

# **INTEGRATING NATURE INTO DECISION-MAKING THROUGH NATURAL CAPITAL ACCOUNTING**

**High Level South-South Policy Exchange**

**Uganda - Costa Rica  
Transformation to a Green Economy  
Washington, DC and Costa Rica  
March 28 – April 6, 2019**

**Rosimeiry Portela, Ph.D.**





# GABARONE DECLARATION FOR SUSTAINABILITY IN AFRICA (GD SA)







INDIAN OCEAN

**LIBERIA**

**GHANA**

**GABON**

**UGANDA**

**KENYA**

**RWANDA**

**TANZANIA**

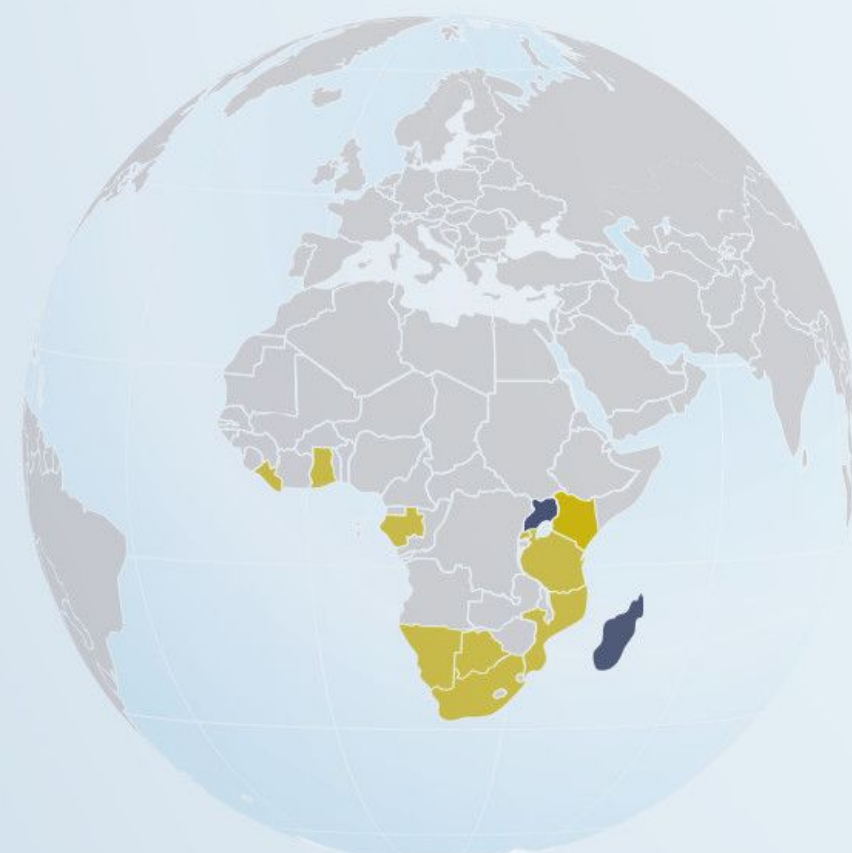
**MOZAMBIQUE**

**MADAGASCAR**

**NAMIBIA**

**BOTSWANA**

**SOUTH AFRICA**







# GDSA COMMITMENTS

- Incorporating the value of natural capital in public and private sector policies and decision-making
- Pursuing sustainable development and sustainable production – incl. agriculture, fisheries, and extractive industries - while maintaining natural capital
- Generating data, undertake monitoring and build capacity to support policy and decision-making.



# GDSA OUTCOMES

## **Natural Capital Accounting**

Integrate the value of nature into decisions and policies

## **Sustainable Development**

Sustainability reflected in national plans and production systems

## **Environmental-Economic Monitoring**

Ensure decisions reflect change towards sustainability

## **Corporate Leadership**

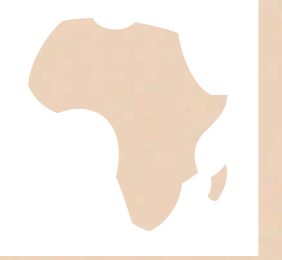
Accelerate the transformation to sustainability



gaborone declaration  
for sustainability  
in africa



# GDSA GOVERNANCE



The GDSA is an action, sharing and learning platform for NCA and sustainable development in Africa





# THE GDSA AT WORK



## **BUILDING THE MANDATE FOR WORK ON SUSTAINABILITY**

For example, the GDSA Secretariat facilitated the passage of the resolution on natural capital at the second United Nations Environment Assembly.

## **PROMOTING LEARNING THROUGH CAPACITY BUILDING OF GOVERNMENT OFFICIALS**

The GDSA has sent government officials from the GDSA countries to Cameroon, China, Costa Rica, and Australia for learning exchanges.

## **LESSONS SHARING BY CONNECTING PEOPLE ACROSS NATIONAL BOUNDARIES**

The GDSA has organized cross-national workshops on natural capital accounting, natural capital mapping, payments for ecosystem services, and the SDGs.

## **SPREADING THE SUSTAINABILITY MESSAGE ONLINE**

The GDSA Facebook page has a monthly reach of over 50,000 people. The website is visited by 5,000+ people annually.

## **CONNECTING IMPLEMENTATION AND POLICY ACTORS**

The GDSA is a unique platform as it spans the public and private sector.





# NATURAL CAPITAL ACCOUNTING





# IGNORING NATURE JEOPARDIZES PROSPERITY

Economies and societies need nature to thrive.

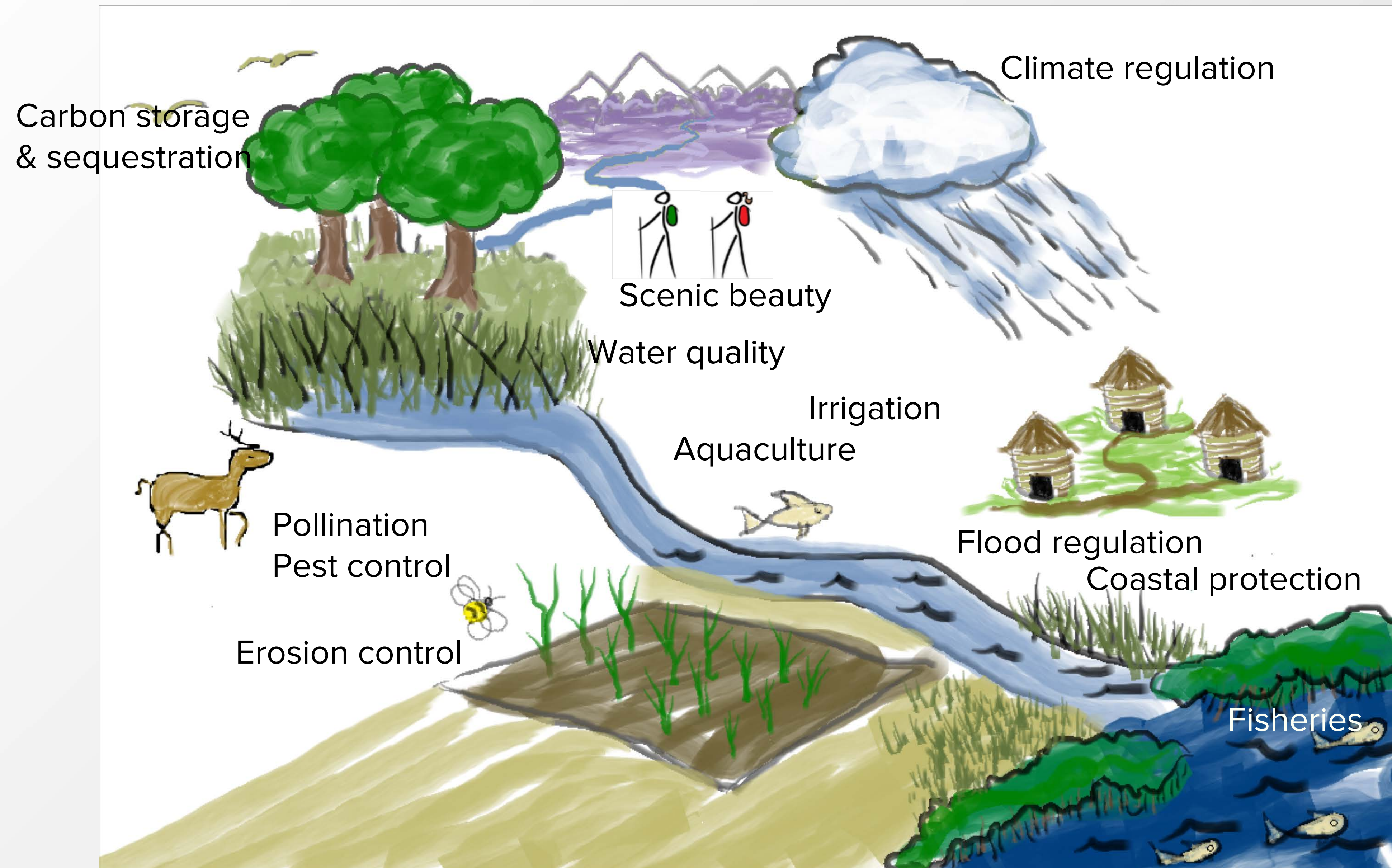


Impacts and dependencies are ignored

 As a result natural capital is being eroded at an alarming rate



# NATURAL CAPITAL AND ECOSYSTEM SERVICES





# NATURAL CAPITAL ACCOUNTING

A **SYSTEMATIC** PROCESS FOR TRACKING NATURAL ASSETS, THE SERVICES PROVIDED BY THEM AND THEIR RELATIONSHIP TO THE ECONOMY

