



Republic of Namibia
Ministry of Lands and Resettlement

giz

Environmental Assessment in Regional Planning

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A case example of the Zambezi Region in Namibia

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Introduction

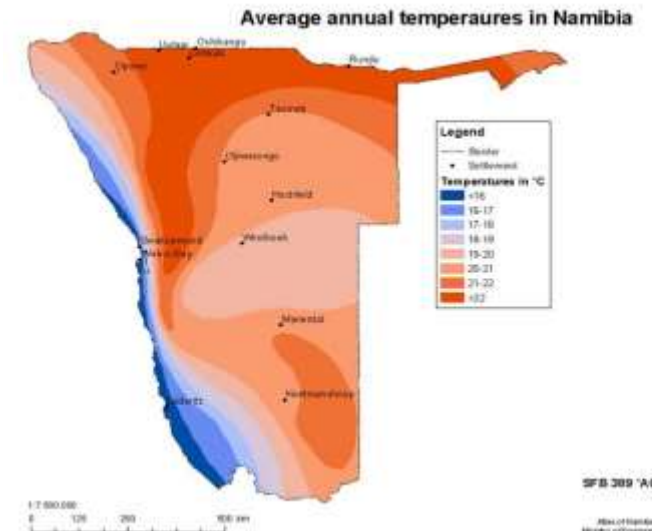
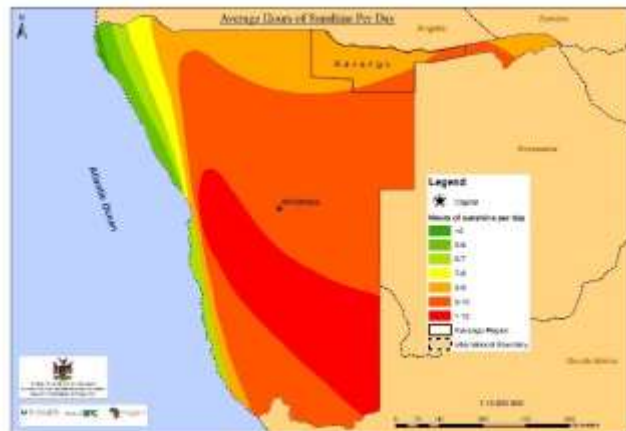
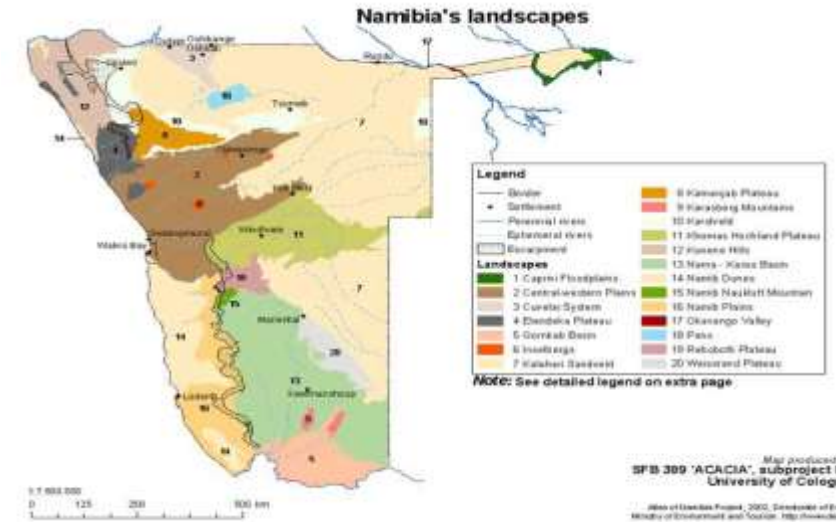
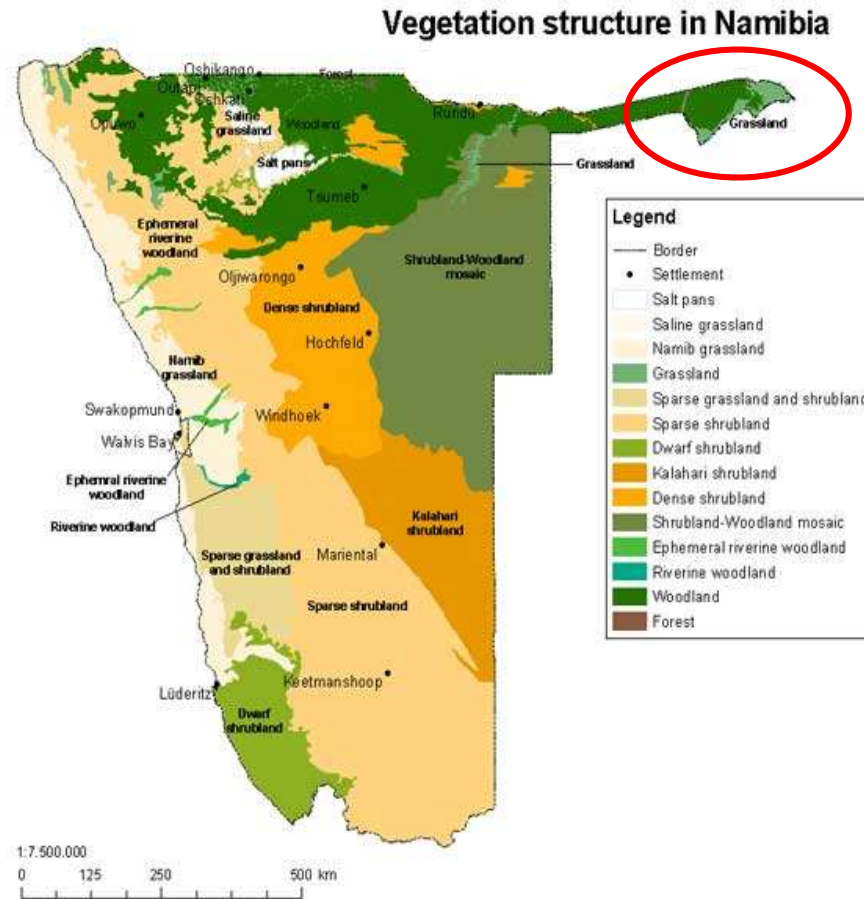
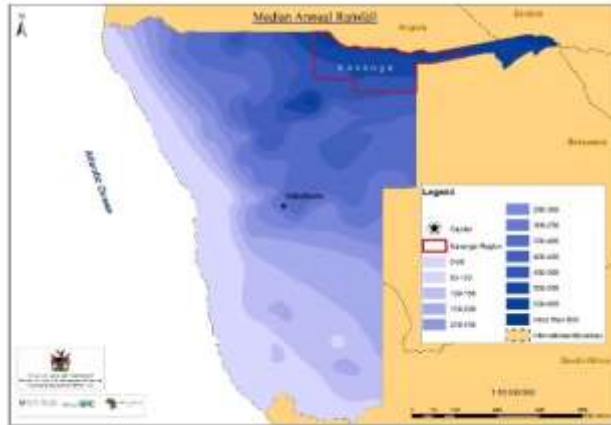
Integrated Regional Land Use Planning

