Guidance to assess ecosystem services in African Biosphere Reserves

A manual for African BR managers

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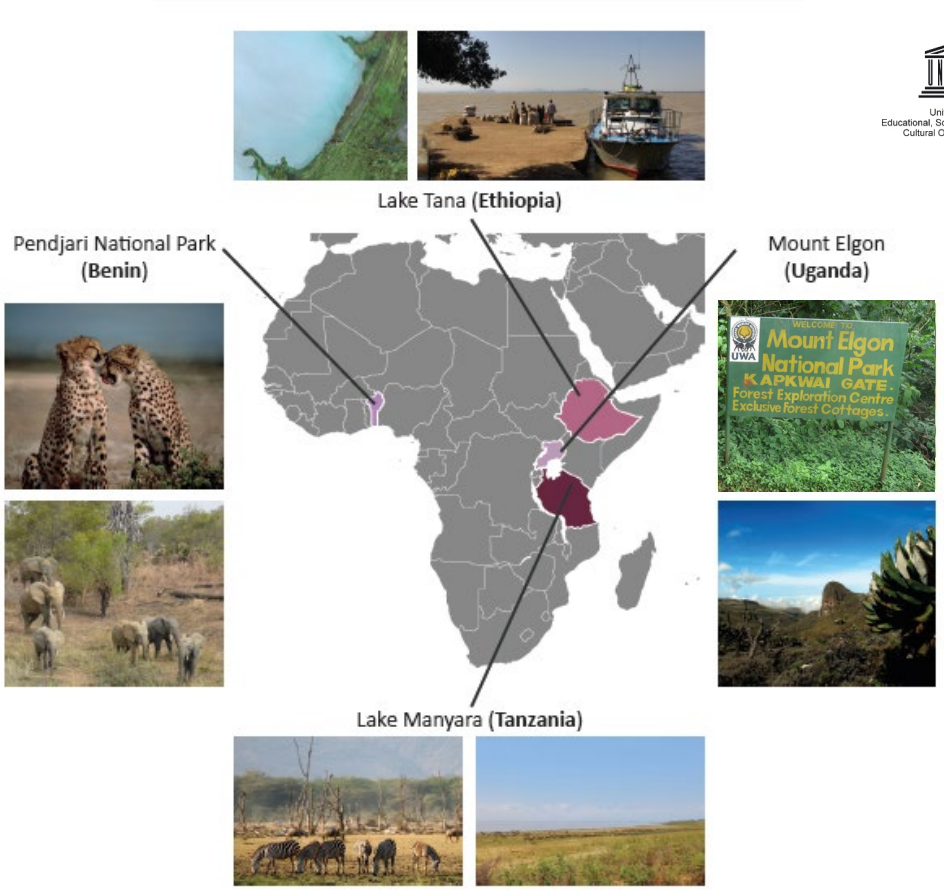
Universiteit Antwerpen

UNESCO United Nations Educational, Scientific and Cultural Organization

MaB Man and the Biosphere Programme

Belgian Science Policy Office belspo

EVAMAB
2017-2020



Research (field work, scientific papers) but not only….

- ✓ Stakeholders involvement
- ✓ Policy briefs
- ✓ A manual for African BR managers

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Objective

- ✓ Increase the awareness, knowledge and use of ES to promote a management in favour of both Nature and People.

Contents

Chapter 1 - Ecosystem services

Chapter 2 – Biosphere Reserves

Chapter 3 - Ecosystem Services Assessment Tools

Chapter 4 - How to value ecosystem services?

Chapter 5 - From ecosystem services assessment to real changes

And throughout the manual

- ✓ Examples and case studies from African BRs
- ✓ References to additional useful resources

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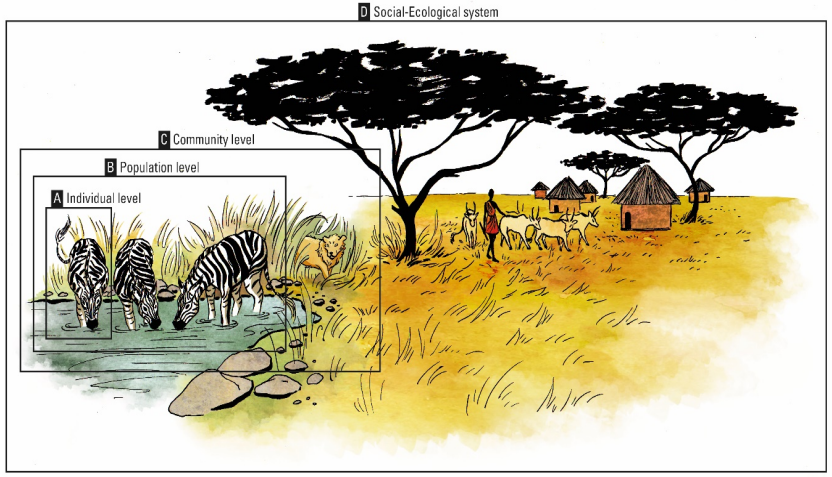
CHAPTER 1. Ecosystem Services

