

IUCN SOS African Wildlife Initiative Consultancy Terms of Reference:

Identifying priority national and transboundary landscapes for priority carnivore species in sub-Saharan Africa for species restoration and rewilding

1. Introduction

The IUCN SOS African Wildlife initiative, a partnership between the European Union and IUCN Save Our Species, responds to conservation challenges faced by key threatened species in Sub-Saharan Africa. This initiative aims primarily to halt the decline of the Vulnerable species of lion (*Panthera leo*), leopard (*Panthera pardus*), cheetah (*Acinonyx jubatus*) as well as the Endangered species of African wild dog (*Lycaon pictus*) and Ethiopian wolf (*Canis simensis*), increasingly threatened by poaching, habitat fragmentation and human encroachment on wild habitats. The initiative also contributes to ensuring the long-term survival of smaller carnivores and prey species, including the Critically Endangered African wild ass (*Equus africanus*), the Endangered Grevy's zebra (*Equus grevyi*), and various antelope species.

The initiative has enabled coordinated conservation work across the species' natural habitats. Actions funded through this initiative include those that address and reduce human-wildlife conflict, poaching of carnivores and their prey, wildlife trafficking, as well as those focused on enhancing law enforcement and implementing actions that empower communities to participate in conservation as part of innovative livelihood solutions. The initiative aims to:

1. Empower and strengthen Civil Society Organisations which are committed to biodiversity conservation and sustainable development, particularly the conservation of threatened species, their habitats and the people depending on them, and;
2. Demonstrate the impact of conservation actions on threatened species and their habitats in Africa, in particular large carnivores.

Through this initiative, two different types of grants were provided to frontline, civil society conservation actors to implement both programmatic approaches that address existing conservation threats and for immediate responses to new and emerging threats to carnivores and their prey species. In addition to providing funding for threatened species, the initiative aimed to:

- Provide support in the development or updating of species action plans of priority species;
- Raise awareness on the extinction crisis and the importance of on-the-ground conservation action, emphasising conservation success stories;
- Mobilise innovative financing, specifically through private sector engagement, with the aim to annually increase the total amount of funding allocated to species conservation;
- Integrate capacity building across all projects to support the development and growth of both local communities and grant recipients; and
- Operate at the nexus between policy and on-the-ground action to both inform policy processes based on field experiences while unpacking the complexities of global policy to contribute to local efforts.

The aim of this initiative is to create and maintain optimal conditions for African carnivores and their prey populations by promoting practices that contribute to target species population stability, improved prey abundance, habitat quality, and overall ecosystem health. In addition, support communities living in proximity with wildlife to coexist and benefit from sustainable livelihoods and participation in nature conservation.

2. Project Background and Justification

Biodiversity is declining across the planet. The [2019 IPBES Global Assessment Report on Biodiversity and Ecosystem Services](#) revealed that vertebrate species populations have declined on average by 68% since 1970, 75% of Earth's land surface has been significantly altered and 66% of the oceans are degraded. Globally, over a third of inland wetlands declined from 1970 to 2015, a rate three times that of forest loss. More than 25% of all species assessed on the IUCN Red List are threatened, suggesting that around 1 million species may already face extinction. The global rate of species extinction is already up to 100 times higher than the average background rate over the past 10 million years, indicating that we are facing a 'sixth mass extinction'. Urgent action is essential to reduce the drivers of biodiversity loss and restore species' populations and ecosystems.

Africa is home to some of the world's richest biodiversity, iconic wildlife, vibrant ecosystems, and nearly 2,000 Key Biodiversity Areas that support diverse species and livelihoods. But this treasure trove of life is under increasing pressure, threatening not only nature but also the well-being of millions who depend on it. Between 1970 and 2020, Africa experienced a 76% decline in the average size of monitored vertebrate wildlife populations, including mammals, birds, amphibians, reptiles, and fish¹. Biodiversity underpins life on Earth. It provides clean water, fertile soils, pollination, carbon storage, and climate resilience. In Africa, these services are deeply intertwined with local economies, health, food systems, and cultures. From the rainforests of the Congo Basin to the savannahs of East Africa, biodiversity shapes how communities live, thrive, and adapt².

The three interlinked crises of biodiversity loss, climate change, and emerging zoonotic diseases have far-reaching consequences for all aspects of human health, food and water security, and the economy. Given the crucial role species play in the livelihoods and economies of people all over the world, and in the ecosystem services on which they depend, maintaining healthy populations of species and ensuring that the benefits from them are managed equitably and sustainably is essential to delivery of the Sustainable Development Goals (SDGs).