Adapted from World Bank, 2015



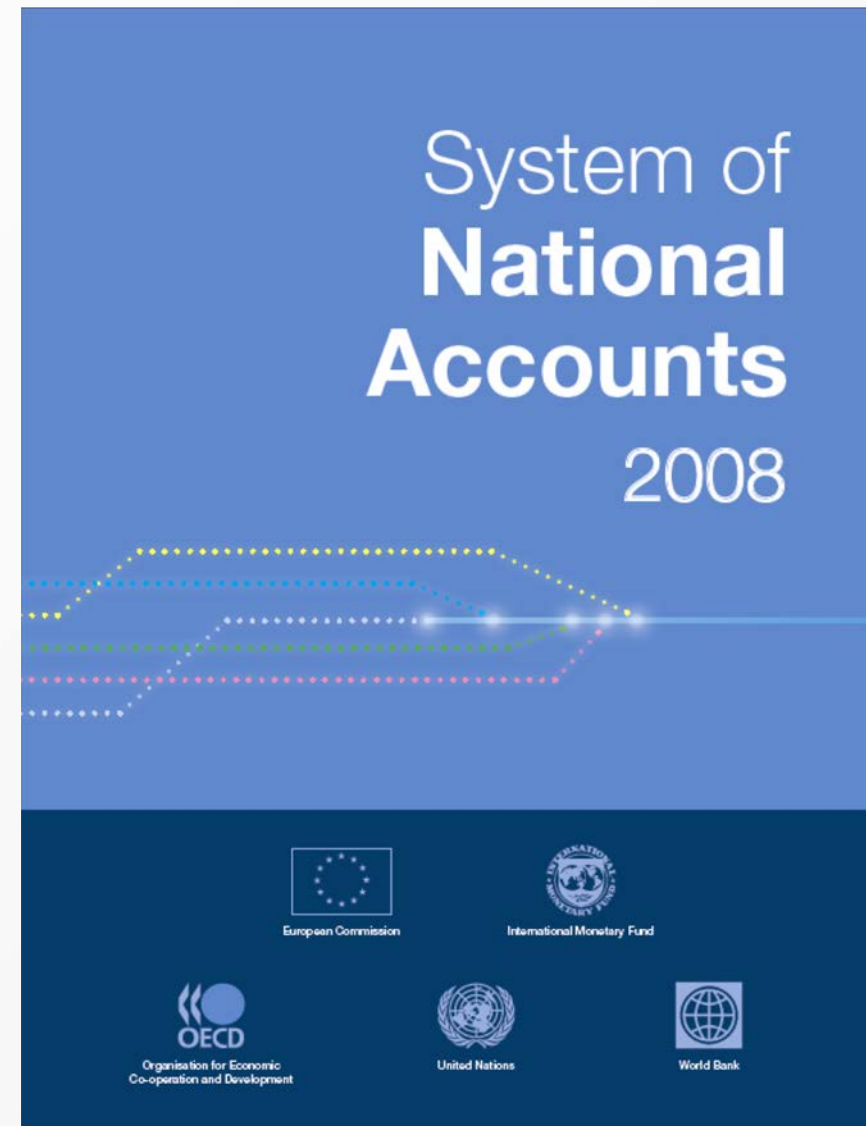


# THE SYSTEM OF ENVIRONMENTAL ECONOMIC ACCOUNTING (SEEA)





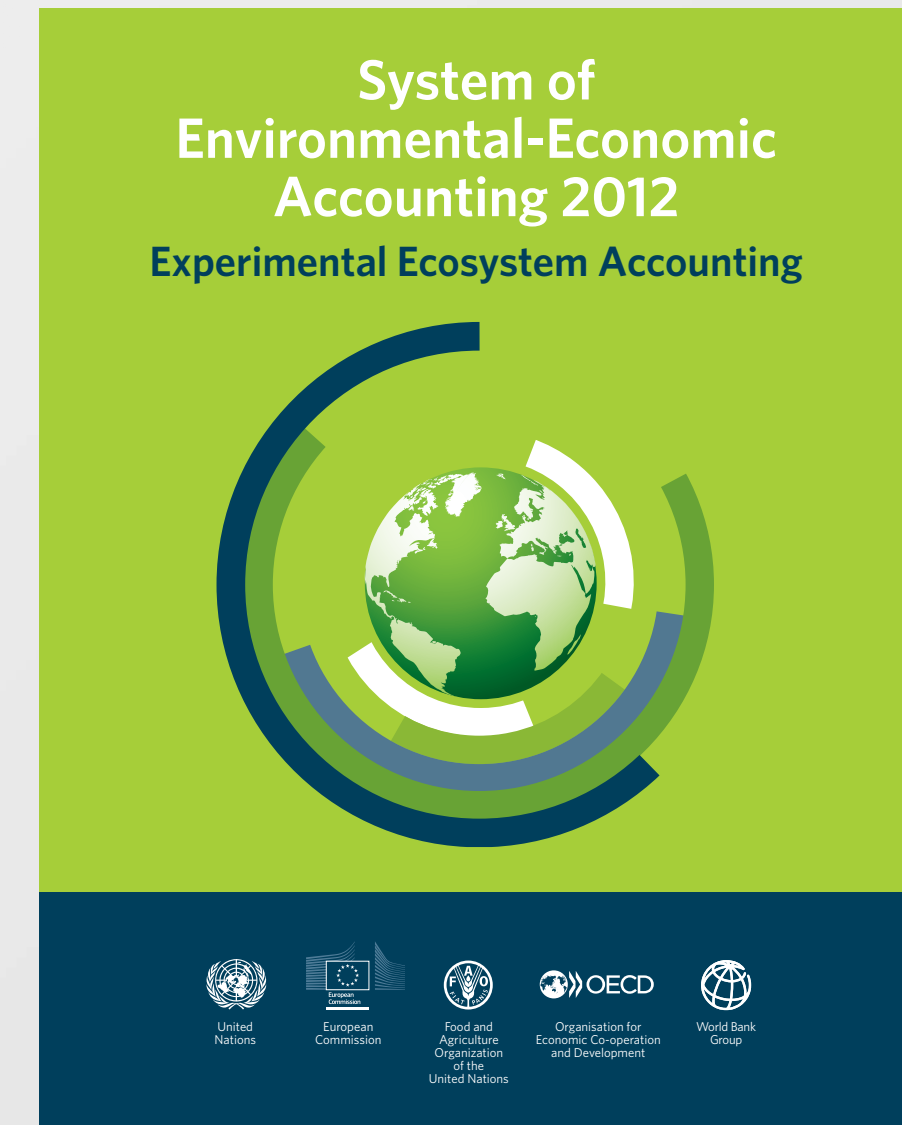
# HISTORY OF NATIONAL ACCOUNTING



- Asset and production boundaries set by economics
- Production defined as being capable of being sold in markets
- Monetary measures
- Assets defined as being owned and capable of being used for economic gain



- Physical quantity measures added to monetary measures
- Asset boundary expanded
- Assets no longer have to be owned or capable of being used for economic gain



- Physical quality (or condition) measures added
- Production boundary extended
- Production from ecosystems recognized and does not need to be sold in markets