Contents

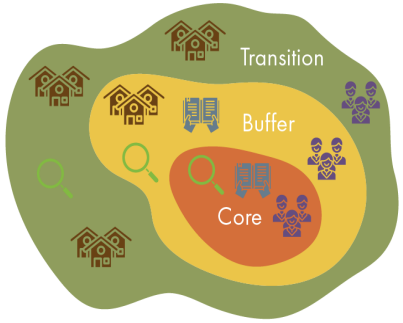


CHAPTER 2: Biosphere Reserves

Contents

- The Man and the Biosphere Programme
- Challenges, stakes and interests for MAB managers and link with ecosystem services
- Stakeholders at the basis!
- What strategy for Biosphere Reserves at the global level?
- Main challenges in Biosphere Reserves
- Contribution of MAB to a greener economy

What are some challenges you face?



One – or several – core zone(s)

→ all human activities are prohibited – except non-destructive research and other low-impact uses (education, tourism)

The buffer zone surrounds the core area(s)

→ activities in harmony with the conservation goals are allowed: scientific research, education and low impact tourism

→ important connectivity function

The transition zone

→ focus on the co-living relationship between people and nature (people often live there)

→ sustainable economic and human development: stakeholders work together to manage and sustainably develop the area's resources

"There is no proper land use system around the BR. People are in a hurry to develop, so they end up encroaching on areas that should have been conserved. It is coupled with the high population density and poverty around these BR."

BOX ABOUT CHALLENGES IN THE LAKE TANA BIOSPHERE RESERVE, ETHIOPIA

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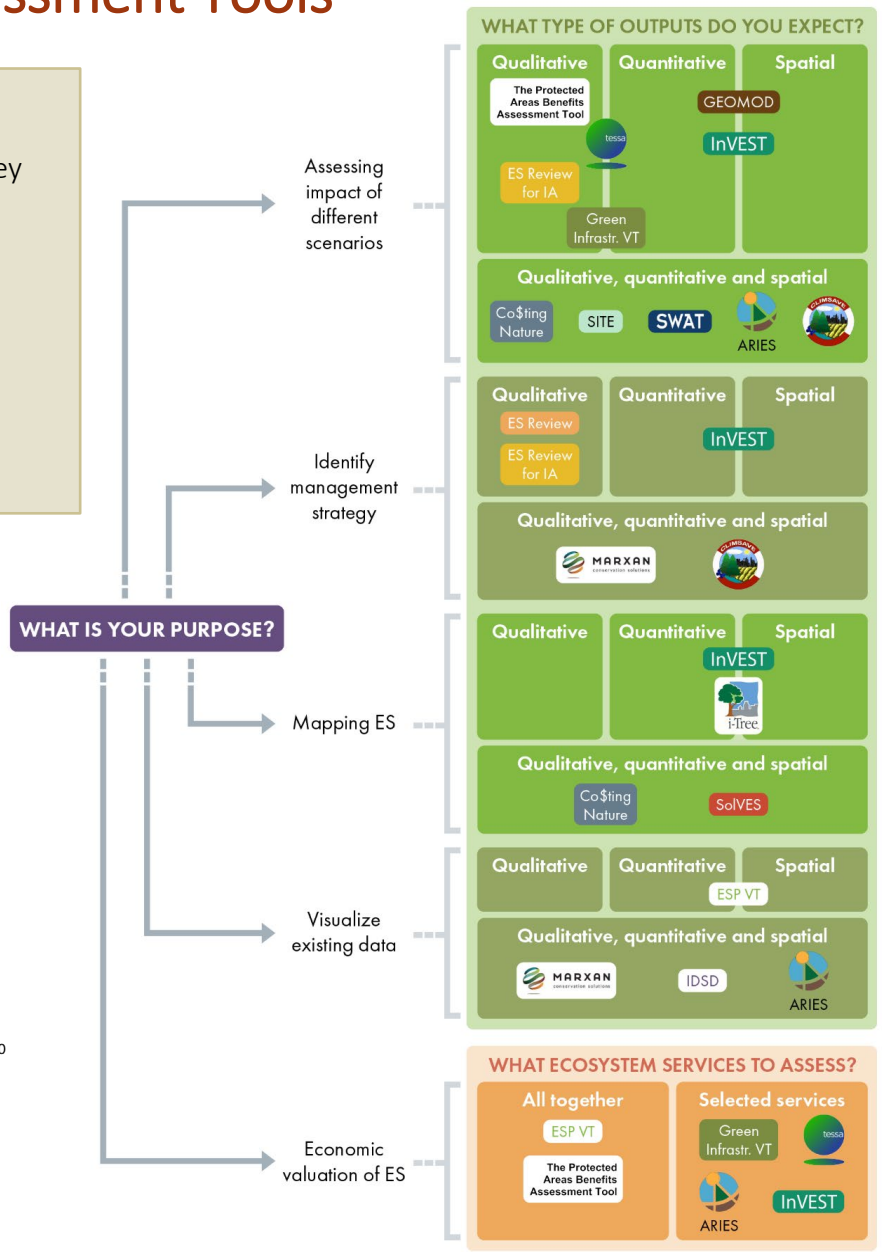
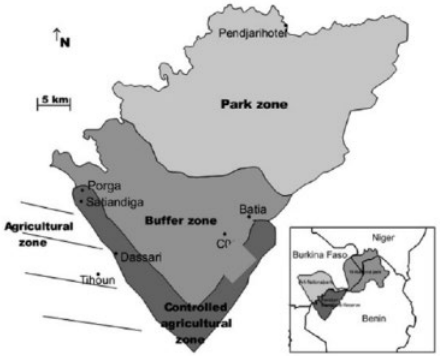
CHAPTER 3. Ecosystem Services Assessment Tools

