

**BENEFITS TO ELEPHANT CONSERVATION FROM SAFARI HUNTING (April 24, 2018)**

The primary threats to the African elephant (*Loxodonta africana*) are habitat loss and fragmentation, commercial ivory poaching, and retaliatory killing.<sup>1</sup> Safari hunting<sup>2</sup> has been generating benefits and revenues that are especially effective and unique in reducing those threats and conserving elephant. But for that legal, regulated hunting, the present status and prospects for elephant would be far worse.

As set forth in Part I, elephant populations are largest in the Southern African Development Community (SADC) countries that rely on safari hunting as a preferred land use option—Mozambique, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe—and much of the elephant’s range exists in these countries. As explained in Part II, substantial revenues are generated by elephant hunting in particular and safari hunting on the whole. A significant portion of these revenues and hunting operator efforts is invested in poaching control, to secure the vast tracts of habitat made available. And as described in Part III, retaliatory killings are reduced, and tolerance is increased, by the revenues, employment, fresh meat, and other conservation incentives that elephant hunting generates for rural communities. And as explained in Part IV, because safari hunting generates benefits which reduce the primary risks to the species, there has been widespread agreement that safari hunting benefits elephant conservation.

**I. HABITAT AND POPULATION BENEFITS**

Most of the African countries with sizable elephant populations rely on hunting as an important part of their national wildlife conservation strategies, especially Mozambique, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe. (Please see footnote about Botswana.<sup>3</sup>) As shown in the table below, half the world’s African elephant inhabit these six countries. They also protect about 40% of the global African elephant range.

It is not coincidental that these six countries maintain the most elephant. Safari hunting incentivizes the protection of wildlife across a wide range of land uses including state protected areas, communal land, and private land.<sup>4</sup> The land set aside for safari hunting is 1.5 to 5 times larger than the strictly-protected national parks in Mozambique, South Africa, Tanzania, Zambia, and Zimbabwe.<sup>5</sup> More habitat generally means more elephant—especially when combined with the incentives described in Parts III and IV. These incentives for rural communities are critical because approximately 60% of elephant range in Southern Africa is in communal lands outside strictly-protected national park boundaries.<sup>6</sup> But for the

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<sup>1</sup> AfESG (2016), p. 3. While poaching remains a significant threat, the most important long-term threat overall is the loss and fragmentation of habitat caused by human population expansion and land conversion. Blanc (2008).

<sup>2</sup> “Safari hunting” is legal, managed, and regulated hunting by non-resident hunters for the hunter’s enjoyment and personal use. It is the key part of the user-pay sustainable use system. It is also called “sport hunting” to distinguish it from hunting for commercial purposes.

<sup>3</sup> Until 2014, Botswana was included among the SADC/Southern African countries that utilize safari hunting. In 2014, the government made a political decision to suspend hunting on state and communal lands. Regulated hunting still occurs on private land. Research suggests poaching and human-wildlife conflict have increased since the 2014 suspension, and Botswana’s rural communities have lobbied the government to re-open hunting on communal land to reclaim their lost benefits. E.g., Mbaiwa (2018); Keakabetse (June 2, 2016); Onishi (Sept. 12, 2015).

<sup>4</sup> PWMA (Jan. 21, 2016); Naidoo (Jan. 8, 2016), p. 629; Muposhi et al. (2016), p. 11.

<sup>5</sup> PWMA (Oct. 2016); ANAC (Jan. 2017); MNRT (Jan. 2017).

<sup>6</sup> AfESG (2016), p. 138.

incentives generated from safari hunting, most of this land would be used for crops, livestock, or other human purposes—not wildlife or its protection or management.<sup>7</sup>

Safari hunting does not just occupy the largest share of wildlife habitat. It excels as a driver and means for restoring habitat and has facilitated the recovery of formerly endangered species like black wildebeest, bontebok, and white rhinoceros, among others. Safari hunting has had “a pivotal role in the rehabilitation of degraded wildlife areas.”<sup>8</sup> It was also “the primary driver for the shift to game ranching and provided the entry point for most landowners into wildlife-based land uses,” including the entry point for rural communities to invest in wildlife. It is “a key land use in most conservancies.”<sup>9</sup>

*Estimated Elephant Populations and Range of Countries that Rely on Safari Hunting*

