

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES  
OF WILD FAUNA AND FLORA

Eighteenth meeting of the Conference of the Parties  
Colombo (Sri Lanka), 23 May – 3 June 2019

Species specific matters

## WEST AFRICAN VULTURE TRADE AND CONSERVATION MANAGEMENT

1. This document has been submitted by Burkina Faso, Niger and Senegal.\*

Overview

2. West Africa is home to six migratory Old World vulture species: the Egyptian Vulture (*Neophron percnopterus*), White-headed Vulture (*Trigonoceps occipitalis*), Hooded Vulture (*Necrosyrtes monachus*), White-backed Vulture (*Gyps africanus*), Rüppell's Vulture (*Gyps rueppelli*), and Lappet-faced Vulture (*Torgos tracheliotos*). These vultures are among the most threatened groups of migratory birds in the world, with four Critically Endangered species and two Endangered species, according to the International Union for Conservation of Nature's (IUCN) Red List of Threatened Species (BLI 2017a-f; See Table 1 in Annex 1 of this document).
3. The past thirty years have seen significant vulture declines across Africa, especially in West and East Africa (Ogada et al. 2016b), with recent assessments showing population declines of 50-96% for the six West African species (BLI 2017a-f). Alarming, these declines are not only occurring in unprotected areas, but for five of the species (excluding the Egyptian vulture), declines have also been documented within protected areas in West Africa (Ogada et al. 2016b).
4. Anthropogenic factors are driving these precipitous population declines, including intentional and unintentional poisoning, the decline of food availability, habitat degradation including the loss of nest trees, and electrocution on and collision with energy infrastructure. The most significant threats facing West African vultures are the mortality caused by intentional poisoning in the form of poison bait that is set illegally for the deliberate collection of vultures or their parts as fetishes for belief-based use, and by poachers deliberately targeting vultures to prevent them from drawing the attention of wardens to illegally-killed elephants, so-called sentinel poisoning (Botha et al. 2017; Ogada et al. 2016b; Williams et al. 2014; Figures 1 and 2). Of nearly 8,000 vulture deaths recorded from 26 countries in the past thirty years, poisoning (both intentional and unintentional) accounted for 61% of the deaths and belief-based use accounted for 29% of the deaths (as signified by headless carcasses or other parts being sold in markets). Whereas, death by electrocution and killing for food, which are also considered major threats to vulture populations, accounted for just 9% and 1 % of the recorded deaths across the entire African continent, respectively (Ogada et al. 2016b). Both belief-based use and sentinel poisoning are driven by commercial international trade.
5. The West African vulture species were included in CITES Appendix II in 1979 (CoP2 San José). Vultures are a vital part of our ecosystem. As carrion feeders, vultures provide important ecosystem services that contribute to human health and wellbeing, including removing carcasses and other organic waste from the environment reducing spread of disease and contamination of water supplies. Studies have shown that in areas depauperate of vultures, carcasses take longer to decompose which has implications for the

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\* The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.

spread of diseases in the wild, potentially affecting domestic animals and humans. Vultures also have special significance in certain cultures, including in ancient Egypt (Botha et al. 2017).

#### Use in traditional medicine

6. There is a long history of using animal parts in traditional medicine that spans continents. It has its origins in ancient civilizations and it continues to be an accepted cultural practice, especially in West, Central and southern Africa (Botha et al. 2017; Williams et al. 2014). Vulture parts are believed to cure a variety of illnesses, especially in West Africa (Ogada et al. 2016b). Some belief-based uses are steeped in tradition while others are adapted to fit modern life circumstances, serving as good luck charms for winning the lottery, for instance (Botha et al. 2017; Ogada et al. 2016b). Because vultures are large, they are more vulnerable to selective harvesting because large and/or conspicuous species are easier targets for harvesters (Williams et al. 2014).
7. Vulture heads, skins, and other parts are sold in markets throughout West Africa, including in Benin, Burkina Faso, Cameroon, Equatorial Guinea, Gabon, Ghana, Ivory Coast, Mali, Niger, Nigeria, Sierra Leone, and Togo (Ogada et al. 2016b; see Figure 1). These markets serve a domestic audience as well as cross-border trade that is not recorded in CITES trade statistics (UNEP-WCMC 2018). For instance, trade observed between Burkina Faso and Nigeria (Nabaloum 2012, as cited in Botha et al. 2017) and between Chad and Niger (Nikolaus 2001, as cited in Williams et al. 2014) are not reported in CITES trade data (UNEP-WCMC 2018).
8. There have been few studies to quantify the fetish trade or to evaluate the impact of unregulated commercial collection and illegal cross-border trade on populations of threatened avian species. Some of the most comprehensive data is found for Benin and Nigeria, where national surveys have been carried out (Williams et al. 2014). **Hooded vultures** were the most frequently recorded vultures in these surveys (Williams et al. 2014). Annual offtake in West Africa was estimated to be 975-1,462 **Hooded vultures**, 188-282 **Rüppell's vultures**, 154-231 **White-backed vultures**, and 143-214 **Lappet-faced vultures** (Buij et al. 2016).
9. Data extrapolated from these studies indicate that 73% of vulture carcasses in trade emanated from Nigeria and 21% from Benin (Buij et al. 2016). A significant proportion of the West African regional population of **White-backed vultures** are believed to be impacted by harvest for belief-based use, with approximately 924–1,386 birds being traded annually, and may have led to the possible extirpation of this species from Nigeria (Buij et al. 2016; BLI 2017a). **Rüppell's vultures** have also been heavily exploited in West Africa, with an estimated 1,128-1,692 individuals traded per year (Nikolaus 2006), a significant impact considering their smaller population size relative to other vulture species (BLI 2017b; Botha et al. 2017). **Lappet-faced vulture** trade within the region was estimated at 143-214 birds annually, a significant amount given their small and fragmented population size BLI 2017e; Botha et al. 2017). **Hooded vultures** might be the most exploited species in West Africa, with an estimated 5,850-8,722 individuals traded each year (BLI 2017c; Botha et al. 2017).
10. Despite the CITES Appendix-II protections, unregulated commercial collection and international trade for traditional use are ongoing in West Africa and throughout the African continent. Researchers consider the illegal trade in vulture body parts for belief-based use to be a significant and increasing threat (Botha et al. 2017; McKean et al. 2013, Saidu & Buij 2013, as cited in Ogada et al. 2016b). A secondary impact of the fetish trade is the bushmeat trade. Vulture meat is consumed locally in West African counties, including Nigeria and Ivory Coast, and is also trafficked internationally (Rondeau & Thiollay 2004; Thiollay 2006; Saidu & Buij 2013, as cited in Ogada et al. 2016b). Thus, demand in vulture parts for belief-based use and associated consumption as bushmeat are driven by international trade.