Terrestrial ecosystems and their biodiversity underpin sustainable development and human wellbeing in Africa. However, the decline and loss of biodiversity observed across the continent is affecting daily lives and hampering the sustainable social and economic development targeted by African countries.

Due to their wide ranges beyond protected areas, wildlife is particularly vulnerable to anthropogenic factors such as loss, degradation, and fragmentation of suitable habitat to farming. Habitat loss from settlement and infrastructure development also prevents some animals from reaching other populations to breed leading to inbreeding, which results in a loss of genetic diversity within populations, weakening their health and ability to evolve adaptations to survive environmental changes brought on by climate change and other human impacts.

Actions funded through the SOS African Wildlife Initiative aimed to primarily halt the decline of the increasingly threatened species of large African carnivores (lion, leopard, cheetah, African wild dog and Ethiopian wolf). It also contributed to ensuring the long-term survival of smaller carnivores and prey species, addressed human-wildlife conflict, poaching of carnivores and their prey, wildlife trafficking, law enforcement, and community's empowerment to participate in conservation as part of innovative livelihood solutions.

¹ World Wide Fund for Nature (WWF). (2020). Living Planet Report 2020: Bending the Curve of Biodiversity Loss (L. Almond, M. Grooten, & T. Petersen, Eds.). WWF. <https://www.wwf.org.uk/reports/living-planet-report-2020>

² United Nations Environment Programme (UNEP). (2021). Making Peace with Nature: A Scientific Blueprint to Tackle the Climate, Biodiversity and Pollution Emergencies. UNEP. <https://www.unep.org/resources/making-peace-nature>

The initiative is in a transition phase that partly includes the elaboration of scaling up impact and approaches from the current phase which will require a prioritisation of landscapes for action. To maximise impact and focus actions, the initiative aims to identify priority landscapes/sites in sub-Saharan Africa. As umbrella species whose conservation impacts other species inhabiting the same wide-ranging landscapes, the target species for this review are lion, leopard, cheetah, African wild dog, Ethiopian wolf and African Elephant and will focus on identifying national and transboundary landscapes with current and future potential for species restoration and rewilding.

3. Objectives and Scope

- **Primary Objective:** To identify, prioritise, and rank national and transboundary landscapes with current and future potential for species conservation, restoration, and rewilding, through an integrated spatial analysis that systematically incorporates:
 - (a) the extent, quality, and spatial configuration of available and suitable habitat for the target species;
 - (b) patterns of land use and land cover, current and projected human pressures, habitat connectivity, and ecological integrity, including assessments of biological and ecological viability and species-specific ecological requirements; and
 - (c) social and institutional feasibility, including local community presence and engagement, governance conditions, and partner capacity, to ensure that priority landscapes are socially viable and implementable.
- **Geographic Scope:** continental screening of sub-Saharan Africa with more comprehensive analysis of priority landscapes
- **Taxonomic Scope:** lion, leopard, cheetah, African wild dog, Ethiopian wolf and African Elephant

4. Methodology and Technical Requirements

The consultant shall propose a detailed methodology in the inception phase. At minimum, the approach must include the elements below.

- (i) **Data compilation and Integration:** The analysis should integrate, at a minimum, the following datasets (or equivalent sources):
- IUCN Red List spatial data (range maps where available) and relevant population/trend information.
 - Protected area boundaries and management categories (e.g., World Database on Protected Areas – WDPA).
 - Key Biodiversity Areas (KBA) and other recognised site prioritisation layers relevant for the target species
 - Remote sensing products relevant to habitat condition and change (e.g., land cover, vegetation productivity, forest loss, fire).
 - Human pressure/footprint proxies, population density (e.g., settlement density, night lights, road density, cropland expansion, mining/infrastructure layers).
 - Projections of the Human Footprint Index—a measure of human influence—to explore future trends in habitat availability. By forecasting changes in human pressure, the maps help identify both areas where conservation action is urgently needed to prevent habitat loss and where restoration efforts can succeed.
 - Climate exposure and climate change vulnerability metrics (historic and projected) that is high resolution and spatially harmonised (e.g., exposure data, species sensitivity, adaptive capacity data, climate velocity proxies).
 - Species and prey distribution/abundance proxies, including published surveys/censuses and country datasets where available.

- Threat analysis data from sources such as Biodiversity Intactness Index (BII) for Africa, IUCN Red List of Ecosystems, data from regional observatories, among others.

All datasets must be documented in a data inventory (source, date, access constraints, spatial resolution, limitations). This is not an exhaustive list, and the consultant may recommend other appropriate data sets.