Country	Size of Country	Est. Elephant Range	% of Global Range	Elephant Est. (not incl. +/-) <sup>10</sup>	% of Global Est.
Mozambique	801,590 km <sup>2</sup>	320,402 km <sup>2</sup>	10.2%	10,884	2.62%
Namibia	825,418 km <sup>2</sup>	164,069 km <sup>2</sup>	5.24%	22,754	5.48%
South Africa	2,345,410 km <sup>2</sup>	30,651 km <sup>2</sup>	0.98%	18,841	4.54%
Zambia	752,610 km <sup>2</sup>	170,466 km <sup>2</sup>	5.44%	21,967	5.29%
Zimbabwe	390,580 km <sup>2</sup>	81,228 km <sup>2</sup>	2.60%	82,630	19.9%
Tanzania	945,090 km <sup>2</sup>	389,921 km <sup>2</sup>	12.4%	50,433	12.1%
<b>TOTAL</b>	<b>6,060,698 km<sup>2</sup></b>	<b>1,156,737 km<sup>2</sup></b>	<b>36.9%</b>	<b>207,509</b>	<b>50.0%</b>
<b>CONTINENTAL TOTAL<sup>11</sup></b>		<b>3,132,231 km<sup>2</sup></b>		<b>415,428</b>	

**II. NET GAIN: BIOLOGICALLY INSIGNIFICANT OFFTAKES BUT SUBSTANTIAL REVENUES**

Elephant hunting quotas are set too low to cause population declines or to be biologically significant. In fact, hunted elephant are typically old males that have passed on their genes, and the hunting ultimately may improve population growth and genetics by removing older bulls that monopolize female elephant.<sup>12</sup> Quotas are set between 0.3% and 0.5% of area populations.<sup>13</sup> Additional sex, age, and tusk size restrictions substantially reduce offtakes below the very low quotas. On average hunting offtakes represent a quarter of a percent of the national elephant population. These offtakes generate revenues that are invested in essential anti-poaching, wildlife management, and rural community incentives.<sup>14</sup> In short, hunting saves more elephant than are taken. It is a conservation activity designed by experts that provides a net gain which grows the hunted populations (see more below).

<sup>7</sup> Cooney et al. (2017), p. 5-7; Anderson et al. (Nov. 29, 2017); Dickman (Nov. 24, 2017); Lindsey et al. (2012), p. 7-9.

<sup>8</sup> Lindsey (2009); see also Lindsey (2007).

<sup>9</sup> Lindsey (2009).

<sup>10</sup> Estimates based on aerial strata surveys—like most of the estimates in the AfESGH Report—tend to undercount the true number of elephant present. AfESG (2016), p. 2.

<sup>11</sup> AfESG (2016). Compare the elephant population of Kenya, a country that prohibited most hunting since 1977: Size: 582,650 km<sup>2</sup>, Estimated elephant range: 130,725; Estimated elephant population: 22,809.

<sup>12</sup> E.g., PWMA (May 16, 2014); Martin (Apr. 2005).

<sup>13</sup> E.g., PWMA (July 20, 2015).

<sup>14</sup> E.g., PWMA (Oct. 2016); NACSO (2016), p. 10.

**A. The Utilization of Revenue from Elephant Hunting**

Safari hunting generates important revenues for wildlife management authorities, hunting operators, and rural communities. For that reason it called “conservation hunting.” Elephant was the source of most hunting revenue in Namibia, Zimbabwe, and Mozambique and the fourth-highest source of revenue in Tanzania prior to the April 2014 suspension of elephant trophy imports by the U.S. Fish and Wildlife Service.<sup>15</sup> A significant portion of these revenues is directed to wildlife department operating budgets and used for anti-poaching/enforcement, and to community development. Government wildlife authorities typically receive the fees from hunting on state land; operators receive daily fees paid by the client; and local communities receive all fees from hunting on communal land in Namibia and Zimbabwe, half or more of those fees in Tanzania and Zambia, and 20% to 30% in Mozambique.<sup>16</sup>

Elephant hunting quota limits, actual offtakes, and revenues are summarized in the table below. (Law enforcement and poaching control expenditures are included in the next table.)