#### Sentinel poisoning

11. Vultures are increasingly threatened by intentional poisoning resulting from the rapidly increasing elephant and rhino poaching crisis throughout Africa. The impacts of poisoning have contributed to the rapid decline of all six West African vulture species, leading to the recent recategorization of **Rüppell's, White-backed, Hooded, and White-headed vultures** to Critically Endangered, and of **Lappet-faced and Egyptian vultures** to Endangered under IUCN (BLI 2017a-f; Ogada et al. 2016b).
12. As noted above, poisoning has accounted for 61% of vulture deaths in 26 African countries in the past thirty years. Prior to 2012, vulture poisonings were mostly inadvertent, due to livestock farmers setting out pesticide-tainted carcasses as bait to kill carnivores and control feral dog populations (Abebe 2013,

Ogada 2014, as cited in Ogada et al. 2016b; Ogada et al. 2016a). These poisons are highly toxic and vultures consuming the tainted meat succumb to the deadly effects of these poisons. Such poisoning continues and is a compounding factor in these species' decline (BLI 2017a-f).

13. Since 2012, substantial mortality has been recorded as a direct consequence of poachers poisoning the carcasses of illegally killed elephants or rhinos because vultures will circle overhead of their prey, thus playing a role as sentinel, potentially alerting wildlife authorities of the illegal poaching (as per numerous reports summarized in Botha et al. 2017; Ogada et al. 2016b). Intentional poisoning threatens five of the six West African species (all but the Egyptian Vulture) (Botha et al. 2017). Typically the vultures are poisoned in large numbers while feeding on contaminated carcasses. Fatalities of **White-backed vultures** are most commonly reported, followed by **Lappet-faced vultures**. **Hooded vultures** and **White-headed vultures** are also reported to a lesser degree. Many incidents do not report fatalities to the species level, however, either due to inexperience in identification or because decay is too advanced upon detecting the corpses (Ogada et al. 2016a). The impact of poisoning mortality on the decline of vulture populations is likely an underestimate and such poisonings appear to be on the increase. Between 2012 and 2014, at least 11 incidents of poisonings killed an estimated 1,500 vultures in seven southern African countries alone (Ogada et al. 2016a-b).
14. Although sentinel poisoning is a more recent phenomenon, vulture mortality associated with ivory poaching now accounts for one-third of all vulture poisonings recorded since 1970 (Ogada et al. 2016a). Clearly, sentinel poisoning is driven by illegal international trade, as a by-product of international demand for elephant and rhino body parts and derivatives.

#### Compounding impacts of belief-based use and sentinel poisoning

15. International trade poses a threat to West African vultures from intentional killing to satisfy belief-based use and sentinel poisoning. Not only are these large birds more vulnerable targets for collection by harvesters for the fetish trade, but the impact is greater on species with smaller population sizes (i.e., **Rüppell's, White-headed, Egyptian, and Lappet-faced vultures**). Species with low population densities and are sparsely dispersed, make them more naturally rare (Williams et al. 2014). In addition, trade for belief-based use is likely associated with bushmeat trade and they are interdependent to some extent (Botha et al. 2017). Sentinel poisoning is evolving opportunistically to also feed the fetish market (Ogada et al. 2016a).
16. As migratory species, the distributions of the six West African vultures range outside of the region. So these species are subject to similar threats in other parts of their range outside of West Africa (Figures 1 and 2). For instance, there is evidence of a growing trade in **White-backed vulture** parts for belief-based use in South Africa, as well as evidence that **White-headed vultures** are poisoned for belief-based use in Zambia (Botha et al. 2017). Across the African continent, vultures are exposed to compounding threats including electrocution, decline of food sources, habitat degradation, and other forms of direct persecution (Botha et al. 2017). For instance, with the rapid growth of human populations, the incidence of unintentional poisoning caused by toxic baiting is becoming more prevalent (Botha et al. 2017). Thus trade-driven threats, together with many other population pressures, pose a substantial threat to West African vulture species on a continental scale (Ogada et al. 2016b).

#### Urgent conservation need

17. More effective law enforcement is needed to curb trade-driven illegal harvest and sale of vulture meat and body parts and to stem the tide of sentinel poisoning. Because the trade associated with belief-based use and sentinel poisoning appear to be occurring outside of legal frameworks, African governments require international support to curb mass wildlife poisonings, bushmeat trade, and other threats, to help protect vultures from further precipitous population declines (Ogada et al. 2016a).
18. Increasing threats to vultures catalysed the development of a Multi-species Action Plan to Conserve African-Eurasian Vultures (Vulture MsAP) under the Convention on the Conservation of Migratory Species of Wild Animals (CMS). The Vulture MsAP provides a comprehensive action plan for 15 species of migratory African-Eurasian vultures in 128 Range States, including the six West African vulture species that are the subject of this document. The 12-year action plan was finalized in October 2017 and is the result of extensive and intensive consultations with stakeholders over a three-year period. This plan aims to:

- a) rapidly halt current population declines in all species covered by the Vulture MsAP;
  - b) reverse recent population trends; and
  - c) provide conservation management guidelines applicable to all Range States.
19. To achieve the three aims of the Vulture MsAP, 12 objectives were identified as a framework for action. At least four of the objectives relate specifically to biological and trade issues that have bearing within the CITES arena:
- Objective 4: *To reduce and eventually halt the trade in vulture parts of belief-based use;*
- Objective 5: *To reduce and eventually halt the practice of sentinel poisoning by poachers;*
- Objective 11: *To support vulture conservation through cross-cutting actions that contribute to addressing knowledge gaps; and*
- Objective 12: *To advance vulture conservation by effective promotion and implementation of the Vulture MsAP.*
20. The plan identifies 124 concrete actions that can be taken to address needed research, monitoring, policy, legislation, education, awareness, and direct conservation activities. Actions that relate to CITES issues of biology and trade are detailed in Table 2 of this document (Annex 4).

#### Recommendations

21. Countries submitting this document find that an examination of the conservation implications of the West African vulture trade merits further consideration within the CITES platform. Given the variety of issues involved, Senegal recommends adoption of the following Decisions:

#### ***Directed to the Secretariat***

- 18.AA The CITES Secretariat shall liaise with the Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) to assist in the implementation of the Vulture Multispecies Action Plan, subject to the availability of resources, including sharing information based on the work of the Animals Committee.
- 18.BB The CITES Secretariat shall issue a Notification to the Parties requesting the following information:
- a) biological data on West African vultures, including population size, breeding productivity, distribution, and trends across the range of the species;
  - b) available information about harvest and levels of legal and illegal trade of vultures and their parts;
  - c) information on threats to these species, in particular belief-based use and sentinel poisoning, and other trade-related threats;
  - d) relevant information on enforcement actions taken, including seizures, forensic analysis of seized specimens, arrests, prosecutions and judgments relating to illegal trade in vultures as well as disposal of seized specimens; and
  - e) new developments regarding management, education and awareness-raising measures concerning vultures.
- 18.CC The CITES Secretariat shall compile responses from the Parties and provide these responses to the Animals Committee and the Standing Committee to inform their work.

