

DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS STATISTICS DIVISION UNITED NATIONS

SEEA Revision
Issue 5
Outcome Paper

Outcome Paper for Global Consultation

Issue #5: Environmental Goods and Services Sector¹

Carl Obst SEEA Editor

¹ This outcome paper has been prepared by the SEEA Editor. It is based on papers presented to the London Group of Experts on Environmental Accounting and discussions among those experts. Investigation and research for this outcome paper was led by Julie Hass and Anda Marina Georgescu of Eurostat, Mats Eberhardson of Statistics Sweden and Maarten van Rossum, and Sjoerd Schenau of Statistics Netherlands.

A. Introduction

- 1. There is general interest in understanding and measuring the relative size of the environment industry that is, the economic contribution of those activities that are considered to be environmental. This contribution might be measured in terms of contribution to GDP or in terms of levels of employment. The purpose of this paper is to propose a framework in which this economic contribution might be assessed.
- 2. An increasingly common approach to answering such questions is the development of functional satellite accounts. In the 2008 System of National Accounts (SNA) such satellite accounts are introduced for tourism, health, unpaid household activity and the environment. The basic starting point is to identify, within the boundaries of the SNA, those balances and flows that are relevant to the area of interest. As is the case for tourism and environmental activity the activity may be included in the SNA but not easily identifiable because the activity cuts across traditional industry and institutional sector classifications.
- 3. Given the aim of defining the economic contribution of environmental activities, the key question in measurement is which of the current activities in the scope of the SNA should be considered to be environmental. This question can be considered from a number of perspectives. The approach in this paper is to define an Environmental Goods and Services Sector (EGSS) and various proposals are made for inclusion in the revised System of Environmental and Economic Accounts (SEEA).
- 4. Work has been undertaken in this area. In the SEEA-2003 the concept of an "Environment industry" is briefly described in Chapter 5. That description is based on a definition provided in a handbook produced in 1999 by the OECD and Eurostat titled "The Environmental Goods and Services Industry Manual for Data Collection and Analysis". However, the SEEA-2003 neither develops nor explains the statistical aspects of the "environment industry".
- 5. Over the past 10 years more work has been undertaken on the collection of data for an environment sector within the broader economy and there is now considerable experience in the relevant statistical concepts, sources and methods. The majority of the work has been undertaken in North America and Europe and in September 2009 Eurostat released a handbook on the measurement of the EGSS.
- 6. The overall outcome from discussion within the London Group is that the revised SEEA should incorporate the relevant concepts and definitions regarding the EGSS provided in the Eurostat EGSS Handbook.
- 7. There is commonly discussion on whether the term "industry" or "sector" should be used to cover the grouping of producers whose common characteristic is a particular purpose or function. Neither the term industry nor sector can be applied according to its meaning within economic statistical standards although each term is commonly used in general discussion. In the paper the term chosen is "sector" and a recommendation is made to this effect at the end of the paper.
- 8. The remainder of this paper is structured to introduce the subject of environmental activities, to relate the EGSS to the SNA and then to present relevant concepts and definitions regarding the proposed EGSS. Recommendations are presented in a final section. An annex provides further detail on the Eurostat EGSS Handbook on which the discussion in the London Group was based and includes some reporting tables to give an indication of the type of a data that might be compiled within an EGSS structure.

B. An overview of environmental activities

- 9. The definition and identification of environmental activities has been a focus of environmental accounting for many years. In particular much focus has been placed on efforts to identify relevant flows within the core economic accounts articulated in the SNA.
- 10. The SEEA-2003 identifies four groups of environmental activities or, more strictly, activities with an environmental purpose. They are
 - Environmental protection activities
 - Natural resource management and exploitation activities
 - Environmentally beneficial activities
 - Minimisation of natural hazards (SEEA-2003, paragraph 5.26)
- 11. Most work has been undertaken on identifying transactions relating to environmental protection activity. This was first fully articulated in the SERIEE 1994² with accounts defined as Environmental Protection Expenditure Accounts (EPEA) and subsequently the development of a Classification of Environmental Protection Activities (CEPA).
- 12. Accounts for expenditure on resource management and exploitation activities more commonly referred to as Resource Use and Management Expenditure Accounts (RUMEA) have been described but not fully articulated in the SERIEE and no classifications comparable to CEPA have been widely adopted. Another issue under discussion in the context of the revision of SEEA concerns developing such classifications see Issue #9: Classification of natural Resource Use and Management Activities and expenditures (CRUMA).
- 13. From an environmental goods and services perspective most focus has been on the combination of environmental protection and resource management activities. These activities, in general terms, are those

"which reduce or eliminate pressures on the environment and which aim at making more efficient use of natural resources" (SEEA-2003, paragraph 5.25)

