

***International Seminar  
on Environment Statistics and Environmental-Economic Accounting  
IBGE and UNSD  
Rio de Janeiro, 21 & 22 September 2009***

# ***European Activities in Environmental Accounting***

Jean-Louis Weber

Senior Adviser, Economic Environmental Accounting

European Environment Agency



# Aknowledgement

*This presentation is based on EE'A's experience as well as on elements kindly forwarded to me by my colleagues of Eurostat for the purpose of this workshop. Any incorrect statement is my only responsibility. JLW*



## *Environmental Accounts*

# Environmental Accounts 2008-2010

Eurostat Unit E3



Directorate E: Agriculture and environment statistics; Statistical cooperation  
Unit E3: Environment statistics and accounts



# History

- National experiences in Europe from the mid-1970's: Norway, France, the Netherlands, Spain, Italy, Germany, UK, Sweden, Denmark...
- Early pilot programme by UNECE on physical accounting for land and for nutrients
- Early programmes by Eurostat:
  - SERIEE 1994 (protection expenditures)
  - Pilot projects with member countries
  - One of the initiators of the London Group (with Statistics Canada and UNSD)
  - Systematic testing of accounting modules with voluntary member countries (NAMEA, MFA, Forest, Water, Land, Expenditures/Taxes...)
  - Involvement in SEEA 2003
- Land and Ecosystem accounts at the EEA start from 2002 on the basis of Corine Land Cover and the development of the Shared Environmental Information System
- European Strategy for Environmental Accounting, 2003 rev. 2008



## New impetus, Beyond GDP Conference 2007

Commissioner Dimas (EU Environment Minister)

- *Announced:* a policy Communication will be presented in 2008 - developing the ideas of going 'beyond GDP' into a **roadmap for action**.
- *He concluded:* "we will also need to speed up and improve the development of **integrated accounting** in the social and environmental spheres" .

*Follow-up of BGDP 2007 :*

- Revision of the European Strategy on Environmental Accounting
- a new "communication" by the European Commission to the Council and the Parliament (contains the idea of a "dashboard" of indicators to supplement GDP) (8 Sept. 2009)
- An initiative of French President Sarkozy to convene a "commission on the measure of economic performance and human well-being" (14 Sept. 2009)



## Which Environmental Accounts ?

Methodologies developed in connection to international standards (UNSD)

Eurostat's priorities at present are focussed on **physical and monetary flows** in close connection to the economic activities  
- the link to the National Accounts is clear

Development of **environmental asset accounts** is the future challenge  
– in close cooperation of Eurostat with the European Environment Agency

EEA implementation strategy for **ecosystem accounts** with priority for Land, Water and Carbon Accounts



# The European Strategy for Environmental Accounting (ESEA)

- ESEA adopted by the European Statistical Programme Committee in 2003
  - with revision foreseen within 5 years
  - Task Force meetings in 2007 and 2008
- Main objective – revision of ESEA:
  - use of Environmental Accounts in EU and EFTA countries
  - readiness and ability to compile EA
  - further developments of EA
- Revised version adopted by SPC in November 2008
- 4 priorities
  - Environmental expenditure (Eurostat)
  - NAMEA Air (Eurostat)
  - Economy-Wide Material Flow Accounts (Eurostat)
  - Ecosystem Accounts (EEA)



