



THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA



ETHIOPIAN WILDLIFE CONSERVATION AUTHORITY (EWCA)

Review of the Leopard (*Panthera pardus*) quota of Ethiopia, established per Resolution Conf. 10.14 (Rev. CoP16) and non-detriment determinations, in accordance with CITES Decision 18.165

Addis Ababa, May 2020

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I. INTRODUCTION

i. Background on leopard export quota in Ethiopia.

1. The leopard quota system was introduced at the fourth meeting of the Conference of Parties (CoP) of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) (Gaborone 1983) with [Resolution Conf.4.13](#).
2. A thorough history of the CITES leopard quota system in CITES can be found in a proposal to CITES CoP 12. (CoP12 Doc. 23.1.2 <https://www.cites.org/sites/default/files/eng/cop/12/doc/E12-23-1-2.pdf>), and in the review presented by Mozambique at the 30th meeting of the CITES Animals Committee (<https://cites.org/sites/default/files/eng/com/ac/30/E-AC30-15-A1.pdf>)
3. The leopard *Panthera pardus* was included in Appendix I at the Plenipotentiary Conference at which CITES was concluded (Washington, D.C., 1973 see <https://files.eric.ed.gov/fulltext/ED081600.pdf>). This listing was not based on any scientific data or listing criteria, as for most of the species included in Appendices I and II at that time. However, the massive spotted cats fur trade was one of the very reasons for devising and signature of CITES. At that time the leopard, like other spotted cats, was heavily harvested for the fur trade. In 1968 and 1969, 9,556 and 7,934 leopard skins respectively were imported into the United States of America alone (Paradiso, 1972) and in the 1960's 50,000 leopard skins were estimated to be exported annually from East Africa alone for the fur trade (Anonymous, 1964).
4. In November 1982, at a regional meeting of Africa on the Ten-Year Review of the Appendices, the participants considered, on the basis of scientific evidence and management, that the leopard populations under consideration were not endangered and that their inclusion in Appendix I was not justified [Proceedings of the 4th meeting of the Conference of the Parties (CoP4)]. It was however too late to prepare a proposal for transfer to Appendix II for consideration at CoP4 (Gaborone 1983). Nevertheless, on their own initiative, Zambia and Zimbabwe had already submitted a proposal to transfer the populations of Eastern and Southern Africa to Appendix II and Mozambique had done the same for its population.
5. In view of the concern of a number of Parties that such transfers could lead to an upsurge of the commercial trade in leopard skins, the above-mentioned countries, which were not promoting a re-opening of such trade, accepted, as a compromise, to replace their proposals by a Resolution on the trade in leopard skins. The purpose of the Resolution was not to open commercial trade in an Appendix-I species contrary to Article III of the Convention but only to simplify the procedures provided for by that Article, in particular regarding non-detriment findings for non-commercial trade.
6. In adopting Resolution Conf. 4.13, the Conference of the Parties recognized that "the killing of specimens of leopard may be sanctioned by countries of export in defence of life and property and to enhance the survival of the species, and that the leopard is in no way endangered in Botswana, Kenya, Malawi, Mozambique, the United Republic of Tanzania, Zambia or Zimbabwe". It recognized also "the overwhelming desire of the Parties that the commercial market for leopard skins should not be reopened". Hence, leopard remained to this day on Appendix I.
7. CITES Resolution Conf. 4.13 was revised several times at subsequent CoP meetings by the following Resolutions: Conf. 5.13 (1985), Conf. 6.9 (1987), Conf. 7.7 (1989), Conf. 8.10 (1991), Conf. 8.10 (Rev.) (1994), Conf. 10.14 (1997), Conf. 10.14 (Rev. CoP12) (2002), Conf. 10.14 (Rev. CoP13) (2004), Conf. 10.14 (Rev. CoP14) (2007), and lastly by Resolution Conf. 10.14 (Rev. CoP16) (2013) currently in force.
8. At the sixth meeting of the CITES CoP (Ottawa 1987), Ethiopia, as an observer with the intention of becoming a Party imminently, requested a quota of 500 skins for the next three years (1987, 1988 and 1989) in order to dispose of stocks of skins resulting from confiscations and livestock protection, and for subsequent years an annual export quota of 300 skins ([CoP10 Doc 10.42](#)). Ethiopia was granted the quota it requested for the period 1987-89, as recorded in Resolution Conf. 6.9. Ethiopia acceded to CITES on the 5th of April 1989 and the Convention entered into force on the 4th of July 1989.

9. Following the adoption of Resolution Conf. 6.9, the leopard quota for Ethiopia was not changed by the Conference of the Parties and remained 500 skins until 2020, although Ethiopia has exported its skin stock soon after the sixth meeting of the Conference of the Parties and has informed the Secretariat of its quota of 50 from 2015 to 2018 and of 20 since 2019.
10. Currently, the national annual quota for leopard hunting in Ethiopia is of 20 specimens and although a proposal to change the quotas should have been submitted in accordance with paragraph 1 j) of Resolution Conf 10.14 (Rev.Cop16), the relevant decisions of the Conference of the Parties taken at the 17th and 18th meetings apparently waived this requirement. This document is meant to justify this quota and to request the Animals Committee to express its advice for the further steps envisaged in the relevant decisions taken at the Eighteenth meeting of the Conference of the Parties to CITES (Geneva 2019).

II. STATUS OF LEOPARD IN THE COUNTRY

a) Distribution and abundance

11. Ethiopia is located in the Horn of Africa, bordering Eritrea in the North, Djibouti and Somalia in the East, Kenya in the South, and Sudan and South Sudan in the West. The country stretches from 3°N of the equator to 15°N latitude and from 33°E to 48°E longitude, and has an area of 1,127,127 km².
12. Ethiopia encompasses a broad range of ecosystems with great varieties of habitats contributing to the occurrence of high faunal diversity. Data and information on the diversity of wild fauna as a whole is not yet complete. According to the existing data, the Ethiopian wild fauna is comprised of 326 mammal, 872 bird, 240 reptile, 200 fish, 71 amphibian and 1,225 arthropod (out of which 324 butterfly) species. Of these faunal resources, 57 mammal, 18 bird, 15 reptile, 41 fish, 30 amphibians and seven arthropod species are endemic to the country. The variety of species and great proportion of endemism within the group, especially in the highlands is the result of the isolation of the highland areas of the country from other highlands within and outside the country by the surrounding lowlands (National Biodiversity, Strategy 2015; Wilson and Reeder, 2005; Lavrenchenko and Afework Bekele, 2017)
13. Ethiopia's system of Protected areas (PAs) is currently made up of 27 National Parks, 3 Wildlife Sanctuaries, 5 Wildlife Reserves, 5 Biosphere Reserves, 25 Controlled Hunting Areas, 5 Open Hunting Areas and four Community Conservation Areas, in different IUCN Categories. As shown in Table 1 it covers an area of 11,347 km², which represents nearly 10% of the country's mainland surface (1,127,127 km²). However, it is important to highlight that the number of PAs will change over time as new PAs are under establishment in the country. Furthermore, there are new controlled hunting areas and community conservation areas in proposed status which are not included in this report but will definitely increase the number of PAs in the country.

