Biodiversity Assessment for Spatial Prioritization in Africa (BASPA)

Project concept 2018

EMPOWERING NATIONAL GOVERNMENTS TO CONDUCT AND MANAGE RED LISTING PROCESSES TO ENSURE:

1. National IUCN Red List of Threatened Species and Ecosystems are in place to provide information on the status, trends and threats to biodiversity, and to allow measurement of progress towards Aichi Targets 5, 7, 11 and 12 and Sustainable Development Goals 14 and 15.

2. Accurate spatial data on threatened species and ecosystems are available at country level to identify Key Biodiversity Areas and input into spatial planning to guide land-use decision making and protected area expansion processes.

THE CHALLENGE

Currently fewer than 5 % of African parties to the Convention on Biological Diversity (CBD) have geospatial biodiversity data to inform wise land-use decisions and policies, and to promote conservation actions for achievement of the 2020 Aichi Biodiversity Targets and the 2030 Sustainable Development Goals (SDGs) (http://nbsapforum.net/uploads/2811.pdf).

The assessment of the status of species and ecosystems at country level are the fundamental building blocks for the spatial identification of biodiversity priorities. So far, on the African continent, comprehensive assessments of both species and ecosystems has taken place only in South Africa and Uganda, and is urgently required in other countries to assist decision-makers in prioritizing areas for protection amidst the increasing pressures on biodiversity.

THE INTERVENTION

This project will develop geospatial biodiversity datasets by strengthening the technical capacity of conservation practitioners for assessment of the status of species and ecosystems via national Red Listing processes. The International Union for Conservation of Nature (IUCN) has published global standards for species and ecosystems, as well as for identifying Key Biodiversity Areas (KBAs). These three knowledge products, mobilized by IUCN but integrating inputs from many other partners, provide a suite of tools to support countries' land use decision-making, biodiversity mainstreaming into other sectors, and protected area consolidation and expansion.
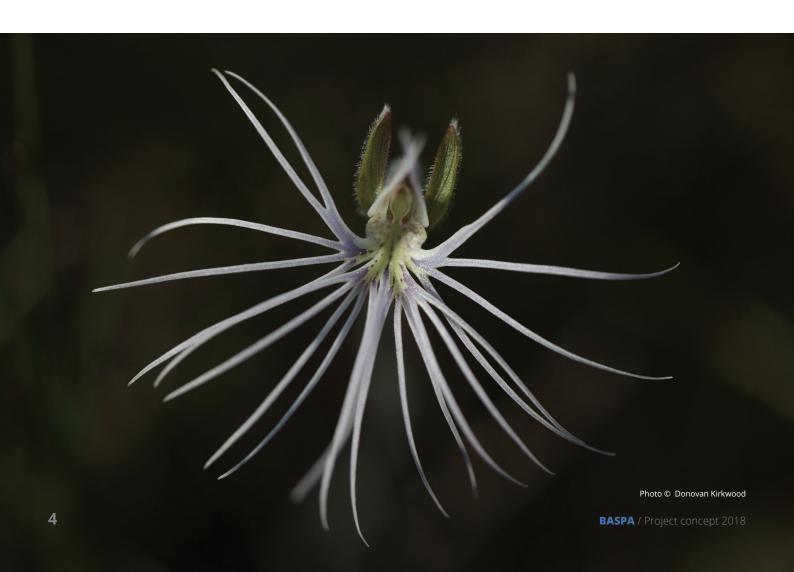
RED LISTING OF SPECIES