# Preparation of ESEA revision 2008: the Environmental Accounts – State of play study

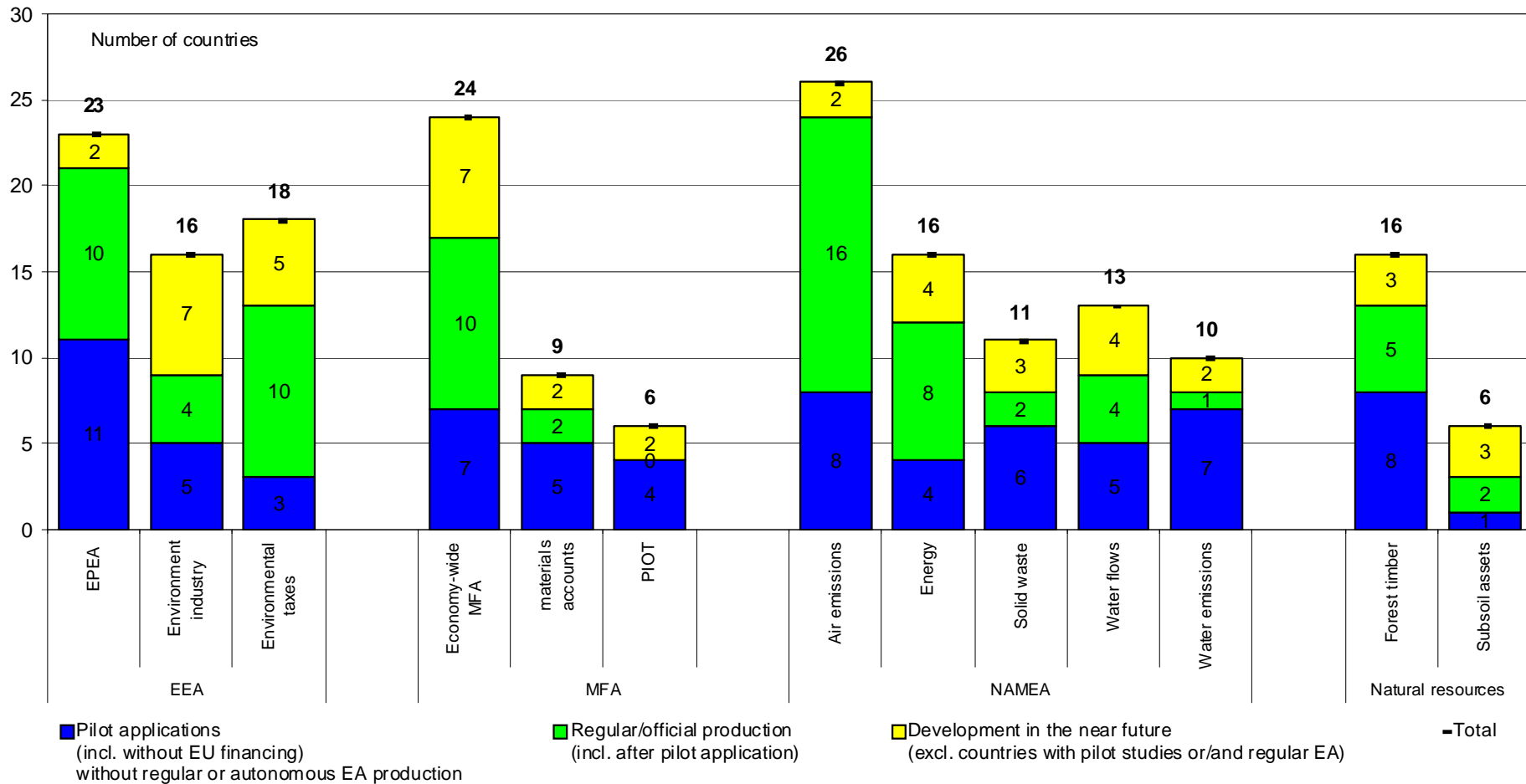
## Aims of the interview survey to experts

- Overview of countries involvement in EA
- Time coverage of EA in the countries
- Impression of the barriers encountered in developing EA
- Use of EA results



# Involvement of member countries in Environmental Accounting / Eurostat priorities

Figure 2.3 Involvement of the European Countries in main EA modules including short term plans for future development





