

**System of Environmental Economic  
Accounting (SEEA):  
Applications and implementation**

# Policy motivation to develop SEEA

- Sustainable development goals (SDGs)
- „Beyond GDP“ indicators
- Green growth and green economy
- International conventions (UN FCCC and CBD)
- TEEB and WAVES

# Sustainable development targets

- Goal 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

## 15.9

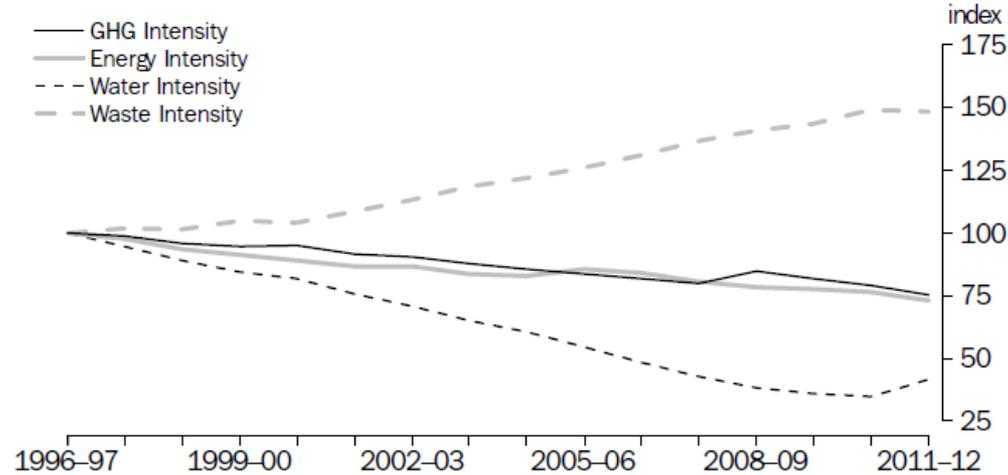
- By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

# Green economy and green growth

- **Green economy** is broadly considered as the economy that ensures sustainable development and does not encourage environmental degradation. (Rio+20 Synthesis Report, 2012).
- **Green growth** means fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. (OECD 2011).

# The Australian Environmental-Economic Accounts are underpinned by the System of Environmental-Economic Accounting (SEEA)

SELECTED INTENSITY MEASURES, Australia 1996-97 to 2011-12

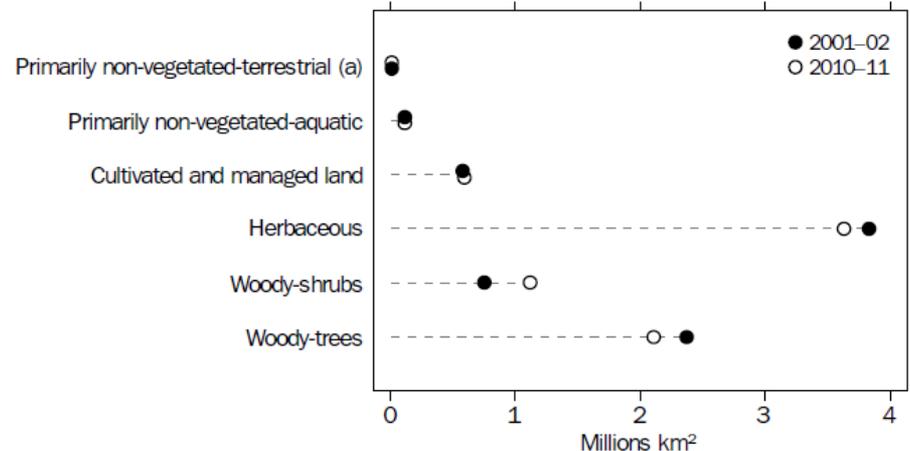


Notes: Index: 1997 = 100

Intensity = physical measure (GL, J, Tonnes)/\$ of GVA

The total value of Australia's environmental assets or natural capital was \$4,826 billion at 30 June 2013, almost double the value of \$2,457 billion in 2004

LANDCOVER CHANGE, Experimental estimates, million km<sup>2</sup>, Jan 2001-Dec 2002 to Jan 2010-Dec 2011



(a) This land cover category relates largely to urban land

# System of Environmental Economic Accounting

- An internationally agreed statistical framework to measure the environment and its interactions with economy
- The SEEA Central Framework was adopted as an **international statistical standard** by the UN Statistical Commission in 2012
- The SEEA Experimental Ecosystem Accounts complement the Central Framework and represent international efforts toward coherent ecosystem accounting

