

Roma, 26 Maggio 2026

WORKSHOP

CHALLENGES IN THE MEASUREMENT OF NATURE IN OFFICIAL STATISTICS

Session 2 - Accounting For The Diverse Economic Values Connected To Ecosystems

ECOSYSTEM AND OTHER THEMATIC ENVIRONMENTAL ACCOUNTS

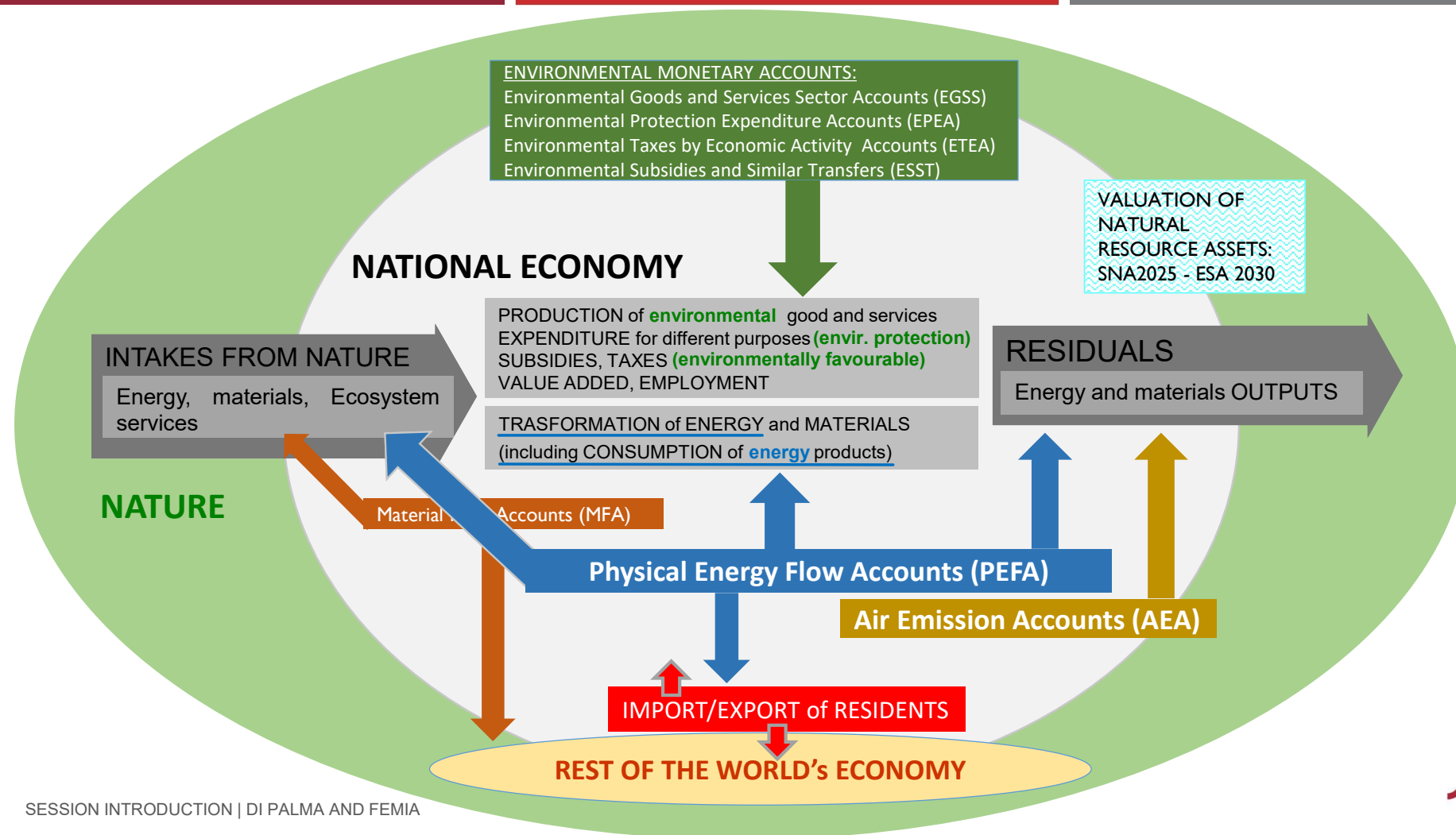
FRANCESCA DI PALMA, ALDO FEMIA

Istat | Direzione Centrale per la Contabilità Nazionale _ CNB *"Final demand, labour and capital input, environmental accounts"*

Outline

1. State of the art: **Nature** in **National Accounts**
2. Ecosystem Accounts in SEEA EA: approach to **monetary values**
3. This session contributions: approaches to the **diverse economic values of ecosystem services**
4. This session contributions: Diverse economic values “**connected to**” ecosystem services

Accounting for Nature in NA – the state of the art in Italy



Ecosystem Accounts (SEEA-EA)

- Chapters 1-7 SEEA-EA were adopted as a **UN international statistical standard** in 2021. They establish the physical indicators for ecosystem accounting.

