



RAPTORS  
MOU

# South African experience in developing the National Vulture Conservation Strategy

From Conception to Implementation

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# Drafting team - On behalf of the National Vulture Task Force



Representation from National Government, Conservation departments, NGO's, Industry, community reps and academic institutions



# Background

- Adoption of the Vulture Multi-species Action Plan (MsAP) CMS COP 12 in 2017 (Manila) - needed local implementation
- National Stakeholder engagement - 2018 outcome of CMS COP 12 (Vulture MsAP)
- BMP - S identified as the ideal vehicle to drive local implementation of the Vulture MsAP – Provided in the national legislation
- Establishment of the National Vulture Task Force (NVTF) -Co-ordinating vehicle for national conservation action
  - appointed a drafting team to drive this process - March 2020



# Background

Vulture species that occur in the Republic of South Africa (RSA), their conservation status\* and rate of decline. Species are listed in taxonomic order according to the IOC World Bird List (Gill and Donsker 2020).

No.	Species	Global status	Regional status	Regional decline	National population estimates	References
1	Palm-nut Vulture <i>Gypoheirax angolensis</i>	LC	unknown	not threatened, but data deficient	40 individuals in RSA	a, b
2	Bearded Vulture <i>Gypaetus barbatus</i>	NT	CR	83% of 3 generations (53 years)	352 to 390 individuals (c. 200 mature birds) regionally	a, c, d
3	Hooded Vulture <i>Necrosyrtes monachus</i>	CR	CR	≥ 25% in 1 generation	100-200 mature individuals in RSA	a, e
4	White-backed Vulture <i>Gyps africanus</i>	CR	CR	80% over 3 generations	3 435 breeding pairs in RSA	a, e
5	Cape Vulture <i>Gyps coprotheres</i>	E	E	≥ 50% in 3 generations (48 y)	4 400 (8 800 mature individuals) regionally	a, e
6	White-headed Vulture <i>Trigonoceps occipitalis</i>	CR	CR	≥ 25% in 1 generation	68 breeding pairs (in RSA)	a, e, h, i
7	Lappet-faced Vulture <i>Torgos tracheliotus</i>	E	E	≥ 50% in 3 generations (45 y)	166 breeding pairs (in RSA)	a, e

\*‘Status’ refers to the global threat category according to the IUCN Red List of Threatened Species (IUCN 2020), where LC = Least Concern, NT = Near Threatened, E = Endangered and CR = Critically Endangered. A ‘Regional’ refers to the Republic of South Africa, Lesotho and Swaziland. a = IUCN (2020), b = Rushworth and Piper (2004), c = Krüger (2014), d = Krüger et al. (2014a), e = Taylor et al. (2015), f = Snyman (1999), g = Venter (2017), h = B. Hoffman (pers. comm.), i = B. Coverdale (pers. comm.).



# Background

## Distribution of each species

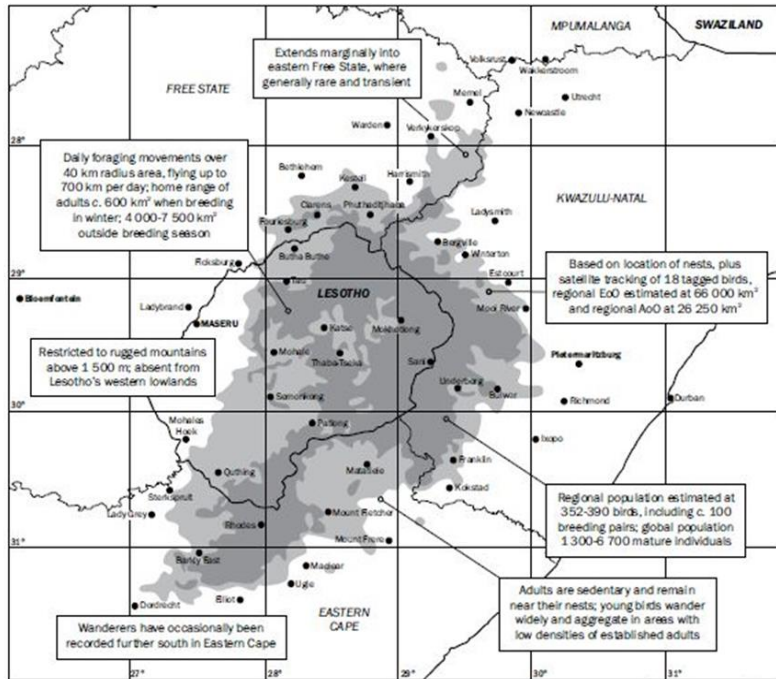


Figure 1: Distribution of Bearded Vulture within South Africa (Krüger, 2015)

