BIODIVERSITY MONITORING IN ANGOLA

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INTRODUCTION

Angola is one of the most biologically diverse countries in Africa, with a large number of species of almost all groups of organisms distributed in different biomes and ecosystems. Due a protracted civil war of 30 years that halted research and biodiversity studies, conservation issues were not a priority.

- Few data on the current situation of the Angolan biodiversity
- Lack of biodiversity monitoring mechanisms

FILLING GAPS, DOING INVENTORIES

Over the last few years progress has been made in compiling inventories of flora and fauna through regional projects, eg. Benguela Current Large Marine Ecosystem (BCLME), Permanent Okavango River Basin Water Commission (OKAKOM) and The Future Okavango (TFO).

OPPORTUNITY

The country's accession to the SASSCAL initiative was essential for both establish a network of individuals and organizations able to assess and monitor the country's biodiversity and integrate the regional network of biodiversity observatories.

SASSCAL BIODIVERSITY PROJECTS IN ANGOLA

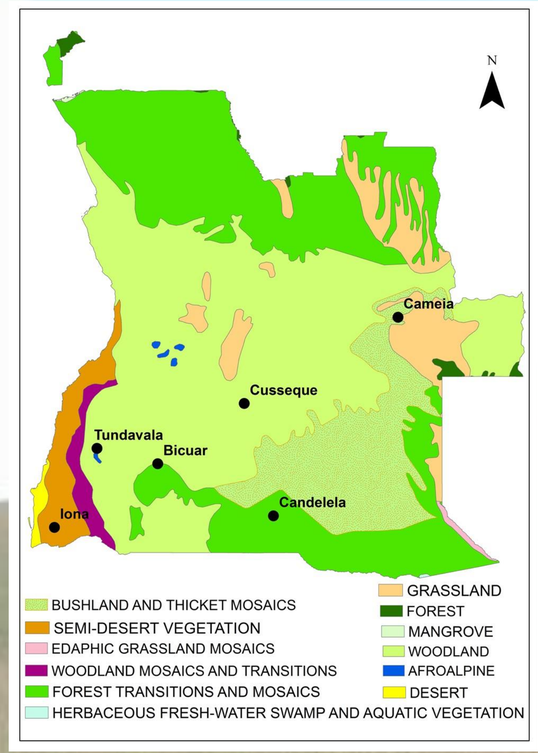
- PLANT AND ANIMAL STUDIES
- CAPACITY BUILDING
- MONITORING

OBJECTIVES

- ❑ Implementing a standardized Biodiversity Observatory network within the country, to create comparable data layers on biodiversity status and trends within the region.
- ❑ Training academic and technical staff for monitoring, data management and scientific analyses, and the development of information services on biodiversity trends

IMPLEMENTATION

Within a joint project with the BIOTA AFRICA researchers from the University of Hamburg, six biodiversity observatories were established following the BIOTA mega-transect South-North and adopting standardized sampling and analytical methodologies (Jurgens, N. *et al*., 2012)



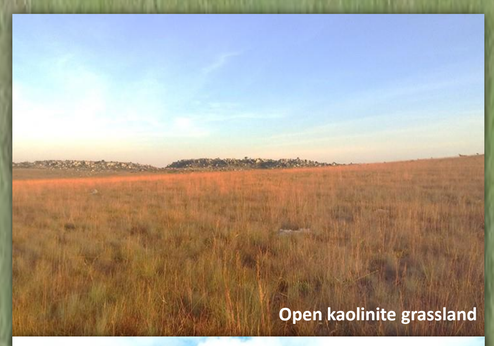
	Name	WWF Ecoregion
S71	Iona* (Namibe)	AT1310 Kaokoveld Desert (2015)
S72	Tundavala (Huíla)	AT1001 Montane forest-grassland mosaic (2014)
S73	Candelela (Cuando Cubango)	AT0726 Zambezian Baikiaea woodlands (2013)
S74	Cusseque (Bié)	AT0701 Angolan Miombo woodlands (2013)
S75	Bicuar* (Huíla)	AT0726 Zambezian Baikiaea woodlands (2015)
S76	Cameia* (Moxico)	AT0724 Western Zambezian woodlands (2016)

(*) National Parks

Weather stations were installed, continuous data transmission in real time (http://www.sasscalweathernet.org/)

TUNDAVALA OBSERVATORY (sasscalobservationnet.org/)	
Bioma	Afroalpino
Vegetation Unit	Angolan Montane Forest-Grassland Mosaic
Coordenates	-14.79542 S ; 13.4019 E
Altitude	2250 m a.s.l
Rainfall Season	Summer
Land use story	Pasture (Cattle and goats), woodcutting, charcoal
Intensity of land use	Moderate to high

1. Vascular plant surveys within the 100-m² plots
   - registered 279 different species belonging to 56 families


Open kaolinite grassland


Sandstone shrubland

Vascular Plants Survey	
• Sampling period	2015-2016
• Plots sampled	R1-R20
• Identication Rate	Specie (23%) Genus (73%) Family (90%)
• Cumulative Family Richness	56
• Dominant Family (cover)	Poaceae, Fabaceae
• Dominant Family (richness)	Asteraceae
• Species richness (100 m2)	24
• Species richness (1000 m2)	36
• Simpson 100 m2	0.9464
• Simpson 1000 m2	0.9451

2. Herpethological survey (Reptiles and Amphibians)
   - Registered 10 different reptile species and 5 of amphibians

CHALLENGES

- ❑ Expand the network of observatories to the North of the country
- ❑ Improve staff skills in botanical identification and ecological analysis
- ❑ Establish and maintain a close liaison of the observatories to the National Institute for Biodiversity and Conservation Areas

Jurgens, N. *et al*. (2012) The BIOTA Biodiversity Observatories n Africa—a standardized framework for large-scale environmental monitoring, *Environ Monit Assess*, 184(2):655-78, DOI 10.1007/s10661-011-1993-y