### ***Directed to the Animals Committee***

18.DD The Animals Committee shall establish a working group to address key gaps in knowledge as it relates to the biological and trade issues highlighted in the Vulture Multispecies Action Plan (Vulture MsAP), including but not limited to trade in vulture parts of belief-based use (Objective 4), sentinel poisoning by poachers (Objective 5), cross-cutting actions that contribute to addressing knowledge gaps (Objective 11), and contribute to effective implementation of the Vulture MsAP (Objective 12).

The Working Group shall:

- a) review the information submitted under the notification;
  - b) conduct a detailed assessment on the scale and impact of legal and illegal trade in live birds, eggs, and vulture body parts across the range of the Vulture MsAP;
  - c) provide a progress report to the Animals Committee at its 31st meeting; and
  - d) provide findings and recommendations to the Animals Committee at its 32nd meeting.
- 18.EE Based on the findings and recommendations of the Animals Committee working group, the Animals Committee shall provide guidance to Range States on how to factor in all known threats to the species when making non-detriment findings for these species.
- 18.FF The Animals Committee is encouraged to include vultures as a case study for the possible CITES Non-Detriment Findings workshop.

### ***Directed to the Standing Committee***

18.GG The Standing Committee shall consider information relating to illegal trade in vulture body parts for traditional/belief-based use at its 73rd and 74th meetings and adopt recommendations as appropriate.

## COMMENTS OF THE SECRETARIAT

- A. The Secretariat notes and shares the concerns expressed by Burkina Faso, Niger and Senegal in document CoP18 Doc. 97 for the conservation of six species of vultures in West Africa, all of which are listed in CITES Appendix II. The authors indicate that the main threats to the six vulture species include poisoning, the decline of food availability, habitat degradation, and electrocution. Unregulated, illegal domestic, cross-border or regional trade in vulture body parts for 'belief-based use' (and wild meat) is said to be ongoing in West Africa and throughout the African continent, and to be of increasing concern. The authors argue that so-called "sentinel poisoning" of vultures, which is seen as one of the most immediate threats, is partially and indirectly related to international trade in CITES-listed species, such as the poaching of elephants. The Secretariat wishes to draw attention to document Cop18 Doc. 34 on *Wildlife crime enforcement in West and Central Africa*, which addresses more generally the challenges facing this region in implementing and enforcing CITES, including for trade in CITES-listed birds.
- B. The Secretariat notes that reported international trade in the six species concerned, as shown in the CITES trade database, is minimal, and that their levels have not warranted their inclusion by the Animals Committee in the Review of Significant Trade process.
- C. The document draws particular attention to the Multi-species Action Plan to Conserve African-Eurasian Vultures (Vulture MsAP), developed under the auspices of the Convention on the Conservation of Migratory Species of Wild Animals (CMS). This Action Plan provides conservation actions for 15 species of migratory African-Eurasian vultures, including the six West African vulture species that are the subject of this document, and covers a much wider geographical region, involving 128 range States across Africa, Asia and Europe. Most of the areas addressed in the Vulture MsAP fall outside the scope of CITES, but it includes some sections relating to international trade.

- D. In paragraph 21, the authors propose seven draft decisions for consideration at the present meeting. The first draft decision (18.AA) directs the CITES Secretariat to liaise with the CMS Secretariat to assist in the implementation of the Vulture MsAP. As far as CITES- and trade-related activities are concerned, this liaison is possible under the current joint work programme of CMS and CITES (which will be revised for the period 2021-2025), and in the context of Resolution Conf. 13.3 on *Cooperation and synergy with the Convention on the Conservation of Migratory Species of Wild Animals (CMS)*, but the cooperation on vultures can be emphasized as is being proposed.
- E. With regard to the other draft decisions in paragraph 21, the Secretariat has the following observations:
- i) *Regarding the issuance of a Notification to the Parties (18.BB and 18.CC)*: The Secretariat assumes that the proposed Notification would focus on the six CITES-listed species of vultures that are the subject of the document. Responses from Parties to species-specific Notifications tend to be relatively limited, and questions should preferably focus on knowledge gaps and trade-related matters. It is, for example, unclear why Parties should be asked about biological data when the document explains that recent conservation assessments for all six species are available.
  - ii) *Regarding the draft decisions directed to the Animals Committee (18.DD)*:
    - The Secretariat notes that the proposed instructions to the Animals Committee direct it to not just focus on the six vulture species and the West African region, but on all 15 species of vultures mentioned in the Vulture MsAP, and on the 128 range States of these species. This substantially broadens the scope of work and may reduce or weaken attention for West Africa and the six species that seem to be of most immediate concern to the authors.
    - The Secretariat would not recommend directing the Animals Committee to establish a working group but leave it to the Animals Committee to decide how to undertake the tasks assigned to it.
    - The Animals Committee is probably not in a position to meaningfully contribute to issues that may not, or may only marginally, relate to its mandate or to the CITES Convention, such as the poisoning of vultures, or contributing to the effective implementation of the whole Vulture MsAP.
    - The Animals Committee could examine available CITES trade data, relevant information extracted from annual illegal trade reports, and trade-related information contained in the Vulture MsAP. But it remains to be seen if this would allow it to “conduct a detailed assessment on the scale and impact of legal and illegal trade in live birds, eggs, and vulture body parts across the range of the Vulture MsAP” or “address key gaps in knowledge as it relates to the biological and trade issues highlighted in the Vulture MsAP”, as the draft decisions mention. The authors indicate that most of the illegal trade that gives rise to conservation concerns is local or cross-border, informal, and not documented. In this regard, the Secretariat notes that paragraph 17 states that “more effective law enforcement is needed”, but at the same time that “trade associated with belief-based use and sentinel poisoning appear to be occurring outside of legal frameworks”, so it is difficult to enforce or monitor. Furthermore, the comprehensive assessments by the Animals Committee that are envisaged in the draft decisions would require information gathered through the conduct of targeted, field-based trade and market research in Africa, which would have significant resource implications, and the draft decisions would need to be amended accordingly.
  - iii) Some of the proposed reporting lines need clarification, and overall reporting on the implementation of the decisions to the 19th meeting of the Conference of the Parties should be included.
- F. Based on the observations above, the Secretariat proposes the following amendments to the draft decisions in paragraph 21 of the document:

***Directed to the Secretariat***

- 18.AA The CITES Secretariat shall liaise with the Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) to assist in the implementation of the trade-related aspects of the Vulture Multispecies Action Plan, subject to the availability of resources, including sharing information based on the work of the Animals Committee.