Table 1: Types and extension of Protected areas in Ethiopia (Source: EWCA)

Protected Area Type	No.	IUCN Categ.	Area in km ²	Percentage (%) of the country land area. (1,127,127 km ²)
National Park	27	II	55394	4.91
Sanctuary	3	IV	7436	0.56
Wildlife Reserve	5	V	21344	1.89
Biosphere Reserve	5	V	20908	1.86
Controlled Hunting Areas (CHA)	25	VI	7036	0.62
Open Hunting Area (OHA)	5	VI	269	0.02
Community Conservation Areas (CCA)	4	VI	1030	0.09
TOTAL	74		113417	10.06

14. Leopard is not threatened nor endangered in Ethiopia nor is it likely to be in the future. The recent IUCN assessment (Stein *et al.* 2016) describes the species as highly adaptable and widely distributed, and able to persist in areas where other large carnivores have been extirpated. The assessment reports that subpopulations also occur in suburban and urban environments in India and parts of sub-Saharan Africa (including Ethiopia where leopards were observed in recent years in

the capital Addis Ababa) and that leopard appear to be very successful in adapting to altered natural habitat and settled environments in the absence of intense persecution.

15. Like the other large carnivores, leopards are difficult to observe and in most cases the population estimate may not be precise. Even though few reliable data on leopard population trends over the last three generations exist across Africa (Stein *et al.* 2016), the population of leopards in Ethiopia is still poorly known. Despite this fact, there are few sample areas where a relatively reliable data on leopard population were gathered, mainly through the regular wildlife assessments carried out in hunting areas. (Figure 1).

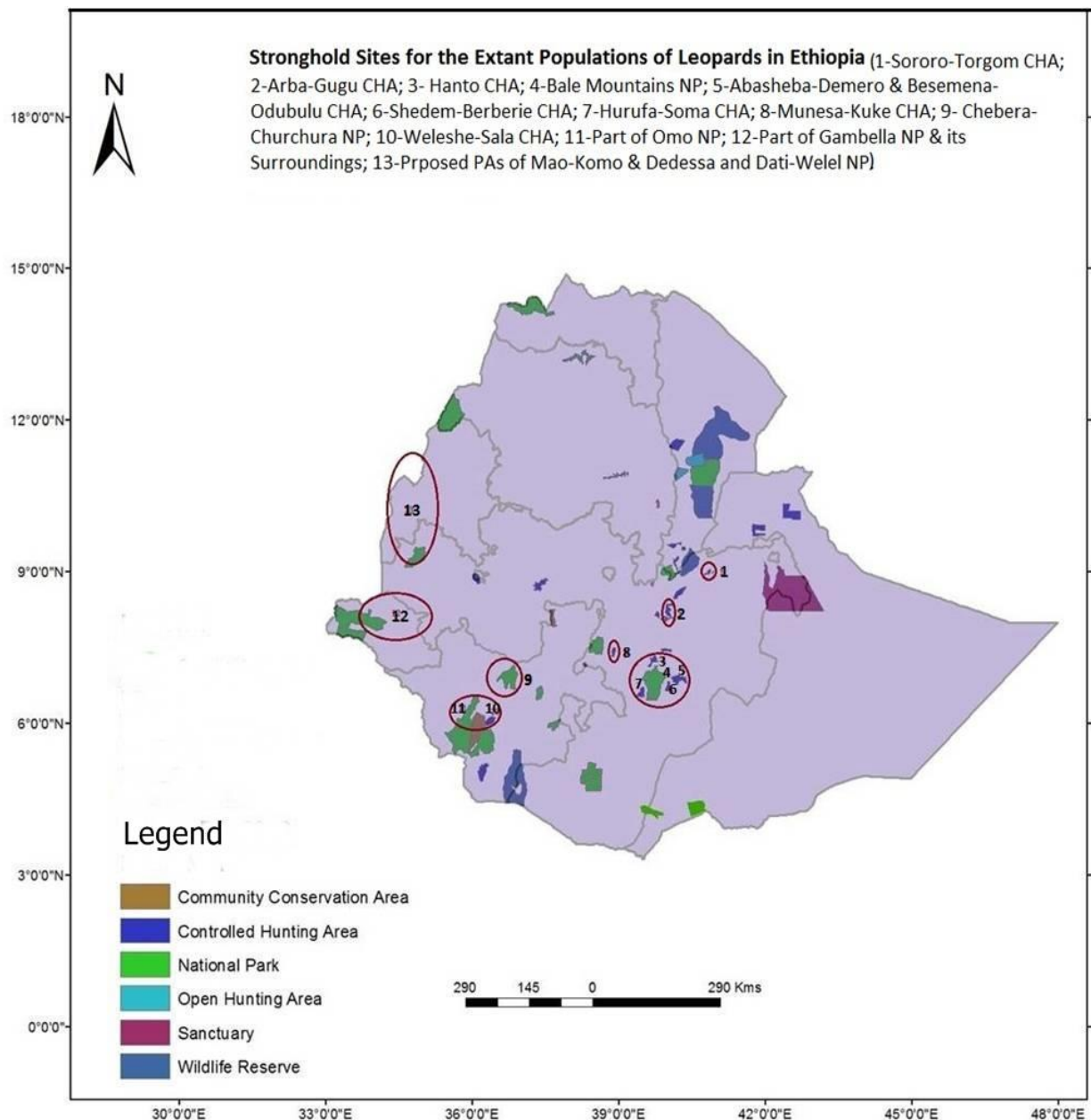


Figure 1: Stronghold sites for Leopard in Ethiopia. (source:EWCA)

16. According to Ethiopia's Country report for FAO Global Forest Resources Assessment 2015 COUNTRY REPORT (<http://www.fao.org/3/a-az209e.pdf>) Forests, High woodlands areas and Low woodland and shrubland areas cover a total of 606,248 km².
17. Taking into account that leopards appear to be very successful at adapting to altered natural habitat and settled environments (Nowell & Jackson 1996), we can conservatively estimate, a

precautionary leopard range in Ethiopia to cover about 42% of the country i.e. approximately 476,450 km² that represents the average between the minimum area size reported in Jacobson *et al.* 2016 and the maximum area size derived from adding natural habitats as reported by FAO 2015, although further researches clearly needed. It is generally true that there is lack of data on present distribution of leopards in Ethiopia since range-wide assessments have not been undertaken. However, there are considerable reports which indicate sightings of leopards even in areas close to towns and depredation on livestock by leopards reported also in a constantly growing literature on human wildlife conflict in Ethiopia. The published sightings and incidences of human-leopard conflict are summarized as follow (Table 1).