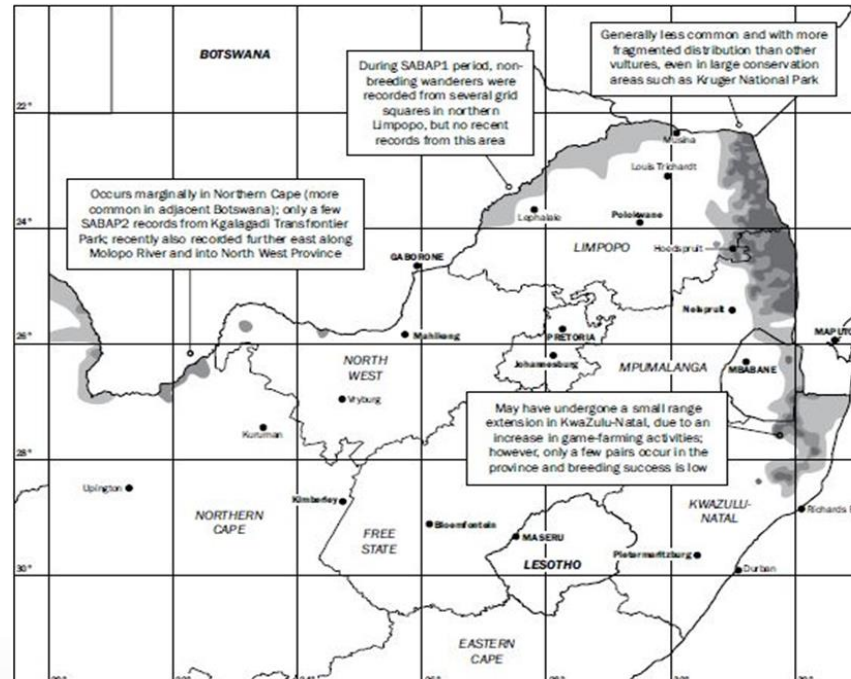


Figure 2: Distribution of White-headed Vulture in South Africa (Allan 2015a)