## Background of ESEA: the “data centres” and the Group of 4

- For streamlining information development and Management, the EC / DG Environment has organised the distribution of responsibilities for data management and assigned leading roles:
  - Eurostat: Waste, Natural Resource
  - EC Joint Research Centre: Soil, Forest, Urban
  - EEA: Climate change, Air, Water, Biodiversity and Land use
- Environmental accounts are part of each data centre
- A group made of the Directors of the 4 partner institutions steers the process (Group of 4)



## ESEA 2008, main recommendations

- Assure availability of EA data from all European countries: Regular production of a core set of accounts
- National Statistical Institutes maintain and potentially expand their work providing *harmonised, timely data with reasonable quality*



## ESEA 2008, Recommendations

Setting priorities according to European Statistical System resources:

- short term (2 years):
  - some types of environmental protection expenditure accounts (JQ) and resource management monetary accounts
  - hybrid (NAMEA) accounts (air emission accounts)
  - physical flow accounts (EW-MFA)
  - Estimations of EU aggregates
- medium term (2-3 years):
  - NAMEA energy, NAMEA waste, and environmental transactions according to industry breakdowns



## ESEA 2008, Recommendations

- longer run (4-5+ years):
  - development of methodologies
  - extend data collection to EGSS,
  - resource management,
  - MFA per industry breakdowns and
  - NAMEA water
- Eurostat's co-operation with other organisations:
  - EEA (ecosystem & land use accounts)
  - UNEP, OECD (MFA, resource productivity and efficiency)
  - UNSD, UNCEEA, SEEA revision



## Core areas for Eurostat

The picture in 2007: 20 'good' countries, 5 countries active but needing support, and 4 countries needing strong(er) incentives

| Number of countries     | Environmental protection expenditure | Economy-wide material flow | NAMEA Air emissions |
|-------------------------|--------------------------------------|----------------------------|---------------------|
| Data available and used | 10                                   | 10                         | 16                  |
| Implementation phase    | 12                                   | 15                         | 5                   |
| <i>Active total</i>     | 22                                   | 25                         | 21                  |
| Inactivity at present   | 7                                    | 4                          | 8                   |



# Eurostat's secondary priority areas

**Environmental Taxes:** Support to countries

Goal: increased data availability

**Environmental Goods and Services Sector:**

Goal: Compilation guide and standard tables (ready for publication in Autumn 2009)

**NAMEA Waste & Energy:** utilising existing data Goal: data availability 100 %

**Water Accounts:**

Goal: Pilot study, methodology and standard tables on water use (with EEA)



## Means for implementing ESEA at Eurostat

- Proposal in 2009 of a **Legal Base** on collection of Environmental Accounts data
- Development of methodologies
- Guidelines and workshops
- Grants Program on Environmental Accounting
- Dissemination and use of the results incl.
  - Eurostat's Environmental Accounts Web-Page
  - Environmental Data Centres on resources and products
- Analysis of EA at European level



## EEA activity

- Use of accounts produced at Eurostat, MFA, NAMEA for sustainable production and consumption analysis, taxes
- EEA produces:
  - Water accounts in support to the water framework directive (Water Information System of Europe)
  - Land cover accounts:
    - 1990-2000, publication
    - 2006 update ongoing (20 countries available mid Sept. 2009)
  - Ecosystem Accounts (...)
    - ESEA
    - TEEB (Test on Mediterranean Wetlands – accounting at multiple scales)
    - Green Economy
    - Beyond GDP and follow up
    - SEEA revision
  - Virtual Land Use in international trade
  - Now casting/ Quick scan methodology
- Participation in London Group, UNCEEA
- 25 Nov. 2009: Joint seminar organized by EEA with Eurostat in Luxembourg with EC, statistical institutes and environmental agencies
- EEA priorities for ecosystem accounting: land systems, water and carbon/biomass