18. The regular wildlife assessments on Controlled Hunting Areas (CHAs) conducted to allocate hunting quotas can be considered as a justifiable albeit simplistic baseline on which we can rely to roughly estimate the number of leopards.
19. For example, according to the report on assessment of Besmena-Odubulu CHA, 5 Leopards were recorded in four out of ten line transects in 2011 (Wendimet *et al.* 2011) and 4 leopards were observed in 2019 in a 13km² sample area (EWCA unpublished 2019). Sororo-Torgam CHA, which covers about 108 km² area, is also another potential habitat for leopard. During a couple of assessments conducted in the area, leopards were observed in all five transects either directly or indirectly and based on these censuses, the population estimate for the area ranges between 31 and 51 (Hailu *et al.* 2008; Kebede *et al.* 2011). Considerable number of leopards was also observed in Hurufa-Soma CHA, Shedem-Berberie CHA, Arbagugu CHA, Welshet Sala CHA, Munesa-Kuke CHA and Abasheba-Demero CHA where a population of 80, 63, 59, 58, 54 and 30 were estimated, respectively (Wendimet *et al.* 2011; Kebede *et al.* 2015; Zerfuet *et al.* 2014; Tsegayeet *et al.* 2017; Ewnetuet *et al.* 2008). Several other assessment reports also confirm the presence of leopard in addition to ascertain densities.
20. However, it is wise to note that estimates indicated above are quite simplistic. Overestimations could be expected due to the fact that the estimate is a result from a mere extrapolation that considers bigger size of suitable habitats, which does not take into account the prey-predator relationship and other ecological aspects in a given habitat. On the other hand, given the existence of ample prey population, combined with the relative abundance of the species in question and relative intactness of their habitat, it is also possible to hypothesize that the South eastern plateaus which include Bale, Arsi and Harerghe Massifs and the south western and western forest areas are the main strongholds of the extant populations of leopards in Ethiopia and thus need to be considered. Therefore, this speculation makes the aforementioned areas equivalent to some densely distributed populations in Africa, such as Mpala ranch in Kenya (O'Brien & Kinnaird 2011), Soutpansberg Mountains in South Africa (Chase Grey *et al.* 2013) where densities of 8.4 – 12 and 10.7 per 100 km² were recorded, respectively.
21. The data referred in points 17, 19 and 20 above and in Table 2 are meant to update the assessment made by Jacobson *et al.* (2016): in their global assessment of Leopard status, they calculated leopard range in Ethiopia at about 346900 km² and predicted that leopard is possibly extinct in 290000 km² (18%) and extinct in 487300 km² (22%), using expert opinion, land cover, biogeographic data from other species, and other generic information from scientific and grey literature. However, the authors admit, in supplemental table 5, "*There is still imprecision in exact range boundaries and hence these numbers should be used only as a rough guide rather than absolute truth,*" Moreover, Jacobson *et al.* 2016 reported leopards as extinct in patches of the country (see Table 1, Figure 2 and Map2) but on the contrary to this there is evidence of its existence. Further research will likely disprove some of the negative data presented in Jacobson *et al.* 2016. For example, in many of the patches where they show leopard as Historic and Possibly Extinct on the contrary there is evidence of the presence of leopard. Additionally, the appropriateness of the Jacobson *et al.* 2016 assessment is disputed because it arbitrarily uses a "historic" 1750 range loss. Although it is a valuable attempt to assess the status of the species, the data contained in Jacobson *et al.* needs to be taken very cautiously.

Table 2: Some documented records of sightings and incidences of human-leopard conflict

No.	Location for Sighting/Depredation Cases	Source of information
1	Recorded at Sororo-Torgam Controlled Hunting Area (CHA), Western Harerghe (UTM coordinates 37 P 0988000 -01001000 N and 0691000- 0706000E)	Hailu <i>et al.</i> 2008, Kebede <i>et al.</i> 2011
2	Recorded at Besmena-Odubulu Controlled Hunting Area, found in Bale zone (0620000-0638700E and 0751200-0770800N)	Wendimet <i>et al.</i> 2010
3	Recorded at Hurufa- Soma Controlled Hunting Area, found in Bale zone (0540300-0557000 E and 0721000-0744000 N)	Wendimet <i>et al.</i> 2010
4	Sighted at Aba Sheba- Demero Controlled Hunting Area found in Bale Zone (634000-640000E and 758000-767200N)	Ewnetuet <i>et al.</i> 2008
5	Recorded in Aluto Controlled Hunting Area, about 200km South of Addis Ababa (UTM 37N 467000 up to 480000 Easting and UTM 37 N 848000 up to 868000 N)	Gebretnsaeet <i>et al.</i> 2008, Yadetaet <i>et al.</i> 2014
6	Its existence in MunessaKuke Controlled Hunting Area (West Arsi; Location- UTM 37 N 483000 to 491000 Easting, and UTM 37 N 811000 to 829000 Northing) is reported	Zerfuet <i>et al.</i> 2014
7	Exists in surrounding escarpments of Nech-Sar National Park	Yirgaet <i>et al.</i> 2014
8	Recorded at Abalo-Gunacho forests of Guji Zone (638500 -642300N and 493200 -497300)	Asefaet <i>et al.</i> 2014
9	Sighting at Proposed Dedessa National Park, Around s River in BenshangulGumuz Regional State, (36P 801318, 1075158 up to 37P 199238, 1055979 and : 37P 179667, 1010310 up to 36P 801542, 1111229 UTM)	Pers Comm.
10	Significant number of leopards was reported in Arbagugu Controlled Hunting Area (37 P 067086 longitude and UTM 0912653)	Kebede <i>et al.</i> 2015
11	Reported from Adaba-Dodola Community Conservation Area (UTM 37 N 510000 to 546000 and UTM 37 N 739000 TO 760000)	Kebede <i>et al.</i> 2015
12	Reported from Weleshet-Sala Controlled Hunting Area (UTM 0661143 -0679380 N and 37N0196810 - 37N0218750 E)	Kebede <i>et al.</i> 2015
13	Reported in HantoControlled Hunting Area (North of Bale Mountains National Park)	Deksioset <i>et al.</i> 2015
14	Reported in Shedem-BerberieControlled Hunting Area (South of Bale Mountains National Park)	Tsegayeet <i>et al.</i> 2017
15	Reported to exist around GenaleDaryo River, Western part of Somali Regional State	Yadeta and Getachew, 2016
16	Sighting (captured via trapping camera), at Omo Valley	Asefa <i>et al.</i> 2016
17	Included in the Checklist of PAs (Awash, Yangudi-Rasa, Proposed Halleydeghe-Asebot , Arsi Mountains, Bale Mountains, Gerale, Yabello, Nech Sar, Lokia Abaya, Mago, Omo, Chebera-Churchura, Maze, Gibe-Sheleko, Gambella, Dati-Welel, Bejemis, Alitash, Simien Mountains and Kafta-Sheraro National Parks as well as BabilieElepahnt and Senkele Hartebeest Sanctuaries)	Checklist of Mammals Report, EWCA
18	Sighting (captured via trapping camera) at Omo Valley, North of Omo National Park (Fig.2)	Asefaet <i>et al.</i> 2016
19	Sighting (captured via trapping camera) and Depredation on livestock, at Yechilay, Tigray, northern Ethiopia (13°17'N, 39°00'E)	Westerberg <i>et al.</i> 2018
20	British Embassy Compound, Addis Ababa (http://news.bbc.co.uk/2/hi/africa/6034889.stm)	AFP and BBC News, 2006
21	Recorded depredation on livestock at Urganbula CHA	Gebretnsaeet <i>et al.</i> 2008
22	Recorded depredation on livestock at Adami-Tulu area, about 180 km south of Addis Ababa	EWCA , 2015
23	Leopard predation on gelada monkeys at Guassa, Ethiopia at an altitude of about 3,400 meters a.s.l.	Lin et al. 2020
24	Frequent Human-Leopard Conflict at Chebera-Churchura NP	South Nations, Nationalities and People's (SNNP) Culture and Tourism Bureau 2014 -2017),
25	Camera trapping in Belete-Gera National Forest	Mertens et al. 2018
26	Human-Wildlife Conflicts in and around Choffa Forest, Hawzien Woreda, Eastern Tigray, Northern Ethiopia	Girmay&Teshome Z. (2015)