*Elephant Hunting Quotas, Actual Offtakes, and Elephant Trophy Fee Revenue*

Country	Hunting Offtake Quota (Year)	CITES Export Quota (Year)	Actual Hunting Offtake (Year)	Trophy Fee Revenue (Year)
Namibia <sup>17</sup>		90 (2013)	69 (2013)	\$ 917,458 (2013)
South Africa <sup>18</sup>		150 (2012)	33 (2012)	\$1,194,600 (2012)
Tanzania <sup>19</sup>	200 (2012)	200 (2012)	43 (2012)	~\$1 million (avg. trophy fees/year in 2012 and 2013)
	200 (2013)	200 (2013)	35 (2013)	
	100 (2014)	100 (2014)	7 (2014)	
	100 (2015)	100 (2015)	3 (2015)	
	100 (2016)	100 (2016)	0 (2016)	
Zambia <sup>20</sup>	36 (2015)	80 (2015)	3 (2015)	\$ 30,000 (2015)
	30 (2016)	80 (2016)	12 (2016)	\$120,000 (2016)
Zimbabwe <sup>21</sup>	297 (2014)	500 (2014)	169 (2014)	\$3,486,650 (2014)
	246 (2015)	500 (2015)	277 (2015)	\$1,676,950 (2015)
	400 (2016)	500 (2016)		

**B. Revenues from Hunting and Government Expenditures on Anti-Poaching<sup>22</sup>**

Hunting funds important government wildlife infrastructure. A substantial percentage of these revenues is invested in poaching control. Because commercial ivory poaching financed and coordinated by criminal syndicates is the greatest threat to the global elephant population, the contribution from hunting activities is significant, especially because of the remoteness and breadth of hunting areas. Government anti-poaching/law enforcement expenditures are included in the chart below.

<sup>15</sup> Lindsay et al. (2012), p. 6.

<sup>16</sup> Conservation Force (updated 2018).

<sup>17</sup> Naidoo et al. (Jan. 8, 2016), p. 635.

<sup>18</sup> DiMinin et al. (Jan. 2016), p. 99.

<sup>19</sup> MNRT/WD (Jan. 21, 2015); MNRT (Nov. 2016).

<sup>20</sup> DNPW (2015); DNPW (Mar. 31, 2017).

<sup>21</sup> PWMA (July 20, 2015); PWMA (Oct. 2016); CAMPFIRE Association (Dec. 2016).

<sup>22</sup> Please also see Conservation Force’s Fact Sheet on [“The Surprising Benefits of Lion Safari Hunting.”](#)

Country Authority	Hunting Fee Revenues (Year)	Anti-Poaching Expenditures
Mozambique ANAC <sup>23</sup>	\$1,403,594 (2013) \$1,174,531 (2014) \$1,377,531 (2015; 2014 USD)	Comparable to hunting revenues (100% used for game scout costs and equipment) (2013-2015)
Namibia GPTF <sup>24</sup>	\$ 3.3 million (2012 to Aug. 2016)	\$3.4 million (2012 to Aug. 2016)
Tanzania Wildlife Division <sup>25</sup>	\$15,917,431 (2012/2013) (+ 5.4%) \$16,723,425 (2013/2014) (+ 4.8%) \$16,277,373 (2014/2015) (- 2.7%) \$12,971,815 (2015/2016) (- 25.5%)	\$7,179,806 (2012/2013) \$7,253,611 (2013/2014) \$6,780,398 (2014/2015)
Zambia Wildlife Authority/DNPW <sup>26</sup>	\$5.24 million (2012) \$937,552 (2013 – moratorium) \$717,705 (2014 – moratorium) \$2.6 million (2015)	\$1.2 million (2013) \$788,000 (2013) \$1.1 million (2014) \$4.3 million (2015; budgeted)
Zimbabwe <sup>27</sup>	\$5,144,579 (2012) \$5,760,339 (2013) \$5,072,493 (2014) \$3,256,698 (2015)	Enforcement in Safari Areas: \$3.2 million (2014)

**Note:** Under Zambia’s new wildlife law, the DNPW will receive funding from the government treasury; in Zimbabwe, hunting revenues are also used for enforcement in National Parks.

### C. Anti-Poaching Success

The Convention on International Trade in Endangered Species’ (CITES) “Monitoring the Illegal Killing of Elephant” (MIKE) program collects data on elephant mortalities and causes of death to advise range states on appropriate management and enforcement decisions. MIKE evaluates relative poaching levels based on the “Proportion of Illegally Killed Elephant” (PIKE), calculated as the number of illegally killed elephants divided by the total number of elephant carcasses observed. A PIKE value of 0.5 or above implies that more elephant died from illegal killing than from natural causes,<sup>28</sup> suggesting a declining elephant population.