18.BBFF ~~The Animals Committee Secretariat is encouraged to include vultures as a case study for the possible CITES Non-Detriment Findings workshop.~~

18.CCBB The CITES Secretariat shall issue a Notification to the Parties requesting the following information concerning trade in and conservation of Egyptian vulture (*Neophron percnopterus*), white-headed vulture (*Trigonoceps occipitalis*), hooded vulture (*Necrosyrtes monachus*), white-backed vulture (*Gyps africanus*), Rüppell's vulture (*Gyps rueppelli*) and lappet-faced vulture (*Torgos tracheliotos*) in West Africa:

- ~~a) biological data on West African vultures, including population size, breeding productivity, distribution, and trends across the range of the species;~~
- ~~ab) available information about harvest and levels of legal and illegal trade of vultures and their parts;~~
- ~~be) information on threats to these species, in particular belief-based use and sentinel poisoning, and other trade-related threats; and~~
- ~~ce) relevant information on enforcement actions taken, including seizures, forensic analysis of seized specimens, arrests, prosecutions and judgments relating to illegal trade in vultures as well as disposal of seized specimens; and~~
- ~~e) new developments regarding management, education and awareness-raising measures concerning vultures.~~

18.DDCC The CITES Secretariat shall compile responses from the Parties and provide these responses to the Animals Committee and the Standing Committee to inform their work.

***Directed to the Animals Committee***

18.EEDD ~~The Animals Committee shall establish a working group to address key gaps in knowledge as it relates to the biological and trade issues highlighted in the Vulture Multispecies Action Plan (Vulture MsAP), , with particular attention for the six species mentioned in Decision 18.BB and the West African region, and including but not limited to trade in vulture parts of belief-based use (Objective 4), sentinel poisoning by poachers (Objective 5), cross-cutting actions that contribute to addressing knowledge gaps (Objective 11), and contribute to effective implementation of the Vulture MsAP (Objective 12).~~

~~The Working Group shall:~~

- ~~a) review the information submitted under the notification;~~
- ~~b) conduct a detailed assessment on the scale and impact of legal and illegal trade in live birds, eggs, and vulture body parts across the range of the Vulture MsAP; and~~
- ~~c) provide a progress report to the Animals Committee at its 31st meeting; and~~
- ~~d) provide findings and recommendations to the Animals Committee at its 32nd meeting.~~

~~18.EE Based on the findings and recommendations of the Animals Committee working group, the Animals Committee shall provide guidance to range States on how to factor in all known threats to the species when making non-detriment findings for these species, and make recommendations, as appropriate, for consideration by the Standing Committee.~~

~~18.FF The Animals Committee is encouraged to include vultures as a case study for the possible CITES Non-Detriment Findings workshop.~~

***Directed to the Standing Committee***

18.FFGG The Standing Committee shall:

- a) consider the recommendations from the Animals Committee, as appropriate, and information relating to illegal trade in vulture body parts for traditional/belief-based use at its 73rd and 74th meetings and adopt recommendations as appropriate for consideration by the Parties concerned; and
- b) in consultation with the Secretariat, report on the implementation of Decisions 18.AA to FF to the Conference of the Parties at its 19th meeting.

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Table 1. Biological information on the six species of West African vultures (data from IUCN Red List of Threatened Species <https://www.iucnredlist.org/>)

Species	IUCN Red List Category	IUCN Red List Category Justification	Population Size	Population Trend	Population Trend Justification	Range
<b>Egyptian Vulture</b> ( <i>Neophron percnopterus</i> )	<b>Endangered</b> (since 2007, last update 2016)	This long-lived species qualifies as Endangered owing to a recent and extremely rapid population decline in India (presumably resulting from poisoning by the veterinary drug diclofenac) combined with severe long-term declines in Europe (>50% over the last three generations [42 years]) and West Africa, plus continuing declines through much of the rest of its African range.	18,000–57,000 (12,000–38,000 mature individuals)	Decreasing	The species is declining in virtually all parts of its range, apparently for a number of different reasons. In India, it has declined by >90% in the last decade; European populations have declined by 50-79% over the last three generations. Western, eastern and southern African populations also appear to have declined significantly, as do Arabian populations (Jennings 2010).	Africa, Europe, Asia
<b>White-headed Vulture</b> ( <i>Trigonoceps occipitalis</i> )	<b>Critically Endangered</b> (LC in 2004, VU in 2007, CR in 2015)	Recent data suggests the already small population is declining at an extremely rapid rate owing to a variety of threats including poisoning, persecution and ecosystem alterations. The species has a very small population and local extinctions may be accelerated by major poisoning events in isolated localised subpopulations.	5,500 (3,685 mature individuals)	Decreasing	The species is thought to be declining at an extremely rapid rate. Ogada et al. (2016) estimate a median decline of 96% (range: 73-98%) over three generations (45 years). The species has shown severe declines throughout its West African range (F. Dowsett-Lemaire <i>in litt.</i> 2006, J.M. Thiollay <i>in litt.</i> 2006) and also across southern Africa (Ferguson-Lees et al. 2001).	Africa
<b>Hooded Vulture</b> ( <i>Necrosyrtes monachus</i> )	<b>Critically Endangered</b> (LC in 2009, EN in 2011, CR in 2015)	Recently published evidence suggests the population is experiencing an extremely rapid decline owing to indiscriminate poisoning, trade for traditional	197,000	Decreasing	Recently published data shows that this species' population is declining rapidly with an estimated 83% decline (range 64-93%) over three generations (53 years) (Ogada et al. 2016).	Africa