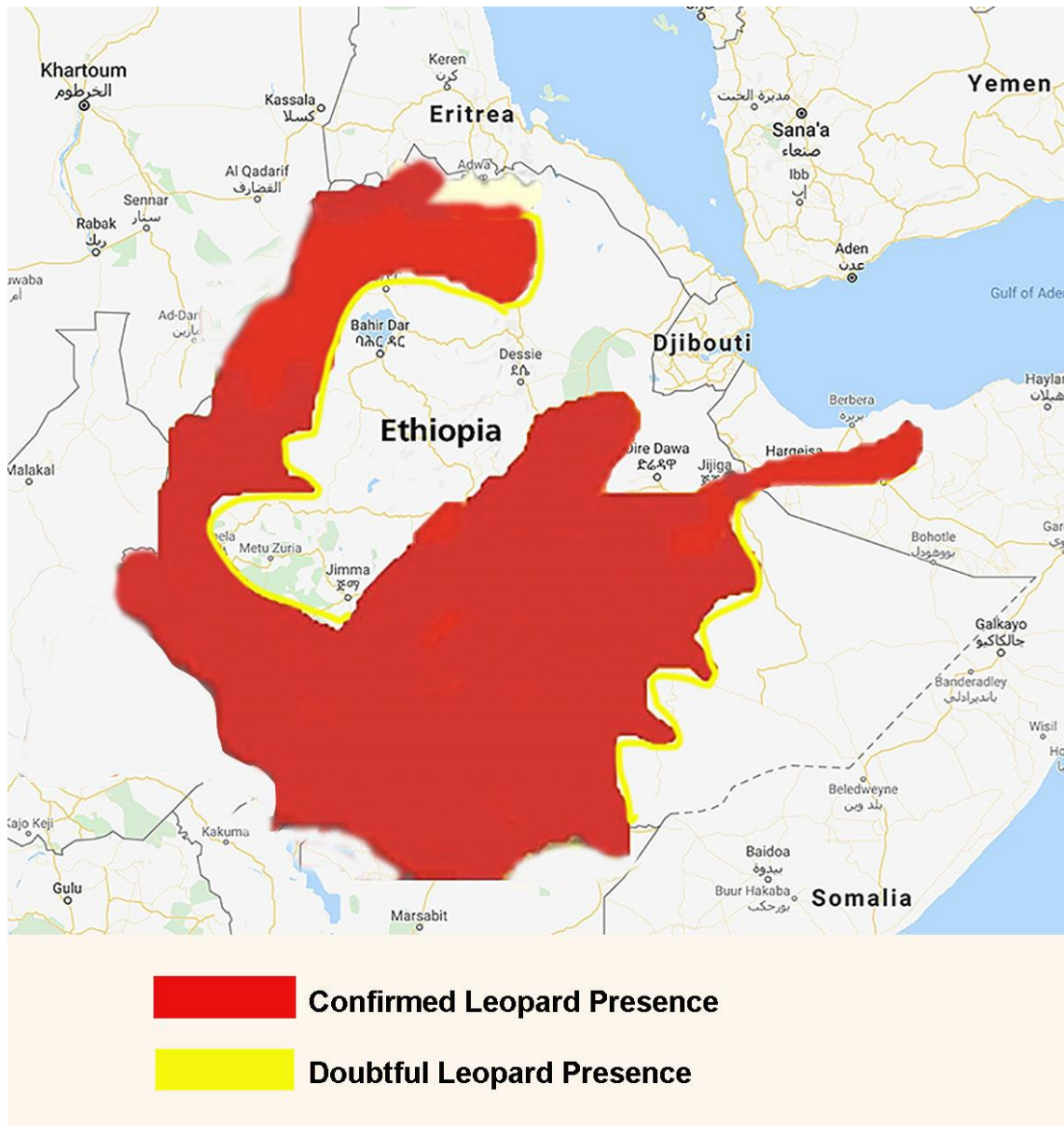


Figure 2: Presumed distribution of Leopard in Ethiopia (source EWCA:adapted from Jacobson et al. 2016)

22. Further research would be clearly necessary to ascertain the extent of the leopard range in Ethiopia. However, the estimated range today is more important and useful than more speculative estimates of historic range. For the purposes of this document, the conservative estimate of leopard range is arbitrarily set at 476,450 km²(see point 17) although suitable habitat for leopard covers approximately 600,000 km²(FAO 2015) representing about 50% of the country's landmass.
23. Taking into account that in particular conditions leopard can reach densities of 15 and even 30 leopard/100km² (Hunter et al. 2013, Strampelli 2015) the Ethiopian leopard population would stand at 23,822 at an average of 5 leopard/100km²and at an extremely conservative density of only 1 leopard/100km²for the 476,450 km² of potential range would give an arbitrary minimum population of leopards in Ethiopia of 4,770. We suppose that the latter figure would be a severe underestimate.
24. However, in recognizing the fact that reliable estimates of population size are extremely difficult to be obtained at a national level, EWCA is designing specific monitoring of leopard in CHA using Spatial explicit capture recapture (SECR) methodology.

b) Threats

25. The major threats to leopard have been categorized by Stein *et al.* 2016 as being habitat loss and fragmentation, reduced prey base and conflict with livestock and game farming.
26. Moreover, the Human population in Ethiopia increased from 22,151,278 in 1960 to 109,224,559 in 2018 (<https://data.worldbank.org/indicator/SP.POP.TOTL?locations=ET>) with a current average human density of about 97 people per sq.km. With about 109 million people (2018), Ethiopia is the second most populous nation in Africa after Nigeria, and the fastest growing economy in the region, predicted to reach lower-middle-income status by 2025. However, the majority (~80%) of the population are farmers or pastoral communities who are directly dependent on land and natural resources. The unsustainable resource use and over exploitation of resources have brought increasing challenges on PAs management. Although Ethiopian economy is growing, the country is still one of the poorest countries in the world and the rapidly growing human population exacerbates the anthropogenic threats to leopard survival.
27. Deforestation remains one of the greatest concerns in Ethiopia. A recent published study (Young *et al.* 2020) found protected areas in the Southern Highlands, that were actively managed for timber production or hunting were more effective at conserving forest cover than the national park and the unoccupied hunting concessions. Over the study period, net forest cover change was -7.8% for the national park, +12.9% for the state-run forest enterprise, and +13.3% for the occupied hunting concessions and -14.0% for the unoccupied hunting concessions, demonstrating that local and national context is important when comparing protected area effectiveness with regards to ownership.
28. Leopards are extremely resilient carnivores. They have survived the extensive trapping and trade of the decades in the 1960s and 1970s when tens of thousands of leopard skins (see point 3) were traded annually from Africa for the fur fashion.
29. The primary threats to leopards are anthropogenic. Habitat loss and fragmentation, reduced prey base and conflict with livestock and poaching have reduced leopard populations throughout most of their range (Nowell and Jackson 1996, Stein *et al.* 2016, Jacobson 2016). Habitat losses due to conversion of forest and savanna systems to agriculture and urban sprawl have significantly reduced Leopard range. Though exceptions exist due to leopard's highly adaptable hunting and feeding behaviour (Hayward *et al.* 2006), the conversion of natural habitats typically leads to the depletion of natural prey species through poaching thereby reducing the natural prey base.
30. Therefore, the main threat to leopard in Ethiopia seems to be represented by habitat loss and direct persecution in retaliation to livestock losses.

c) Human-Leopard Conflicts

31. Human-Wildlife Conflict (HWC) generally refers to the interaction between wildlife and the people and the resultant negative impact on people or their resources, or the wildlife or their habitat. It occurs when simply wildlife needs overlap with those of human populations.
32. Human-wildlife conflict (HWC) is a serious problem in Ethiopia especially close to protected areas. Human population growth and the negative perception of local communities toward wildlife and their conservation will generally increase conflict between humans and wildlife. Working together to improve the livelihood through sharing conservation-related benefits, establishing alternative livelihood and involvement of local people in decision-making for resource management can increase the positive attitudes of local people towards wildlife, protected areas, and conservation practices. Participatory management and benefits sharing are amongst the most successful mechanisms, along with the granting to local communities of some ownership rights for sustainable natural resources management and use (Teshome & Girmayal. 2017).
33. Human/leopard conflicts involve mainly loss of livestock with consequent loss of incomes for local communities, competition for source of protein and in some cases human injuries. The conflict is exacerbated by the increase in livestock production and settlements of people around or inside protected areas.