# SEEA CENTRAL FRAMEWORK

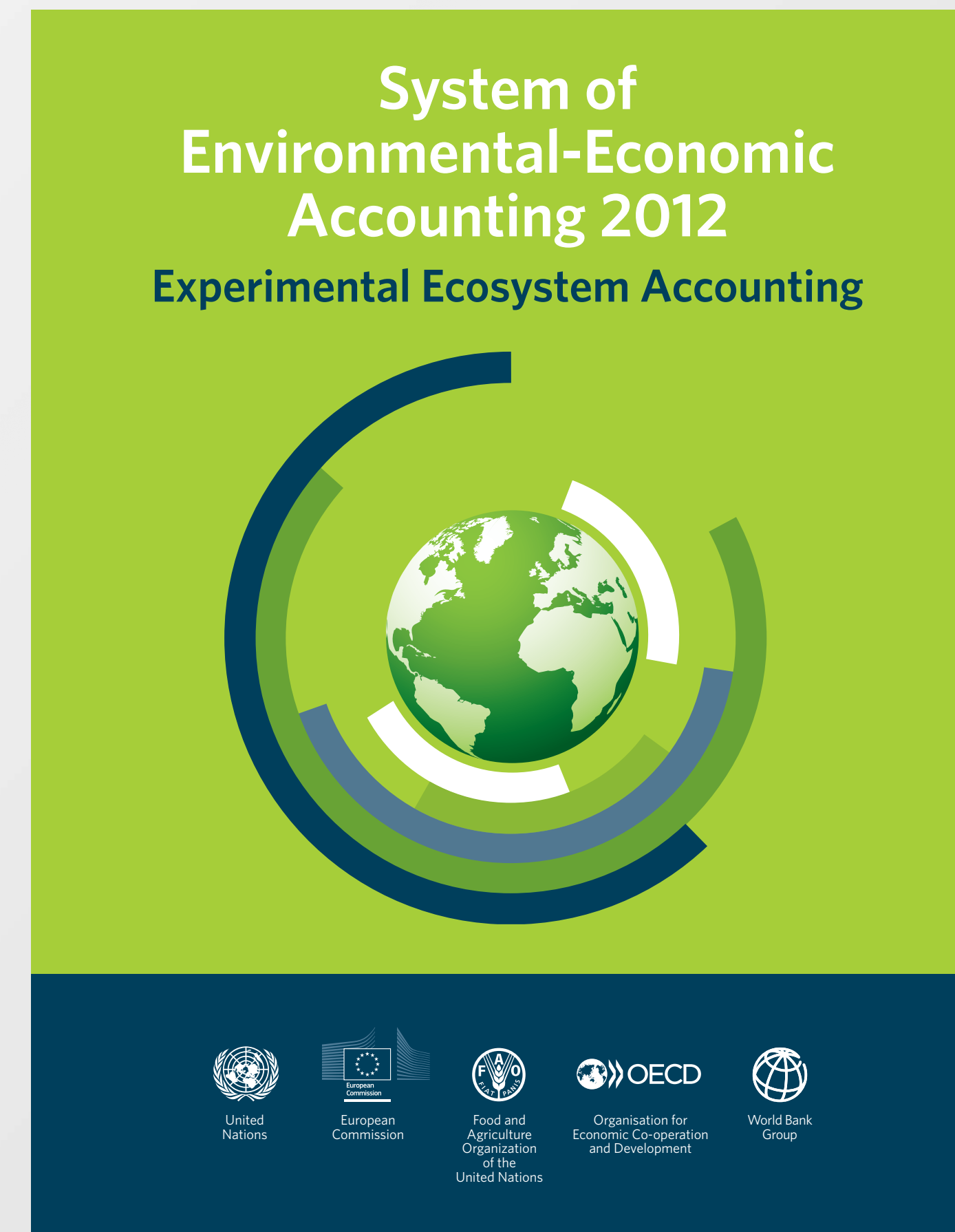
- International statistical standard (2012)
- Broad coverage of topics
  - Water, energy, emissions, waste
  - Environmental activity accounts
  - Minerals, timber, fish, water, soil
  - Land accounting





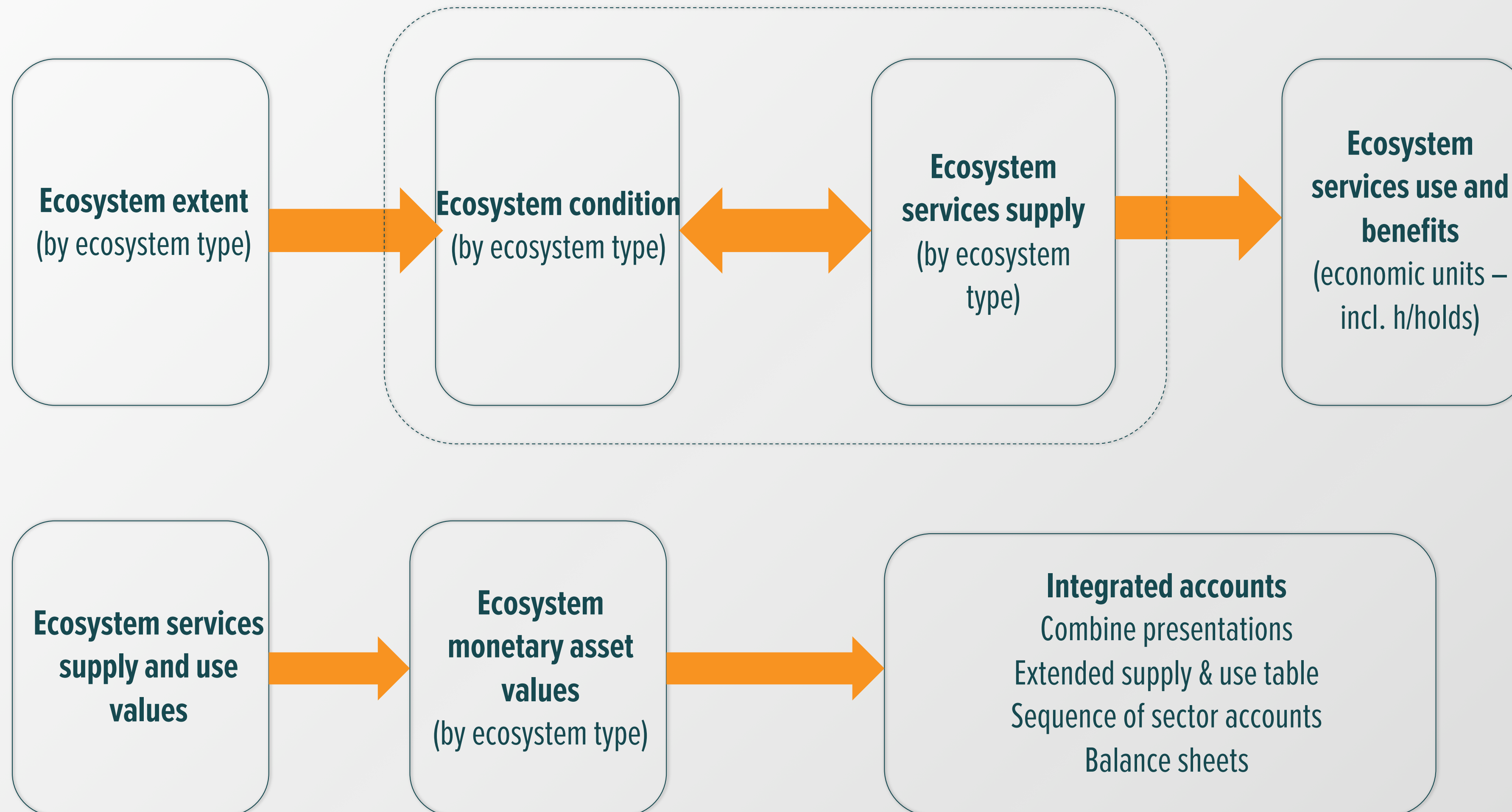
# SEEA ECOSYSTEM ACCOUNTING

- First release in 2013
- Takes a systemic view with the economy operating within the broader environmental system
- Focus on ecosystem boundaries: Ecosystem stocks/assets and ecosystem services