While poaching does occur in Southern Africa,<sup>29</sup> the PIKE value in this region has never exceeded the 0.5 sustainability threshold. This data supports the conclusion that safari hunting helps reduce the overall

<sup>23</sup> ANAC (Nov. 28, 2016).

<sup>24</sup> GPTF (Sept. 2016).

<sup>25</sup> United Republic of Tanzania (Nov. 2015); TAWA et al. (June 2016, updated June 2017).

<sup>26</sup> ZAWA (Nov. 8-13, 2015); DNPW (May 2016); ZAWA (2015). From 2010 to 2012, prior to the national moratorium on hunting, hunting fees made up approximately 32% of the former Zambian Wildlife Authority’s revenues.

<sup>27</sup> PWMA (July 20, 2015); PWMA (Oct. 2016). From 2010-2014, hunting fees made up approximately 22% of the Parks and Wildlife Management Authority’s revenue. That percentage declined since 2014. The Authority’s share of fees is lower than in some countries because the right to receive hunting fees on communal and private land is devolved to the land holder under Zimbabwean law.

<sup>28</sup> CITES/[Monitoring the Illegal Killing of Elephants](#) (MIKE). PIKE is independent of enforcement efforts at a given site and does not account for the elephant population size in that site.

<sup>29</sup> Poaching has seriously impacted Mozambique’s national elephant population. The government has implemented poaching control measures (ANAC (2016); ANAC (Jan. 2017)), but the progress is slow. Poaching has reduced local populations in Zimbabwe and Zambia, although the extent of ivory poaching (versus meat poaching) is unclear.

impact of poaching on elephant populations across a wide range of land tenures—likely due to increased enforcement revenues (see above) and private sector anti-poaching contributions (see below).

The PIKE value in East Africa increased above 0.5 in 2011 to 2013 as Tanzania faced a poaching crisis. The government of Tanzania implemented extensive anti-poaching measures, and the proportion of illegally-killed elephant declined. (It must be acknowledged that hunting operators stepped-up their anti-poaching contributions as well including one operator’s payment of the salaries of an additional 100 scouts in the Selous Game Reserve.)<sup>30</sup> The PIKE value in East Africa has been under 0.5 since 2014.<sup>31</sup>

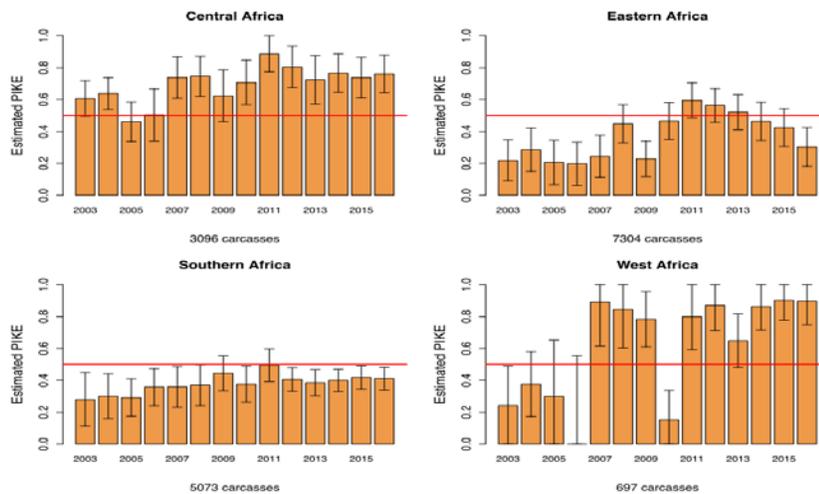


Figure 2. Sub-regional PIKE trends with annual 90% confidence intervals. The numbers of carcasses on which the graphs are based are shown at the bottom of each graph.

32

#### D. Operator Anti-Poaching Contributions

Occupancy and surveillance by hunting operators and accompanying government scouts deters poaching, but operators provide more than those ecosystem services. They employ, equip, and deploy game scout teams, increasing the number of “boots on the ground.” Those additional patrols reduce poaching. A sample of 25 hunting companies in Tanzania (23), Zambia (1), and Zimbabwe (1) reported the arrests of 495 poachers and over 5,600 snares/gin traps picked up in 2015.<sup>33</sup> Assuming that one-quarter were ivory poachers and one-hundredth of the snares/traps would have injured or killed elephant, then 180 elephant were saved by the operator teams. Countless more poachers were deterred by these efforts. Operator anti-poaching patrols in hunting areas bordering national parks reduce encroachment and create important buffer zones.<sup>34</sup> No other activity provides more anti-

<sup>30</sup> This operator, Eric Pasanisi, ultimately contributed almost \$2.3 million in anti-poaching from March 2012 through March 2015. E. Pasanisi, pers. comm. (2015). Unfortunately, due to the U.S. Fish and Wildlife Service’s suspension of elephant and lion trophy imports from Tanzania and resultant decline in his U.S. client base, Mr. Pasanisi closed his hunting operation and surrendered his blocks to the wildlife authority in 2017/2018. E. Pasanisi, pers. comm. (2018).