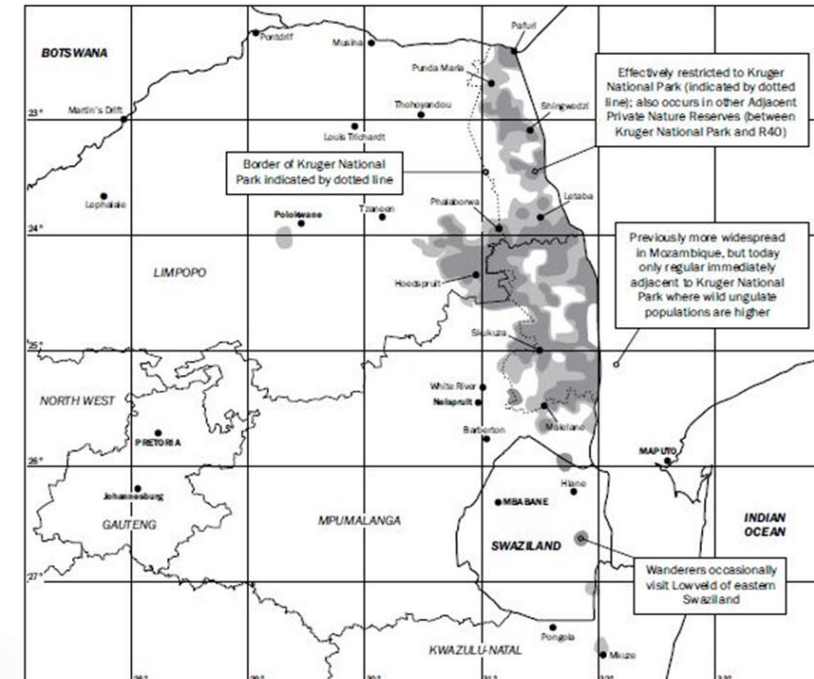
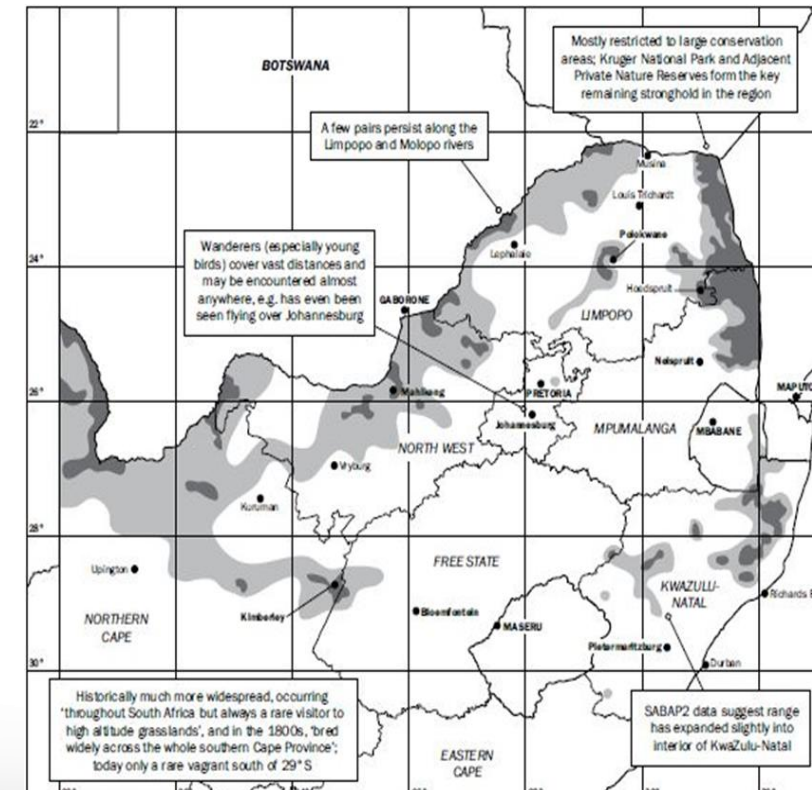
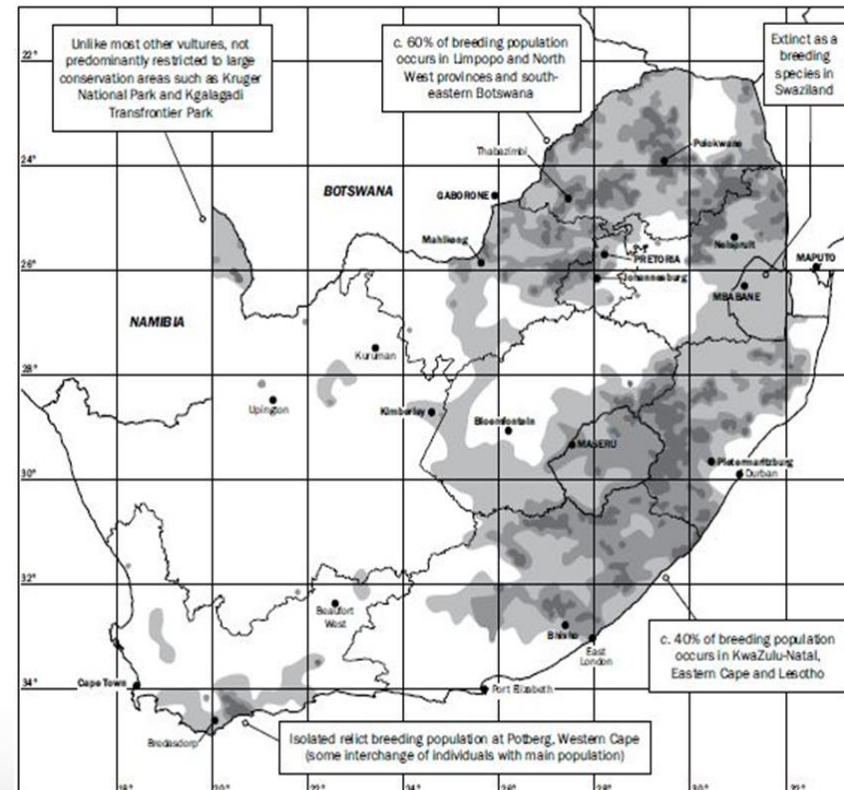
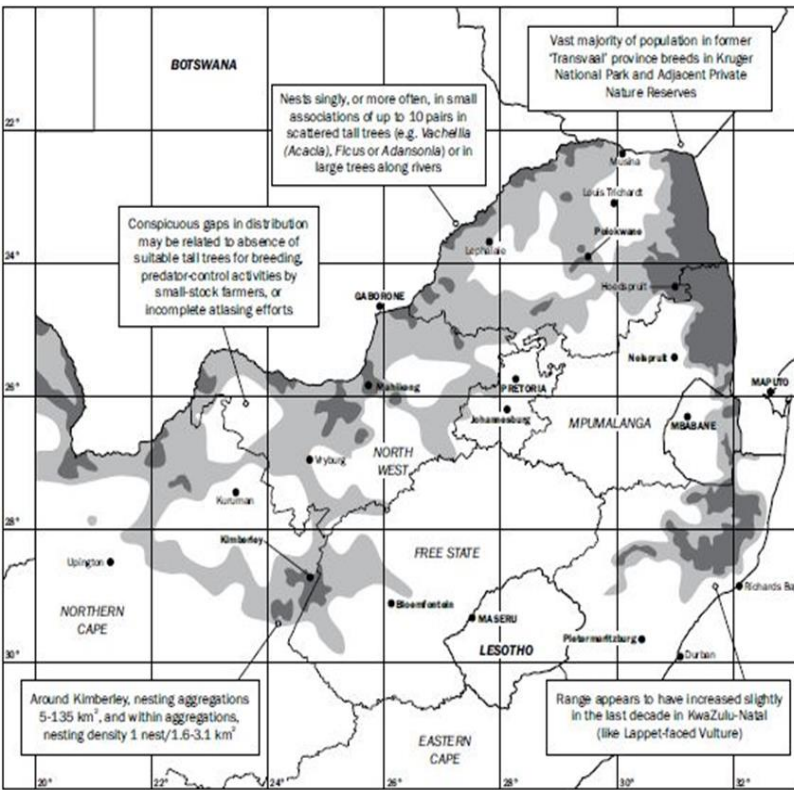


Figure 3: Distribution of Hooded Vulture in South Africa (Allan 2015b)

