Natural Capital Accounting and Valuation of Ecosystem Services project

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NCAVES

- Implementing partners
  - United Nations Statistics Division
  - United Nations Environment Programme
  - SCBD
- Sponsor
  - European Union
  - Partnership Instrument
- Five partner countries
  - Brazil, China, India, Mexico, South Africa
- Project duration
  - 4 years from 2017-2020
Overall objectives

• Advance the knowledge agenda on Natural Capital Accounting, in particular ecosystem accounting

• By initiating pilot testing of SEEA Experimental Ecosystem Accounting, with a view to:
  • Improving the measurement of natural biotic resources, ecosystems and their services at the (sub)national level
  • Mainstreaming biodiversity and ecosystems in (sub)national level policy-planning and implementation
  • Contributing to the development of internationally agreed methodology and its use in partner countries.
Work streams

- Piloting ecosystem accounts (in each of the 5 partner countries) for selected areas (national and/or regional)
- Developing guidelines and methodology
- Indicators
- Business accounting (sustainability reporting)
- Communication and outreach
- Training and capacity development

- Cambridge workshop
- Global Report -> side-event Open ended WG
- Country testing of specific indicators

- Comms products
- Comms strategies
- Knowledge base
- Project website

- eLearning (Sp + Fr);
- webinars
- LAC training workshop
- National trainings /workshops
Guidelines and methodology

(in addition to support for revised SEEA EA)

• 3 Guidance manuals for ecosystem accounting
  > Biophysical modeling
  > Valuation
  > Scenario analysis

• Aligned with SEEA EA

• Biophysical guidance
  > Tiered approach
    - Tier 1 global data sets + models
    - Tier 2 national data sets
    - Tier 3 bespoke models
  > Process – editorial board / SEEA EEA TC
  > Timeframe (Q4 2019)
Natural Capital Accounting and Ecosystem Service Valuation

Miriam Barbuda
Brazilian Institute of Geography and Statistics/IBGE
Starting the implementation of Ecosystem Experimental Accounts in Brazil

Rio Grande hydrographic basin
- range of soil classes,
- number of rainfall and fluvimetric stations
- recent transformation in the types of land cover and use growth of agricultural activity over the Brazilian Cerrado, concentrating on the soybean crop

The region MATOPIBA - States of Maranhão - Tocantins – Piauí - Bahia
**FIRST RESULTS IN SWAT**

- **DEM**: generated from a mosaic of altimetric information made available in raster format for the national territory (SRTM 30m)
- **Soil map**: spatialization, in the scale of 1: 250,000, of the main soil classes of the region, prepared by the Brazilian Institute of Geography and Statistics (IBGE), within the scope of the Natural Resources Survey of Brazil
- **Coverage Map and Land Use**: spatialization of the main types of use and coverage, in the 1: 1,000,000 scale, carried out biannually, within the scope of IBGE’s ongoing Project for Changes in Coverage and Land Use.
FIRST RESULTS

THE 18 SUB-BASINS (land use + soil + slope)
The status of implementation of NCAVES in China

National Bureau of Statistics of China

FENG PEI
WHAT HAVE WE DONE THIS YEAR

Visiting The Two Pilot Provinces With UN Team

Holding NCAVES Project Stakeholders Meeting In Beijing
WHAT WILL WE DO

To Advance Two Researchs

FOCUS ON
To compile natural resources balance sheets in monetary terms
To align China's existing concepts and valuation methods of ecosystem services with those recommended in SEEA EEA

To Hold An International Workshop

FOCUS ON
To share international experiences, including presenting preliminary results from the two Chinese pilot provinces, as well as other project countries
THANKS

Welcome To China
Natural Capital Accounting & Valuation of Ecosystem Services
(Environmental-Economic Accounting in India)

Ministry of Statistics and Programme Implementation (MoSPI)
Government of India
Starting point

• Interaction with different agencies on activities to be taken up under the project

• A landscape assessment of
  – existing ecosystem accounting initiatives and literature in India
  – data sources for compiling ecosystem accounts
  – institutions and agencies active in this field