<sup>31</sup> The countries with MIKE sites in East Africa include Eritrea (3), Kenya (4), Rwanda (1), and Tanzania (5). PIKE is also below 0.5 in these other countries (especially Kenya), which do not permit safari hunting.

<sup>32</sup> CITES Secretariat (Nov. 2017).

<sup>33</sup> Conservation Force (2016); Conservation Force (2017); Dande Anti-Poaching Unit, [Results](#).

<sup>34</sup> E.g., DNPW (May 2016); TAWA et al. (June 2016, updated June 2017); PWMA (Oct. 2016); ANAC (Nov. 26, 2016).

poaching on more wildlife habitat than safari hunting.<sup>35</sup> Operators also donate vehicles, petrol, food, and other supplies to government scouts. These contributions increase national law enforcement capacity and reach.<sup>36</sup>

**Annual Operator Anti-Poaching Expenditures (in addition to government fees paid)**

Country	Op. Sample Size (Concession Area)	Total (Year)	Est. Average Annual
Mozambique <sup>37</sup>	13	\$1,222,500 (2013-2015)	\$93,846
Tanzania <sup>38</sup>	13 parent companies, 27 subsidiaries (121,423 km <sup>2</sup> )	\$1,683,263 (2013)	\$62,343 (2013)
		\$2,724,114 (2014)	\$100,893 (2014)
		\$2,309,779 (2015)	\$85,547 (2015)
Zambia <sup>39</sup>	4 (10,028 km <sup>2</sup> )	\$201,900 (2015)	\$50,475
Zimbabwe <sup>40</sup>	15 (28,729 km <sup>2</sup> )	\$1,319,562 (2015)	\$87,971 (2015)

**III. RURAL COMMUNITY PARTICIPATION AND INCENTIVES**

Safari hunting is critical to reducing human encroachment into protected areas and human-elephant conflict and retaliatory killings. Community game scouts, employed using revenues from safari hunting, extend poaching control into communal areas. For example, over 750 community game scouts patrol in Zambia at an expense of over \$38,000 per month; from 2010 to 2015, rural district councils in Zimbabwe spent \$1.77 million on law enforcement activities in CAMPFIRE areas.<sup>41</sup> Income, participation in decision-making including quota-setting, employment, meat distributions, and other incentives giving the elephant a positive value to offset the real costs of living side by side with the species.

**A. Scope of Human-Elephant Conflict**

The poor rural communities that must tolerate elephant will ultimately determine the fate of the species. These communities endure crop destruction and personal and even fatal injuries from elephant, especially during the harvest season. They can least afford such losses. For example, in the Zambezi, Kunene, and Erongo regions of Namibia’s communal conservancies, there were approximately 775 elephant conflict incidents reported in 2016.<sup>42</sup> Zambia’s wildlife authority received over 5,440 reports of crop or property damage and human injury caused by elephant from 2012 to 2014. Twenty-five people were killed.<sup>43</sup>

In Tanzania, from 2015 through September 2016, 27 people were killed by elephants and over 18,600 acres of crops were damaged or destroyed. The government paid over TZS 248,450,000 (approx.

<sup>35</sup> Conservation Force (2016); Conservation Force (2017).

<sup>36</sup> E.g., MNRT/WD (Jan. 21, 2015) (noting that anti-poaching contributions of hunting operators reduce government anti-poaching costs); PWMA (Oct. 2016).

<sup>37</sup> ANAC (Jan. 2017).

<sup>38</sup> Conservation Force (2016).

<sup>39</sup> Conservation Force (2017).

<sup>40</sup> PWMA (Oct. 2016).

<sup>41</sup> DNPW (2016); PWMA (Oct. 2016); CAMPFIRE Association (Dec. 2016).

<sup>42</sup> NACSO (2016), p. 40-43.