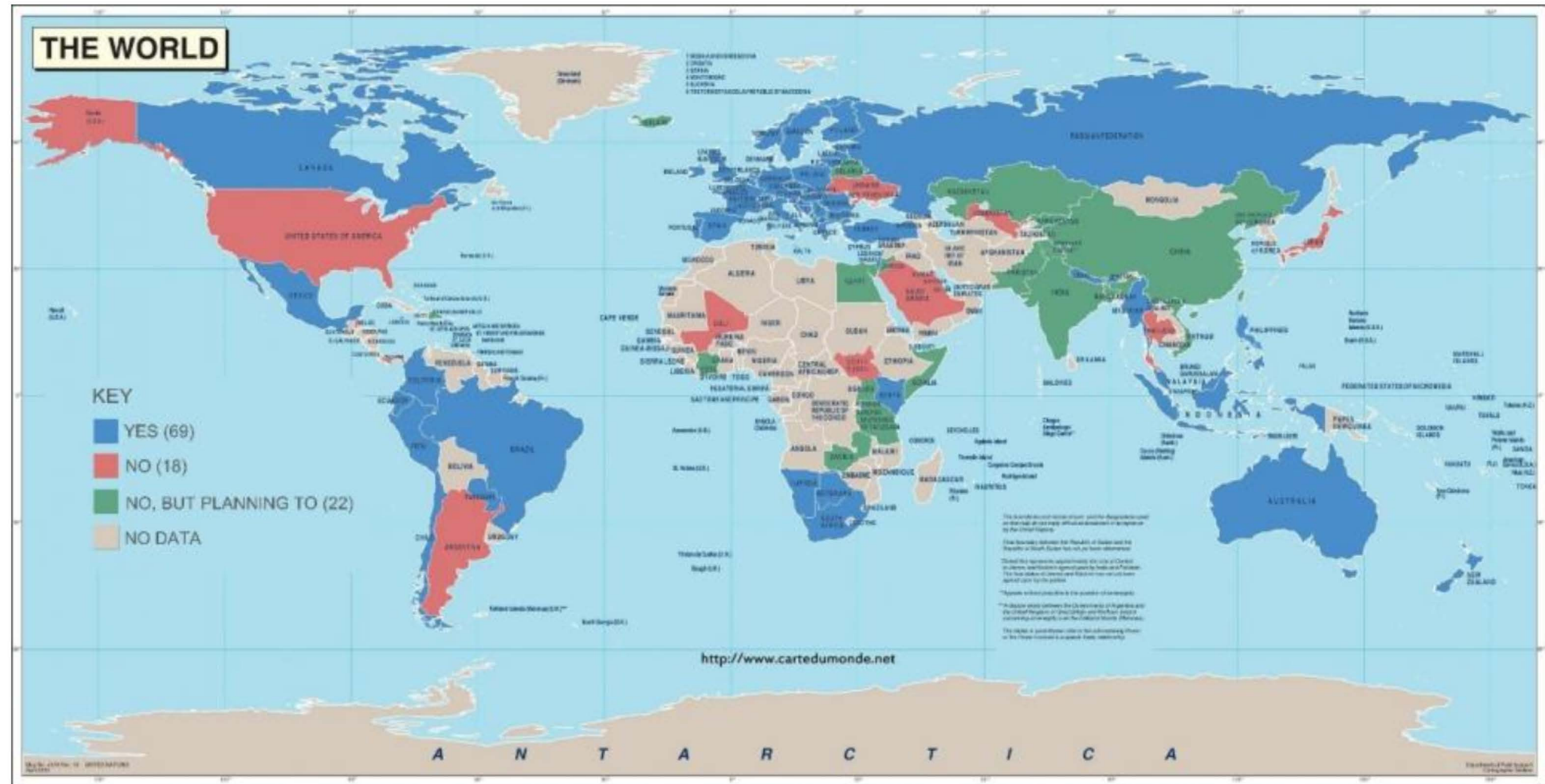


# STEPS IN ECOSYSTEM ACCOUNTING





# SEEA IMPLEMENTATION







# NATURAL CAPITAL ACCOUNTING IN SAN MARTIN, PERU





**SAN MARTIN, PERU**



# ECOSYSTEM SERVICES

CARBON STORAGE  
AVOIDED SEDIMENTATION  
ECOTOURISM  
TIMBER  
BUSHMEAT  
FIREWOOD  
WATER PROVISION





**CONTRIBUTION OF ECOSYSTEMS TO THE REGIONAL ECONOMY  
WAS ESTIMATED AS 191 MILLION PERUVIAN SOL  
(ABOUT US\$58 MILLION)**

