

International Conference "Global Implementation Programme for the SEEA" 17-19 June 2013 United Nations Secretariat 27th floor Conference Room S-2726 and S-2727

Session IV Global implementation of the SEEA – Coordination and Partnership Arrangement

Panel – International/regional coordination and partnership arrangement

Views of the European Environment Agency on Future Developments

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Preamble

The SEEA implementation requires more than compiling data and statistics.

It requires

- •**networking** between statistical offices, environmental agencies, scientific organinsations, ministries, policy makers data producers or/and users
- •Data collection which means in many cases **data sharing** between various data holders
- IT for data collection, management, processing and dissemination (incl. large databases, GIS, extraction tools, Web based dissemination, cloud computing, citizen sourcing...)
- •Operational accounting frameworks and guidelines
- •and **experience** in putting these things together.

The EEA has some experience in these various domains and share it in the context of a European participation in a SEEA partnership



The EEA: an agency and a network (1)

- The EEA is an agency of the European Union which is open to third countries:
- 27 EU Member States + 5 EEA Member Countries + 7 Cooperating Countries
- The EEA is the head of EIONET, a network of more than 400 organisations structured as National Focal Points, European Topic Centres, National Reference Centres...
- The EEA is part of the network of **European Data Centres** with Eurostat and the Joint Research Centre





The EEA: an agency and a network (2)

- The **EEA is part of scientific networks**, European as well as International one of them particularly important for SEEA implementation is GEO-GEOSS (the Global Earth Observation System of Systems)
- The **EEA participates in activities of international organisations**, in particular UNEP, UNSD, UNECE, and OECD.
- The EEA remit is the perimeter of its 32 members; however, the European Commission can delegate tasks (and give budget accordingly) to the EEA out of this perimeter as it is the case with the Environment for Europe process and the European Neighbourhood Partnership Initiative (ENPI) and the extension of SEIS



This map has been developed under the EU funded project www.enpi-info.eu

http://enpi-seis.ew.eea.europa.eu/



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SEIS: the Shared Environmental Information System

SEIS is a concept and a set of tools to organise data exchange between multiple producers/users, streamline reporting activities to multiple clients, and facilitate data use for assessments

Example of tool: Reportnet which is Eionet's infrastructure for data and information flows.





Background Information

Workshop on Ecosystem Services Assessment and Capital Accounting for Turkey, West Balkans and Caucasus Countries

20-22 November 2012

The Hotel Sungate Rixos Çifteçeşmeler Mevkii, Beldibi 1, Kemer Antalya, Turkey



Up to now, little activities on accounting have taken place within **ENPI-SEIS**: participation to workshops/training sessions (with UNSD) on water accounting for Mediterranean countries and a workshop on ecosystem accounting for Turkey, West Balkans and Caucasus countries

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SEEA: a new approach to data and statistics (a data revolution?)

- Economic-Environmental Accounting requires the participation of multiple players and access to monitoring data at appropriate spatial and temporal scales.
- E-E A needs making use of the recent Information Technology (IT) developments in terms of data collection, data exchange and database management.
- A similar move is taking place in national statistical offices with the systematic re-use of administrative data (in particular of micro-data), the development of statistical databases accessible via the internet. Geographical information starts to be as well part of the statisticaltool box, being used to organise sampling surveys and censuses, to manage very large databases and facilitate a large range of applications.
- The EEA has now two decades of experience in database management and could share this knowledge in the context of Global and regional partnerships

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Global /regional partnerships

- Scientific partnerships:
- One area of particular interest is the EU **Copernicus/GME**S project, which is the European branch of **GEO-GEOSS**, the Global Earth Observation System of Systems
- Access to information partnerships: e.g. the Eye on Earth project of web dissemination of environmental data, citizen participation and cloud computing (Eye on Earth is a public-private partnership http://www.eyeonearth.org)
- Institutional international partnerships... the SEEA process
- EU bi-lateral and multi-lateral cooperation





- Copernicus is a programme which makes available data collected by scientific projects to the widest range of users as services. The Copernicus services address six main thematic areas:
- Land Monitoring
- Marine Monitoring
- <u>Atmosphere Monitoring</u>
- Emergency Management
- <u>Security</u>
- <u>Climate Change</u>
- The services have reached different degrees of maturity. Some are already operational (land monitoring and emergency management) while others are still in a pre-operational mode (atmosphere monitoring and marine monitoring) or in a development phase (climate change monitoring and services for security applications).
- All are provided free of charge to users.





- The provision of Copernicus services is based on the processing of environmental data collected from two main sources:
- A <u>space component</u>, which consists of several Earth observation satellites;
- An *in situ* component, which consist of a multitude of sensors on the ground, at sea or in the air.
- The European Space Agency (ESA) is responsible for the space component and coordinates the delivery of data from upwards of 30 satellites.
- The **European Environment Agency (EEA)** is responsible for the development of the *in situ* component and coordinates the gathering of data coming from both European and non-European organisations.