Statistical
standard

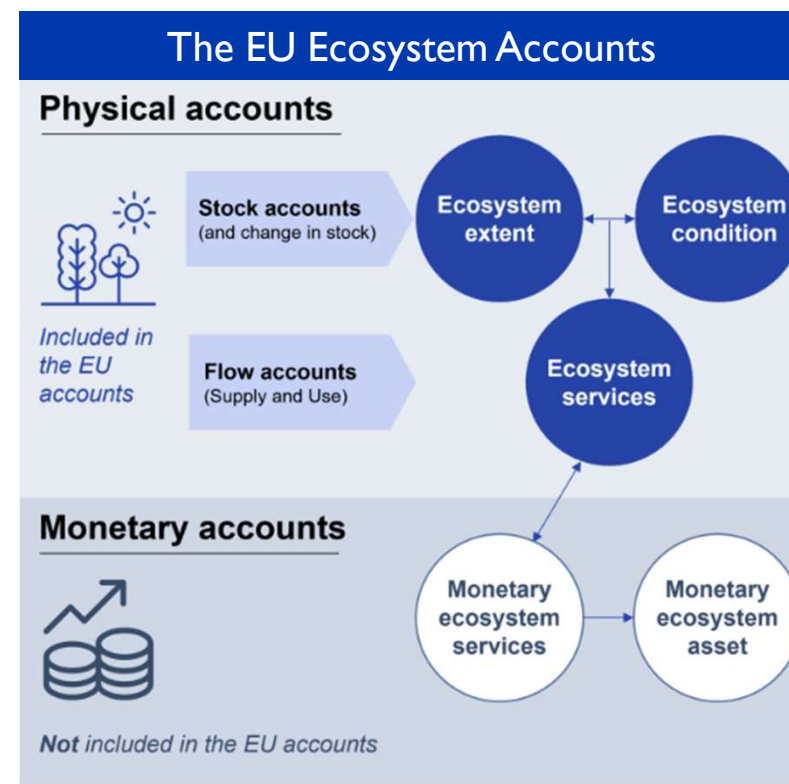
1. **Ecosystem Extent Account** Measures the surface area of ecosystem types and their individual assets. *Fundamentum: how much natural capital is there?*
2. **Ecosystem Condition Account** Measures the quality and functional integrity of ecosystems through biophysical indicators (biodiversity, biomass, soil quality, water quality, etc.). *What is the state of the stock?*
3. **Ecosystem Services Accounts** Service flows measured in physical units (optionally monetary) (tonnes of C sequestered, m³ of water filtered, etc.). Distinguishes between supply (*capacity*) and actual use (*flow*).

- *Non-standard* chapters 8-11 comprise the following accounts:

4. Monetary Ecosystem Services Accounts

5. Ecosystem Asset Accounts

- The **UNSC** requested to solve the “outstanding methodological aspects”



Possible approaches to the diverse economic values of ecosystem services

In *non-monetary terms* (use values):

A well-recognised *extended* accounting system for ecosystems and their services is the **international standard part of the SEEA EA**, concerning **ecosystem extent, condition** and **services “modules”**.

These accounts could be recognisable as an *extension* of national accounts but they lack certain connections with the economy for instance the allocation of ecosystem assets to institutional sectors or the dependence of specific economic activities on ecosystem services.

In *monetary terms* (exchange values):

An **extended** accounting system for ecosystems and their services *in monetary terms* is the one envisaged in SEEA EA chapters 8-11

A **thematic*** account for the diverse economic aspects of the ecosystems-economy interaction would identify the values dependent upon ecosystems and “connected to” ecosystem services.

* SNA2025-ESA2030 “**thematic**” or “**extended**” accounts (the latter intended for special purposes) for the accounts previously called “**satellite accounts**”

Diverse economic values “connected to” ecosystem services

- The concept of «**connected to**» suggests solutions based on a *multiple*, **connected values approach**, without automatically assigning the meaning of «**exchange value OF** ecosystem services » to the monetary values (values related to ecosystem in different ways);
- It belongs to the idea of developing the *monetary part of ecosystem* accounts as *thematic accounts* rather than as an *extension* of the *production boundary*;
- The **values connected to ecosystems** can be found in different **accounts of the System of National Accounts**: output of economic activities using ecosystem services, distributive transactions, taxes, expenditures, financial flows and so on. These values can be part of larger aggregates - parts of activities, or consumers' expenditure (as travel and stay where nature can be enjoyed);
- The purpose of this session is to *explore* and *clarify* these concepts in an effort to answer questions such as:
 - How to **classify monetary values** connected to ecosystems, **to link them appropriately to actual and potential policy uses**?
 - **Which monetary values** connected to ecosystems and their services **have to be calculated**?
 - How to **interpret the dynamics of specific** monetary and non-monetary **values connected to ecosystems** and their services?
 - How to **communicate multiple monetary and non-monetary values** connected to ecosystems and their services?
 - How to **exploit the link between** the concept of ecosystems' **capacity and that of sustainability**?

Thank you

Statistics



Accounts



Figures by Julie Hass

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