(ii) Landscape definition

The consultant will propose a defensible method to define and delineate ‘candidate landscapes’ for prioritisation. This may include (but is not limited to) ecological regions, connected protected area complexes, dispersal corridors, or focal species landscape units. The method must explicitly address transboundary complexes, avoid double-counting, and account for land use and land cover, current human pressures, habitat connectivity, and species needs.

(iii) Selection Criteria

The analysis requires a Multi-Criteria Decision Analysis (MCDA) to rank landscapes. The consultant must propose indicators and scoring rules that are measurable, comparable, and transparent. At a minimum, the criteria should cover the following variables:

Biological viability:

- Species presence/occupancy and population viability proxies
- Habitat extent/quality and trend
- Prey availability proxies
- Connectivity and functional corridors

Threat and risk:

- Poaching/illegal killing pressure
- Land conversion and fragmentation risk
- Conflict/retaliatory killing risk
- Disease and climate-related risks where relevant
- Climate variability: Identify areas that remain relatively stable despite regional changes and areas that might change significantly but have the ecological diversity to transform into a new, healthy state rather than collapsing

Conservation feasibility and opportunity:

- Governance and security/access constraints
- Protected area management effectiveness proxies
- Existing partner presence and capacity
- Community-based conservation potential, community-managed lands and stakeholder support
- Enabling policy context

Investment potential

- Availability of co-financing from other initiatives
- Analysis of heavily invested areas vs ecologically vital but underinvested ones to avoid duplicating efforts, and enhance coordination.

Weighting of criteria must be justified and developed through consultation with IUCN. The consultant must include sensitivity analysis (e.g., alternative weight sets) and clearly state uncertainties and data gaps.

Sensitivity analysis and robustness testing

The consultant must conduct and report a formal sensitivity analysis to assess how robust the landscape tiers/ranks are to alternative assumptions, modelling choices and data limitations. The sensitivity analysis must be documented in the draft and final reports and must, at a minimum, include:

- Alternative ranking assumptions: test at least three plausible weighting schemes (e.g., equal weights; threat-emphasis; feasibility-emphasis) and document the rationale for each.
- Alternative aggregation/normalisation: test at least one alternative aggregation approach (e.g., weighted sum versus geometric mean or similar) and one alternative normalisation method and report any material changes to rankings/tiers.
- Climate-variable stress tests: run a baseline model without climate variables and one or two climate-informed models that incorporate a small, defensible set of climate exposure metrics (historic trends and/or mid-century projections). Report how climate variables affect landscape scores, tiers and the identification of climate-resilient/refugia landscapes.
- Missing data treatment: test at least two approaches (e.g., complete-case exclusion versus transparent imputation/penalty rules) and report sensitivity of results to data gaps.
- Robustness diagnostics: report rank stability metrics (e.g., Spearman rank correlation across scenarios, top N overlap, and identification of 'no-regrets' landscapes that remain Tier 1 across scenarios) and assign an overall confidence rating (High/Medium/Low) for each landscape.

5. Deliverables and Timeline

Phase	Deliverable	Timeline
I: Inception	Detailed work plan and finalised methodology. Inception report.	10 days
II: Data Collection and Preliminary Analysis	Synthesis report and database of relevant data sets to be used. Multi-Criteria Decision Analysis (MCDA) framework and indicators.	14 days
III: Mapping	GIS-based and JPEG of priority map with "heat zones" for intervention in consultation with IUCN. Presentation of preliminary outcomes.	20 days
IV: Final deliverables	Ranked list of landscapes with specific management recommendations. Provision of maps in alternate formats. Final summary report summarising methodology, datasets, and ranked landscapes.	15 days

6. Required Expertise

The assignment may be delivered by an individual consultant or a consortium. The proposal must demonstrate the following competencies:

- Demonstrated expertise in African carnivore ecology and/or large mammal conservation planning.
- Strong experience in spatial analysis, landscape ecology, and GIS (ArcGIS Pro/QGIS) including connectivity analysis.
- Proven track record applying MCDA or comparable prioritisation methods in conservation contexts.
- Experience integrating social feasibility considerations (governance, stakeholder engagement, conflict sensitivity) into conservation planning.
- Excellent technical writing skills and ability to communicate complex analyses to non-technical audiences.

Key roles/responsibilities are:

Role	Core responsibilities
Team Lead / Conservation Scientist	Overall delivery, methodological design, species/ecology interpretation, reporting.
GIS and Spatial Analyst	Spatial data processing, mapping, connectivity and scenario analyses, geodatabase production.
Social/Institutional Specialist	Feasibility assessment, stakeholder mapping, governance and conflict-sensitivity inputs, validation process support.

7. Budget

Budget: Euro 10,000