EVAMAB

United Nations Educational, Scientific and Cultural Organization · Man and the Biosphere Programme

Title: Economic valuation of ecosystem services in Man and Biosphere reserves: testing effective rapid assessment methods in selected African MABs

Duration: 30 months (2017-mid 2019)

CEBioS museum (promotor)

KU LEUVEN

ULB Université Libre de Bruxelles

Universiteit Antwerpen

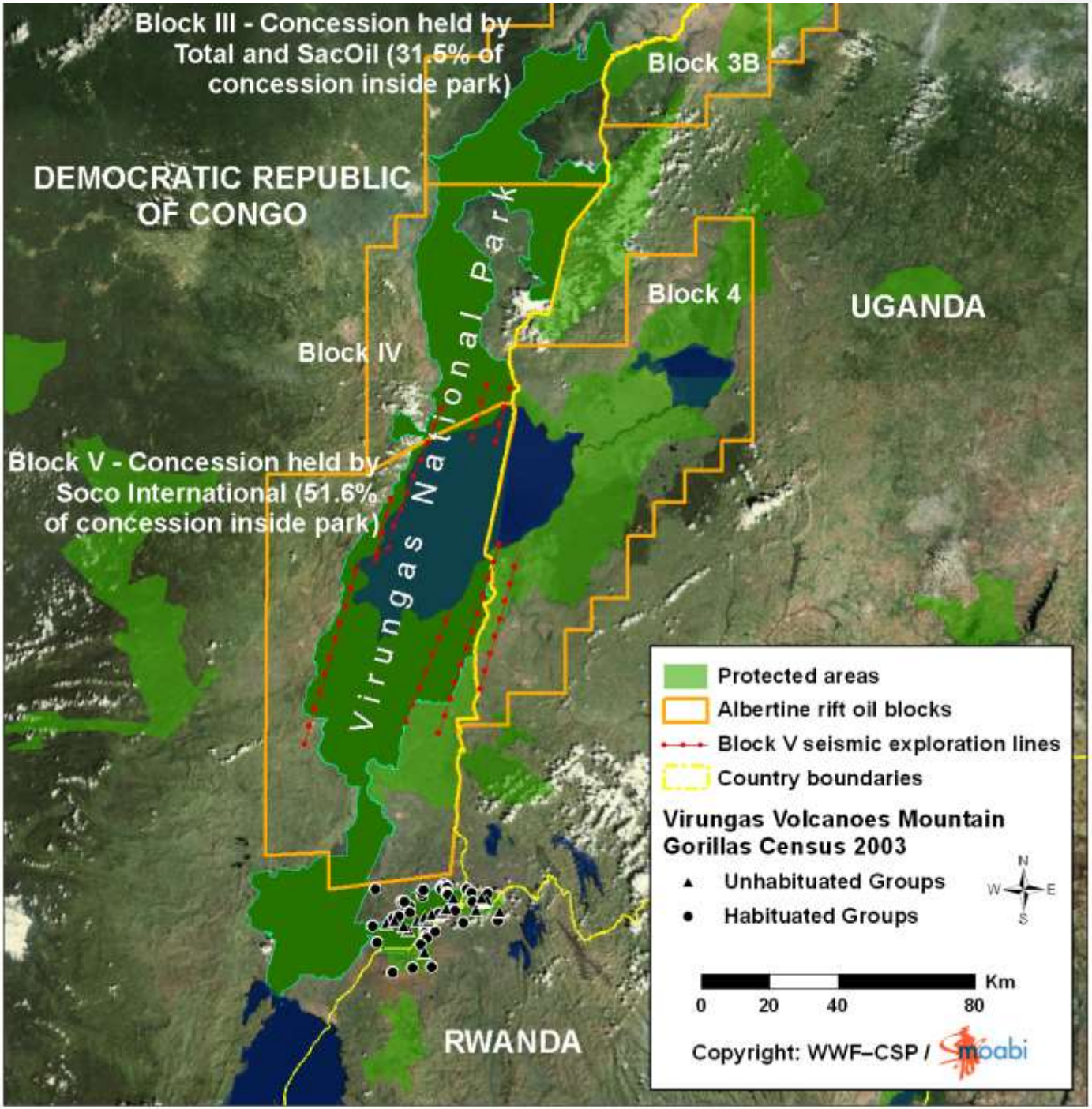
Fieldwork in collaboration with local partners:

Busitema University – Pursuing Excellence

Abomey-Calavi University

Bahir Dar University

Nelson Mandela African Institute of Science and Technology


Block III - Concession held by Total and SacOil (31.5% of concession inside park)
Block 3B
DEMOCRATIC REPUBLIC OF CONGO
Virungas National Park
Block 4
UGANDA
Block IV
Block V - Concession held by Soco International (51.6% of concession inside park)
RWANDA
Protected areas
Albertine rift oil blocks
Block V seismic exploration lines
Country boundaries
Virungas Volcanoes Mountain Gorillas Census 2003
Unhabituated Groups
Habituated Groups
N
W
E
S
Km
0
20
40
80
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EVAMAB project

Focus on 4 Biosphere Reserves (buffer + transition areas):

Pendjari National Park, Bénin

Lake Tana, Ethiopia

Mount Elgon, Uganda

Lake Manyara, Tanzania

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General objective:

Assess the value of priority ecosystem services for a better appreciation of the potential for management and socio-economic integration.

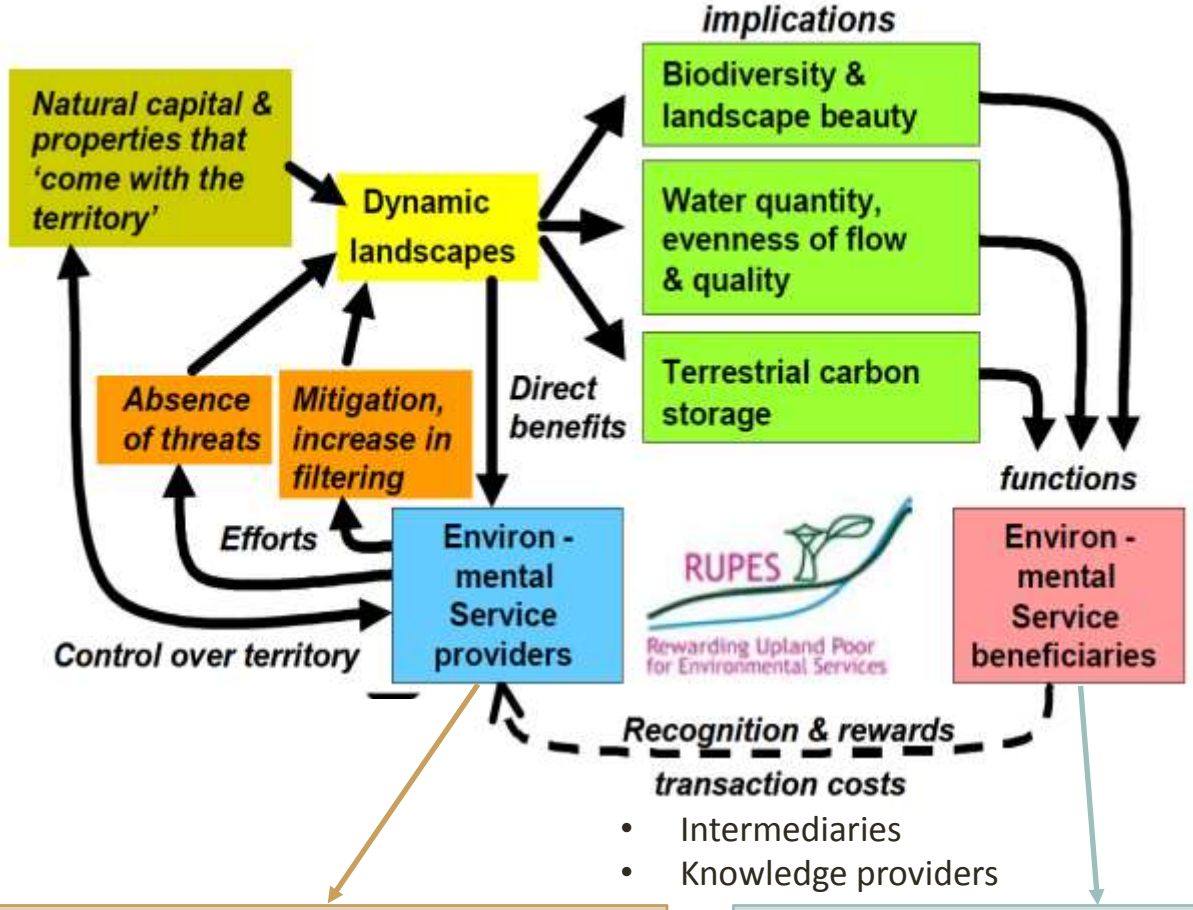
Specific objectives:

- select, test and adapt rapid assessment tools
- formulate pertinent stakeholder engagement and policy advice for managers and decision-makers

  → e.g. Reward mechanisms,
  PES: Payment for Ecosystem Services

Reward mechanisms/PES

Conceptual diagram of Ecosystem service providers and beneficiaries



They provide/secure or improve the supply of the beneficial service

- Single farmers/associations
- Forestry owners/workers
- Communities

- Mostly public sector (national/regional /local government)
- Private sector (usually at local level)
- Citizens/consumers (via NGOs, public or private sector)

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- Focus on 3 clusters of assets providing ecosystem services:
    1. Carbon stocks
    2. Water (hydrology)
    3. Biodiversity

- Essentially 4 groups of stakeholders:
    - (1) local scientific institutes,
    - (2) government and local policy makers and managers,
    - (3) local populations,
    - (4) global donors and scientific community at large, and UNESCO-MAB in particular

Work packages

- WP A: literature survey of rapid assessment methods and tools for ecosystem services related to MAB sites
- WP B: rapid assessment of ES in 4 selected MAB sites
- WP C: science-policy interface
- WP D: economic valuation of Ecosystem Services and guidelines for reward mechanisms

WP A: Rapid assessments tools

Detailed evaluation in 3 steps:

1) Desk study

- Examples of evaluation criteria:
  - User interface: user-friendly?
  - Type of Results
  - Data and capacity demand
  - Identification of beneficiaries and providers
  - Economic valuation emphasis

tessa

Toolkit for Ecosystem Service Site-Based Assessment

InVEST

integrated valuation of ecosystem services and tradeoffs

Description of all ecosystem service tools against key evaluative criteria.