34. Several papers on HWC involving leopard have been published in recent years (Bisetet *et al.*, 2019 Tadesse and Zewde 2019, Worku 2019, Tsegaye 2017, Megazeet *et al.* 2017, Mohammed *et al.* 2017, Girmay and Teshome 2015, Yirgaet *et al.* 2011). In particular some studies noted that, around Chebera Churchura National Park, out of 997 domestic animals preyed, around 200 animals (i.e. sheep, goats, and cattle) were killed by leopard and spotted hyena in three years, of which 75.5% of the domestic animals were killed by leopard alone (Datiko and Bekele, 2013; Megazeet *et al.*, 2017). However, in the Bale Mountains, out of 704 domestic animals preyed by wild carnivores, 57% and 18% of the domestic animals were killed by spotted hyaena and leopard, respectively (Atickemet *et al.*, 2010).
35. Today HWC is recognized by the Ethiopian government as one of the critical issues in wildlife management. The incidences reported on depredation on livestock, crop damage, human injuries and killing of wild animals mostly carnivores call national attention. As a result, EWCA has closely following the incidences and has planned to establish an HWC management unit that will be exclusively responsible to handle this matter. EWCA is presently drafting a National HWC strategy built upon the ever growing literature on the subject and the full involvement of several stakeholders particularly representatives of local communities. The main objectives of the strategy include examining and documenting HWC cases and devise conflict protection/mitigation and management options through a well-designed framework.
36. Upon implementation of short, middle and long-term objectives of the upcoming strategy, HWC species specific matters will be well documented and better information will be also available on Human Leopard conflict in the country.

III. HUNTING MANAGEMENT FRAMEWORK

a) Legislative Tools

37. Ethiopia's wildlife conservation legislation includes specific regulations on hunting and CITES implementation (Ethiopia CITES Legislation is in Category 1) and is more than adequate to address conservation needs.
38. The main legislation concerning wildlife and protected area is the Proclamation no.541/2007, "*Proclamation to provide for the development conservation and utilization of wildlife*" which makes provisions with respect to the development, conservation and sustainable utilization of wildlife resources in Ethiopia, including wild animals that occur in Ethiopia and including those species migrating from country to country and temporarily staying in Ethiopia.
39. In Ethiopia hunting is carried out in accordance with the Wildlife Conservation and Utilization Regulation Number 163/2008 and with the following Guidelines: Revised Guideline No.31/2009 E.C., Wildlife Hunting Utilization Guideline and Guideline No.26/2007 E.C., Hunttable Wild Animals Census and Quota setting Guideline.
40. With the exception of birds, hunters with valid permit are allowed to hunt an old male animal only. Trophy size is typically used to determine the age of the animal. According to Article 25 of the Regulation No. 163/2008, no person shall hunt by: (i) approaching within the distance of 200 m using any motorized means of transport, (ii) setting fire or driving or surrounding any wildlife by fire, (iii) conducting hunting in darkness (except for nocturnal animals), (iv) using dogs (except in some cases for bird hunting). Hunting equipment like guns and ammunition are determined in accordance with the standards set for specific wild animals specified in Article 25 of Regulation No. 163/2008.
41. Hunting using automatically set shot gun, pitfall, trench, net, enclosure, snare, poison or any self-loading weapon, any explosive projectile, bomb or grenade is prohibited. Moreover, the use of any dart or projectile containing any drug or chemical which has the property of anesthetizing, paralyzing, any game animal except in accordance with the written authorization of the licensing body, is also prohibited.
42. According to the Constitution of the country, land is owned by the Government and the people so land is a common property of Nations, Nationalities and people of Ethiopia. Unlike some other African countries, there is no private hunting ground owned by a household or an individual for hunting purposes. As a result, hunting of wild animals in all controlled hunting areas, be it leased by

private companies, government body or community organizations, is managed by a government authority who has legal mandates. No hunting is allowed without a permit from Ethiopian Wildlife Conservation Authority (EWCA) and Regional counterparts implement the permit system. In addition, hunting permits are divided into foreign tourist hunting licenses, resident hunter licenses, game bird hunting licenses, snipe hunting licenses, and special hunting license for scientific studies. In addition to obtaining a hunting permit, hunting is not allowed to any person who has not attained age of 18 and/or in the absence of a professional hunter or hunting controller of the EWCA or the concerned regional government. For a tourist hunter to hunt in a specific controlled hunting area, the hunter must pay the trophy fee in advance (and in foreign currency) to the Government.

43. The Ethiopian Wildlife Conservation Policy and Strategy under article 2 includes sustainable utilization of wildlife resources. The policy statement clearly indicated that the wildlife resources of the country will be properly utilized for sustainable tourism, hunting, trade, ranching and food. For this policy statement the following strategies are in place.
 - a. Conducting censuses to determine the wildlife potential of the country, and designing and implementing a feasible and sustainable utilization strategy;
 - b. Maintaining sustainable utilization of wildlife in open and controlled hunting areas in a manner that would not affect their distribution through sport hunting and other means.
 - c. Produce, disseminate and enforce up-to-date wildlife regulations and information to beneficiaries in order to enhance the economic advantages.

b) Management System

44. Hunting in Controlled Hunting Areas (CHAs), Open Hunting Areas and Community Wildlife Conservation Areas established in accordance with the Wildlife Conservation and Utilization Regulation Number 163/2008 is managed by the EWCA and regional governments together with concessionaires who need to abide by a hunting quota. EWCA together with regional governments decide the number of wild animals to be hunted based on data from a wildlife census taken prior to hunting year. Concessionaires can be either private safari companies or communities' associations with recognized management rights. Concessionaires must pay concession fees for a particular hunting area to the relevant Regional government. In Community Wildlife Conservation Areas hunting revenues are shared with local communities: The only Community Wildlife Conservation Area that is not using hunting as a land use option is MenzGuassa that is managed mainly for photo tourism (<http://guassaarea.org>), The list and area size of Hunting areas is shown in the following Table 3.