The main purpose of the IUCN Red List of Threatened Species is to catalogue all plants, animals and fungi according to their risk of extinction. Over the past 20 years, through the extensive network of over 7 500 volunteer scientists involved in the IUCN's Species Survival Commission, excellent knowledge has been distilled and summarized on the Red List. A disconnect exists, however, between the known status of a species at the global level, its status at the national level, and the availability of accurate spatial information on the occurrence of these taxa to ensure their protection locally. In addition, highly speciose groups such as plants and invertebrates remain poorly represented on the IUCN Red List. Assessments of these groups require compilation of occurrence data at country level and the involvement of local biologists in the identification of threat status.
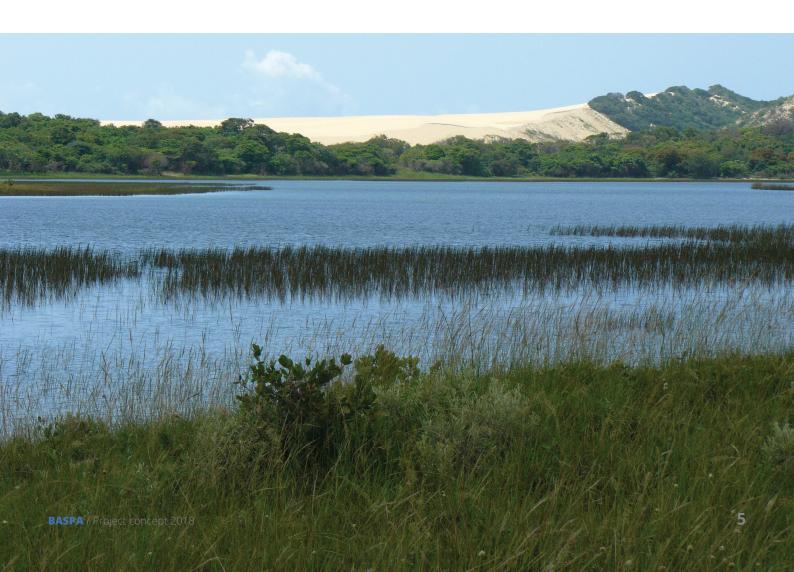
Project target: *Train country-based conservation practitioners to assess the status of endemic and near endemic species for at least four taxonomic groups per country. This includes two groups that have not yet been assessed and two groups assessed globally but which require refinement at the national level to support public policies. All detailed population occurrence and status information will be made available nationally.*

Photo © Donovan Kirkwood

RED LISTING OF ECOSYSTEMS

The Red List of Ecosystems evaluates whether ecosystems are threatened at Critically Endangered, Endangered or Vulnerable levels, or if they currently face lower risk of collapse. It is based on a set of criteria for performing evidence-based, scientific assessments, measured by reductions in geographical distribution or degradation of the key processes and components of ecosystems. Guidelines for the application of IUCN Red List of Ecosystems Categories and Criteria were published in 2016. Assessment of ecosystems at country level has only taken place in a handful of countries to date. Experience from countries where national assessments have taken place indicates that comprehensive mapping of ecosystem types followed by evaluation of their status is key for strategic prioritisation of biodiversity conservation. UNEP World Conservation Monitoring Centre recently published Mapping Biodiversity Priorities, a tool that guides users on how to map ecosystem types and assess ecosystem condition, both essential data required to apply the IUCN Red List of Threatened Ecosystems Criteria. With these tools it is possible to expedite assessments of ecosystem status at country level.

Project target: *Train country-based officials to map ecosystem types, assess ecosystem condition and apply the IUCN Red List of Ecosystems Categories and Criteria to assess the status of terrestrial ecosystems.*
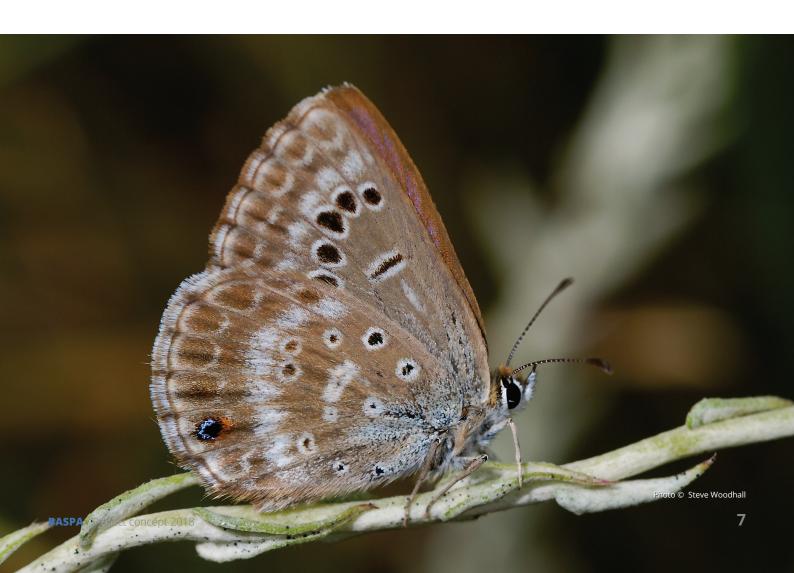
KEY BIODIVERSITY AREAS