<sup>43</sup> ZAWA (2015).

\$109,824) in consolation payment in accordance with the provisions of the Wildlife Conservation (Dangerous Animals Damage Consolation) Regulations of 2011.<sup>44</sup>

In 2015, Zimbabwe's wildlife authority received 216 reports of elephant crop raiding or threats to human life. Four people were killed and five were injured. The number of people killed/injured was the highest for any species except crocodile.<sup>45</sup> In ten CAMPFIRE districts, an estimated 50 people were killed, and more than 7,000 hectares of crops were destroyed by elephants between 2010 and 2015. The financial loss of the crops could be as high as \$1 million.<sup>46</sup>

### **B. Offsetting Benefits from Safari Hunting**

Those injuries and losses are offset by significant revenues and incentives (e.g., meat, employment, conflict mitigation) from the hunting. Communities benefitted the most from elephant hunts, which generated the most revenue of any game species in Zimbabwe and Namibia—countries with the strongest communal wildlife management programs. In both countries, the full trophy fees go directly to rural residents rather than to government wildlife authorities; the revenues improve local livelihoods and increase tolerance of conflict with elephant.<sup>47</sup> As stated by Dr. Hank Jenkins, past Chair of CITES Animals Committee, elephant hunting is the “principal driver under-pinning the economic success of community-based natural resource management schemes in Africa.”<sup>48</sup> For example:

In 2014, most elephant were hunted in Zimbabwe's CAMPFIRE Areas: 55 compared to 49 in government Safari Areas and 19 in private conservancies.<sup>49</sup> Sixty to 70% of CAMPFIRE revenue is generated by elephant hunts. (The percentage was higher before the U.S. Fish and Wildlife Service suspension of elephant trophy imports from Zimbabwe in April 2014.)<sup>50</sup>

In the period from 2010 to 2015, elephant trophy fees generated \$7.13 million for CAMPFIRE, 64% of all revenues (averaging \$1.19 million per year). The revenues are used for law enforcement, administration and governance, and to support a variety of social services that benefit approximately 20% of Zimbabwe's population. Over ~800,000 households benefit from CAMPFIRE: ~200,000 directly and ~600,000 through social service benefits. Illegal ivory poaching in CAMPFIRE Areas is relatively low. Only 38 elephants were poached across the ~50,000 km<sup>2</sup> of CAMPFIRE Areas from 2016 to late November 2017. This equates to fewer than two elephants poached per month, or 0.08 elephant poached per 100 km<sup>2</sup>, despite the high prices being paid for ivory on the black market.<sup>51</sup> Elephant poaching has declined since the CAMPFIRE program began in 1989, as it was designed to do,<sup>52</sup> and has remained ever since. The benefits of legal, regulated safari hunting help to create tolerance and a desire to protect the species among the rural poor who receive the revenues, meat, employment, and more.

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<sup>44</sup> MNRT (Nov. 2016).

<sup>45</sup> PWMA (Oct. 2016).

<sup>46</sup> CAMPFIRE Association (Nov. 21, 2017).

<sup>47</sup> Conservation Force (updated 2018).

<sup>48</sup> Jenkins (Sept. 14-17, 2009).

<sup>49</sup> PWMA (July 20, 2015).

<sup>50</sup> PWMA (Oct. 2016).

<sup>51</sup> PWMA (Oct. 2016); CAMPFIRE Association (Nov. 21, 2017); AfESG (2016).

<sup>52</sup> Child (Mar. 13, 1997).

Similarly, 54.9% of the hunting revenues in Namibia's communal conservancies come from elephant hunts alone (\$917,458 in trophy fees). The conservancies secure otherwise unprotected habitat across 165,000 km<sup>2</sup> and impact over 195,000 people. Most conservancies depend on sustainable use, especially hunting, to fund operations. Safari hunting generated approximately N\$ 32 million (~\$2.7 million) in cash revenues and N\$ 10.5 million (~\$883,000) in hunted meat for conservancy residents; over 300 people received salaries as employees of the 55 hunting concessions.<sup>53</sup> All revenues and meat from the elephant hunted in Namibia go to benefit rural residents. The hunting is located in communal conservancies/areas, or hunting proceeds are distributed to the resident communities by agreement with the wildlife authority. Much of the hunting revenue is reinvested in the conservancy, such as the employment of game guards, maintenance of vehicles, response to human-wildlife conflicts, and investment in development.<sup>54</sup>