**WHICH WOULD REPRESENT THE EIGHTH BIGGEST SECTOR IN SAN  
MARTÍN.**

**8TH OUT OF 32 SECTORS**

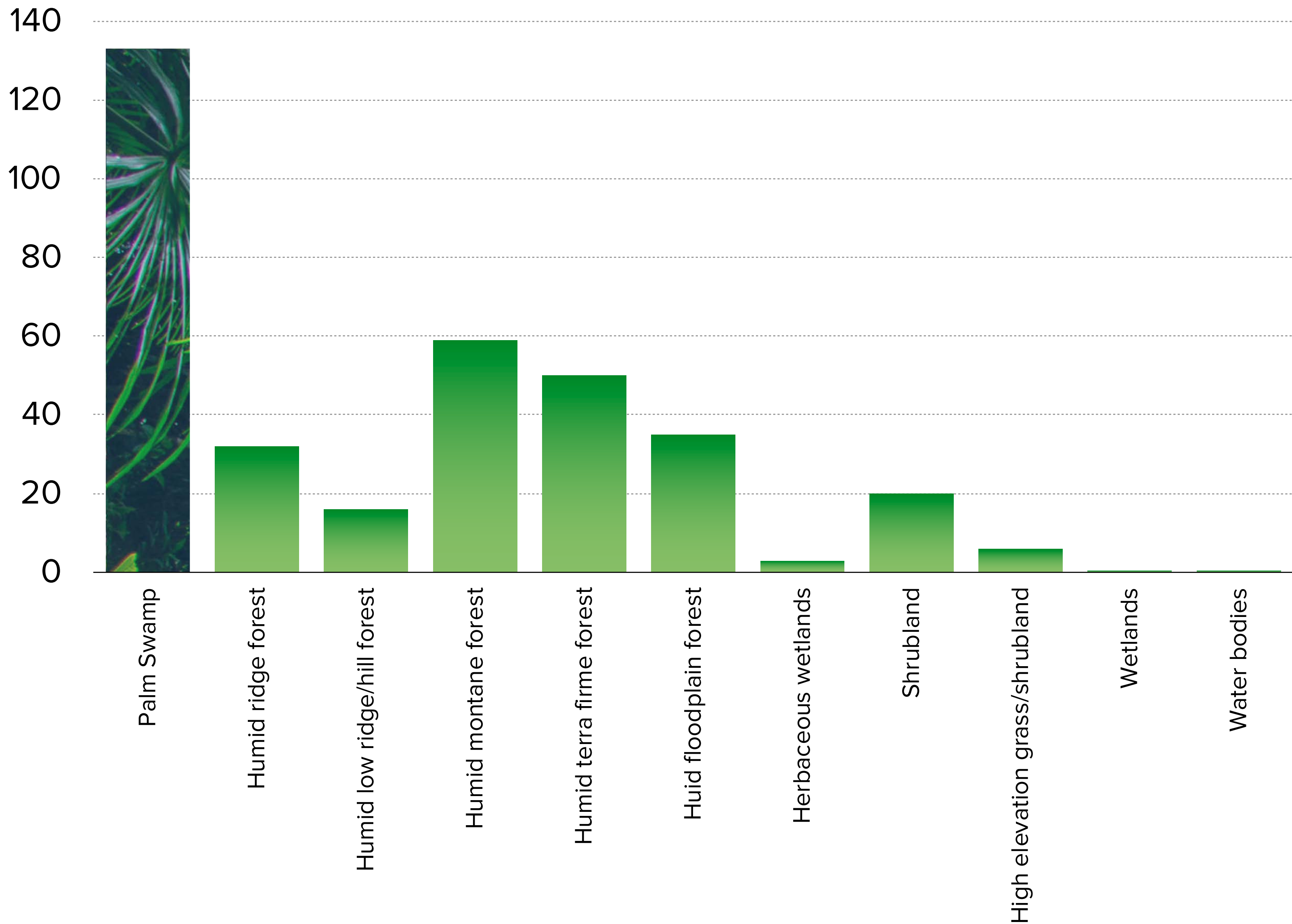




# AGUAHE: HIGH VALUE ECOSYSTEMS



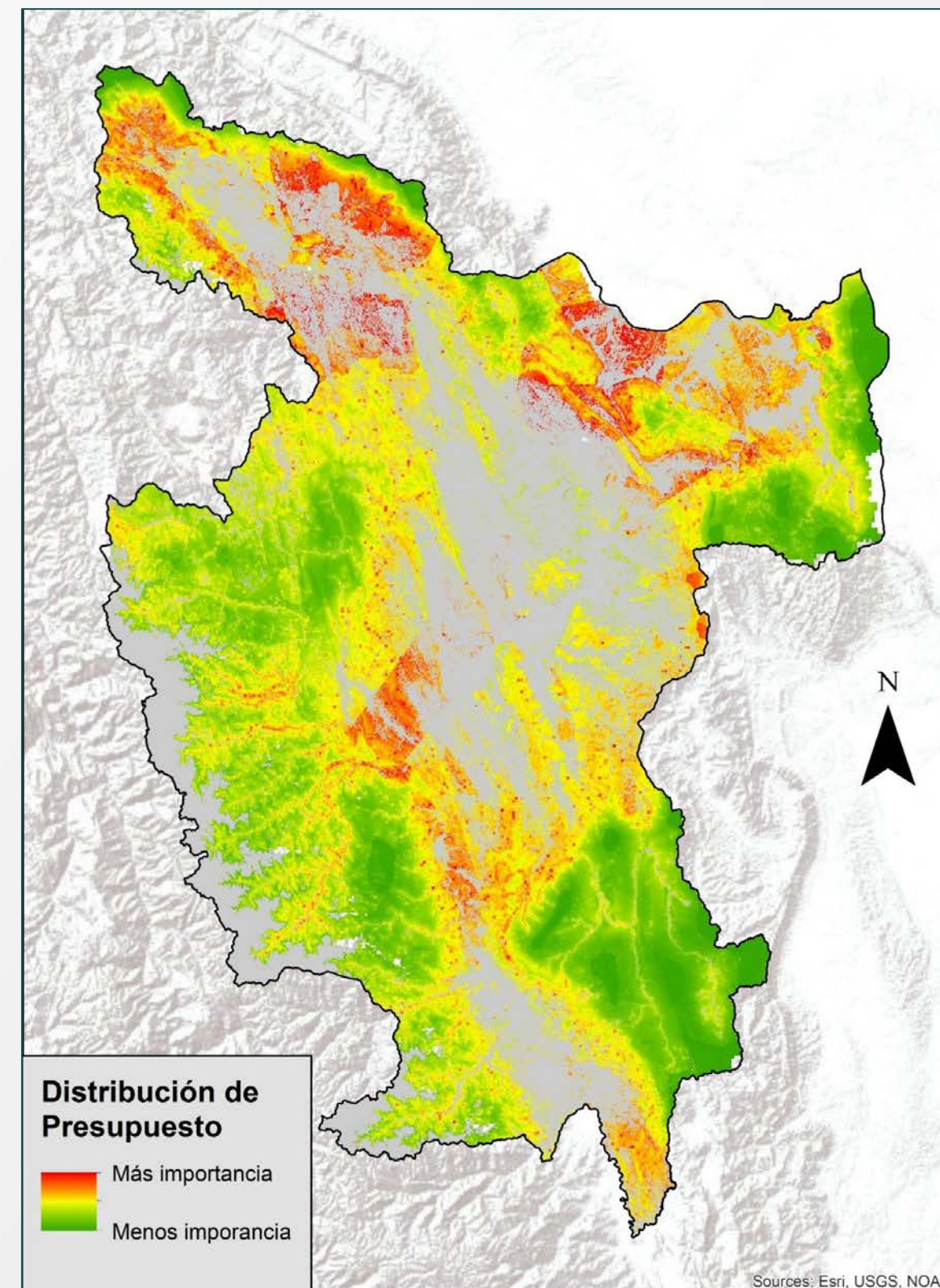
PEN/Hectare



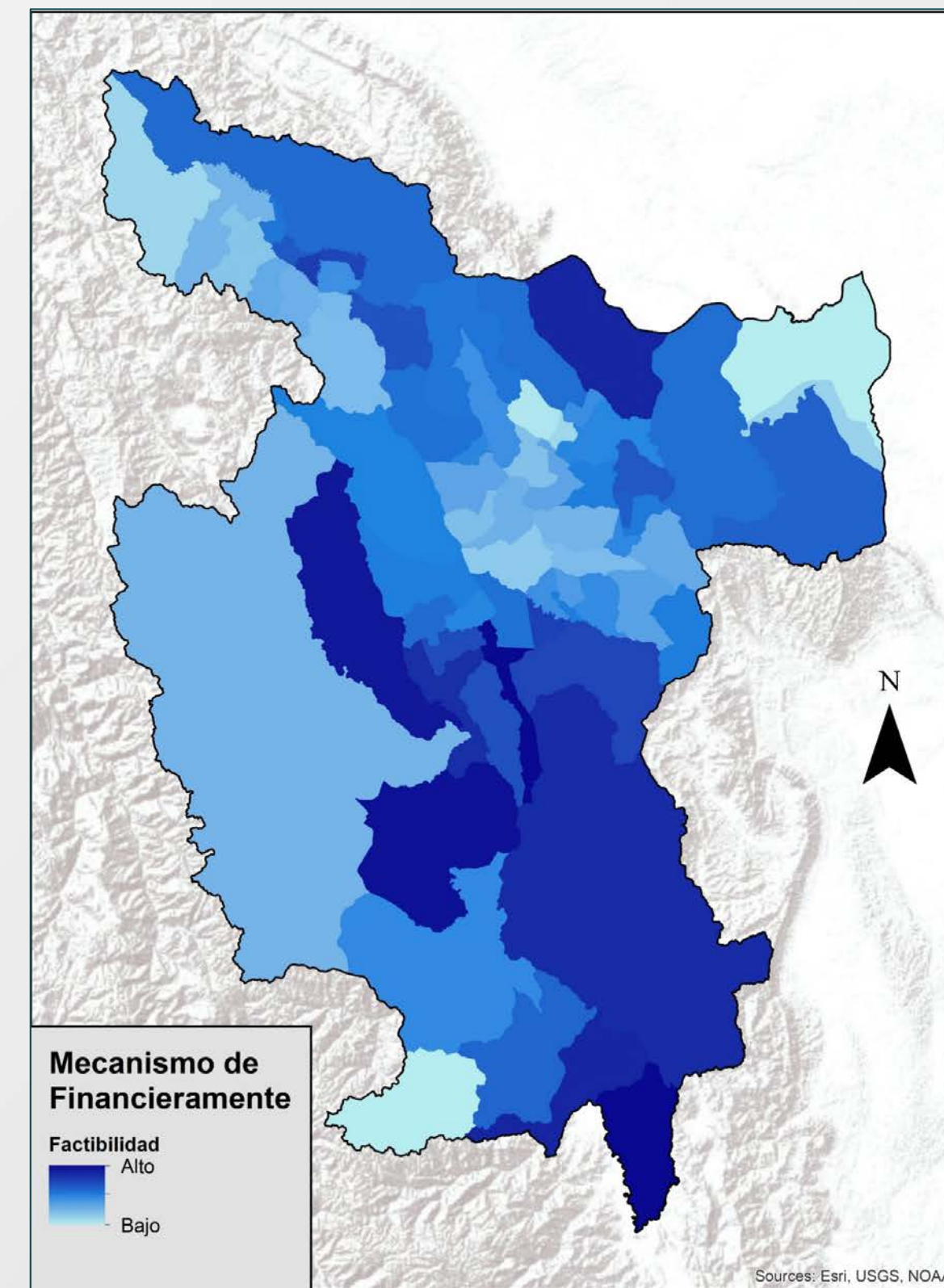


# POST ACCOUNTING POLICY APPLICATIONS

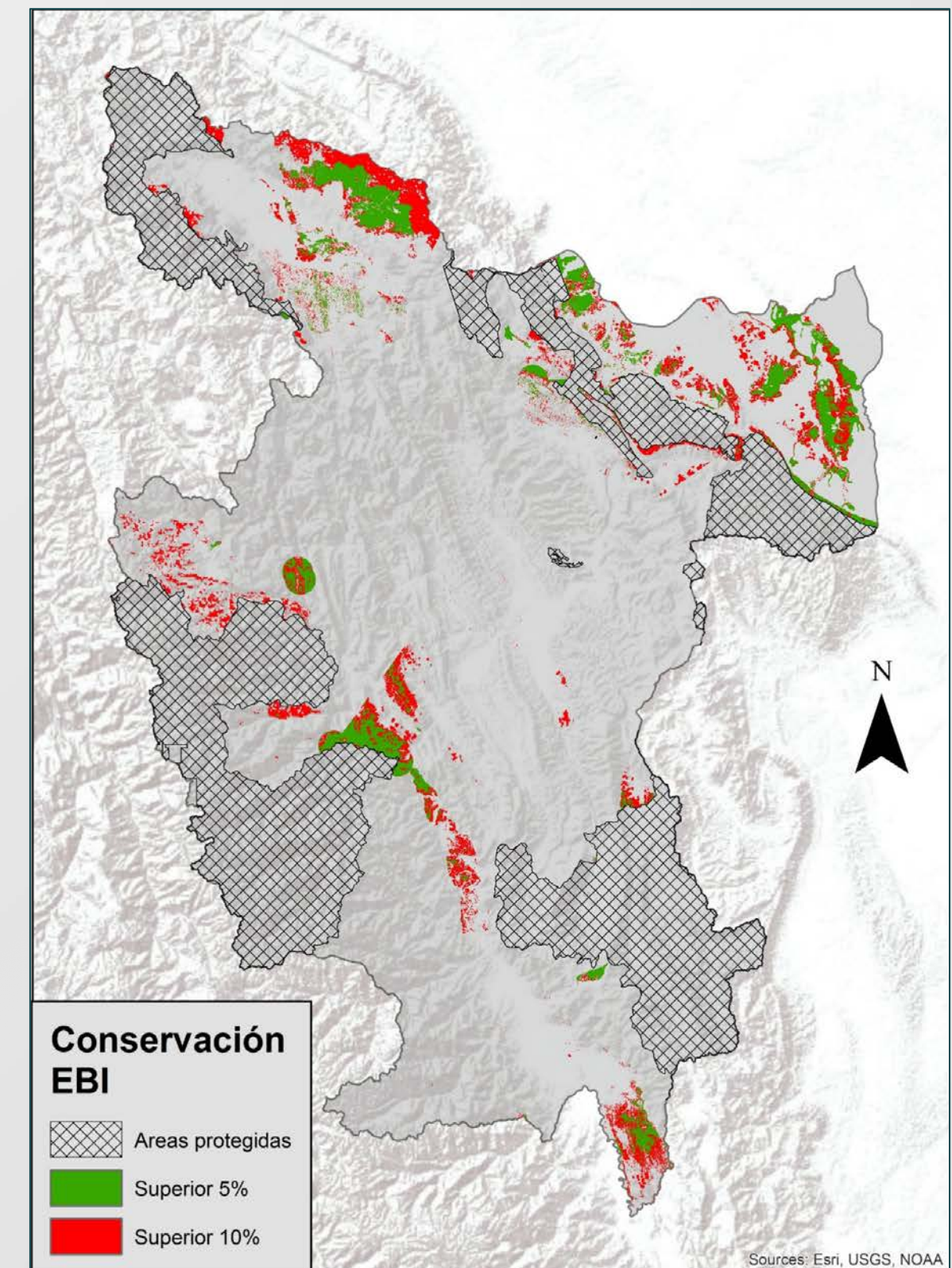
RESOURCE  
ALLOCATION  
SPATIAL PLANNING  
PRIORITY SETTING



Environment and budget allocation



Environmental financial mechanisms



Prioritizing areas for conservation





# NATURAL CAPITAL ACCOUNTING IN UGANDA





# STOCK TAKE OF NCA IN UGANDA

NCA Theme	Temporal Coverage	Ecosystem Services considered	Producer / Reference	Uses	Donor
Forest	2009	Timber and NTFPs Carbon storage/ sequestration Soil protection Biodiversity Recreation	NEMA (NEMA, 2011)	Determine the physical stocks and flows of forestry resources in Uganda  Estimate the aggregate contribution of forestry resources to the national economy.	WAVES