Strategic Environmental Assessment

Ecosystem Services Assessment

*'For the promotion of the welfare of the people, the Government of the Republic of Namibia actively aims, [...] for the **maintenance of ecosystems, essential ecological processes and biological diversity** and the utilization of living natural resources on a sustainable basis for the benefit of all Namibians.'*

Namibia – Setting the Scene



Integrated Regional Land-use Planning (IRLUP)

Main Components

Preparation and administration of IRLUP process

Integrated Land Use Planning

Establishment of Regional Planning GIS

Strategic Environmental Assessment

Monitoring

Implementation Stages

- Preparation of IRLUP
- Set up IRLUP task force
- Process supervision / logistics support

- Regional inventory
- Regional strategic planning
- Local level planning

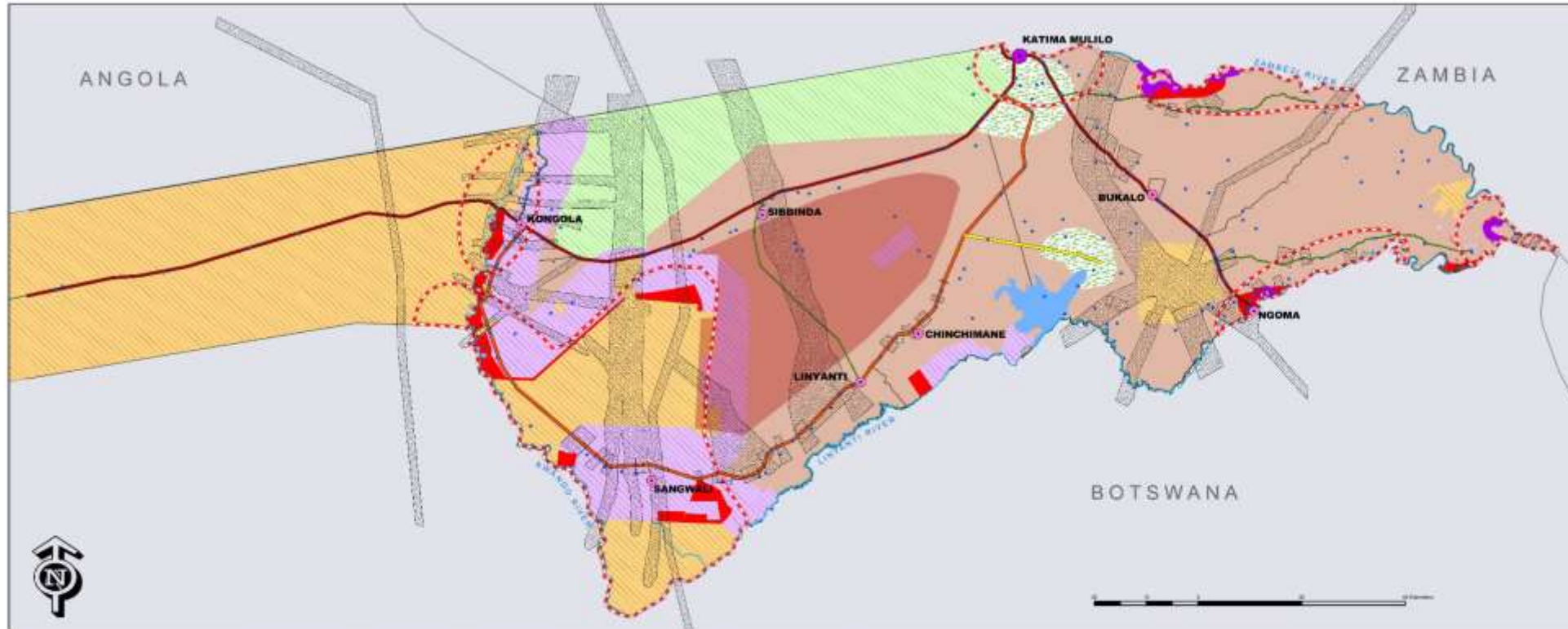
- Data needs analysis, data collection
- Baseline analysis
- Spatial analysis

- Scoping
- Environment assessment (single initiatives)
- Environmental assessment (cumulative impact)
- **Ecosystem services assessment**

- Set-up monitoring & review team
- Progress review

Zambezi Integrated Regional Land-use Plan

ZAMBEZI REGION



Infrastructure Development Proposals

- Regional Growth Point
- Sub Regional Growth Point
- Rural Growth Points
- Proposed Road Connection
- Major Transportation Corridor
- Secondary Transportation Corridor
- Proposed Bitumen

Legend

Conservation Land-Use Proposals

- Wildlife Corridors
- Core Conservation Areas
- Wildlife Buffer Areas (inc. Exclusive Wildlife: Hunting & Tourism)
- State Forest
- Fish Protection Areas

Proposed Agriculture Areas

- Household Level Agriculture
- Commercial Livestock Area
- Irrigation Areas

Proposed Tourism Areas

- Tourism Focus Points
- Tourism Priority Areas (Conservancy Management Plans)



Environmental Assessment

Environmental Management Act, 2007

- Plans, Programs and Policies (PPP) prepared by an organ of state which may have a significant environmental impact are subject to SEA

Practice based on the OECD-DAC guidelines

- OECD-DAC: Applying Strategic Environmental Assessment – Good practice guidance for development co-operation, DAC Guidelines and Reference Series, 2006

No specific regulations on the application of strategic environmental assessment (SEA) in place yet