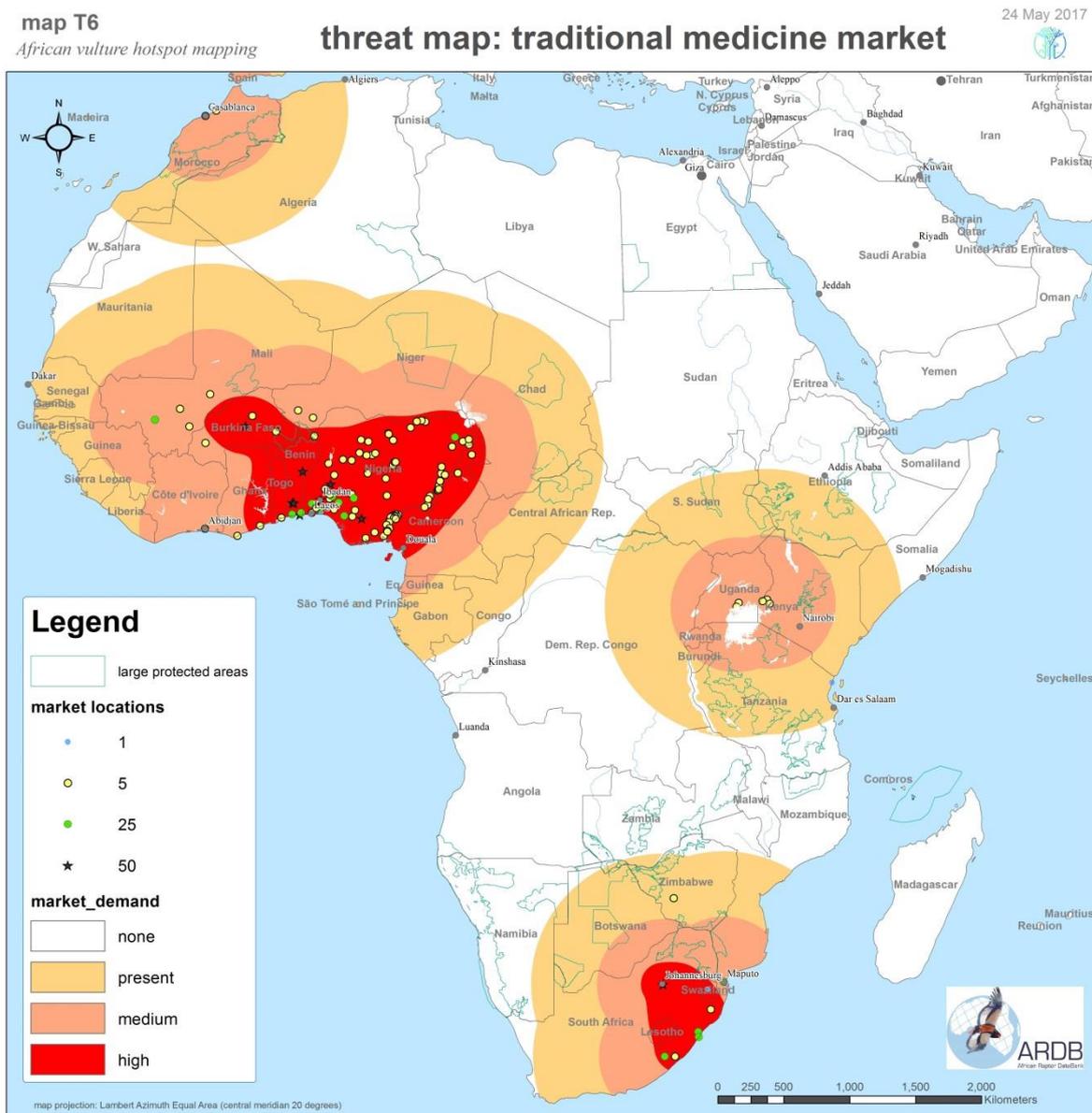
Species	IUCN Red List Category	IUCN Red List Category Justification	Population Size	Population Trend	Population Trend Justification	Range
		medicine, hunting, persecution and electrocution, as well as habitat loss and degradation.				
<b>White-backed Vulture</b> ( <i>Gyps africanus</i> )	<b>Critically Endangered</b> (LC in 2004, NT in 2007, EN in 2012, CR in 2015)	This species has declined severely in parts of its range and overall it is suspected to have undergone a very rapid decline owing to habitat loss and conversion to agro-pastoral systems, declines in wild ungulate populations, hunting for trade, persecution, collisions and poisoning. These declines are likely to continue into the future. Recently published data suggests these declines are even more serious than previously thought.	270,000	Decreasing	The most recently published data on this species' population suggests the species has declined extremely rapidly, with a median estimate of 90% (range: 75-95%) over three generations (55 years) (Ogada et al. 2016). Declines have exceeded 90% in West Africa (Thiollay 2006), and have also occurred in other parts of the range including Sudan (Nikolaus 2006) and Kenya (M. Virani in litt. 2006), but populations are apparently stable in Ethiopia (Nikolaus 2006) and Tanzania (D. Peterson in litt. 2006). Virani et al. (2011) documented an apparent decline of c. 52% over c.15 years in the numbers of <i>Gyps</i> vultures present in the Masai Mara (Kenya) during the ungulate migration season, while in central Kenya an apparent decline of 69% was noted in the numbers of <i>Gyps</i> vultures between 2001 and 2003 (Ogada and Keesing 2010). As these are visiting individuals from a wide-ranging population, declines observed in the Masai Mara study may be representative of declines in <i>Gyps</i> populations ranging across East Africa from Southern Ethiopia to Southern Tanzania (C. Kendall in litt. 2012).	Africa
<b>Rüppell's Vulture</b> ( <i>Gyps rueppelli</i> )	<b>Critically Endangered</b> (LC in 1994, NT in 2007,	This species has been recently uplisted (2015) to Critically Endangered due to severe declines in parts of its range. Overall it is suspected to have	30,000* (22,000 mature individuals)	Decreasing	New data suggests this species has experienced a very rapid population decline of 97% (range: 94-99%) over three generations (56 years) (Ogada et al. 2016). Extremely rapid declines have been reported	Africa

Species	IUCN Red List Category	IUCN Red List Category Justification	Population Size	Population Trend	Population Trend Justification	Range
	EN in 2012, CR in 2015)	undergone a very rapid decline owing to habitat loss and conversion to agro-pastoral systems, declines in wild ungulate populations, hunting for trade, persecution, collision and poisoning.			in West Africa (Thiollay 2006; although in Gambia it appears to be stable): during vehicle-based transect surveys in the Sahel zone of Mali and Niger in 2006 the species was not recorded, despite being common during equivalent surveys in the early 1970s. Significant declines appear to have occurred elsewhere in the range, including Sudan (Nikolaus 2006), Uganda (D. Pomeroy in litt. 2006), Kenya (M. Virani in litt. 2006, Virani et al. 2011) and Tanzania (J. Wolstencroft in litt. 2006), but it may be stable in Ethiopia (Nikolaus 2006). Virani et al. (2011) documented an apparent decline of c. 52% over c. 15 years in the numbers of <i>Gyps</i> vultures present during the ungulate migration season, while in central Kenya an apparent decline of 69% was noted in the numbers of <i>Gyps</i> vultures between 2001 and 2003 (Ogada and Keesing 2010). Declines observed in the Masai Mara study may be representative of declines in <i>Gyps</i> populations ranging across East Africa from Southern Ethiopia to Southern Tanzania (C. Kendall in litt. 2012), although this species may be doing slightly better than other <i>Gyps</i> species in the Masai Mara as its relative abundance at carcasses has increased compared to <i>G. africanus</i> (Kendall et al. 2012).	
<b>Lappet-faced Vulture</b> ( <i>Torgos tracheliotos</i> )	<b>Endangered</b> (LC in 1988, VU in 2000, EN in 2015)	Only a small, very rapidly declining population remains, owing primarily to poisoning and persecution, as well as ecosystem alterations. Recently	8,500 (5,700 mature individuals)	Decreasing	The total population is estimated to be declining at a very rapid rate. Ogada et al. (2016) estimated the population in Africa was declining by 80% over three generations (range: 65-87%). Assuming a stable	Africa, Middle East