Before the U.S. suspension of elephant trophy imports from Tanzania, elephant hunts were also important to Tanzania's communal Wildlife Management Areas (WMAs), because by law a hunting client had to book a 21-day safari to hunt elephant. Approximately 500,000 people reside in WMAs, which generated over \$1.3 million in revenues from 2011 to 2014.<sup>55</sup>

In the same vein, because it generates the greatest fees, elephant hunting is important to communities in Zambia's Game Management Areas. Trophy fees are evenly divided between the wildlife authority and resident communities. During the 2012 season, ZMK 1,820,009 (>\$190,000) from 29 elephant hunts was shared with communities. In 2015, although only three elephant were harvested, they generated \$15,000 in revenues for rural communities. In 2016, twelve elephant were harvested and generated \$60,000 for communities. Distributions to communities from all species averaged ZMK 5,721,674 (approx. \$605,295) from 2010-2015.<sup>56</sup>

In addition to greater tolerance, elephant benefit from added habitat shared by communities. Communal areas protect almost 475,000 km<sup>2</sup> of habitat across Mozambique, Namibia, Tanzania, Zambia, and Zimbabwe.<sup>57</sup> The elephant survive in these areas not by accident, but because of community benefits from safari hunting.

### **C. Operator Contributions to Rural Community Livelihoods**

Rural communities both participate in and benefit from government fee-sharing programs and voluntary contributions by hunting operators and hunting clients. In some countries qualifying communities receive all or a large share of the hunting permit fees that would otherwise go to the governing agency. Separate operator contributions are mandated by law (as in Tanzania and Mozambique), or by lease agreements (as in Zimbabwe, Zambia, and Namibia), while others are wholly voluntary. All these models tend to build local value and greater tolerance.

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<sup>53</sup> NACSO (2016), p. 53, 61; see also benefits described in Naidoo et al. (Jan. 8, 2016).

<sup>54</sup> Pers. comm. (March 2018). The projected results of closing elephant hunting include the reversal of 25 years+ of community-based conservation, as revenues from elephant would decline, reducing community benefits, increasing intolerance, and paving the way for poaching and declining elephant populations.

<sup>55</sup> CWMAC (2016); MNRT/WD (Jan. 21, 2015).

<sup>56</sup> ZAWA (Mar. 2015, updated July 2015); DNPW (Mar. 31, 2017).

<sup>57</sup> IUCN [Protected Planet](#); DNPW (2016); ANAC (Oct. 2016); NACSO (2016).

Local people are employees and invested participants in hunting operations. These are critical jobs in remote areas with little access to other job opportunities or cash/wages.<sup>58</sup>

**Annual Operator Community Investment (in addition to government fees paid)**

Country	Op. Sample Size	Total (Year)	Est. Average/Operator
Mozambique <sup>59</sup>	13	\$830,000 (2013-2015)	\$63,846 (Avg.)
Tanzania <sup>60</sup>	13 parent companies, 27 subsidiaries	\$969,546 (2013) \$1,083,042 (2014) \$1,073,242 (2015)	\$35,909 (2013) \$40,113 (2014) \$39,750 (2015)
Zambia <sup>61</sup>	4	\$99,900 (2015)	\$24,975 (2015)
Zimbabwe <sup>62</sup>	15	\$525,378 (2015)	\$35,025 (2015)

**IV. INTERNATIONAL GOVERNMENT AND EXPERT VALIDATION**

The elephant populations of Botswana, Namibia, South Africa, and Zimbabwe were downlisted to CITES Appendix II with an annotation for trophy trade because of the status of those populations and merits of the trade.<sup>63</sup> That annotated downlisting and relevant Resolutions such as Res. Conf. 2.11 (rev.) facilitate elephant trophy trade under CITES. The annotation states it is “[f]or the exclusive Purpose of allowing ... trade in hunting trophies ....” and other enumerated purposes.<sup>64</sup>

The elephant is also listed as “threatened” under the U.S. Endangered Species Act with a special rule requiring proof of enhancement for import of hunting trophies.<sup>65</sup> Enhancement is a finding that the activity is a net benefit, i.e., saves more elephant than are to be taken.<sup>66</sup> The final ESA rule recognized the benefits<sup>67</sup> of safari hunting. The CITES downlisting and the ESA enhancement validate the benefits of safari hunting. The European Union has also acknowledged the net conservation benefits of safari hunting, and under a special regulation, authorizes the import of elephant trophies from Namibia, South Africa, most of Tanzania, Zambia, and Zimbabwe.