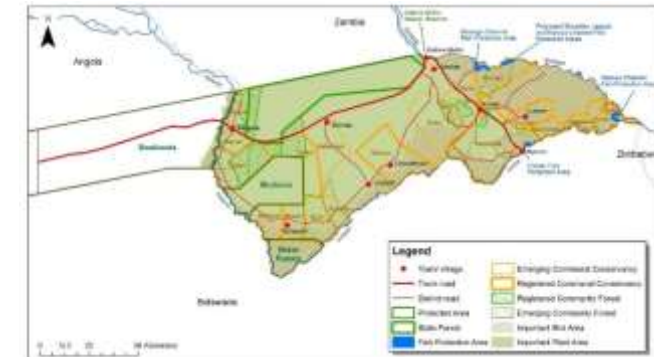
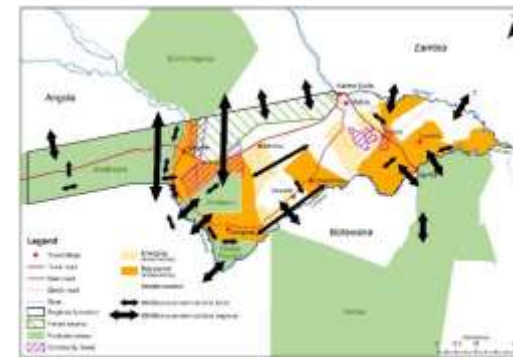
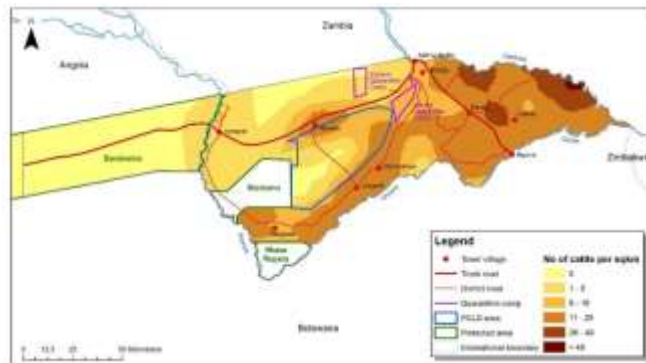
Environmental impact assessment (EIA) regulations are used to conduct strategic environmental assessments in Namibia

Strategic Environmental Assessment

Which information does it provide?

'SEA is a decision-making tool aiming at better information decisions, to promote sustainable development'
(TOR ZamIRLUP, 2013)

- *Key issues*
- *Linkage* between bio-physical, social and economic aspect
- Non-sustainable development (socially, economically or environmentally) → **red flag**
- *Positive* development options → **green light**
- Options for more *beneficial* land use types, development initiatives, etc.
- *Ecosystem services* (pilot approach in Namibia)



Cumulative water consumption for irrigation projects

Abstraction at a dangerously high proportion of the low flow volume in October to December. Downstream states might be disadvantaged in hydropower and irrigation projects of their own.

Shifting agriculture by household-level farmers

Low yields, vulnerability to weather extremes (long dry periods), and the relatively large fields are difficult to protect against wildlife damage.

The decline of the fish resources of Zambezi Region

Over-exploitation of the fishery resources is gradually getting more intensive.

Fires

Destruction of the woodland resources, with negative impact on the wildlife and livestock in that habitat.

Comments from participants during presentation of draft Zambezi IRLUP

SEA is lacking statistics.

SEA is biased towards tourism.

This is a drought year; livestock, humans and fish will die. Why will tourism survive?

We have problems harmonising farmers, tourism and conservation.

The GRN is heavily subsidizing agriculture and production is poor.

We are not getting anything from tourism. We can stand by Agriculture.

We have so many wildlife. We don't need to irrigate wildlife, wildlife attracts tourists. We can get a lot more from that in this region.

Ecosystem services assessment concept

- methodological consistency
- framework for quantification of ecosystem services
- identification of beneficiaries of ecosystem services
- quantification of the social and/or economic values of ecosystem services
- identification and quantification of development opportunities and constraints
- identification of winners and losers when assessing different development options