# Background

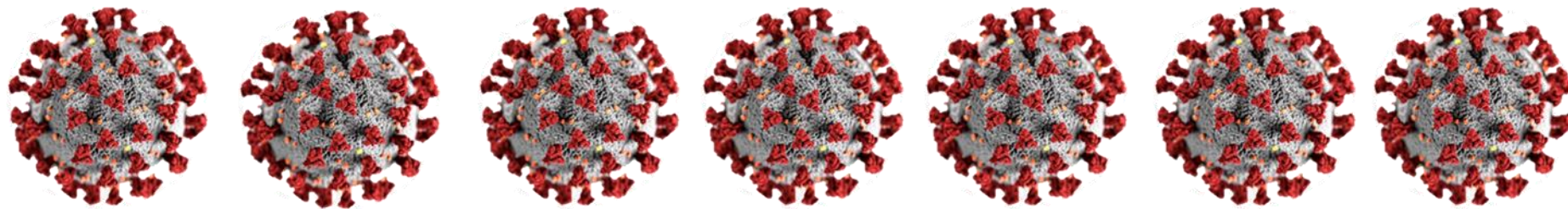
## Distribution of each species





# Planning Methodology

- Step 1 – Unpack MsAP requirements into a local context
- Step 2 – Identification of key role players
  - ✓ Government, Provincial agencies, NGO's, Academic institutions, etc
- Step 3 – Utilise BMP Norms and Standards to commence overall Plan
  - ✓ Decision = Individual BMP's per species vs single plan for all
- Step 4 – Drafting team meet to workshop document (March 2020)



- Step 5 – Google docs and online platforms - SEVERAL TIMES
- Step 6 – Presentation to NVTF - March 2021

# High level Outcomes of the BMP

BMP process guided by Norms and Standards Process, structure, outcomes, reporting frameworks, etc

- **Vision:** *Healthy growing populations of vultures in South Africa fulfilling essential biological and cultural ecosystem services.*
- **Desired State:** *A safe and secure environment that allows vultures to fulfil all components of their life histories.*



## Objectives required to meet outcomes

1. To reduce and eventually halt the practice of intentional poisoning of vultures and its impact sentinel poisoning and its impact
2. To work alongside traditional medicine practitioners to allow for a better understanding of the cultural value of vultures and to implement conservation action which improves the conservation status of the species and thereby ensures the critical ecosystem services and health benefits vultures provide to society as a whole persist
3. To keep veterinary and human pharmaceuticals and capture drugs with a proven or suspected likelihood of impacting vultures out of the food chain. This especially refers to the feeding of carcasses from animals that have been treated with veterinary pharmaceuticals at vulture restaurants. Refer to the NWPPWG
4. To provide environmentally friendly alternative measures to control Damage Causing Animals to avoid causing harm to non-target species (Refer to NWPPWG)

## Objectives required to meet outcomes

5. To reduce the impact of lead on vultures to acceptable level (Refer to the Lead task team - the actual work to be carried out by the Lead Task Team). Vultures are not harmed by exposure to lead”
6. To substantially reduce vulture mortality caused by existing energy transmission infrastructure and mitigate any losses to vultures from new energy infrastructure
7. To use a range of conservation mechanisms (e.g., NPAES) for increasing the land under biodiversity protection
8. To support vulture conservation through cross-cutting policies, legislation and actions to enable mitigation of critical threats
9. To monitor the status of all species of vulture that occur in South Africa at an appropriate interval to inform policy and conservation actions
10. To develop a standardised marking and tagging system for all vultures species
11. To identify research gaps and stimulate studies to fill critical knowledge gaps, that will enable better species conservation
12. To ensure appropriate ex situ management practices that benefit vulture conservation



## Anticipated Outcomes

- Collaborative and concerted efforts for the conservation of the seven (7) vulture species of conservation concern in South Africa
- An understanding of the urgency for implementing the action amongst the role players.
- An agreed structure responsible for implementation, monitoring and evaluation.
- Clarity and acceptance of roles, responsibilities and accountability amongst role players.
- Acceptance and support for the plan amongst stakeholders.
- A plan that comprehensively and concisely covers all aspects related to the conservation requirements of the species and provides realistic targets for the five-year life of this iteration.
- Achieving the conservation targets set for the species.

# Open Standards approach

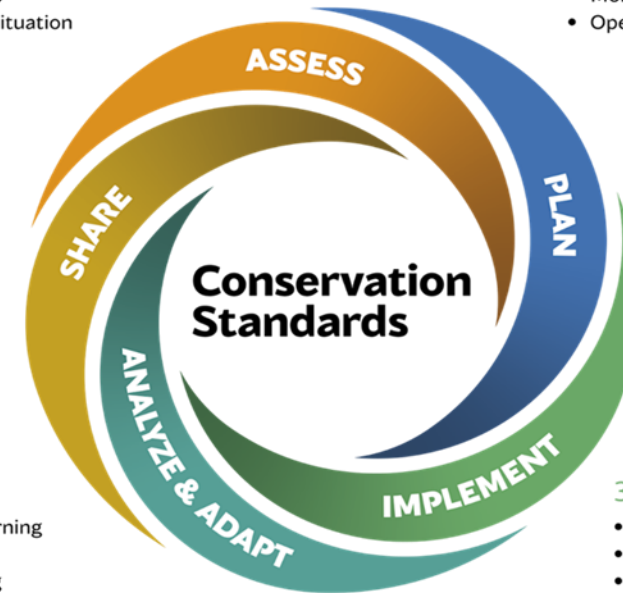
- The drafting team utilised the Open Standards Framework to identify threats and required conservation interventions.
- This process aids in reaching the desired state and vision of the BMP
- The **Conservation Standards** (also known as the Open Standards for the practice of Conservation) are an **adaptive management framework** developed by the **Conservation Measures Partnership**, which aims to streamline conservation project design, management, monitoring, and learning in order to help practitioners improve the practice of conservation.
- The Conservation Standards are orientated around a 5-step adaptive management cycle.