Table 3: Hunting Areas in Ethiopia (Source EWCA Archive 2019)

No.	NAME	Area in km ²	Region
CONTROLLED HUNTING AREA			
1	HaroAbadhiko CHA	190	Oromia
2	Jibat CHA	100	Oromia
3	Muda Anole	105	Oromia
4	Chifra CHA	510	Afar
5	TelalakDewe CHA	500	Afar
6	DembelAyishaAdigala CHA	600	Somali
7	AsbahriKebena CHA	174	Afar
8	BlenherteleCHA	825	Afar
9	Sorrero-Torgum CHA	108	Oromia
10	Dindin CHA	280	Oromia
11	Arba gugu CHA	341	Oromia
12	Werganbula CHA	78	Oromia
13	Aluto CHA	100	Oromia
14	MunessaShashemene CHA	111	Oromia
15	Gassera CHA	215	Oromia
16	Hanto CHA	190	Oromia
17	AbashebaDemero CHA	210	Oromia
18	Besmena-Odobulu CHA	350	oromia
19	Shedem berbere CHA	170	Oromia
20	Welishet Sala CHA	350	SNNP
21	Murule CHA	690	SNNP

22	Hurufa Soma CHA	215	Oromia
23	Webshaleko CHA	210	Oromia
24	HaroAbadiko CHA	244	Oromia
25	Ambagoda sedi CHA	160	Oromia
OPEN HUNTING AREA			
1	Sinana	15	Oromia
2	Debrelibanos	100	Oromia
3	Gara meti	52	Oromia
4	Gara gumbi	50	Oromia
5	Gelila dura	52	Afar
COMMUNITY WILDLIFE CONSERVATION AREAS			
1	Adabadodola	499	Oromia
2	AbuneYosseph	50	Oromia
3	Addar	371	Afar

45. Safari companies operate in Controlled Hunting Areas (CHAs) by concession from the regional governments. In doing so, they secure their hunting rights in that particular hunting ground (area). The safari companies or Professional Hunters (PHs) have the right to bring tourist hunters and carry out hunting in their specific controlled hunting area as per the quotas set aside for that particular hunting ground per year based on hunting laws. According to the current wildlife policy and strategy, the local community can have their own protected area where they can protect, manage and sustainably utilize the resources including controlled hunting on quota basis.
46. Sport Hunting aims exclusively at selected old males and is carried through an annual off take quota set every three years through field surveys and population estimates for all huntable species based on quota setting guidelines established by EWCA. Concessionaires of the hunting areas are officially informed about the annual off take and all CITES procedures while hunting and exporting. During hunting operations, all foreign hunters must be escorted by Federal and Regional wildlife rangers.
47. Wildlife Proclamation 541/2007 in article 7 defines the administrative mandate of local community over some protected areas. Under this article it is clearly mentioned that wildlife habitats other than the conservation areas referred to in Articles, 4, 5, and 6 of the Proclamation may be authorized by the concerned regions to be administered by the local communities. Based on this legal background local communities can own protected area and manage it for sustainable use. The community conservation areas such as AdabaDodola and GuassaMenz are under this category.
48. The revenue generated from sport hunting industry is shared among the Federal and regional governments. 15% of the revenue is collected by EWCA is deposited to Federal Treasury while the rest 85% is channelled to the regions where the local communities can benefit from it through development projects.

c) Leopard Hunting Quotas and offtakes

49. Leopard hunting quota is set at a very conservative level and only to hunting areas where the regular surveys have shown the presence of leopard.
50. EWCA has allocated hunting quotas of 15 and 18 leopards for 2018 and 2019 countrywide and their allocation is indicated in Table 4. However, no single individual was hunted in 2019 and only two leopards were hunted in 2018 out of the 15 allocated in quota for that year (see Table 4).

Table 4: Quota allocation for Leopard in Ethiopia in 2018 and 2019 (Source EWCA)

CHA	2018			2019		
	Annual quota	Status	Balance	Annual quota	Status	Balance
Besmena	2	not hunted	2	2	Not hunted	2
Abaebash	2	hunted	1	2	Not hunted	2
Munesaa	2	Not hunted	2	2	Not hunted	2
Welishet	0	None	0	2	Not hunted	2
Adabadodola	2	Not hunted	2	2	Not hunted	2

Arbagugu	2	Not hunted	2	2	Not hunted	2
SororoTorgom	3	hunted	1	2	Not hunted	2
Dindin	0	None	0	2	Not hunted	2
Shedem Berbere	2	Not hunted	2	2	Not hunted	2
Total	15		13	18		18

51. Booth and Chardonnet 2015, recommended a quota percentage for leopard varying from a maximum of 4% (similar to Caro *et al.* 2009) in Safari Areas to a minimum of 2% in Communal Areas. The Ethiopia's quotas average well below these recommended percentages.

IV. THE MONITORING OF LEOPARD SAFARIHUNTING IN ETHIOPIA

52. Leopard has never been a species in much request by tourist hunters visiting Ethiopia. According to Government data and to the CITES Trade Database, Ethiopia has exported, since its accession to CITES in 1989 and up to 2018, 28 leopard trophies or skins, i.e. on average 1 trophy per year. Although leopards are under the list of huntable species, it is not a priority species like Mountain Nyala and Menelik's bushbuck which are highly requested by hunters.
53. Wildlife assessment in CHAs is regularly conducted every three years. A team of experts stays at least 15 days in the field collecting biological, ecological and sociological data on the CHAs. Wildlife censuses are carried out based on standard methods depending on the habitat type and topography of the CHA. Based on the wildlife data collected, proposals of annual off- take (quota) are set for the targeted/huntable species. In addition to wildlife assessment, habitat condition and socio-economic issues are also assessed based on the contracts established with hunting concessionaires. The economic contribution of tourist hunting to the local communities is also one of the key components of the assessment.
54. While most of the assessment reports are used and stored within EWCA some of them are published on peer review journals highlighting the methodology used by EWCA in wildlife assessments of controlled hunting areas (Sultan *et al.* 2017, Amano *et al.* 2018).
55. Once annual quota is set for huntable species, the quota is officially communicated to the hunting operator. Every time the hunting operator requests the license/hunting permit to EWCA, the same is issued based on the allocated quotas in the CHA. The hunting activity is usually escorted by two field observers one from EWCA and one from the respective Region. During hunting, specific locations of hunting (where the animal is harvested) are recorded with GPS. After each hunt, trophy measurements are taken in the field and are reported to EWCA in written form. The trophy is again measured by EWCA experts to make sure that hunting was done based on trophy guidelines/hunting laws. Every huntable species has a minimum trophy size that should be complied by the hunter otherwise serious administrative measures will be taken that ranges from financial punishment to license cancellation.
56. Furthermore, efforts are in progress to stimulate scientific collection of data and monitoring of carnivores in hunting areas through standardized techniques such as camera trapping. In this regard the hunting sector stakeholders have shown interest and willingness to participate in national, government driven efforts to improve monitoring of carnivores.

V. CONSERVATION AND SOCIO-ECONOMIC BENEFITS AND INCENTIVES

57. Sport hunting is one of the main sources of income for many local community members in many rural areas of Ethiopia especially in CHAs.
58. Tourist hunters visiting Ethiopia are attracted mostly by some of its endemic species such as the Mountain Nyala (*Tragelaphus buxtoni*) and Menelik's Bushbuck (*Tragelaphus scriptus meneliki*) as the frequency of hunters coming to Ethiopia to look for these two species is higher in areas where these species are present. Therefore, Leopard is not a species commonly harvested by tourist hunters.
59. On average 40 tourist hunters/year come to Ethiopia for sport hunting. The data recorded in EWCA's Wildlife Utilization Department indicates that 45 and 34 tourist hunters visited the country in 2018 and 2019 and on average a total of 2,621,498 US dollars were generated from tourism sport

hunting per year (Table 5).