Forest	2015	Timber and NTFPs Carbon storage /sequestration Soil protection Disease prevention Water quality Inland fisheries protection Maintenance of hydropower capacity	MWE / UN-REDD (Oliveria, 2018)	Analyse the economic value of Uganda's forest resources and demonstrate policy instruments to alleviate pressure on these natural forest systems.	UN-REDD





# STOCK TAKE OF NCA IN UGANDA

NCA Theme	Temporal Coverage	Ecosystem Services considered	Producer / Reference	Uses	Donor
<b>Biomass and Land Cover</b>	1990; 2005 (2010 and 2015 for Land Cover only)	Focus on biomass for energy	NFA (Diisi, 2009)	Better planning and use of biomass derived energy at national, regional and local levels  Address the extent of land cover distribution and a scenario based analysis for different land cover types	NORAD
<b>Water</b>	Circa 2011	Water provision	Economic Research Southern Africa (PhD Project, Kilimani, 2013)	Assesses the water supply and use situation in Uganda and identify under or over utilisation of this resource	National Treasury of South Africa
<b>Ecosystems &amp; Species</b>	1990; 2005; 2010; 2015	NTFPs / Iconic Species for wildlife watching tourism	UNEP-WCMC, IDEEA, WCS, NPA, NEMA (UNEP-WCMC & IDEEA, 2017)	Inform on a set of key policy application relevant to biodiversity in Uganda	UNEP