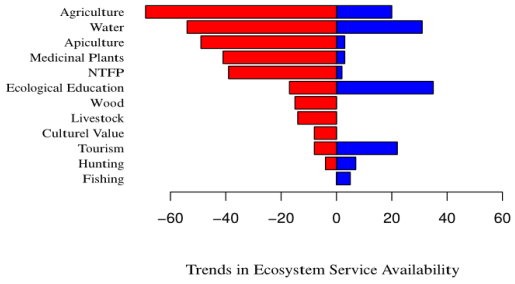
Contents

- What are Ecosystem Services assessment tools, and what are they for?
- Why (not) using ES tools?
- How to select the 'right' ES tool?
  - Which ES tools exist?
  - Visual supports to select the most relevant tool
- Applying ES tools in practice
- Lessons learned from ES tools applications



Box: Combining TESSA, NGT & Q methodology in Pendjari Biosphere Reserve, Benin



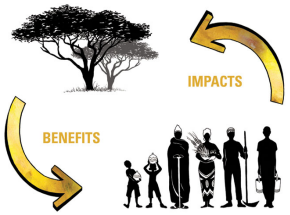


Trends in Ecosystem Service Availability

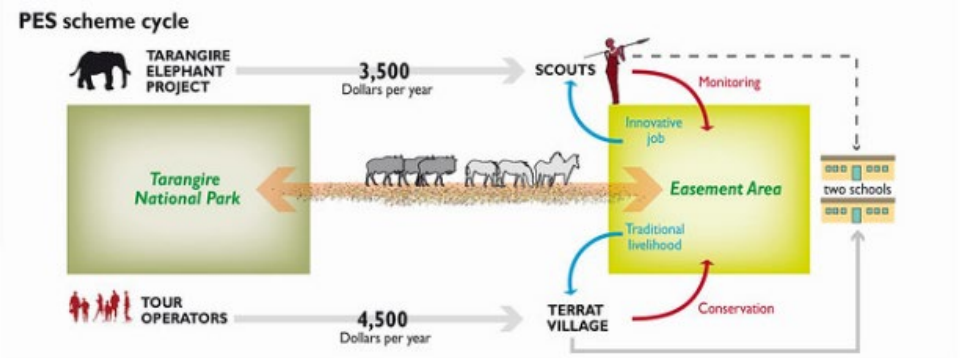
CHAPTER 4. How to value ecosystem services?