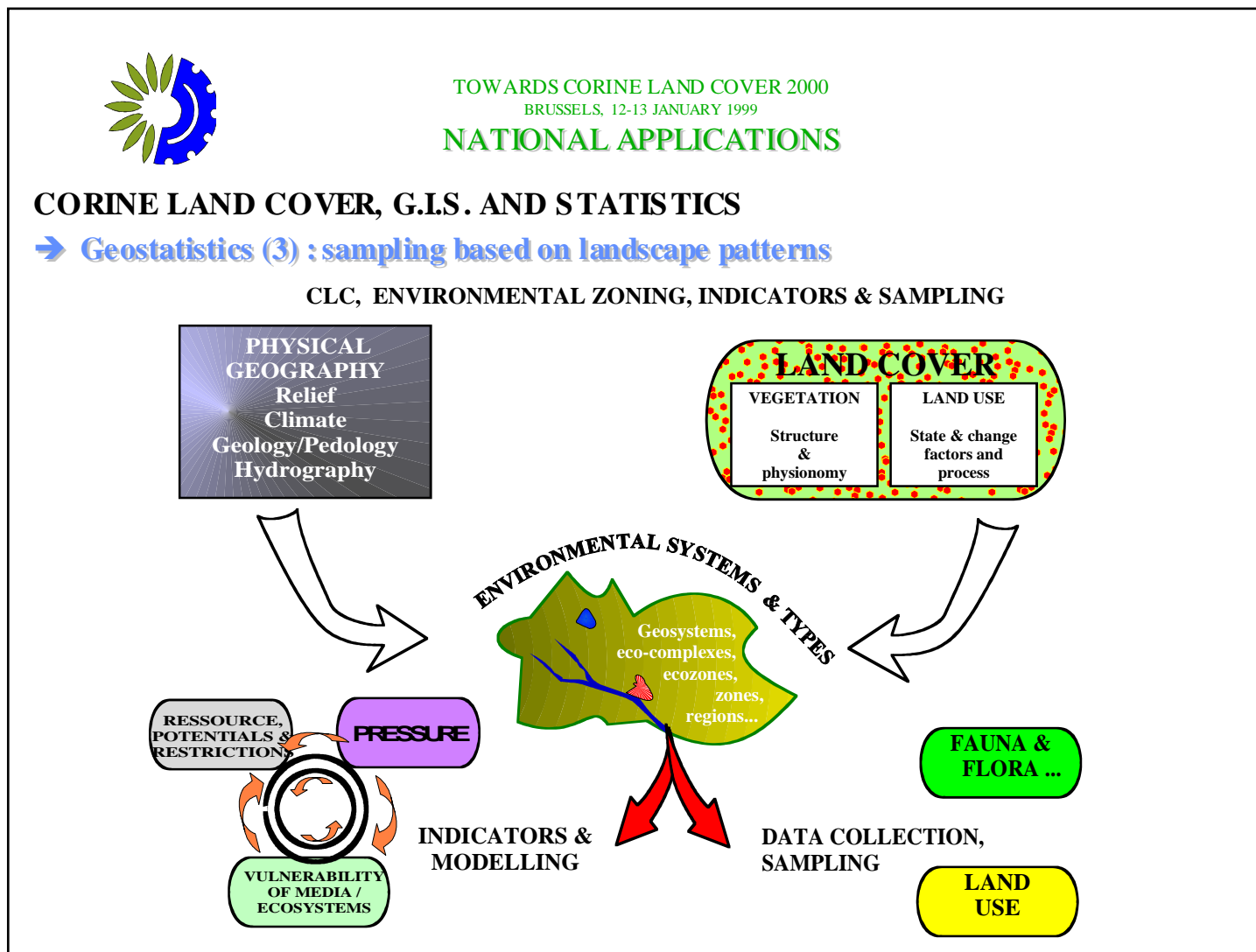


# Origin of ecosystem accounting

- Country initiatives:
  - Canada 1978, Stress Response-System (Tony Friend and David Rapport)
  - France 1979-1986, Natural Patrimony Accounts (J-L Weber, Pierre Bazire, ...)
  - Spain, 1986, continuing, Eco-integrative approach of water accounts (Jose Manuel Naredo, Antonio Valero,...)
- Support by UNECE:
  - Land cover and use accounts, phase 1 (France, Germany, UK)
  - Ecosystem Distress Syndrome (D. Rapport)
- Support by Eurostat
  - Land cover and use accounts, phase 2 (France, Germany, UK) and feasibility study (EEA, Barcelona University and GISAT)
- Development of ecosystem services accounting in physical units (Millennium Ecosystem Assessment) and valuation (India 2006, academic work...)
- Integration of geographic and statistical information
  - Corine land cover and Land and Ecosystem Accounts
  - Geo-systems, indicators and assessment (Brazil, Eloisa Domingues)