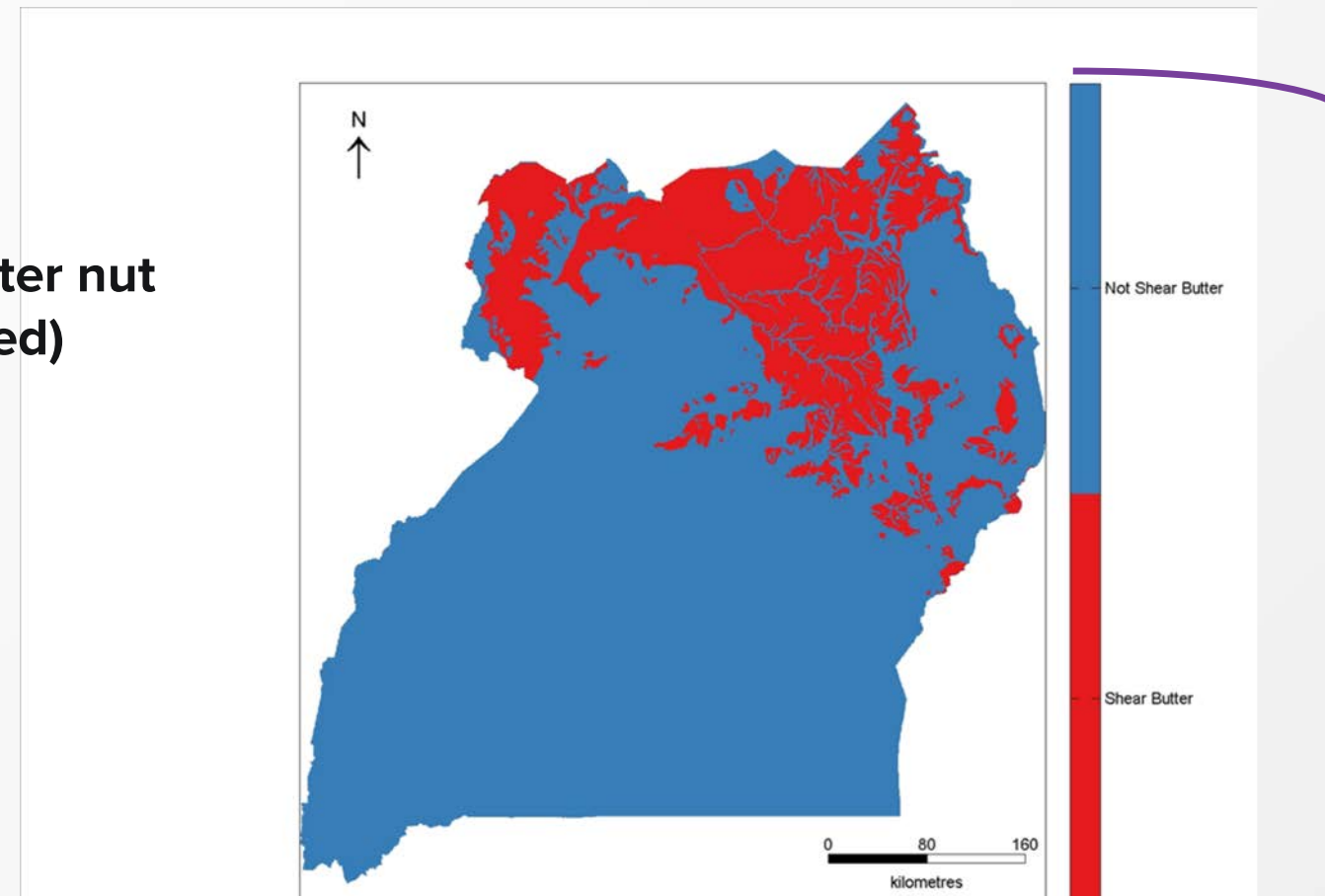
# ECOSYSTEM ACCOUNTS - BIODIVERSITY



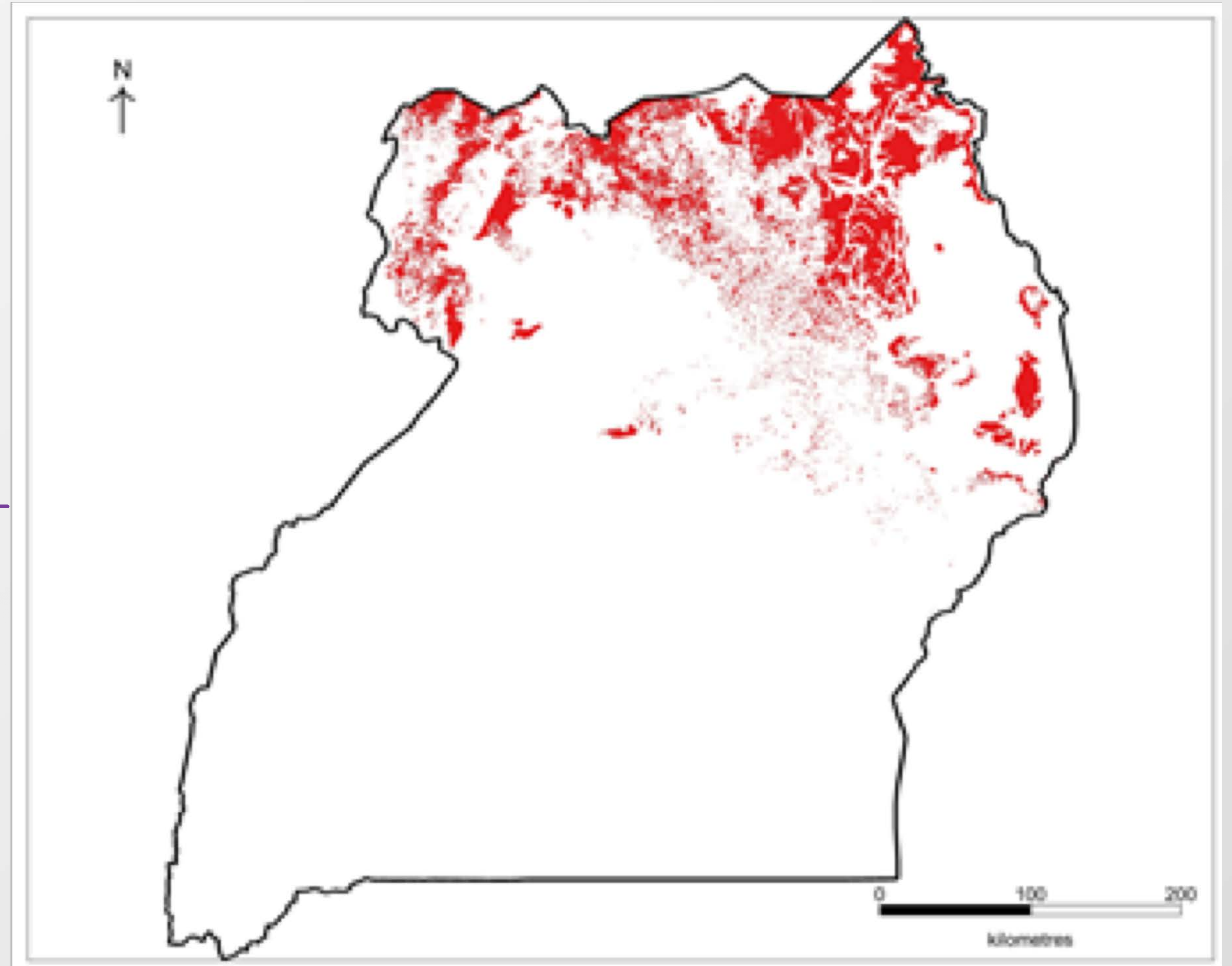
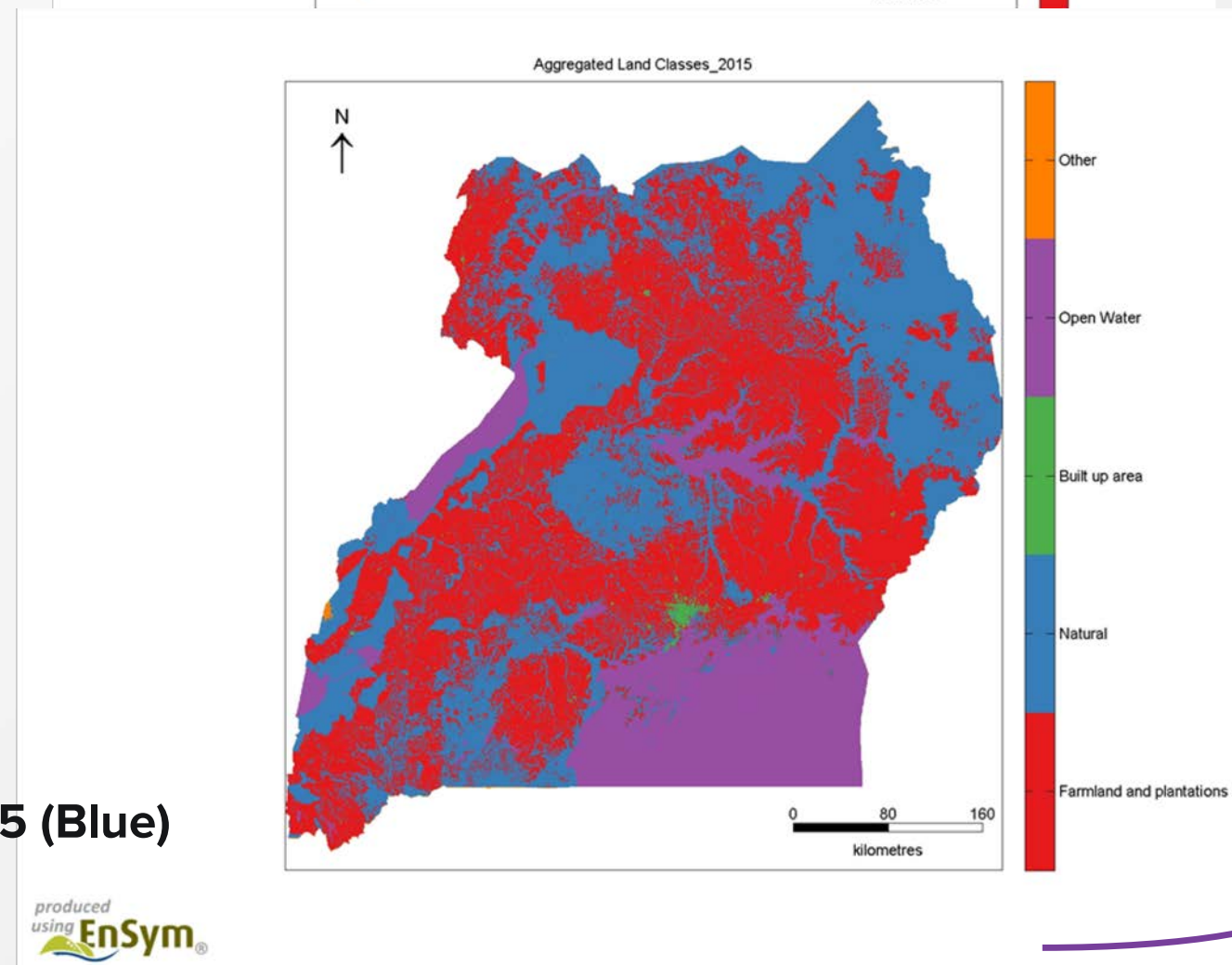


# SHEA BUTTER NUT TREE SUITABLE HABITAT OVER TIME

Original extent of Shea butter nut tree suitable habitat (Red)



Natural land cover in 2015 (Blue)



Shea tree suitable habitat in 2015

Pomeroy et al. (2002)  
Cottray, O., Miles, L. & Newton, A., (2006)