Report available on
EnviStats-India 2018
Supplement on Environmental Accounts

• First official publication based on SEEA released in September 2018
• Provides asset accounts in physical terms for forest, land, minerals and water at National and sub-national levels
• Depicts aggregate changes in the cohort of environmental assets of States
Current Activities

• Water quality and soil condition accounts
• Compilation of following ecosystem services:
  – Nature based tourism related services (based on Tourism Survey and Tourism Satellite Accounts);
  – Harvested living resources (provisioning of crops and forestry); and
  – Carbon sequestration.
• Exploring the possibilities of leveraging on biophysical modelling techniques.
THANKS
Natural Capital Accounting and Valuation of Ecosystem Services in Mexico (NCAVES - Mexico)

Fourteenth Meeting of the UN Committee of Experts on Environmental-Economic Accounting

June, 2019
Natural Capital Accounting and Valuation of Ecosystem Services in Mexico

Mexico as contributor and beneficiary of the NCAVES Project

Inter-institutional coordination as a key enabling factor

- INEGI as national producer and coordinator of statistical and geographical information
- SNIEG as a platform for the project’s inter-institutional groups:
  - Technical: 2-3 sessions/year
  - Steering (pending National Forum)
- Partnerships with key non-governmental stakeholders:
  - Academia, private sector, and civil society
- Existing conceptual/methodological infrastructure
  - Production of SEEA-MX since 1991 by INEGI
- Leadership in multilateral efforts on sustainable development
  - SDG monitoring, geospatial information, Earth Observations, integration of data sources
Quantifying ecosystem services in Mexico

State-level (3), NPAs & country-wide pilot studies:
- Surface water supply
- Food crop production
- Carbon in soil
  - Economic valuation on C capture & storage; C offsets in voluntary markets, social cost of Carbon, REDD mechanisms
- Coastal protection by mangrove ecosystem (under development)
Ecosystem Classification

Based on INEGI’s Land Use & Vegetation Maps (series 0 - VI)
Ecosystem Classification

Natural Protected Areas

Land Tenure

- COMUNIDAD
- EJIDO
Assessing ecosystem condition & environmental policies

Montes Azules Federal Protected Area

Marqués de Comillas (not protected)
Lessons & next steps

- Inter-institutional coordination and communication is key
- Pilot (state-wide, NPAs) exercises allow detection of data availability/gaps at an early stage
- Geographic & land property layers (protected, private, public, communal) can further enrich analysis
- Systematize ecosystem accounts as a regular national statistical product
- Identify how the SEEA-EEA can support public policy
- Ensure long-term replicability and use by national, subnational, regional & global users
- Alignment of SEEA-EEA Mx with international frameworks (SDGs, Aichi, Paris, Sendai...)
Thank you!
South Africa
UNSEEA
New York
24-25 June 2019
South Africa (1)

Accounts to be produced in NCA&VES Project

National
- National land & ecosystem asset accounts – terrestrial & marine, extent & condition
- Species accounts – rhino, cycads
- Protected area accounts – terrestrial & marine

Sub-national
- KZN: Full suite of ecosystem asset and ecosystem service accounts
- City-regions: land and ecosystem accounts for selected metros
Overview of upcoming events & development of accounts

- **15-18 April**: Visit by technical expert in Ensym.
- **27-30 May**: National Training
- **10-11 July**: National NCA Forum
- **Feb 2020**: National Stakeholder Engagement around national strategy
- **31 Mar**: Draft species accounts & improved spatial data
- **5 July**: draft National land and ecosystem accounts & draft city-region accounts
- **Sept-Dec**: National land and ecosystem accounts, city-region accounts, species accounts and PA accounts
- **Early 2020**: All accounts finalized with socio-economic links & recommendations made

NCA&VES Project end: Mar 2020
Upcoming activities

- June: SEEA EEA Forum
- July: National Forum SA, Pretoria
- August: Side-event Open Ended Working Group
- September:
  - UNCCD side-event; project mission India
  - National training Brazil
- October:
  - Business accounting workshop
  - Regional training workshop Africa, Pretoria
- November:
  - National Forum China, Beijing
  - 4th Policy Forum Uganda
- National Forum Mexico (tbc)