## 1. ASSESS

- Purpose & team
- Scope, vision, & targets
- Critical threats
- Conservation situation

## 2. PLAN

- Goals, strategies, assumptions, & objectives
- Monitoring plan
- Operational plan



## 5. SHARE

- Document learning
- Share learning
- Foster learning

## 3. IMPLEMENT

- Work plan & timetable
- Budget
- Implement plan

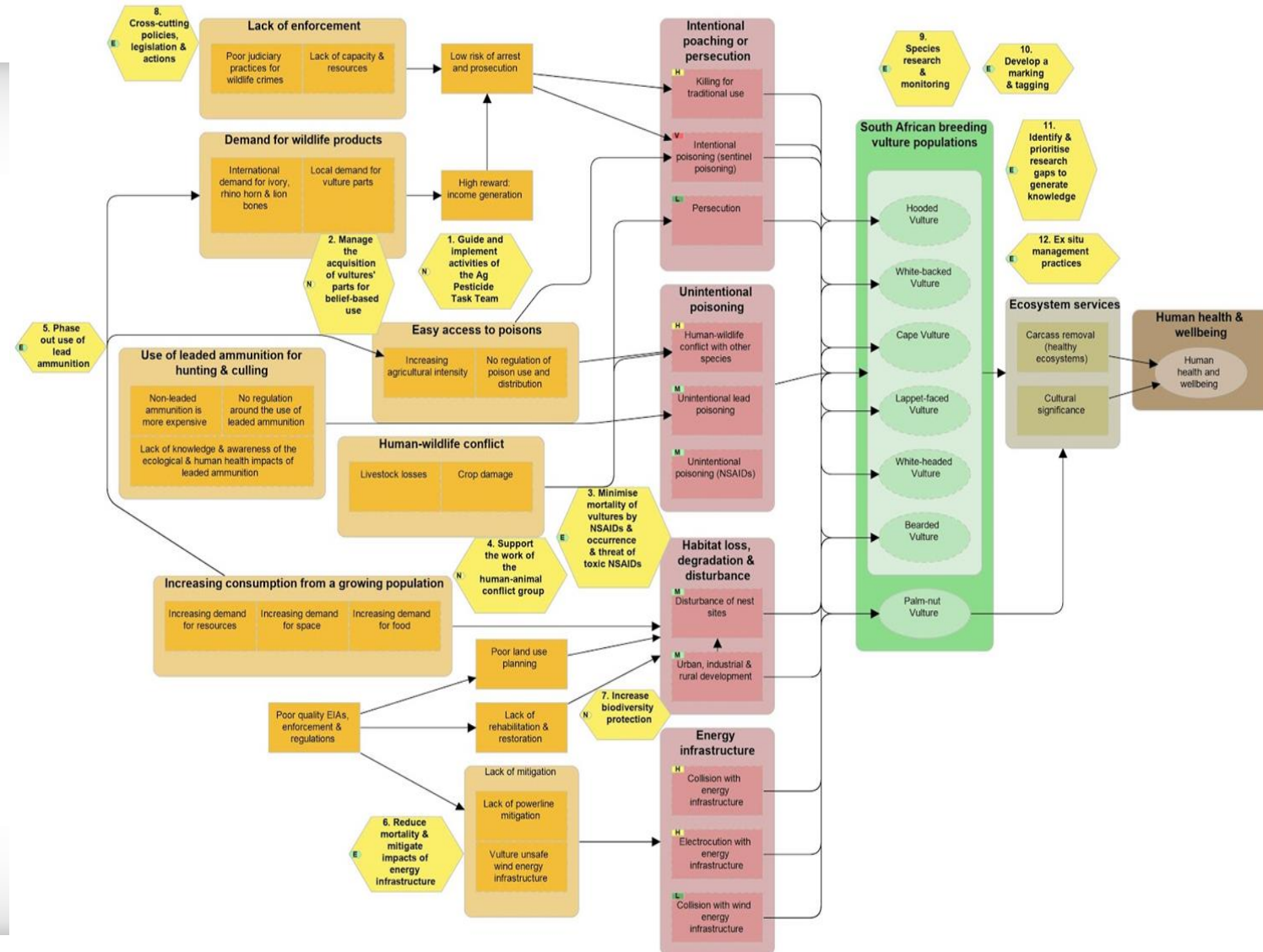
## 4. ANALYZE & ADAPT

- Prepare data
- Analyze results



The Miradi and Miradi Share software work in conjunction with the Conservation Standards, allowing teams to plan, monitor, report on, adapt, and share their projects online, in real time and over a range of scales.

