



Towards a System of Environmental-Economic Accounting for Agriculture: SEEA-Agri

FAO Statistics Division

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System of Environmental Economic Accounting for Agriculture

- Specific relationships between the **agricultural sector and the environment**;
- **Broad definition of agriculture**: crops, livestock, forestry and fisheries with primary and intensive use of environmental goods and services;
- Different to the SEEA-CF focus, **SEEA-AGRI focus on a group of activities**.





The need for Accounting frameworks for Agriculture and the Environment

- **SNA fails to reflect the full costs and benefits** to society of economic activities;
- The **impact of the environment on the economy** and the effects of the latter on natural capital have **not** been readily identifiable within the economic accounts generated;
- The SEEA Central Framework - allows for an **evaluation of the environmental sustainability of economic activity**.
- Need to **explore the relationships between agriculture and the environment**;





Applying the SEEA Central Framework to Agriculture

- Applying SEEA CF help **improve the conceptual basis** and analytical capability of agriculture;
- Adopting a macroeconomic accounts approach for developing a statistical framework has the advantage of applying a set of SNA-based standard classifications upon which consistent and **comprehensive sets of data series can be compiled**;
- Having a multipurpose information system that can be **used to combine and harmonize data** from various surveys and censuses together into an integrated database that supports policy making and analysis.
- The resulting accounts can provide **a complete set of variables for identifying and designing a core and minimum set of agricultural indicators**;



Scope and coverage of SEEA-AGRI

A comprehensive and standard satellite account for the integration of agricultural and environmental data based upon internationally agreed concepts, definitions, classifications and inter-related tables and accounts that are universally valid, regardless of the stage of economic development reached by the country.





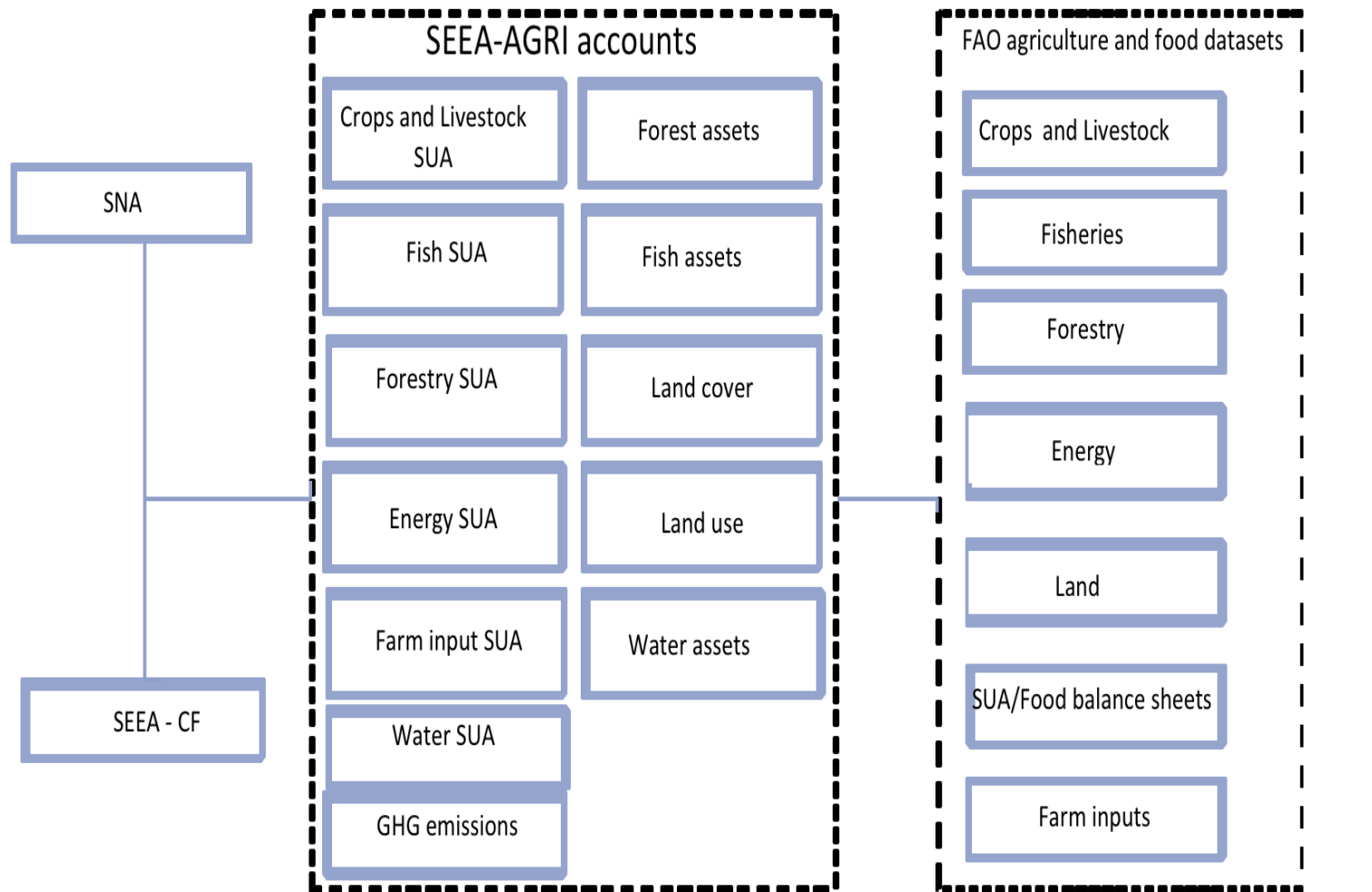
SEEA-AGRI aims to translate policy issues into data needs

- Enhancing the **use of existing agricultural statistics and related common frameworks**;
- Providing a **consistent, comprehensive, and coordinating framework to link data collected**;
- Providing a **sound basis for the measurement of a set of economic, social, and environmental indicator**;
- Providing a framework to **expand the analytical capabilities of the original FAO SEAFA**, etc;
- Providing a framework that **links to other SEEA subsystems being articulated by other agencies**.