# Origin of ecosystem accounting

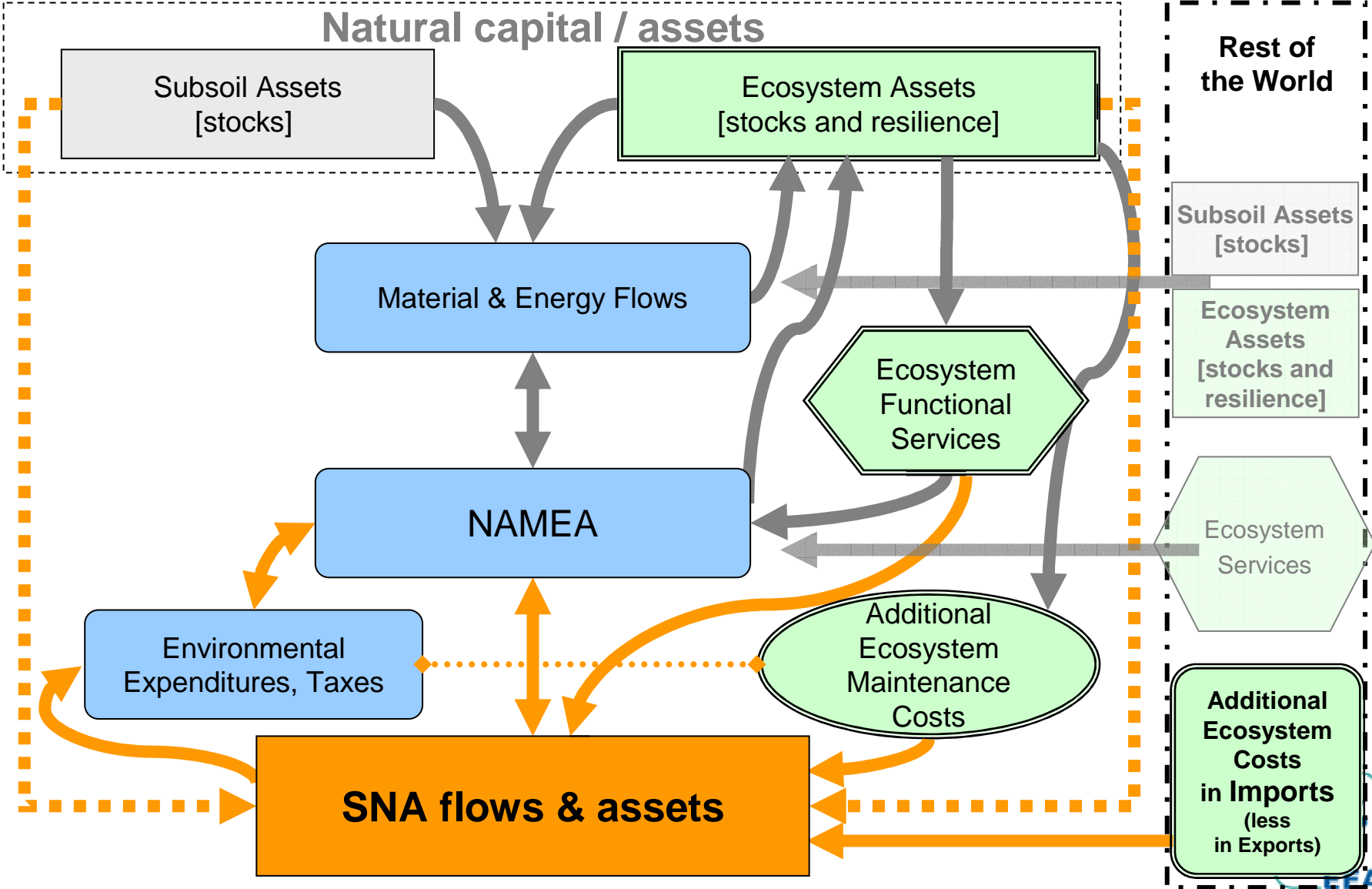


Based on Eloisa Domingues, 1996, IBGE



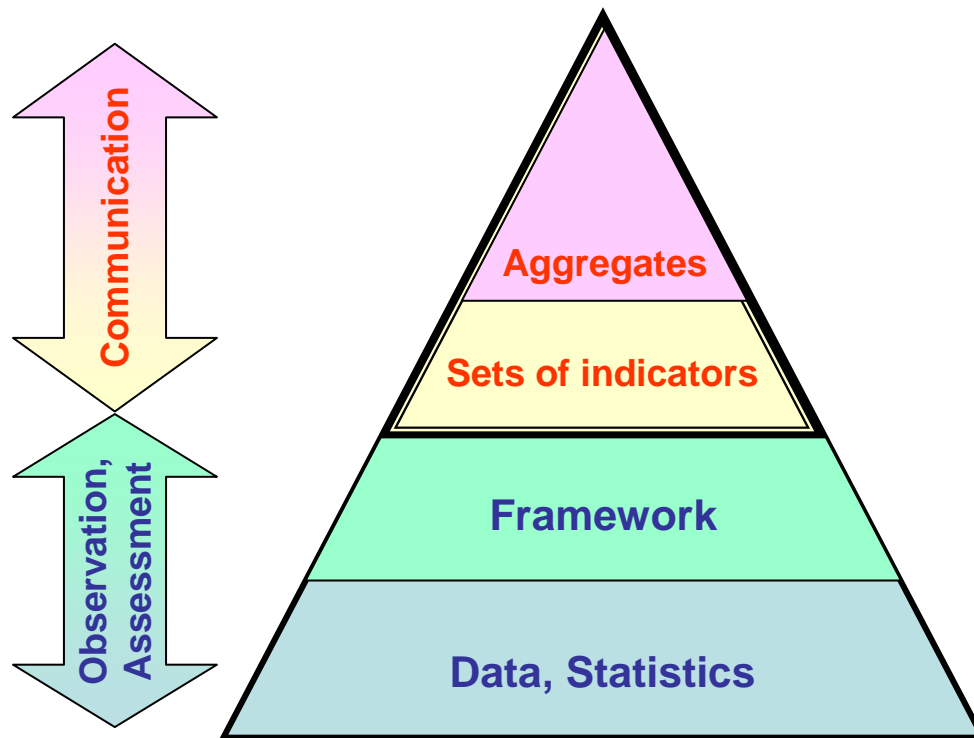
# SEEA Integrating Ecosystems

-  Physical flows
-  Monetary flows/valuation
-  Assets valuation