Miradi helps teams to build and visualise their project situation and Theory of Change models.



## Strategy to achieve the objectives

- A set of activities with a common focus that work together to achieve specific objectives by targeting key intervention points, optimising opportunities, and limiting constraints.
- A good strategy meets the criteria of being: linked, focused, feasible, and appropriate.
- Strategies are ranked using TWO criteria: Potential Impact and Feasibility
  - Potential Impact: Degree to which the strategy (if implemented) will lead to desired changes in the situation at your project site.
  - Feasibility: Degree to which your project team could implement the strategy within likely time, financial, staffing, ethical, and other considerations.



# Ranking of Strategies

Strategy	Potential Impact	Feasibility	Summary Rating
1. Guide and implement activities of the Ag Pesticide Task Team	Medium	High	Need More Info
2. Manage the acquisition of vultures' parts for belief-based use	Medium	Medium	Need More Info
3. Minimise mortality of vultures by NSAIDs & occurrence & threat of toxic NSAIDs	High	High	Effective
4. Support the work of the human-animal conflict group	Medium	High	Need More Info
5. Phase out use of lead ammunition	High	High	Effective
6. Reduce mortality & mitigate impacts of energy infrastructure	High	High	Effective
7. Increase biodiversity protection	Medium	High	Need More Info
8. Cross-cutting policies, legislation & actions	High	High	Effective
9. Species research & monitoring	Very High	High	Effective
10. Develop a marking & tagging system	High	Very High	Effective
11. Identify & prioritise research gaps to generate knowledge	High	Very High	Effective
12. Ex situ management practices	High	High	Effective

# Action plan to implement the Strategy

Actions	Lead Party	Collaborators	Resources Needed	Deliverables	Timeline	Measurable Outcomes
<b>Objective 1: To reduce and eventually halt the practice of intentional poisoning of vultures and its impact * Cross-reference the NWPPWG work plan</b>						
To support activities of the Agricultural Pesticide Task Team of the NWPPWG	DEFF DARD LA DoH,	Conservation agencies and their entities ,  NGOs   Agricultural Pesticide Task Team	Time, funding, social capital, inter-governmental platforms for engagement	Annual feedback report on activities of the group.	Annually	Significant reduction in number of vultures poisoned each year as a result of agricultural pesticides

Actions	Lead Party	Collaborators	Resources Needed	Deliverables	Timeline	Measurable Outcomes
<p><b>Objective 2:</b> To manage, regulate and control the acquisition of vulture parts for belief based use (also known as muthi or traditional medicine) by raising awareness of the imminent extinction of vultures, in part due to the illegal trade in vulture parts</p> <p><b>Or• Regulate the acquisition &amp; use of vulture parts for belief- based practices to a sustainable level,</b></p> <p><b>Or• Ensure local trade of vulture parts for belief based use is sustainable –</b></p>						
<p>Create a platform for engagement with all parties including traditional healers, government, traders etc.</p> <p><i>(Understanding the turnover, usage, alternative to vultures, body parts used)</i></p>	DEFF	DOH, NVTF  Traditional healers  Traditional leaders  Communities	Funding	Minutes, agenda, presentations, TORs, constituted meeting, provincial structures, environmental monitors, traditional healers and leaders  •A committee of Traditional Healers, Traditional Leaders, Conversationalist and Lawyers to be established to deal with regulations to outlaw poisoning (combine section 24 and NEMBA). •	1-2 yrs, on-going after the publication of the BMP in the gazette	relationship with communities, consumers, traditional healers & conservation organisation; behavioural change
<p>Create a mechanism for clearly identifiable legally acquired vulture parts</p> <ol style="list-style-type: none"> <li>1. Create a tool to facilitate the legally acquired parts;</li> <li>2. formulate an amnesty period, permit what is available,</li> <li>3. link to provincial ordinances and enforcement</li> </ol> <p>Challenges: if we can't identify legally sourced specimens, meeting the demand</p>	SANBI and the Scientific Authority	DEFF  Provinces, ex-situ facilities, SANParks, Provinces	Funding, capacity - Human Resources and time	Genetic management system, Vudis (Vulture DNA index system),	5 years	VUDIS System in place and functional



Actions	Lead Party	Collaborators	Resources Needed	Deliverables	Timeline	Measurable Outcomes
<b>Objective 3: Veterinary and human pharmaceuticals and capture drugs with a proven or suspected likelihood of impacting wildlife are kept out of the food chain. (Refer to the National Poison Prevention Working Group)</b>						
To support activities of the NWPPWG	DEFF	DoH  DARDLA  Conservation agencies and their entities ,  NGOs  Veterinary institutions	Time, funding, social capital, inter-governmental platforms for engagement	Annual feedback report on activities of the group.	Annually and ongoing	Significant reduction in number of vultures  Exposed to harmful veterinary and human pharmaceuticals and capture drugs
<b>Objective 4: Provide environmentally friendly alternative measures to control damage causing animals to avoid causing harm to non-target species</b>						
To support the work of the NWPPWG	DEFF,	NGOs, conservation agencies DARDLA	Time, funding, expertise	Information brochures, train the trainer/extension officer workshops	Annually	Proactive HWC mitigation tools and support in place.