- Copernicus is open to non-EEU third countries, as ESA and EEA are.
- More, Copernicus has programmes at the Global level such as

International Cooperation



BRAGMA

http://www.bragma.eu/home/

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(2012 - 2014 / EC FP7)

Bridging Actions for GMES/Copernicus and Africa

BRAGMA aims to support the successful implementation of the "GMES and Africa" initiative and to assure its sustainability through dialogue between African and European stakeholders, to significantly improve the availability, access and conditions of use of Earth Observation information.

Visit the project website.

- Copernicus is the European branch of the GEO/GEOSS
- → a major gateway to access data from Earth observation and in situ monitoring
- ➔ The SEEA implementation programme can influence GEO/GEOSS to obtain the data appropriate for computing accounts



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ESA, NASA, JAXA, INPE, IRS, FAO..., and the **Group on Earth Observation**

Earth observation programmes are numerous and deliver abundant data on land over and biomass, as well as many climate change variables. In Europe, ESA and Copernicus/GMES are an important source of data for land & ecosystem accounting.

EO is coordinated at the global level by the **GEO Secretariat** in which participate 81 countries (of which 18 African countries) and the European Commission.



The GlobCorine project of ESA is aimed at supporting land cover accounting



GEO Biodiversity Observation Network

The Group on Earth Observations Biodiversity Observation Network – **GEO BON** – is the biodiversity arm of the **Global Earth Observation System of System of Systems (GEOSS)**.

Some 100 governmental and non-governmental organizations are collaborating through GEO BON.

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EEA and economic-environmental accounting

- Strong recurrent policy demand in Europe for economic-environmental accounting, all aspects: BGDP, Resource Efficiency, Water, Ecosystem services and capital
- → the publication of the SEEA Central Framework in 2012 (the international statistical standard) and of the SEEA Experimental Ecosystem Accounting (the conceptual framework for new experimentations) have created a new window of opportunities in and out of Europe.
- Environmental accounting is coordinated in Europe by Eurostat.
- Regarding SEEA CF accounts, Eurostat is the producer and the EEA a user for its assessments, in particular regarding sustainable consumption and production issues.
- Regarding SEEA Ecosystem, the EEA is in the lead, with Eurostat support. Since a couple of years, the Joint Research Centre of the European Commission has joined the process with the project called Mapping and Assessment of Ecosystem Services.



EEA's involvement in the SEEA process





the cost of biodiversity

coastal Mediterranean

wetlands, 2010, a report

losses — the case of

for TEEB

Land cover accounts for Europe 1990-2000 (26 countries), 2006

Updated for year 2006 (34 countries), next update: for year 2012



Activities within thematic processes: UNEP/water JRC/ES mapping WB/WAVES

Activities within SEEA process, UNCEEA, SEEA Part2 Editorial Board

Fast Track implementation of ecosystem capital accounts, 2010-2012 (with Eurostat) ECA-E: An experimental framework for ecosystem capital accounting in Europe EEA Technical report No 13/2011



http://www.eea.europa.eu/publications/anexperimental-framework-for-ecosystem European Environment Agency



Methodological and technical support

- The EEA databases can be openly accessed and data downloaded for free
- The various tools developed by the EEA can be made available for free
- Remember: EEA can also give technical assistance, training out of the its 32 member countries context only in frameworks
- EEA partners can also provide technical assistance but it requires the appropriate setting (e.g. Copernicus or bi-lateral funding...)

Example of the land cover accounting (LEAC) tools





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Land and Ecosystem Accounting (LEAC)

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What is the surface covered by forests in Europe? Has this surface increased or decreased between 1990 and 2000? Which of the European countries has got the major increase of artificial surfaces in its coastal area between 1990 and 2000?



the dominant land-cover types.

More about LEAC

These are basic questions that can be answered in few minutes using the tools provided by the LEAC project (ETC-LUSI, European Topic Centre on Land Use and Spatial Information). LEAC is based on a powerful methodology that allows the spatial analysis of land cover change through all the European territory.

Online data and layers

Databases

The core data of the LEAC project have been structured in a relational database model in order to allow quick and easy analyses. These databases have been made publicly accessible through the Internet.

Layers

From the LEAC database, various geographical layers have been derived such as land cover flows, Corilis, the green potential background layer and



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Topics: Land use

The key focus of land cover accounts is the understanding of the way in which the stocks of different land covers change over time. This viewer allows visualising and downloading land cover statistics derived from land accounts applied methodology.







Who can decide (and support)?: DG DEV-CO





http://ec.europa.eu/europeaid/index en.htm





• Thank you!