System of  
Environmental-Economic  
Accounting 2012  
Central Framework



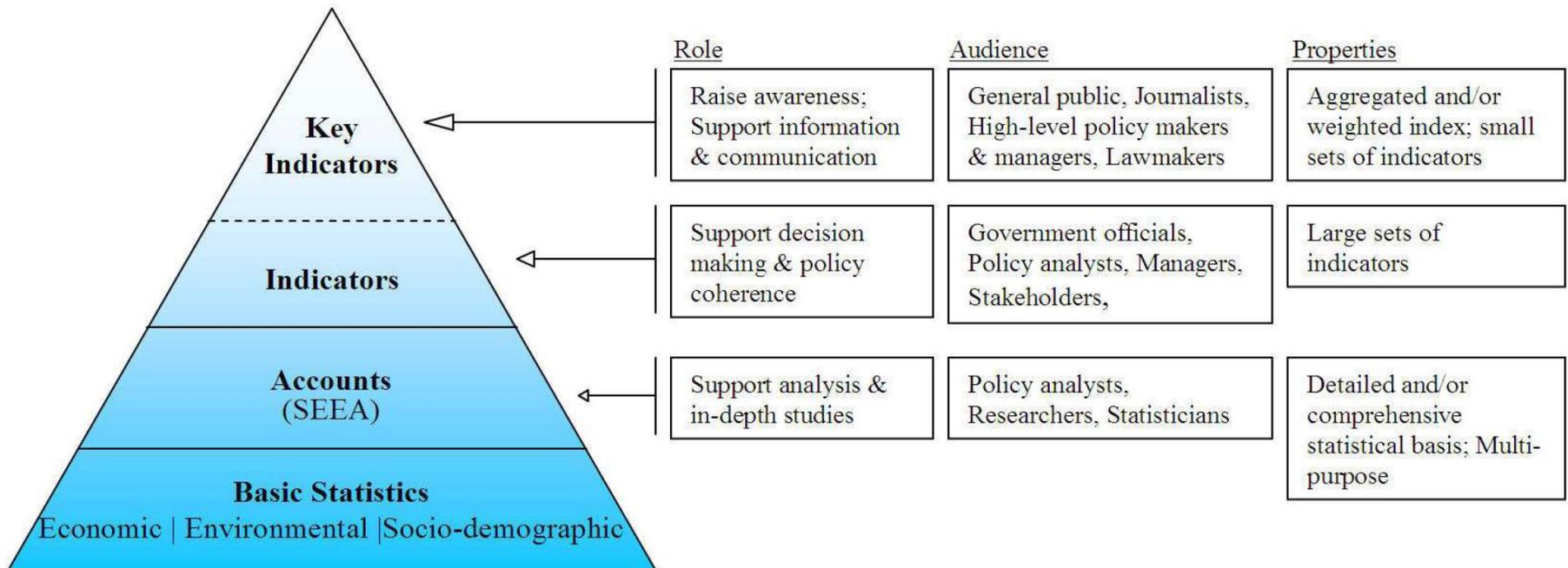
System of  
Environmental-Economic  
Accounting 2012  
Experimental Ecosystem Accounting



# What is SEEA?

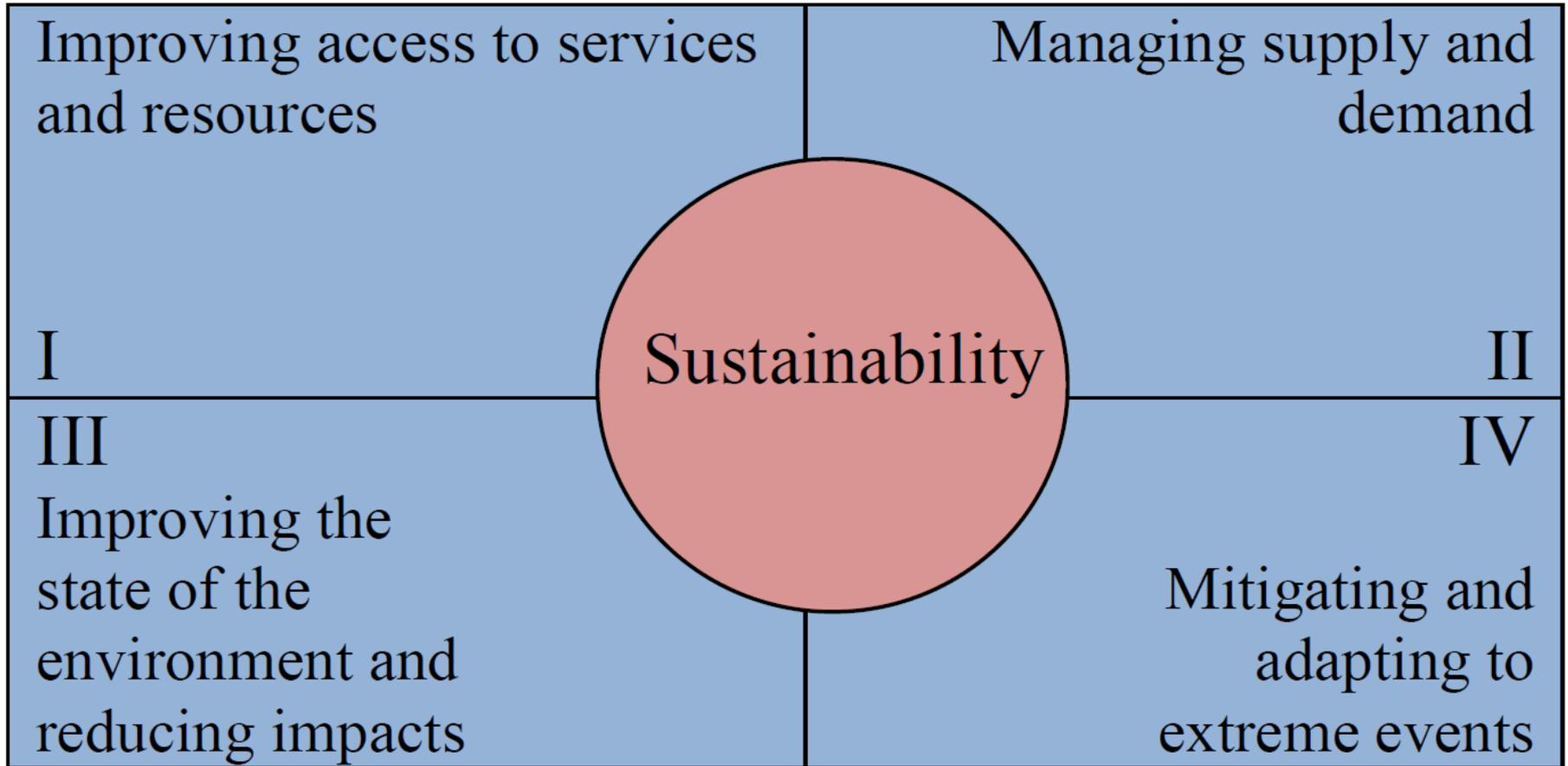
- The System of Environmental-Economic Accounting 2012—Central Framework (SEEA Central Framework) is a multipurpose conceptual framework that describes the **interactions between the economy and the environment**, and the stocks and changes in stocks of environmental assets.
- Using a wide range of information, the **SEEA Central Framework**, through its structure, enables source data to be compared and contrasted and allows for the development of aggregates, indicators and trends across a broad spectrum of environmental and economic issues.