Actions	Lead Party	Collaborators	Resources Needed	Deliverables	Timeline	Measurable Outcomes
<b>Objective 5: Reduce the impact of lead on Vultures to acceptable level (Refer to the Lead task team - the actual work to be carried out by the Lead Task Team)</b>						
To support the activities of the lead task team of the NWPPWG	DEFF	DEFF, NGOs, conservation agencies  Lead Task team	Time, funding, expertise	Monitoring impacts and sources of lead  Annual report on activities of the lead task team as they pertain to vultures	ongoing	Significant reduction in vulture blood lead levels across all colonies
<b>Objective 6: To substantially reduce vulture mortalities caused by existing energy transmission infrastructure and mitigate any losses to vultures from new energy infrastructure</b>						
Undertake a risk assessment of all new and existing energy infrastructure and implement mitigation measures where necessary	Eskom Cogta	DEFF, Municipalities NGOs, provincial authorities	Time, funding, capacity	Power lines within a 50km radius of breeding sites, roosting sites, key foraging sites and artificial feeding sites must have bird safe structures and/or be mitigated; transmission power lines within a 50km radius of breeding sites, roosting sites, key foraging sites and artificial feeding sites must be marked with visible marking devices; stringent EIAs by reputable experts in vulture conservation, for wind farms within areas with breeding sites, roosting sites, key foraging sites and artificial feeding sites and areas with flight corridors.	1-5 years, ongoing	Number of bird safe distribution structures, number of mitigated distribution structures, kilometres of marked transmissions lines, number of transmission structures mitigated, number of wind farm EIAs conducted, number of wind farms rejected based on the appropriate criteria
Assess the effectiveness of existing and proposed mitigation measures	Eskom Cogta	DEFF, Municipalities NGOs, provincial authorities	Time, funding, capacity	Comparing differences in fatalities and injuries between before and after a structure was mitigated; analysis of results	1-5 years, ongoing	Number of publications resulting from the analysis
Promote the use of bird-friendly energy technology as set out in the CMS and BWESC guidelines on energy infrastructure to ensure that all future energy infrastructure adopts bird-friendly technologies and designs, and enforces phasing-out of old risk-prone technologies. This information is to be included in environmental authorisations but compliance requires follow-up	Eskom Cogta	DEFF, Municipalities NGOs, provincial authorities  EIA Consultants	Time, capacity	Adoption of bird-friendly infrastructure across the country and the complete phasing out of dangerous infrastructure	1-3 years	Number of bird-friendly structures, reduction of dangerous infrastructure

Actions	Lead Party	Collaborators	Resources Needed	Deliverables	Timeline	Measurable Outcomes
<b>Objective 7: To use a range of conservation mechanisms for increasing the land under biodiversity protection</b>						
Identify all known nesting sites and key foraging areas which are not formally protected as well as areas for range expansion and then encourage participation in conservation stewardship programmes	SANBI	Universities, SANParks NGOs	DEFF, Funding, capacity	time, Identification of previous unknown nest sites and key foraging areas, engagement with landowners, farmers and communities in areas surrounding nest sites and key foraging areas	5 years, ongoing	Number of individuals and communities engaged in key areas, number of nest sites and key foraging areas identified
Ensure that vultures are included in both provincial and national Protected Area expansion strategies	DEFF	SANBI SANParks, Provincial Conservation Agencies, NGOs	Time	Ensuring that nest sites and key foraging sites form part of Protected Areas	5 years, ongoing	Percentage of key areas (nest sites and key foraging areas) protected
Develop and implement safe zone concept for vultures	DEFF	BLSA , EWT and EKZN Wildlife, Wildlife ACT NGOs	Funding, capacity	time, An online tool (developed using GIS modelling) identifying areas covering key vulture habitat that should be established as Vulture Safe Zones  Establishment of areas identified in (1) as Vulture Safe Zones, including all national parks and provincial nature reserves that host vulture populations  In collaboration with regional country partners, Transfrontier Conservation Areas (TFCAs) that host vulture populations, are established as Vulture Safe Zones.	3 years and ongoing	A VSZ concept, and the implementation thereof, that helps drive the threat mitigations identified in this document



