

# Environmental Activities

Day 3: Lecture 1

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## Environmental Activities

- Economic transactions related to the:  
**Environmental Goods and Services Sector (EGSS)**
- Multiple types of goods and services within EGSS:
  - Characteristic services
  - Connected products
  - Adapted goods
- Economic indicators
  - Production, employment, exports, investment



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## DISCUSSION QUESTION

- Where do you think EGSS fits within the existing classifications for economic activities?
- Is this a new sector?
- Is this a combination of existing sectors?

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## Classification of Environmental Activities (CEA)

**Table 4.2.1 Classification of Environmental Activities - Overview of groups and classes**

Group	Classes
Environmental Protection (EP)	1 Protection of ambient air and climate
	2 Wastewater management
	3 Waste management
	4 Protection and remediation of soil, groundwater and surface water
	5 Noise and vibration abatement (excluding workplace protection)
	6 Protection of biodiversity and landscapes
	7 Protection against radiation (excluding external safety)
	8 Research and development for environmental protection
	9 Other environmental protection activities
Resource Management (RM)	10 Management of mineral and energy resources
	11 Management of timber resources
	12 Management of aquatic resources
	13 Management of other biological resources (excl. timber and aquatic resources)
	14 Management of water resources
	15 Research and development activities for resource management
	16 Other resource management activities

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## Environmental Protection (EP)

*Activities whose primary purpose is the prevention, reduction and elimination of pollution and other forms of degradation of the environment*

- SEEA, para. 4.12

- DISCUSSION QUESTION: Examples?

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## Resource Management (RM)

- *Activities whose primary purpose is preserving and maintaining the stock of natural resources and hence safeguarding against depletion*
- DISCUSSION QUESTION: Examples?

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## Primary purpose criterion

EGSS are activities *if the primary purpose of the activity is consistent with environmental protection or resource management.*

-SEEA, para. 4.15

DISCUSSION QUESTION: What are some advantages and disadvantages of the primary purpose criterion for EGSS?

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## DISCUSSION QUESTION

Is anything missing from the Classification of Environmental Activities (EP and RM)?

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## Types of EGSS

- Characteristic services
- Environmental technologies
- Adapted goods

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## Environmental-specific or characteristic services

Examples include: waste and wastewater  
management

EP or RM are “characteristic” or typical of  
those activities

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## Environmental Technologies

- Includes sole-purpose and connected products, which are goods or services whose use directly serves an EP or RM purpose.
  - Examples include: catalytic converters, septic tanks, solar panels
  - Bicycles?
- Includes:
  - End-of-pipe (pollution treatment) technologies
  - Integrated (pollution prevention) technologies

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## Adapted Goods (1 of 3)

*Goods that have been specifically modified to be more “environmentally friendly”*

*-SEEA, para. 4.67*

- Examples include: mercury-free batteries, CFC-free products
- ...Other examples?

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## Adapted Goods (2 of 3)

- Included in EGSS accounting is only the extra costs paid for adapted goods, in relation to the non-adapted reference point or “normal good”.
- Thus, once adapted goods have been identified, need to identify appropriate value of additional expenditure in relation to the normal good reference
  - May require special survey or use of expert knowledge

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## Adapted Goods (3 of 3)

- What can be considered adapted or normal is continuously evolving
- However, adapted goods are likely to be a significant portion of EGSS, so cannot be ignored

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## EGSS and Ecosystem Services

- Ecosystem Services are flows of benefits from the environment to society that may have economic benefits but are not “produced” (according to national accounts boundary)
- EGSS are “produced” goods and services with an environmental purpose

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## Environmental activities on Own-account

- SEEA recommends to include own-account activities in EGSS production
- Separately identified, wherever possible
- DISCUSSION QUESTION: Examples?

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## How to measure EGSS

- A simple 4-step approach:
  1. List of goods and services with EP or RM purpose in your country
  2. Database of producers (including own-account)
  3. Survey the producers for economic data on green sector
  4. EGSS satellite production account

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## Environmental Producers

- 2 types of producers in SEEA:
  1. Specialist producers: primary activity is in EGSS
  2. Non-specialist producers: EGSS is not primary activity
- **DISCUSSION QUESTION:** Which type of producers should be included in the environmental activity accounts?

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## Own account EGSS producers

*Reccomended that own-account production be separately identifed wherever possible*

-SEEA, para. 4.35

- Note: small deviation from typical recommendation of SNA

DISCUSSION QUESTION: Examples?

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## DISCUSSION QUESTION

DISCUSSION QUESTION: Any questions or concerns about how we measure activity in EGSS?

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## Republic of Korea Example

- Measured the green portion of the economy, focusing on 9 industries
- Used Purpose criterion, with slight variation from EP and RM, using Korea's definition of low carbon green growth
- Preliminary results:
  - 4.5% of production was green
  - 5.4% of employment was green

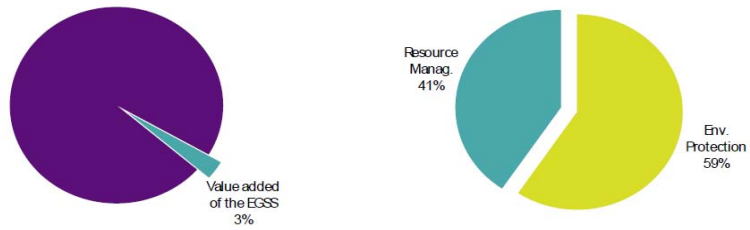
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## USA Example

- Used purpose-based criterion to define green economy
- Defined both broad and conservative definitions of green economy
- Results:
  - Roughly 1-2% of US production and employment was green

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## Eurostat (fictional) Example



Source: Eurostat (2009)

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## DISCUSSION QUESTION:

Why measure EGSS?

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## DISCUSSION QUESTION

- What kinds of measures (indicators) of EGSS are most useful/appropriate?

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## GROUP EXERCISE

- Please assemble into Small Groups

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## Part I

Write down 10 environmental goods and services produced in your country.

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## Part II

Classify your 10 goods and services by the 2 high-level EGSS classes (RM and EP)

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## Part III

As a group, develop a data collection plan for list of 10 goods and services aimed at calculating economic aggregates such as: value added, investment and employment.

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## Part IV

Based on your 10 goods and services sample, which EGSS class (RM or EP) do you think is a more significant portion of your country's economy?

Give your best estimation of % of production and employment in your economy that is part of EGSS.

Do you think this will change in the future?

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## Part V

Complete the production account table exercise