SNA, SEEA-CF, SEEA-AGRI and FAO datasets





Development of the SEEA-AGRI Accounts

Physical flow supply use tables:

**Crops and Livestock, Fish;
Forestry, Water, Energy
Fertilizer, Pesticides.**

Monetary supply use tables:

**SNA based production,
imports, flows of income and
final demand**

Environmental Asset Accounts:

Forests, Fish, Water, etc

Land use and Land cover Accounts:

**Allocation of land and changes
in use for Aquaculture Crops,
Livestock and Forestry**





Combined presentations and analytical possibilities

SEEA-AGRI provides a combined presentation of information.

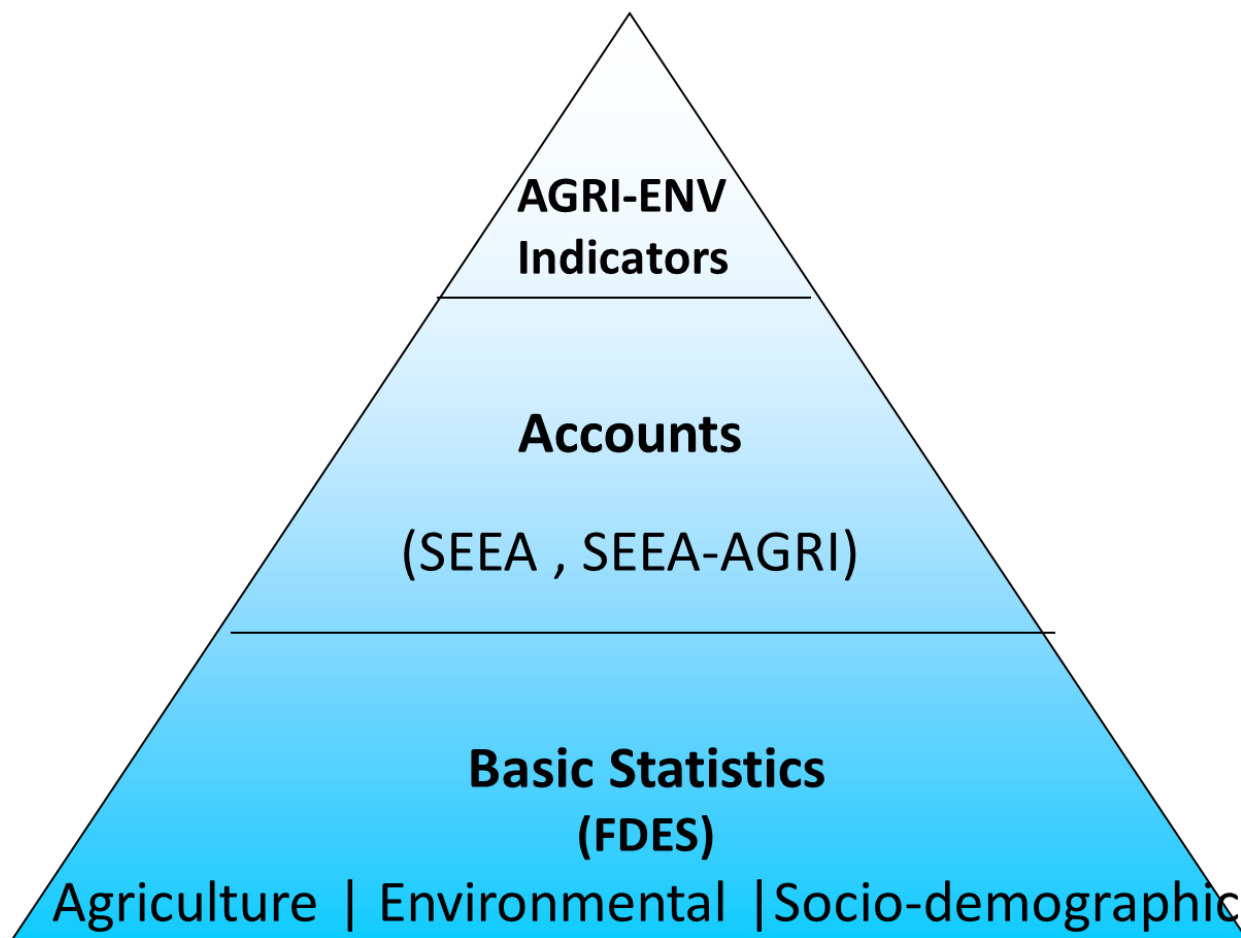
Analysis of relationships such as the production of wheat and:

- **Inputs of water, fertilizer, pesticides, energy, etc;**
- **Labour inputs;**
- **Changes in land area and soil quality;**
- **Generation of residuals – emissions, crop residues;**
- **Use of assets – sowing and harvesting equipment;**
- **Cost of production, value added and incomes**





SEEA and SEEA –AGRI and the information pyramid





SEEA-AGRI in development

**FAO starting with data
currently in FAO datasets**
(country sourced);

Issues currently faced
include: data in different
dimensions, different
databases, structures, etc

A great deal of data will be
required for a full SEEA-AGRI;

Need to **review data quality,
completeness**, etc





Contacts

robert.mayo@fao.org

seea-agri@fao.org