

System of Environmental Economic Accounting

Natural Capital Accounting and Valuation of Ecosystem Services project

Bram Edens, Ph.D.

Senior statistician / Project manager United Nations Statistics Division

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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 policyplanning 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

Instituto Brasileiro de Geografia e Estatística IBGE



Starting the implementation of Ecosystem Experimental Accounts in Brazil



Rio Grande hydrographic basin

- range of soil classes,
- number of rainfall and fluviometric stations
- recent transformation in the types of land cover and use growth of agricultural activity over the Brazilian Cerrado, concentrating on the sovbean crop

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

To Hold An International Workshop

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

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

https://seea.un.org/sites/seea.un.org/files/india_assessment_2019.pdf



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.









System of Environmental Economic Accounting

> 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



nter-institutional coordination as a key enabling
actor
 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



Assessing ecosystem condition & environmental policies



CHIAPAS Mexico

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





South Africa (2)

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 socioeconomic 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)