# SEEA information pyramid



# SEEA development is dependent on policy questions being asked

- Resource-rich resource countries might develop **asset accounts** focusing on resource depletion in relation to economic and environmental sustainability.
- Countries with high levels of material throughput might find it useful to build **physical flow accounts** for materials.
- If a country imposes strict environmental standards, with significant costs to producers and consumers, then **environmental protection expenditure accounts** may be priority.
- Countries with high biodiversity and conserved natural areas may focus on **ecosystem accounts**



# Sustainable development policy quadrant

- **Improving access to services and resources:** reducing costs of water, energy and food; improving equitability or sustainability of resource exploitation; reducing resource consumption; promoting eco-tourism.
- **Managing supply and demand:** managing water and energy; improving resource efficiency; improving the sustainability of production and consumption.
- **Improving the state of the environment and reducing impacts:** reducing emissions and wastes; protecting ecosystems and biodiversity; managing protected areas and endangered species.
- **Mitigating risks and adapting to extreme events:** adapting to climate change; reducing greenhouse gas emissions; compensation for environmental damages.

# SEEA implementation

- System of Environmental-Economic Accounting 2012 – Central Framework (SEEA Central Framework) is first international standard for environmental-economic accounting adopted by the Statistical Commission of the United Nations (UNSC).
- Implementation is based on **flexible and modular approach** to implementation across countries.
- There are differences between countries in the choice of accounts to implement and the institutional frameworks within which accounting is undertaken.

# How to effectively implement SEEA

Experience has shown that SEEA implementation works best when:

- Producers and users of statistics collaborate to define their needs and opportunities,
- Organizations are prepared to change the way they do things to provide better information and to use it effectively, and
- Activities across sectors are well coordinated.

# Summary and key messages

- That SEEA is not a single account but a series of modules on different aspects of the environmental-economic relationship. All of the modules are connected through common classifications and measurement boundaries but can be compiled separately and incrementally integrated and improved.
- That the analytical potential of the SEEA comes from its use of accounting techniques based in the System of National Accounts and from its integration of environmental and economic information in both monetary and physical terms.

# Potential of SEEA

- The analytical potential of the SEEA comes from its use of accounting techniques based in the System of National Accounts and from its integration of environmental and economic information in both monetary and physical terms.
- The implementation of the SEEA can be linked to many different international initiatives, both statistical and policy related. Implementation strategies should seek synergies between these initiatives and any relevant national initiatives.

# Institutional mechanisms

- The implementation of the SEEA requires strategic planning and the establishment of appropriate institutional mechanisms and arrangements for the ongoing compilation of accounts and the supporting environment and economic statistics. In this, the national statistical office has an important role to play.
- An essential part of developing a long-term implementation of SEEA is the development of supporting environment and economic statistics and the underpinning national statistical system. The implementation should aim to define a co-ordinated, longterm, national programme of work involving a range of users of information and a number of different source data agencies.

# Testing and dissemination

- The successful implementation will require development and testing, and improvements in the accounts will be generated through their dissemination (possibly in preliminary form) and ongoing discussion with users and source data providers. Along these lines, a proper communication strategy can aid in raises awareness of the potential for environmental-economic accounting to inform policy development, monitoring and evaluation.