Contents

- Why (not) giving an economic value to ecosystem services?
- Fully valuing ecosystem services for a better man and nature balance
- What are the pros and cons of economic valuation of ES?
- When to conduct an economic valuation study?
- When can it be useful or not?
- Economic valuation approaches
- What are Payments for Ecosystem Services (PES)?
- How to set up reward mechanisms for ecosystem services?
- Case studies



EXAMPLE OF LOCAL PES IN TANZANIA: THE SIMANJIRO PLAINS



CHAPTER 5. From ecosystem services assessment to actual change

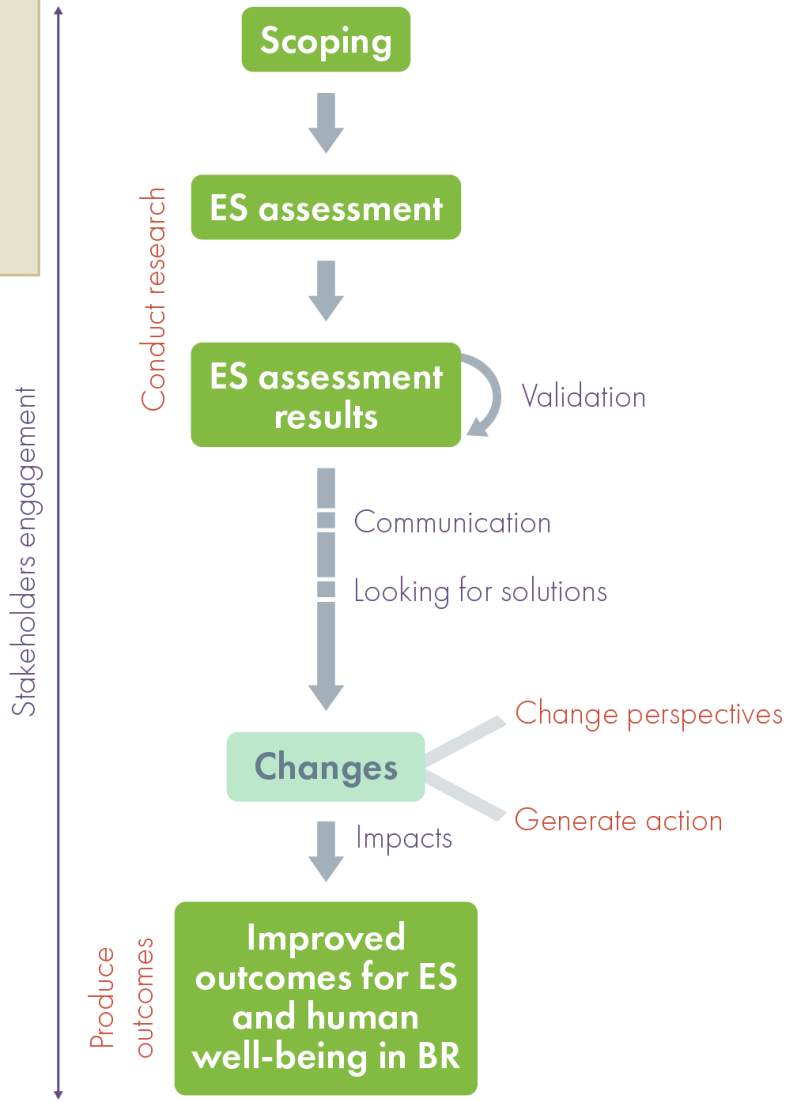
Contents

- How to achieve actual change?
- How can ES tools contribute to better MAB management?
- How can ES assessment trigger change?
- Stakeholders: how and when to engage them?
- Communication

ES assessment generates action

"People tend to appreciate and realize how important ES are as far as improvement of their livelihoods is concerned. The ecosystem evaluation approach is good to help decide among us the different competing users, and to do project A or project B."

Scientist



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Next steps

- Dissemination
  - for the 50 years of UNESCO-MAB
  - CBD COP 2021

Conclusions

- No simple answers to such complex management issues surrounding ecosystem services in Biosphere reserves
- Added value:
  - Answer to an expressed need
  - Selection (and sometimes simplification) of relevant existing information, not always available to BR managers - Own graphical design
  - Concrete case studies coming from the EVAMAB project and other Biosphere Reserves
- Concepts to be taken cautiously: capacity building will be key

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