Key Biodiversity Areas (KBAs) are sites that contribute significantly to the global persistence of biodiversity, including vital habitat for threatened plant, fungi and animal species in terrestrial, freshwater and marine ecosystems. A Global Standard for the Identification of Key Biodiversity Areas guides users in the implementation of criteria for the identification of KBAs worldwide. The KBA Partnership proposes to enhance global conservation efforts by supporting national, bottom-up systematic mapping of important sites, and ensuring that scarce resources are directed to the most important places for nature. The impact of this vital conservation work will be enhanced by promoting targeted investment in conservation action at priority sites. The KBA spatial layer will be a key input layer for spatial prioritization, particularly for protected area consolidation and expansion.

Project target: *To set-up and support National KBA Co-ordination Groups, and train country-based conservation practitioners to use accurate spatial data on the occurrence of threatened species and ecosystems, in order to identify and mainstream KBAs.*

Photo © A.L. Harrington

PROJECT MECHANISM

1. Identify three African countries with high levels of species richness, endemism and ecosystem diversity.

2. Engage key stakeholders in each country to clearly understand the national institutional context, existing capacity and demands for biodiversity information within government decision-making.

3. Jointly with country-based partners, raise the resources required to conduct species and ecosystem risk assessments and KBA identification.

4. Provide extensive training of country-based officials to assess species and ecosystems, and identify KBAs. Training will take the two forms:

   a. Establishment of a capacity development node in South Africa where comprehensive training to all three countries' officials will be provided.
   b. Follow-up with country visits to monitor progress and assist with locally-run workshops on species, ecosystem and KBA assessment/identification.

5. Utilise these three geospatial biodiversity data sets – species, ecosystems and KBAs – for national biodiversity spatial planning and input into spatial biodiversity priorities and decision-making processes.

Photo © Steve Woodhall

BENEFITS TO COUNTRIES

- National Red Lists provide a baseline to monitor biodiversity trends in response to drivers of change, both anthropogenic and natural.
- National Red Lists allow countries to assess their progress for reporting to the Convention on Biological Diversity (CBD) and the Millennium Development Goals by showing progress against CBD Aichi Targets 5, 7, 11 and 12 and Sustainable Development Goals 14 and 15.
- Provide spatial data on the distribution of species and ecosystems, as well as the location of Key Biodiversity Areas, for inclusion in spatial biodiversity prioritisation, national development planning, and protected area expansion and consolidation.
- The prioritisation of species, ecosystems and KBAs informs investments, thereby supporting countries to access international biodiversity financing.

KEY PARTNERS

IUCN Species Survival Commission (IUCN SSC) has partnered with the South African National Biodiversity Institute and BirdLife South Africa to implement this project.

The IUCN Species Survival Commission has 7 500 volunteer scientists organised in 140 Species Specialist Groups. Members of SSC Specialist Groups will be twinned with country-based officials to provide mentorship in the species Red List assessment process.

The South African National Biodiversity Institute is responsible for assessment of species and ecosystems in South Africa, and co-ordination of spatial biodiversity plans. SANBI will host the capacity development node and organise technical experts to provide species and ecosystem assessment and KBA identification training.

BirdLife South Africa will support the co-ordination and implementation of this project by housing the project co-ordinator, and managing the finances. BirdLife South Africa will utilise its network of BirdLife country partners in Africa to help identify appropriate stakeholders and capacity in each African country, and to support Red Listing for birds. BirdLife South Africa also hosts the KBA Community Africa Regional Representative, who will support the African countries to establish National KBA Co-ordination Groups and engage with the KBA Standards and KBA Secretariat.

Project Co-ordination and Capacity Development Node

1. Provide project co-ordination.
2. Host training programmes on:
   a. IUCN Red List of Threatened Species
   b. Ecosystem classification & condition assessments, application of IUCN Red List of Ecosystems Criteria.
   c. KBA identification training.
3. Provide ongoing support to in-country assessment processes.

Total cost for 3 years:	**$589 256.33**
Co- funded by SANBI:	**$92 349.76**
Co-funded by IUCN SSC:	**$230 316.11**
Required:	**$266 590.47**

Per Country Cost

1. Employ and cover operational expenses for one Red List Country Focal Point.
2. Conduct 4 species assessment workshops with experts.
3. Conduct 2 ecosystem assessment workshops with experts.
4. Conduct 2 KBA identification workshops with experts.
5. Input these data sets into spatial prioritisation processes for land-use decision-making.

