The FWS should take into account and support these countries' conservation programs that are so essential to maintaining leopard and leopard needs.

[193] E.g., SADC, Transfrontier Conservation Areas (2016).
[194] *IUCN Red List*; *DSA NDF for Mozambique*.

Respectfully submitted,

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Attachments:

- Index of information cited
- Attachments uploaded to www.regulations.gov