Source: King, S. 2019





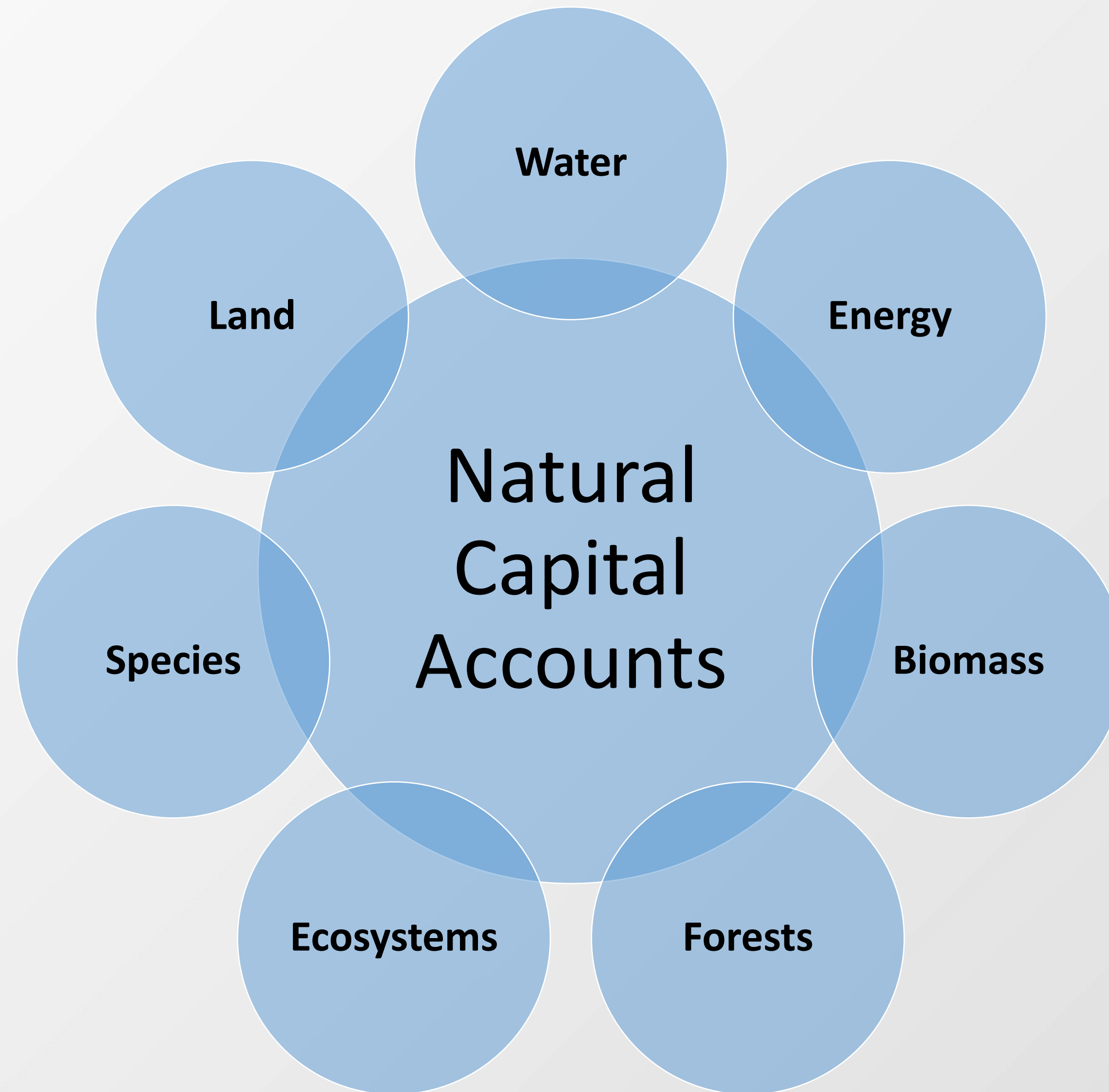
# SHEA BUTTER NUT TREE ACCOUNT 1990-2015 BY SUB-REGION AND PROTECTED AREA (HECTARES SUITABLE HABITAT)

	ACHOLI	ELGON	KARAMOJA	LANGO	TESO	WEST NILE	Uganda
Original Extent	1,698,092	84,296	831,487	481,236	605,551	986,801	4,687,463
1990	1,021,071	25,823	742,697	132,093	187,845	596,956	2,706,485
% Original Extent	60%	31%	89%	27%	31%	60%	58%
% 1990 extent in Uganda	38%	1%	27%	5%	7%	22%	100%
2015	788,723	15,042	702,678	83,443	91,280	419,758	2,100,924
% Original Extent	46%	18%	85%	17%	15%	43%	45%
% 2015 extent in Uganda	38%	1%	33%	4%	4%	20%	100%
<b>Regionally Protected 2015</b>	72,230	50	302,280	5,689	2,410	59,807	442,466
<b>Regional % Protected</b>	9%	0.33%	43%	7%	3%	14%	21%





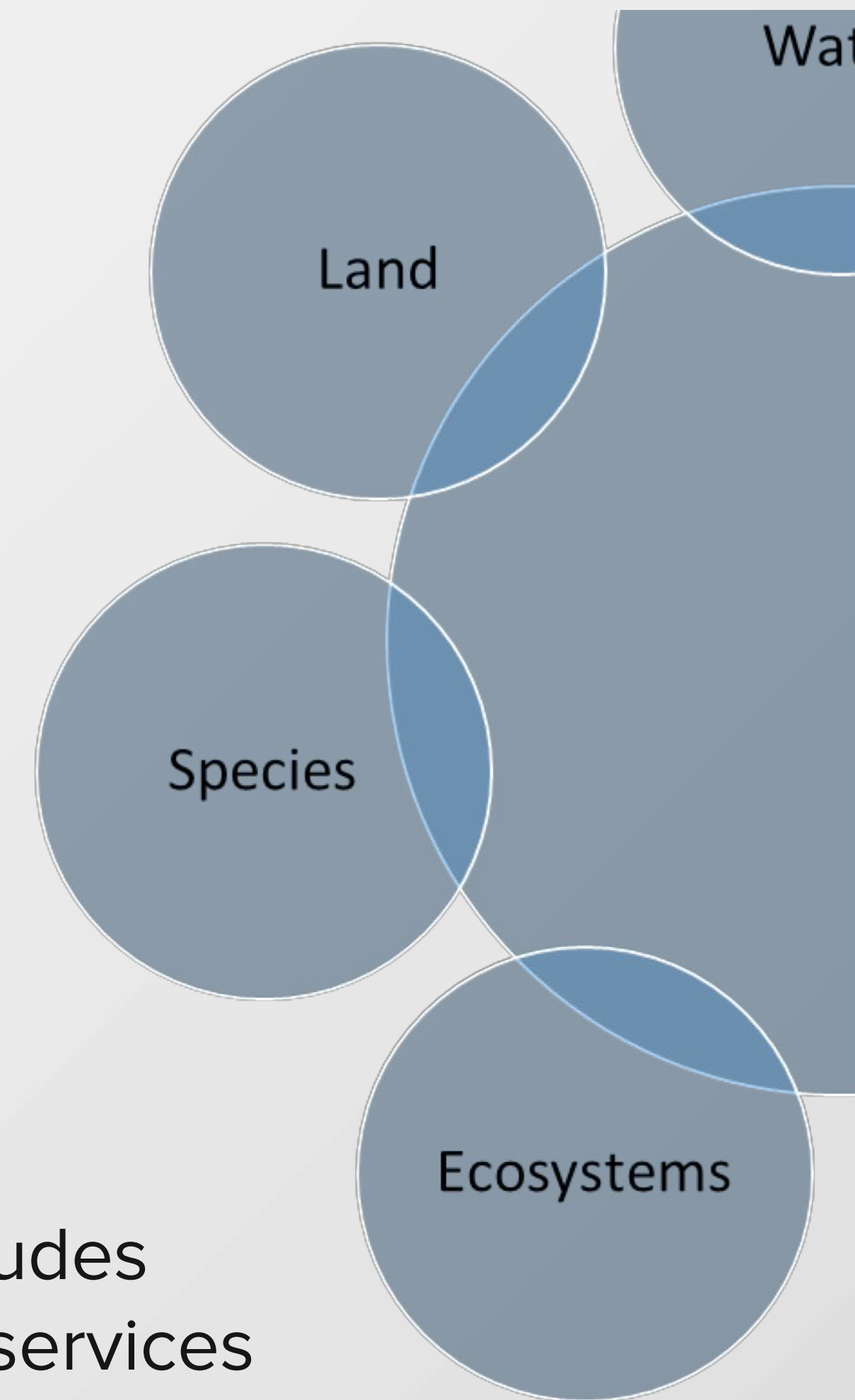
# ACCOUNTING FOR NATURE IN UGANDA





# ONGOING ECOSYSTEM ACCOUNTING WORK

- **Land Degradation:** Understand the evolution of soil fertility in order to draw policies for better soil management practices.
- **Fisheries:** Organise data on declining fish stocks and the implications on the country's exports earnings and livelihoods of its people.
  - **Biodiversity and tourism:** Organize data on major tourism sites and their species. This will highlight the value of tourism expenditure related to Uganda's iconic species
    - **Forest and wetlands:** Follow existing ecosystem accounting guidelines includes extent (assets), condition, ecosystem services supply and use





# NATURAL CAPITAL ACCOUNTING APPLICATIONS

- Knowledge: Natural assets, benefits to economy and livelihoods, distribution of benefits
- Applications: Monitoring, spatial planning, priority setting, resource allocation, compliance, investment decisions





# THANK YOU

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CONSERVATION  
INTERNATIONAL