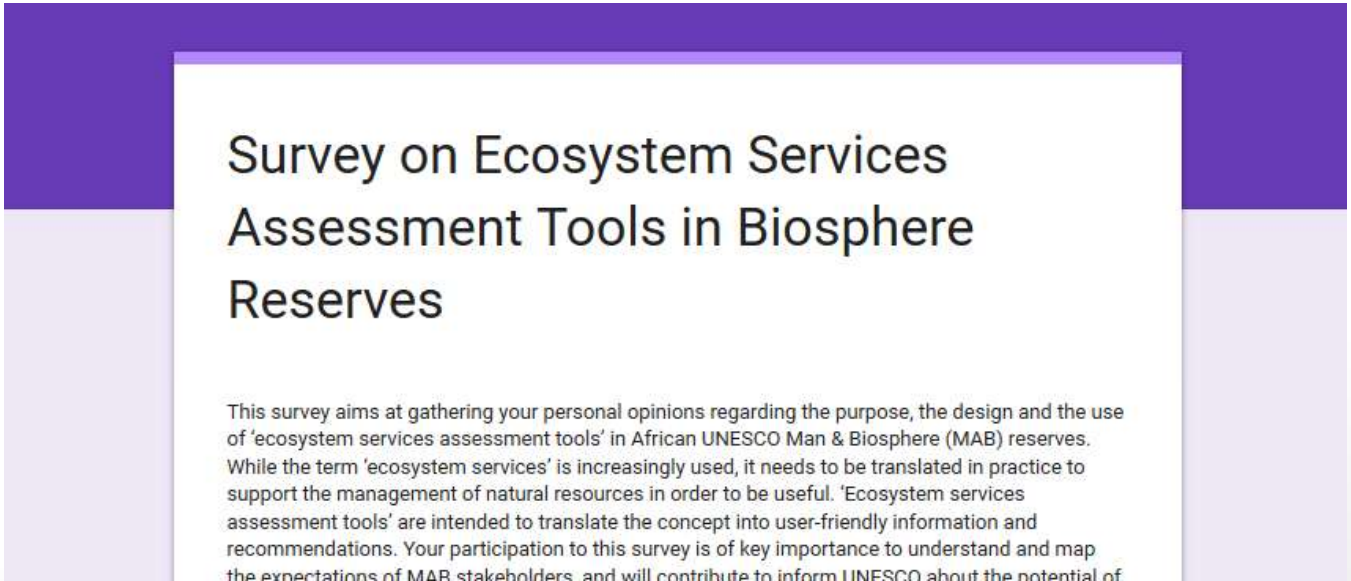
Tool	Quantifiable, approach to uncertainty	Time requirements	Capacity for independent application	Level of development & documentation	Scalability	Generalizability	Nonmonetary & cultural perspectives	Affordability, insights, integration with existing environmental assessment

WP A: Rapid assessments tools

2) Delphi with experts

- Review of existing assessment tools relevant for MAB sites management, taking into account the preferences of MAB managers

- → Delphi 2-steps survey


Survey on Ecosystem Services Assessment Tools in Biosphere Reserves

This survey aims at gathering your personal opinions regarding the purpose, the design and the use of 'ecosystem services assessment tools' in African UNESCO Man & Biosphere (MAB) reserves. While the term 'ecosystem services' is increasingly used, it needs to be translated in practice to support the management of natural resources in order to be useful. 'Ecosystem services assessment tools' are intended to translate the concept into user-friendly information and recommendations. Your participation to this survey is of key importance to understand and map

3) Pilot study of Rapid Assessment Tools

WP B: Rapid assessment of ES in 4 selected MAB sites

Current Progress:

- December 2016: Lake Manyara stakeholders workshop
- January 2017: Lake Tana start up exploration
- June 2017: Lake Manyara field visit