Table 5: Wildlife and tourist hunting revenues in 2018 and 2019 in Ethiopia (source EWCA)

	2018	2019	Average
Total wildlife revenues *	3087106	4093867	3590487
Tourist Hunting revenues*	2555883	2687112	2621498
% Tourist hunting revenues from total	83	66	75

* in USD

60. The revenues collected at federal level from tourist hunting are shared between Federal Treasury and the Regions in a proportion of 15% Federal 85% Region. These revenues are utilized for supporting communities' livelihood who are living around the hunting areas. However, not all the regions where tourist hunting is carried out have used the same methods of benefits sharing with the local communities.
61. In particular in the Oromia Region, a parastatal enterprise, the Oromia Forest and Wildlife Enterprise, manage safari hunting and, as they operate on business principles, have to cover their own costs. This Region, where the great majority of tourist hunting is taking place, has established explicit benefit sharing mechanisms to share their 85% Federal share and other wildlife related revenues among local communities. This has been implemented by giving 60% to the community and retain 40% of it for the Regional enterprise which coordinate the wildlife sector. Other Regions such as the Southern Nations and Nationalities have also started exercising a similar approach. The Oromia region benefit sharing mechanism could be taken as a best practice in the country to be implemented in other regions.
62. The concessionaires of the Controlled Hunting Areas (CHAs) have the main responsibility of protecting, managing and use the resources in a sustainable manner based on the wildlife conservation rules and regulation of the country. As a result, starting from the time of signing the contract agreement on lease the hunting area he/she has expected to be engaged in multidisciplinary conservation approach for better future.
63. The primary task of the concessionaires is establishing strong partnership with the community who are the key stakeholders in the hunting area. The concessionaires identify the needs and major issues of both wildlife and the people and then design strategy how best the problems be solved with participatory approach for better and long-term use of the resources. In doing so the concessionary creates awareness, improve traditional conservation practices, support school children through classroom maintenance and provision of teaching aids/equipment. Several concessionaires have established school clubs for natural resource conservation alliance. Furthermore, concessionaires carry out infrastructure development road/campsite/ and sometimes development activities identified by the local communities (class rooms, meeting halls, bridges etc) and recruits community members as wildlife scouts, guards, information sources (provision of job opportunity) and allow community members to take part in several income generating activities during the safari hunting season. Generally speaking, the concessionaires play a key role in supporting community members and provide significant economic and social contribution.
64. Community-based Natural Resource Management (CBNRM) approaches in Ethiopia has benefitted from the "Hunting for Sustainability" project (<https://fp7hunt.net>) carried out under the 2007-2013 EU Seventh Framework Programme (Yitbareket *et al.* 2013, Fischer *et al.* 2015). In fact, after this project ended, most of the CBNRM frameworks were started in the country.
65. The above reported contributions are critical in providing improved livelihoods for rural communities, in maintaining anti-poaching operations in hunting areas and providing habitat conservation. Tourist Hunting represents in many rural areas of Ethiopia the only source for improved income to some of the poorest rural communities in Africa.

VI. QUOTA JUSTIFICATION AND NON-DETRIMENT DETERMINATIONS

66. Ethiopia is requesting that a quota of 20 leopard hunting trophies is approved by CITES. This quota represents a 96% decrease on the current quota of 500 which was established mainly to export skins for personal use and not hunting trophies.
67. In this document EWCA has considered the status of leopard in Ethiopia, habitat availability, quota-setting system, limited offtake, adaptive management of leopard and the substantial revenues generated for EWCA operations, anti-poaching, and community development.
68. EWCA has also considered the current threats to leopard, including loss of habitat, human-leopard conflicts, and unique potential of safari hunting to mitigate those threats.
69. Upon considering these factors, EWCA concludes that the low level of off-take generated by safari hunting is not detrimental to the survival of leopard in Ethiopia and the activities and amount of revenues generated by this low level of off-take are of crucial importance for the conservation of the species also because of the benefits it provides to rural communities. Safari hunting provides a net benefit to the species, it does not pose a threat to the species, and it is not a detriment to the survival of the species.
70. Furthermore, EWCA concludes that the quota of 20 leopard trophies that is going to be established by CITES through an amendment of Resolution Conf. 10.14 (Rev. CoP16) is set at levels which are non-detrimental to the survival of the species in the wild. The leopard, its prey base and habitat are believed to be improving because of the protected areas system and the role of safari hunting in providing important conservation benefits. The quota is conservative and too low to be of biological concern. Moreover, it is still underutilized while the potential of greater use of the underutilized quota promises more budget revenue, community incentives and restoration of prey and habitat.
71. The Government of Ethiopia underlines that it expects CITES Parties to implement CITES Resolution Conf. 2.11(Rev.) with particular reference to paragraph b) that states: “in order to achieve the envisaged complementary control of trade in Appendix-I species by the importing and exporting countries in the most effective and comprehensive manner, the Scientific Authority of the importing country accept the finding of the Scientific Authority of the exporting country that the exportation of the hunting trophy is not detrimental to the survival of the species, unless there are scientific or management data to indicate otherwise”
72. Finally, EWCA would like to point out that its implementation of Resolution Conf. 10.14 (Rev. CoP16) has been spotless since its inception and that the quota has never been overutilized and therefore believes that the quota system and the trade regime contained in Resolution Conf. 10.14 (Rev. CoP16) should remain in place and that any attempt to circumvent it through other stricter domestic measures or means should be avoided.



Male leopard captured by Camera trap in Omo Valley, Ethiopia ©AddisuAsefa, 2016.