Ecosystem Services



Provisioning services

food, fuel/energy, water, genetic resource, medicinal, building material

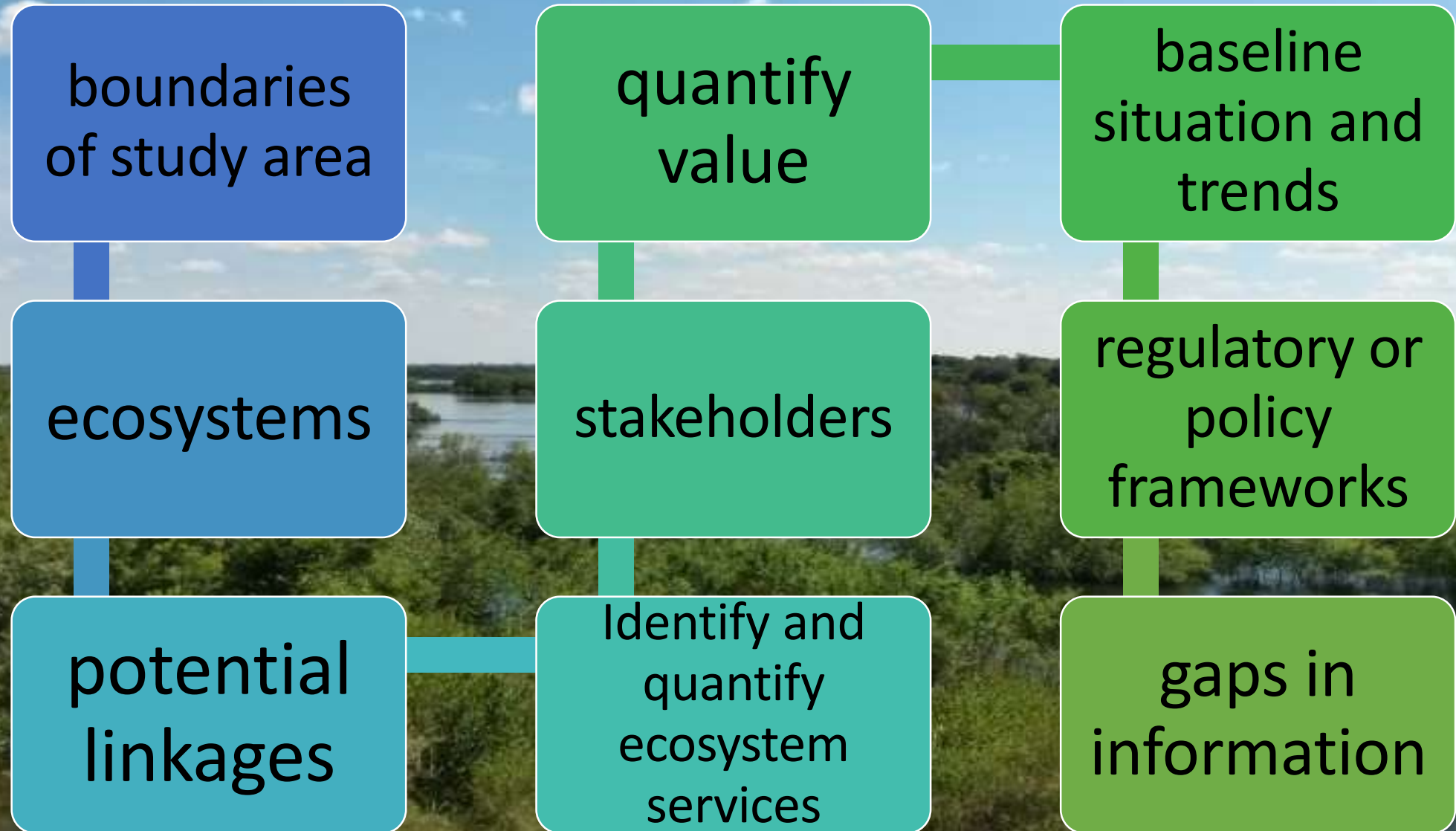
Regulatory and supporting services

air quality, climate, water and flood regulation, buffering, erosion control, soil formation, nutrient recycling, disease control, pollination, natural hazard regulation

Cultural services

cultural & spiritual, recreation & tourism, aesthetic & sense of place, employment/business, climate change resilience, science & education

Process of ecosystem services assessment



Results of ecosystem services assessment in Zambezi Region

- ❑ main ecosystems in the planning area
- ❑ ecosystem services
- ❑ estimated value, beneficiaries, current state and trends of usage
- ❑ opportunities, synergies, threats
- ❑ drivers of change
- ❑ policy adjustment



What is next?

- ❑ conclusion of ongoing ecosystem services assessment in Zambezi
- ❑ reviewing developed methodology of ES assessment
- ❑ integration of ES into SEA and into land-use planning process
- ❑ piloting method during next IRLUPs
- ❑ feeding experience into the SEA process in Namibia



Many thanks for your attention

for further questions

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