# Future: National Accounts - from Data and Statistics to Aggregates and Communication

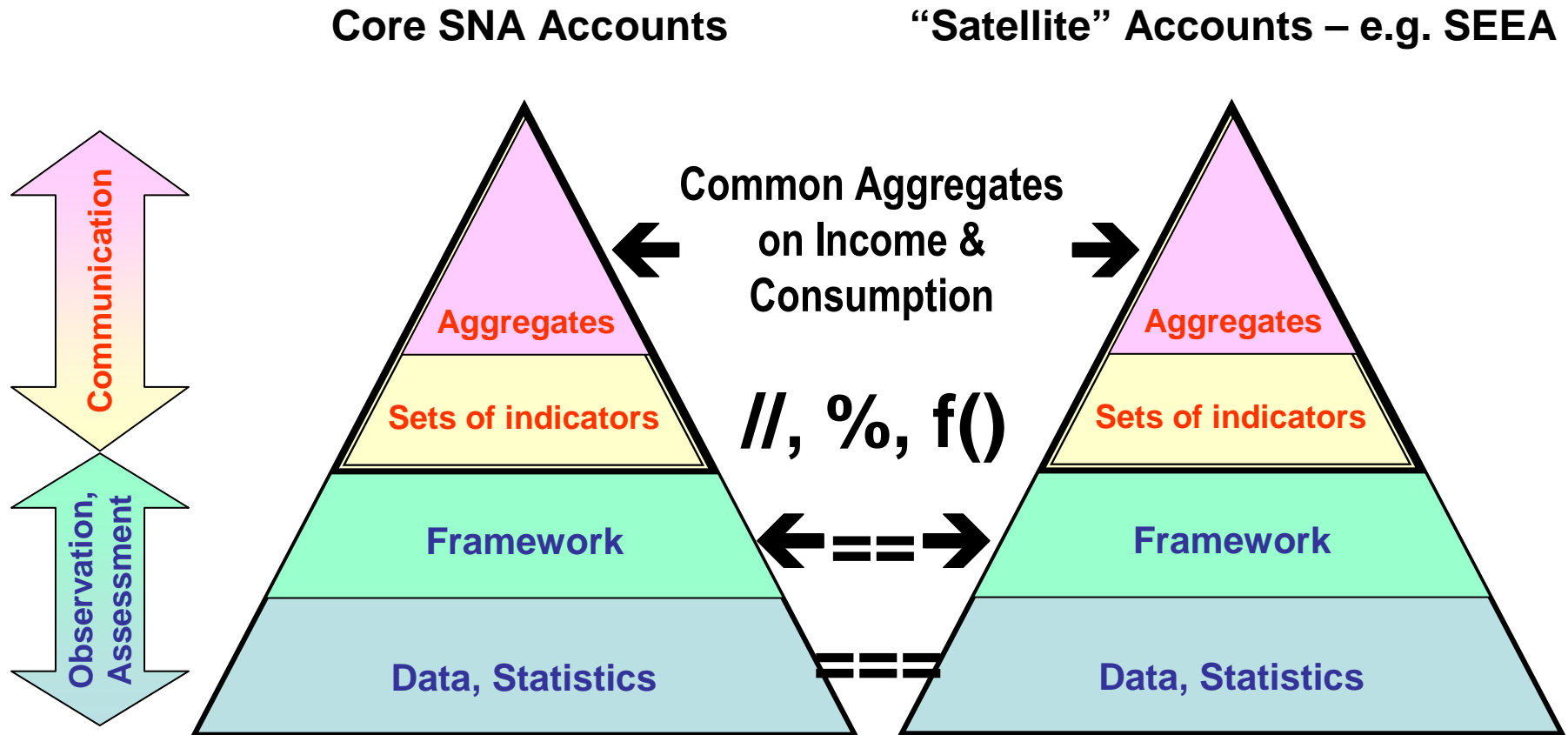
## Core SNA Accounts



JLW from W. Radermacher's presentation at Eurostat's Conference on the future of National Accounts, Brussels, 16 Sept. 2009



# National Accounts from Statistics to Aggregates: Core and "Satellite" Accounts at the Same Level



JLW from W. Radermacher's presentation at Eurostat's Conference on the future of National Accounts, Brussels, 16 Sept. 2009

