EARTH OBSERVATION FOR ECOSYSTEM ACCOUNTING (EO4EA)

Mission

Our mission is to document, pioneer, develop, and test the methods and tools that will allow earth observation technology to enable the widespread adoption of ecosystem accounting. Through partnership, research, and practical application we will advance the science of earth observation and practice of ecosystem accounting.

- EO enables **standardization and scaling** of ecosystem accounting.
- With a diverse group of stakeholders including members from public, private, academic and NGO sectors, EO4EA seeks to **connect the earth observation and ecosystem accounting communities**
- Adding value to EA via **tools, methods and approaches** for systematically tracking their natural capital, but also providing the means for better ecosystem planning and management
- **EO4EA coupled to the SEEA revision process** and the progress of working groups to re-define key technical approaches, spatial units, proposed classification schemes, approaches towards ecosystem services, etc.

GROUP ON EARTH OBSERVATIONS
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Members include: Australia, Canada, Mexico, Netherlands, GDSA (including Botswana, Gabon, Ghana, Liberia), European Environment Agency (and others from EU / KIP INCA), Conservation International, European Space Agency, FAO, NCSE, Natural Capital Project, UNSD, USGEO (NASA, NOAA, USGS, Dept of Interior, EPA, Department of State), Wageningen University, World Bank GPS (WAVES), WCMC, others.

Secretariat coordinated by Conservation International and funded by NASA

WORKSTREAMS

Phases:

A. Review and revision

B. Testing

C. Data Platforms

Workstreams:

1. Case Studies and Synthesis
2. Ecosystem Extent and Condition
3. Measuring and Monitoring Ecosystem Services
4. Implementation and Capacity Building

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WORKSTREAMS

WG2: Extent & Condition

- Develop and test methods for delineating ecosystem extent and assessing ecosystem condition.
- Identify EO datasets and products that can be used to support the ecosystem extent and condition accounts
- Technical recommendations and applications of earth observation data to support the ecosystem extent and condition accounts

WG3: Ecosystem Services

- Advance ecosystem service identification, measurement and monitoring through the application of earth observation
- Develop methods that will seek to directly or indirectly assess the provision of ecosystem services and the value that they provide
- Review and compile how EO is used to measure and model ecosystem services and identify how earth observation data can be used to inform such estimates.

WG4: Implementation & Capacity Building

- Tools development
- Implementation and Capacity Building
- Knowledge Hub/ Data Services

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ACTIVITIES 2019-2022

- Synthesize findings on EO application in various ecosystem extent and condition account in US, Europe, Liberia, Botswana, Gabon, West Papua
- Utilize country results (Liberia, Gabon and Botswana and compare with SEEA global classification map (Sayre ecosystems + IUCN RLE) as a pilot for bridging globally consistent and nationally scaled data.
- Review and provide input to the UN Statistical Commission's revision of the technical guidelines for SEEA–EEA in 2020). In particular, review proposed standard ecosystem classification and options for testing EO feasibility and indicators.
- Recommendations on definitions, indicators, scale and temporality, sampling regimes and the opportunities and challenges of using various types of sensors from satellite to in situ.
- Develop options to test ecosystem type classification with EO and options to more effectively combine geophysical and ecological attributes.
- Review and provide input into the 10 ecosystem services in the SEEA revision and recommendations for testing EO applications, and recommendations for testing indicators
- Compile tools that can be used to measure and model ecosystem services and identify how earth observation data can be used to inform such estimates.
- Support the UNSD and the UN Big Data Initiative to develop requirements document for the design of a repository of global data relevant to produce accounts.

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