Species	IUCN Red List Category	IUCN Red List Category Justification	Population Size	Population Trend	Population Trend Justification	Range
		published data suggests that the population in Africa is declining extremely rapidly, and future population assessments may lead to further uplisting.			population of 500 mature individuals in Arabia, applying the median decline in Africa reported by Ogada et al. (80%) to a population of 5,700 mature individuals in 1992 results in a global decline at a rate of around 74%, taking the upper quartile for the African data (65%) results in a global decline of 58%.	

\* Estimate at the beginning of the 1990s. Subsequent extremely rapid population declines mean that the population is now likely to be much lower.

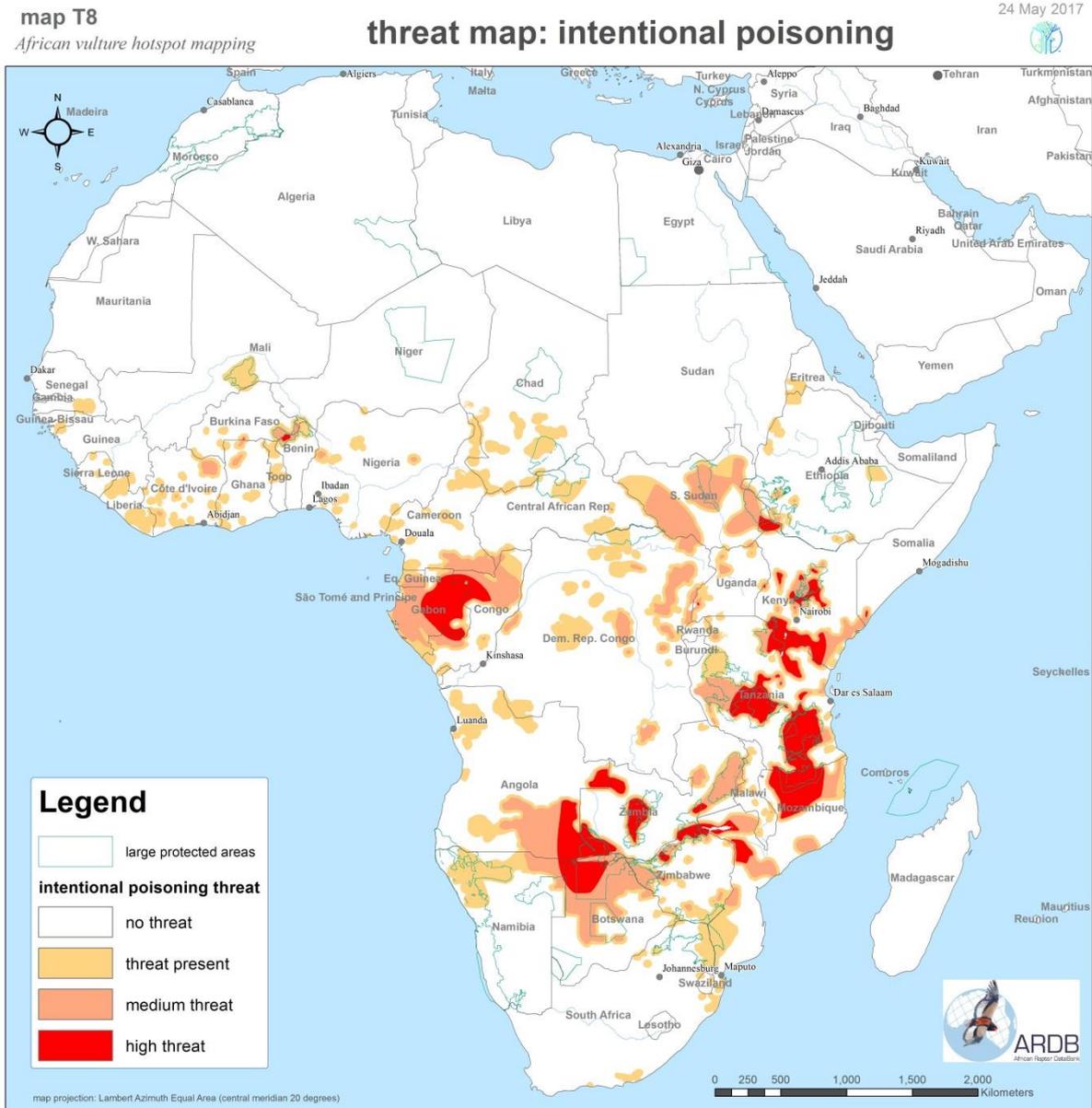
**Figure 1. Map of Africa showing areas where belief-based use of vultures and their body parts appears to be most prevalent and impacting vulture populations; based on locations of 125 'traditional medicine' markets surveyed and classed according to their size and availability of vulture products (unpublished map courtesy of HabitatInfo/African Raptor Databank [http://www.habitatinfo.com/african\\_vulture\\_maps/](http://www.habitatinfo.com/african_vulture_maps/))**



**METHODS:**  
We digitized and georeferenced the locations of 125 traditional medicine markets. Lou Luddington assisted with this work. These were mainly in West & Central Africa provided by Buij et al. (2016) but we supplemented these with several known locations for Southern and Eastern Africa from Williams et al. (2014), McKean et al. (2013) and other sources (Ogada, Thomsen, Monadjem, Pomeroy, Baker & Baker in litt). We also tabulated information on the size of these markets. We do not yet have a systematic way of measuring this but we looked at the number of stalls with vulture products and the number of vultures traded over time periods (McKean et al. 2013). We classed markets as non-trading in vulture parts (weighted 1), small (weighted 5), medium (weighted 25) or large (weighted 50) – these weights were roughly based on the frequency histogram of number of stalls with vulture products. We conducted a kernel density analysis across Africa measuring the density of markets within a 500km radius and using the weights as a population field. The resultant dataset was then reclassified into four threat levels: 0 = no threat, 1 = threat present, 2 = medium threat / demand, 3 = high threat / demand.