→ Reinforcing partnership + first interviews

- August-October 2017: master students in Uganda and Benin

→ Pilot of selected tools

WP B: Rapid assessment of ES in 4 selected MAB sites

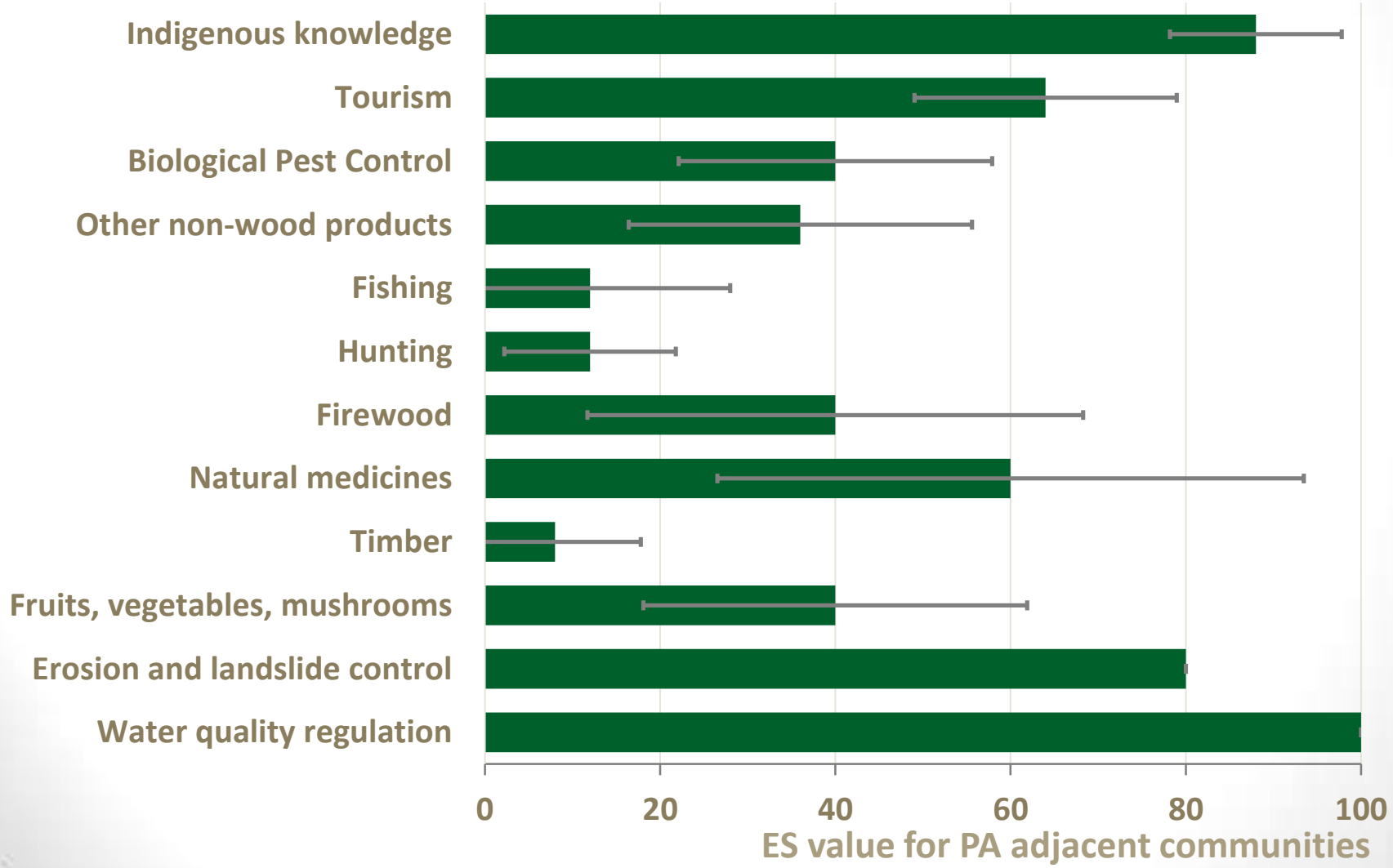
- TESSA-tool and PA-BAT tool pilot study in Mt. Elgon region (Uganda)








WP B: Rapid assessment of ES in 4 selected MAB sites



WP C: science-policy interface

Next Steps:

- multi-stakeholder workshops at the 4 sites to validate the results of WP B
- recommendations will be formulated for managers, decision- and policy makers and community leaders

→ workshops

→ policy briefs

→ research papers

→ other multiplicator media (radio, posters, social media…)

WP D: Economic valuation of Ecosystem Services and guidelines for reward mechanisms

- Based on the rapid assessments and willingness to pay

→ Benefits transfer valuation

- More deep economic valuation for one the sites: Lake Tana
- WTP experiments will be carried out in Lake Tana and Mt. Elgon (2018)
- Prof. Steven Van Passel

Questions? Or Contributions?

- We kindly ask you to fill in the Delphi Survey.