Total cost for 3 years:	**$323 669.12**
Required:	**$323 669.12**
	per country

Note this cost may be lower depending on if countries already have either funding for species or ecosystems assessments underway.
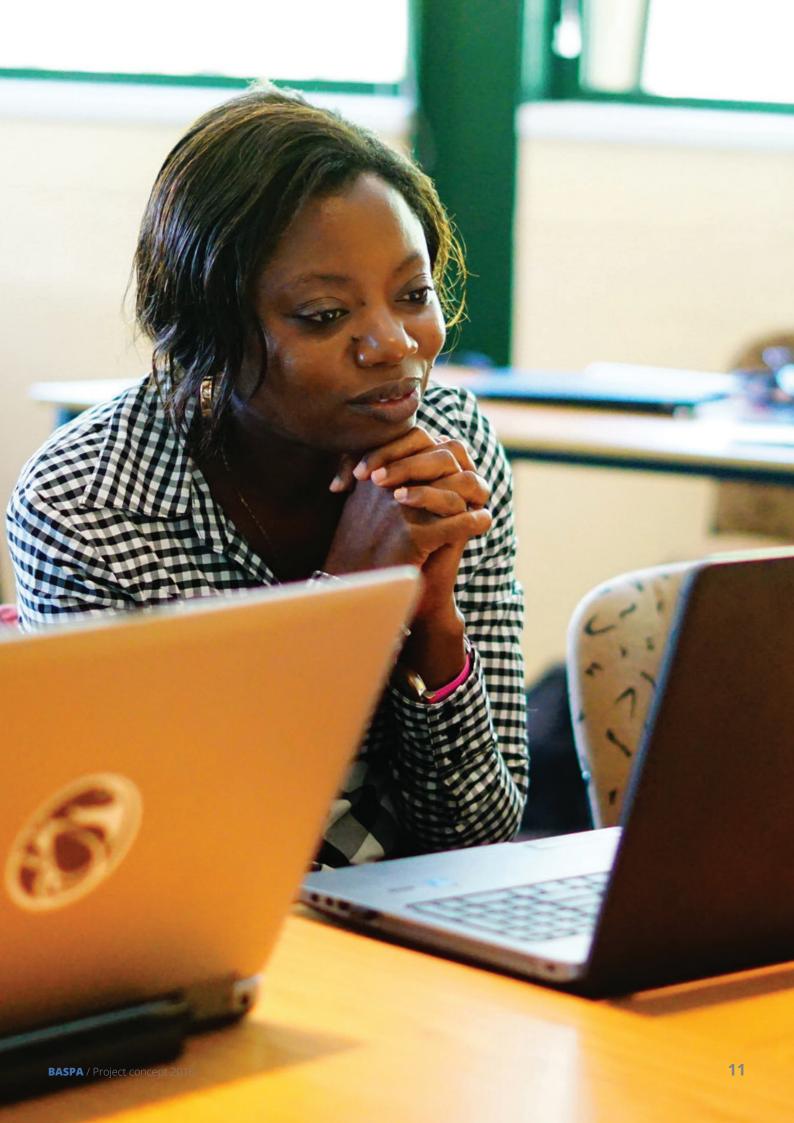
TOP COUNTRIES IN TERMS OF BIODIVERSITY

Interviews with country-based stakeholders are currently underway to assess interest and institutional capacity and readiness to be part of this project.

Top countries region		RICHNESS (birds, plants and mammals)	ENDEMISM (birds and plants)	COMBINED (richness and endemism)
East and Southern Africa	1	Tanzania	Madagascar	Tanzania
	2	Kenya	Tanzania	Angola
	3	Angola	Ethiopia	Kenya
	4	Uganda	Angola	Madagascar
	5	Ethiopia	Comoros	Ethiopia
West and Central Africa	1	DRC	DRC	DRC
	2	Cameroon	Cameroon	Cameroon
	3	Nigeria	Sao Tome and Principe	Nigeria
	4	Ghana	Gabon	Gabon
	5	Côte d'Ivoire	Nigeria	Côte d'Ivoire

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