**CREDITS:** Coordination: Ralph Buij (Wageningen University & Research), Corinne Kendall (North Carolina Zoo), Ana Monadjem (University of Swaziland). Data collection: Lufar Rahman & Lou Luddington (Habitat Info). Analysis & map production: Rob Davies (Habitat Info). Finance: The vulture surveys, data gathering and habitat and threat modeling were funded by the following organizations through Wageningen University & Research (which also contributed resources): Dutch Ministry of Economic Affairs, WWF-Netherlands, UNEP-CMS Raptors MoU, North Carolina Zoo, Fondation LePral Nature, Quagga Foundation, Stichting Vogelpark Avifauna, Stichting Koninklijke Rotterdamse Diergaarde, Detroit Zoological Society, and Stichting Wildlife Through The Peregrine Fund this project benefited greatly from access to the ESRI Grant Scheme. Data on vultures were contributed or facilitated by the following individuals: Ylma D Abete, Hichem Azatraf, Laila Bahas El Din, Neil & Liz Baker, Clive R Barlow, Keith Bilstein, Claire Bracebridge, Andy Branfield, Erik & Aashif Brothugh, Joost Brouwer, Chris Brown, Evan Buschley, Ralph Buij & Barbara Croes, Andre Botha, Mike Cadman, Nazzer Dalia Rullo, Rob Davies, Mena Diekmann, Nina Fernig, Oliver Fox, Toby Galligan, Becca Garber, Ashwell Glasson, Flo Horst, Stratton Hatfield, Omer Hatzote, Joseph Heymans, Constant Hoogstad, Mawdo J Jallow, Walter Jubber, Gregory Kallenecker, Adam Kane, Chris Kelly, Alan & Mag Kemp, Corinne Kendall, Holger & Claire Kolberg, Bernard & Arjje Madsen, Glyn Maude, John Mendelsohn, Mike McGrady, Ana Monadjem, Campbell Murn, Ran Nathan, Karin Nelson, Stoyan Nikolov, Dany Ogada, Steffen Oppel, Louis Phipps, Bram Piel, Thomas Rabiel, Sascha Roemer, Lizanne Roobrough, Volker Sabewski, Andrea Santangeli, Dana Sobabo, Orr Spiegel, Lindy Thompson, Simon Thomsen, Dick van Stuyvenberg, Rien van Wijk, Muniri Virani, Tim Washer, Kent Walter (VULPRO) and numerous other African Raptor Databank observers; and by the following organizations: AFRICAN RAPTOR DATABANK, AFRICAN IMPACT, BIRD LIFE INTERNATIONAL & NATURE RESERVE, BIRD LIFE BULGARIA (BSPB), BIRD LIFE TUNISIA (AND), BOISE STATE UNIVERSITY, CITES (IMKE DATABASE), ENDANGERED WILDLIFE TRUST, HAWK CONSERVANCY TRUST, HAWK MOUNTAIN SANCTUARY, INTERNATIONAL UNION FOR CONSERVATION OF NATURE (AFRICAN ELEPHANT DATABASE & REDLIST MAPS), ISRAEL NATURE & PARKS AUTHORITY, NATURAL HISTORY MUSEUM (TRING), MOVEBANK, NIOKULO-KOBA CITIZEN SCIENCE PROJECT, NORTH CAROLINA ZOO, RAPTORS BOTSWANA, RARE AND ENDANGERED SPECIES TRUST, ROYAL SOCIETY FOR THE PROTECTION OF BIRDS, TANZANIAN BIRD ATLAS, THE PEREGRINE FUND, UNIVERSITY OF UTAH, VULPRO, WEST AFRICAN BIRD DATABASE, WILDLIFE ACT AND WILDLIFE CONSERVATION SOCIETY.

**Figure 2. Map of Africa showing potential severity of the threat of sentinel poisoning, based on known incidents, areas subject to poaching pressure on large mammals such as elephants, and vulture distribution in Africa (unpublished map courtesy of HabitatInfo/African Raptor Databank [http://www.habitatinfo.com/african\\_vulture\\_maps/](http://www.habitatinfo.com/african_vulture_maps/))**



**CREDITS:** Coordination: Ralph Buij (Wageningen University & Research), Corinne Kendall (North Carolina Zoo), Ara Monadjem (University of Swaziland).  
Data collection: Lutfur Rahman & Lou Ludington (Habitat Info). Analysis & map production: Rob Davies (Habitat Info). Finance: The vulture surveys, data gathering and habitat and threat modeling were funded by the following organisations through Wageningen University & Research (which also contributed resources): Dutch Ministry of Economic Affairs, WWF-Netherlands, UNEP-CMS Raptors MoU, North Carolina Zoo, Fondation Le-Pal Nature, Quagga Foundation, Slachting Vogelpark Avifauna, Slachting Koninklijke Rotterdamse Diergaarde, Detroit Zoological Society, and Slachting Wildlife Through The Peregrine Fund and this project benefited greatly from access to the ESRI Grant Scheme. Data on vultures were contributed or facilitated by the following individuals: Yvima D'Abate, Hichem Azarfaz, Laila Bahaa El Din, Neil & Liz Baker, Olive R Barlow, Keith Bildstein, Claire Braebridge, Andy Branfield, Erik & Asaph Brothaug, Joost Brouwer, Chris Brown, Evan Buechley, Ralph Buij & Barbara Croes, Andre Botha, Mike Cadman, Akazar Daka Rufe, Rob Davies, Maria Diekmann, Nina Farwig, Oliver Fox, Toby Galligan, Beckie Garbett, Ashwell Glasson, Roi Hare, Stratton Halford, Chad Hatzoff, Joseph Heymans, Constant Hoogstad, Mawoo J. Jalloh, Walter Jubbé, Gregory Kallenrecker, Adam Kane, Chris Kelly, Alan & Meg Kemp, Corinne Kendall, Holger & Claire Kolberg, Bernard & Anje Madden, Glyn Maude, John Mandelsohn, Mike McGrady, Ara Monadjem, Campbell Mum, Ran Nathan, Karin Nelson, Stoyan Nikolov, Dario Ogada, Steffen Opper, Louis Phipps, Bram Ploet, Thomas Rabell, Saeha Röser, Lizanne Roxburgh, Volker Salawski, Andrea Sarlangeli, Dana Schab, Ori Spiegel, Lindy Thompson, Simon Thomsett, Dirk van Sluysenbergh, Rian van Wijk, Muriel Vriani, Tim Washer, Kent Walker (VULPRO) and numerous other African Raptor Databank observers; and by the following organisations: AFRICAN RAPTOR DATABANK, AFRICAN IMPACT, BIRD LIFE INTERNATIONAL & NATURE RESERVE, BIRD LIFE BULGARIA (BSPB), BIRD LIFE TUNISIA (IAO), BOISE STATE UNIVERSITY, CITES (MIKE DATABASE), ENDANGERED WILDLIFE TRUST, HAWK CONSERVANCY TRUST, HAWK MOUNTAIN SANCTUARY, INTERNATIONAL UNION FOR CONSERVATION OF NATURE (AFRICAN ELEPHANT DATABASE & REDLIST MAPS), ISRAELI NATURE & PARKS AUTHORITY NATURAL HISTORY MUSEUM (TRNG), MOVIEBANK, NIKOLO-KOBA CITIZEN SCIENCE PROJECT, NORTH CAROLINA ZOO, RAPTORS BOTSWANA, RARE AND ENDANGERED SPECIES TRUST, ROYAL SOCIETY FOR THE PROTECTION OF BIRDS, TANZANIAN BIRD ATLAS, THE PEREGRINE FUND, UNIVERSITY OF UTAH, VULPRO, WEST AFRICAN BIRD DATABASE, WILDLIFE ACT AND WILDLIFE CONSERVATION SOCIETY.