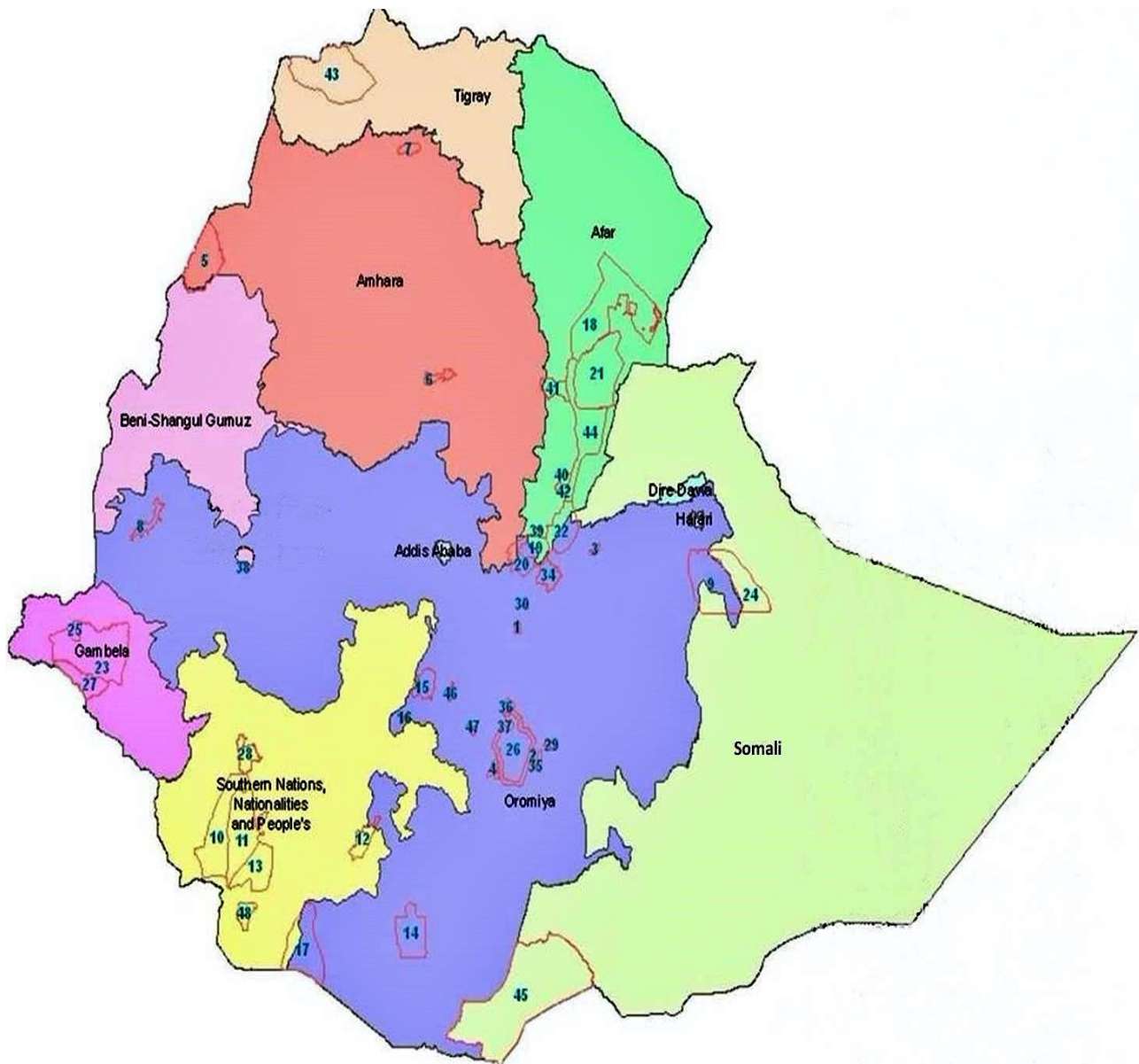
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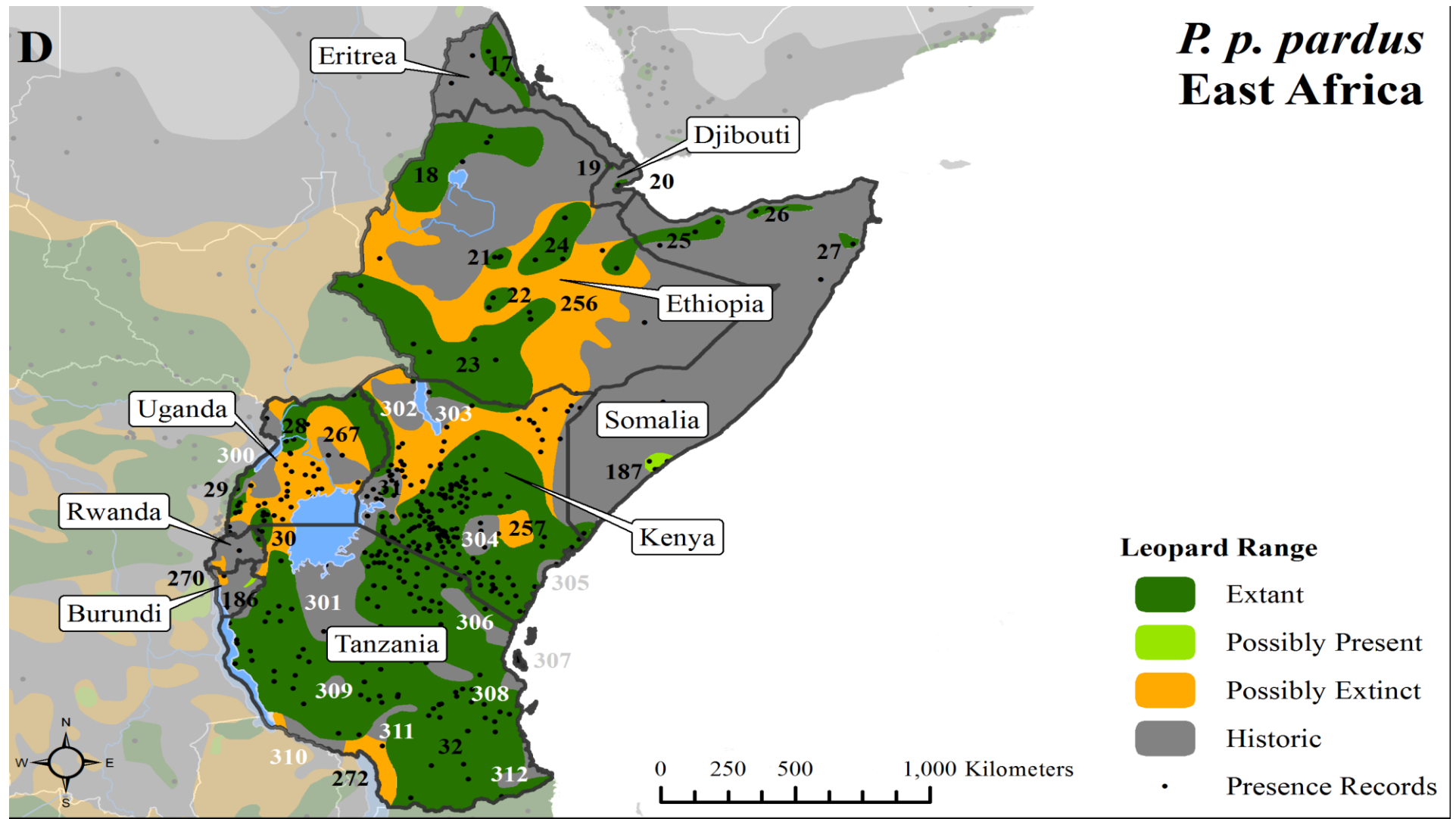
Map 1: Map of Protected Areas in Ethiopia (Source: EWCA) *



Note: This map is not exhaustive as it does not include recently established CHA and changes made on some PAs shape and size. Numbers indicate PAs location.

Map 2: Leopard range in Eastern Africa according to Jacobson et al.2016 (legend on next page)

P. p. pardus East Africa



Legend to map 2

Patch name and IDs referred in Map 2

(from Supplemental Table 2 in Jacobson et al. 2016)

Supplemental Table 2. Patch name and IDs

Patch ID	Patch Name	Subspecies	Presence	Area (km2)	Prot area km2 (cat. 1-4)	Prot area %	Mean human pop'ndensity	Transboundary	Countries
18	northernEthiopia Mousa Ali mountain	pardus	Extant	104.600	8.800	8%	54,6	y	Ethiopia, Sudan
19	Djibouti	pardus	Extant	800	-	0%	7,0	y	Djibouti, Eritrea, Ethiopia
21	centralEthiopiahighlands	pardus	Extant	6.300	-	0%	673,7	n	Ethiopia
22	Abijatta-Shalla	pardus	Extant	8.000	1.800	23%	227,5	n	Ethiopia
23	Boma-Gambella &southernEthiopia Awash and Yangudi	pardus	Extant	280.900	51.600	18%	34,5	y	Ethiopia, Kenya, South Sudan
24	Rassa	pardus	Extant	40.400	7.600	19%	51,9	n	Ethiopia
25	GaanLibaax and eastern Ethiopia	pardus	Extant	33.200	-	0%	41,6	y	Ethiopia, Somalia Central African Republic, Chad, Ethiopia, Kenya, South Sudan, Sudan,
26	South Sudan, Ethiopia, N Kenya	pardus	PossiblyExtinct	909.300	9.000	1%	40,8	y	Uganda

Note: As explained in point 17, 19 and 20, the map presented in Jacobson 2016 is not correct. In many of the patches where they show leopard as Historic and Possibly Extinct on the contrary there is evidence of the presence of leopard.