Further, elephant populations in those countries are larger today than when those actions were taken. The elephant populations of Botswana, Namibia, Zimbabwe, and South Africa have soared since their CITES downlisting. There were over 90,000 more elephants in these countries in 2016 compared to the size of the populations when downlisted: Botswana’s elephant population grew by ~40% (from 79,471 +/- 12,715 to 131,626 +/- 12,508 in 2016); Namibia’s population tripled (from 7,769 +/- 1,422 to 22,754 +/- 4,305); Zimbabwe’s population (thought to be overpopulated) expanded by 20% (from

<sup>58</sup> Conservation Force (2016); Cooney et al. (2017).

<sup>59</sup> ANAC (Jan. 2017).

<sup>60</sup> Conservation Force (2016).

<sup>61</sup> Conservation Force (2017).

<sup>62</sup> PWMA (Oct. 2016).

<sup>63</sup> Other African elephant populations are on CITES [Appendix I](#).

<sup>64</sup> The revision of Res. Conf. 2.11 was intended to streamline trophy trade (particularly elephant) because of the importance of legal hunting to range nations. [Doc. 9.50](#) (CoP 9).

<sup>65</sup> 50 C.F.R. §§ 17.21 & .40(e).

<sup>66</sup> Chief of Permits, Enhancement Finding for African Elephants Taken as Sport-hunted Trophies in Zimbabwe On or After January 21, 2016 and On or Before December 31, 2018 (Nov. 16, 2017).

<sup>67</sup> 57 Fed. Reg. 35473, 35485 (Aug. 10, 1992).

approximately 66,000 to 82,630 +/- 8,589); and South Africa's elephant population increased by more than one-third, from approximately 12,300 in 2000 to 18,841 in 2016.<sup>68</sup>

For all these reasons, in addition to the recognition of the international community, expert scientists and conservationists agree that legal, regulated safari hunting benefits elephant conservation. These include representations of the World Wildlife Fund, International Union for Conservation of Nature (IUCN)/ Sustainable Use and Livelihoods Specialist Group, IUCN African Elephant Specialist Group, IUCN African Rhino Specialist Group, Conservation Force, and many more.<sup>69</sup>

### CONCLUSION

Legal, regulated safari hunting is a conservation tool uniquely suited to reducing the primary threats to the elephant. It constitutes "conservation hunting" that generates a net benefit to elephant beyond the number taken, i.e., it both grows and protects elephant populations. It is essential to the survival of most elephant, especially including those in fully protected areas when they move beyond park boundaries. Hunting secures vast tracts of elephant habitat, which is the largest share of elephant range in the countries that employ hunting as a conservation strategy. The fact that elephant populations are largest and generally stable or increasing in these countries cannot be ignored. Hunting is the primary means of poaching control on that vast range that otherwise would not likely be guarded (much less wildlife habitat at all). Wildlife authorities depend on the revenues and ecosystem services generated. And the hunting is the principal driver underpinning the economic success of community-based natural resource management programs in these countries. Calls to ban elephant hunting or further prohibit or impede import of elephant hunting trophies are ill-informed.<sup>70</sup> They would seriously harm elephant. Put simply:

Trophy hunting falls in the category of 'high-valued tourism ventures' and offers an escape from the poverty trap in which wildlife conservation finds itself over much of southern and eastern Africa. Indeed, for the past 30 years, wildlife on commercial and communal land in Zimbabwe has relied on an income from safari hunting in order to survive. Reducing or removing this source of income is not an act of conservation—rather it is an act that will cause the destruction of the resource it seeks to protect.<sup>71</sup>

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<sup>68</sup> Compare AfESG (2016) with the proposals to amend the CITES Appendices to downlist the elephant of [Botswana](#); [Namibia](#); [Zimbabwe](#); and [South Africa](#).

<sup>69</sup> E.g., Cooney et al. (2017); CITES Res. Conf. 17.9 (CoP17 2016); WWF (July 2016); SULi (Apr. 2016); Naidoo et al. (Jan. 8, 2016); Emslie et al. (Mar. 18, 2016); Molewa (Aug. 4, 2015); Lindsey et al. (2012); Lindsey et al. (2007); see also the U.S. Fish and Wildlife Service's many fact-specific enhancement findings.

<sup>70</sup> Angula et al. (Feb. 2018).

<sup>71</sup> Martin (2014).

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