Actions	Lead Party	Collaborators	Resources Needed	Deliverables	Timeline	Measurable Outcomes
<b>Objective 8: To support vulture conservation through cross-cutting policies, legislation and actions to enable mitigation of critical threats[HM2]</b>						
Ensure that vulture breeding and roosting data is included in DEFF's EIA screening tool	DEFF and SANBI	Provincial Agencies, Universities, conservation SANParks,	Funding, capacity	time, Spatial layer created	2 years and ongoing	The use of spatial layer in EIA process
Ensure that all provincial legislation is updated to address the current conservation status of all vultures.	DEFF and SANBI	Provincial Agencies, Universities COGTA	Funding, capacity	time, Updated legislation	3 years and ongoing	Conservation status of all vultures assessed and legislation amended
Creating a clearing house mechanism for information sharing on vulture conservation.	SANBI	NVTF	Funding, capacity	time, clearing house mechanism for information sharing on vulture conservation developed, implemented	3 years and ongoing	Visitation to sites assessed
<b>Objective 9: To monitor the status of all species of vulture that occur in South Africa at an appropriate interval to inform policy and conservation actions.</b>						
Review and assess current gaps of all existing monitoring programmes being undertaken in South Africa	DEFF and SANBI	Provincial Agencies, Universities, NGOs	Time, funding	Expand monitoring programmes to address gaps (all species and locations) but continue with existing monitoring	December 2021	Assessment report
Develop a monitoring plan for Vultures in South Africa	DEFF and SANBI	Provincial Agencies, Universities	Time, funding	capacity, Development of a monitoring plan for each species	5 year plan	Completion and implementation of monitoring plans for each species
Create a national repository for all vulture monitoring data	SANBI	Universities, Conservation agencies NGOs	Time, networking, systems	funding, IT National data spatially explicit data repository, with links to existing databases such as movebank. (with protection options and restricted access to certain datasets)	Ongoing, December 2025	National functional, searchable database
Establish a monitoring subcommittee of the NVTF	DEFF	NGOs, Universities	Time	Establish a group of high reputable researchers, conservationists and academics	1 year	Finalization of a monitoring sub-committee

Actions	Lead Party	Collaborators	Resources Needed	Deliverables	Timeline	Measurable Outcomes
<b>Objective 10. Develop a standardised marking and tagging System for all vulture species</b>						
Establishment of a high ethical standard for the marking and tagging of vultures.	DEFF	NGOs, Universities, Conservation agencies, animal welfare Institutions SAFRING	Time	<p>Establish baseline sizes (dimensions and weight) of marking and monitoring devices per species</p> <p>Renew existing protocols based on published data</p> <p>Review the effects of monitoring techniques and methods on the welfare, survival and movement of vultures</p> <p>Implement stringent authorisation through permits and after xx number of hours trained and supervised by reputable and accredited individuals and organisations</p> <p>Inform all university ethics committees of the accepted standards</p>	December 2022	National marking standards guideline
<b>Objective 11: Identify research gaps and conduct research to generate knowledge, create a centralised data hub &amp; provide information relevant to conservation management requirements, both in situ and ex situ</b>						
Establish a research sub-committee of the NVTF,	SANBI, DEFF	NGOs, Universities	Time	Establish a group of high reputable researchers, conservationists and academics	Year 1	Appointment of research sub-committee
Formulate a national vulture research strategy/priority list	SANBI, DEFF	NGOs, Universities	Funding, capacity, time	Establish a priority list of high quality research projects that directly benefit vulture conservation	2 Year	All research conducted on vultures addresses the identified priorities research areas and knowledge gaps
Establish central repository for all research data	SANBI	Academic and Conservation Institutions and NGOs	Funding, capacity, time	Central repository for all research and monitoring data established	3 Year and ongoing	A hub of available data to be used for research project to benefit the species
Stimulate the research programme on belief-based uses on vulture parts	SANBI	Academic and Conservation Institutions and NGOs	Funding, Time	A formal state of knowledge assessment.	Ongoing and yearly updates	Improved understanding of the belief-based uses of vulture parts, recommendations

Actions	Lead Party	Collaborators	Resources Needed	Deliverables	Timeline	Measurable Outcomes
<b>Objective 12: Ensure appropriate ex situ management practices that benefit vulture conservation</b>						
Develop protocols for rehabilitation facilities	DEFF	Conservation agencies,  CORE - (Collaboration of all Rehab centres Welfare institutions)-  Cogta	Funding, time	Basic minimum protocols workshopped and developed	Year 3	Rehabilitation and release protocols for all species in place
Develop and ex-situ conservation programme that benefits vulture conservation.	DEFF, SANB	NGOs, Conservation agencies	Funding, time	Determine criteria for when a species requires captive breeding. Determine species requiring captive breeding, and when and how releases are planned	Year 3	Captive breeding of key species to augment in-situ conservation efforts



## In conclusion

- National Vulture Task Force will oversee implementation of the BMP
- Ryders (in addition to identified resources) for the BMP to be successfully implemented
  - Requires buy-in from all stakeholders to be effective
  - No Lone Rangers
- Review is every 5 years, so adaptive management will be critical

# Experience in additional initiatives linked to the National Vulture Conservation Strategy



- **NATIONAL WILDLIFE POISONING PREVENTION WORKING GROUP**
  - Established in 2018
  - Resolution 11.15 -Guidelines on preventing the risk of migratory bird poisoning
  - CMS COP11- 4 to 9 November 2014, Quito, Ecuador
  - Development of the National Wildlife Poisoning Prevention Working Group (NWPPWG) implementation plan
  - Recently approved for implementation

# Experience in additional initiatives linked to the National Vulture Conservation Strategy



- ❑ The Terms of Reference of the Poisoning Working Group allows for the establishment of the Task Teams as and when the needs arise
  - ✓ Agricultural Pesticides Task Team
  - ✓ Lead Tasks Team

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Thank You



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