**Table 2. Objectives, results and actions identified in the Vulture MsAP's Framework of Conservation Actions for African-Eurasian Vultures, that relate to CITES issues of biology and trade (information from the Multi-Species Action Plan to Conserve African-Eurasian Vultures (Vulture MsAP) [https://www.cms.int/sites/default/files/document/cms\\_cop12\\_doc.24.1.4\\_annex3\\_vulture-msap\\_e.pdf](https://www.cms.int/sites/default/files/document/cms_cop12_doc.24.1.4_annex3_vulture-msap_e.pdf))**

Results	Actions	Priority
<b>Objective 4. To reduce and eventually halt the trade in vulture parts of belief-based use</b>		
Result 4.1 Improved understanding of the trade in vultures and their parts informs improved conservation approaches	Action 4.1.1. Conduct overall situation analysis on belief-based use of vultures and their body parts, to include: current state of knowledge, best practices for tackling the trade, body parts used, market turnover rates, how vultures are acquired, key markets, socio-economic drivers of the trade and trade pathways	High Priority
	Action 4.1.2. Assess population effects on vultures of trade from body parts for belief-based uses	High Priority
	Action 4.1.4. Investigate and test best practices to eliminate the trade in vulture parts for belief-based uses	High Priority
Result 4.2 Governments, local communities and other stakeholders understand scale and impact of trade in and belief-based use of vulture body parts	Action 4.2.1. Initiate engagement and dialogue with relevant stakeholders, publish and share research and monitoring results on belief-based use of vultures with relevant Government departments (e.g. environment, agriculture, health) and other stakeholders to agree [on] appropriate national actions	Essential*
<b>Objective 5. To reduce and eventually halt the practice of sentinel poisoning by poachers</b>		
Result 5.2 Information on sentinel poisoning incidents is properly collected, managed and shared	Action 5.2.2. Confirm or identify poaching hotspots (especially of elephants) and determine sites to focus action to reduce risk or impact to vultures whose ranges overlap with hotspots	High Priority

Results	Actions	Priority
Result 5.3 Governments, local communities and other stakeholders understand scale and impact of sentinel poisoning	Action 5.3.1. Raise awareness of law enforcement, judiciary and public through targeted campaigns on the link between elephant and bushmeat poaching and vulture declines	High Priority
Result 5.4 Conservation authorities, communities and others take collaborative action to respond to or prevent poisoning incidents	Action 5.4.5. Enhance networking and coordination between initiatives on vulture conservation and preventing elephant poaching. Improve communication between conservation practitioners, researchers, Governments and elephant and anti-poaching groups.	High Priority
<b>Objective 11. To support vulture conservation through cross-cutting actions that contribute to addressing knowledge gaps</b>		
Result 11.1 Increased understanding of basic biological and ecological parameters and threats influencing vulture populations	Action 11.1.1. Census 2018-2019 and census 2028-2029 of all species to monitor the population size, breeding productivity, distribution and trends across the Vulture MsAP range	Essential
	Action 11.1.4. Improve capacity to conduct autopsies, toxicological and other forensic analysis to determine causes of mortalities throughout the Vulture MsAP range	High Priority
	Action 11.1.5. Improve regulations to facilitate the easier movement of samples between countries where capacity is lacking to facilities that can do the relevant analysis. Permitting process needs to be streamlined.	High Priority
	Action 11.1.7. Conduct a detailed assessment on the scale and impact of legal and illegal trade in live birds, eggs, and vulture body parts across the range of the Vulture MsAP	High Priority
	Action 11.1.8. In light of the outcome of Action 11.1.7., undertake risk-benefit analysis and gauge potential support for proposing the uplisting of individual species that meet the criteria to CITES Appendix I	Medium Priority

Results	Actions	Priority
<b>Objective 12. To advance vulture conservation by effective promotion and implementation of the Vulture MsAP</b>		
Result 12.1 Coordination Framework for the Vulture MsAP established, subject to available resources, including financial	Action 12.1.1. Develop a Strategic Implementation Plan for the Vulture MsAP	High Priority
	Action 12.1.2. Establish a Framework to coordinate implementation of the Vulture MsAP, including central and regional coordination units to facilitate implementation, support and review across the range	Essential

## TENTATIVE BUDGET AND SOURCE OF FUNDING FOR THE IMPLEMENTATION OF DRAFT RESOLUTIONS OR DECISIONS

According to Resolution Conf. 4.6 (Rev. CoP16) on *Submission of draft resolutions, draft decisions and other documents for meetings of the Conference of the Parties*, the Conference of the Parties decided that any draft resolutions or decisions submitted for consideration at a meeting of the Conference of the Parties that have budgetary and workload implications for the Secretariat or permanent committees must contain or be accompanied by a budget for the work involved and an indication of the source of funding. The authors of this document propose the following tentative budget and source of funding.

Most of the costs relating to the activities directed to the Animals Committee, Standing Committee and the Secretariat can probably be absorbed through core budgets. The workload implications should be a core part of the Secretariat's work and accommodated within its regular work programme.

The working group will work primarily via electronic means. There are French, and English speaking countries in the region and therefore it is very important to have translation or interpretation for the discussions, including email and documents. There may also be the need for face to face meeting(s) requiring interpretation to advance certain issues. External sources of funding would be used.