C. EGSS in a national accounts context

- 14. As noted above the original work in the area of identifying the economic contribution of environmental activities has been undertaken from the analysis of expenditures. The proposed EGSS looks at environmental activities from the perspective of producers and directly considers variables such as output, value added and employment within a traditional national accounts supply and use table and associated production accounts.
- 15. The development of an EGSS starts from analysis of the flows in the supply and use tables as defined in the SNA such as output, intermediate consumption, compensation of employees, operating surplus and value added. In principle there is no restriction on the range of SNA variables that might be considered within an EGSS context but most interest has been on the variables that give an indication of relative economic size and contribution such as output and value added.
- 16. Consistently, the variables themselves are defined following SNA principles with associated boundaries defined by industry and institutional sector. By using the SNA in this way it is straightforward to compare the measures emerging from the EGSS with results for other activities, such as manufacturing.

2

² SERIEE is the French acronym for the 1994 Eurostat publication *The European System for the Collection of Information on the Environment – SERIEE 1994.*

D. Concepts for EGSS statistics

Definition of EGSS

17. In broad terms all producers in the EGSS are involved in the environmental activities of environmental protection or resource management (or both). The definitions of these activities are:

Environmental Protection includes goods, technologies and services of both a preventive or remedial nature such as for the reduction, prevention or treatment of waste and wastewater, the prevention, elimination or reduction of air emissions, the treatment and disposal of contaminated soil and groundwater, the prevention or reduction of noise and vibration levels, the preservation of ecological entities and landscapes, the monitoring of the quality of the environmental media as well as the research and development (R&D), the general administration and training and teaching activities oriented towards Environmental Protection.

Resource Management includes goods, technologies and services to manage and/or conserve natural resources. Technologies and products related to the reuse and recycling, the increase/recharge of stocks, the restoration of depleted resources or regulation, measurement and control are also included in this category.

- 18. More specifically, the **Environmental Goods and Services Sector (EGSS)** consists of an heterogeneous set of producers of goods, technologies³ and services that:
 - measure, control, restore, prevent, treat, minimise, research and sensitize to environmental damages to air, water and soil as well as problems related to waste, noise, biodiversity and landscapes. This includes "cleaner" technologies, goods and services that prevent or minimise pollution.
 - measure, control, restore, prevent, minimise, research and sensitize to resources depletion. This results mainly in resource-efficient technologies, goods and services that minimise the use of natural resources⁴.
- 19. Significantly the size of the EGSS is not equal to the total output of all of the producers within scope of the EGSS. Most EGSS producers within scope will produce a range of other goods and services and, therefore, the production of environmental goods and services may only be a relatively small component of their total output. Finally it is clarified that the

OECD gives the following definition: "technology refers to the state of knowledge concerning ways of converting resources into outputs. Technological innovations comprise new products and processes and significant technological changes of products and processes. An innovation has been implemented if it has been introduced on the market (product innovation)". OECD Productivity Manual: A Guide to the Measurement of Industry-Level and Aggregate Productivity Growth, OECD, Paris, March 2001, Annex 1 – Glossary.

³ Broadly speaking technology refers to the body of know-how about the means and methods of producing goods and services. This includes methods of organisation as well as physical technique. The OECD gives the following definition: "technology refers to the state of knowledge concerning ways of

⁴ Natural resources are physical inputs, both renewable and non-renewable that can potentially be withdrawn from the natural environment. Natural resources are those elements of the environment that provide use benefits through the provision of materials used in economic activities (e.g. fossil energy, raw materials or water); or that may provide such benefits one day, and that are subject to quantitative depletion through human use. UN, Eurostat, OECD, IMF, WB, 2003, "System of integrated Environmental and Economic Accounting: SEEA", http://unstats.un.org/unsd/envAccounting/seea2003.pdf.

activities associated with resource use and exploitation are excluded from the scope of the EGSS.

Definition of environmental goods, technologies and services

- 20. In order to define whether a technology, good or a service is part of the EGSS, the environmental purpose must be the "main purpose". Environmental purpose means that the good, technology or service has been produced for:
 - preventing or minimising pollution, degradation or natural resources depletion (including the production of energy from renewable sources);
 - reducing, eliminating, treating and managing pollution, degradation and natural resources depletion or restoring environmental damages to air, water, waste, noise, biodiversity and landscapes;
 - carrying out other activities such as measurement and monitoring, control, research and development, education, training, information and communication related to Environmental Protection and/or Resource Management.
- 21. The purpose is identified mainly on the basis of the technical nature of the activity or the producer's intention, i.e. regardless of the intention of the users. The selection criterion based on the producer's intention should however be applied for handling particular/boundary cases (cases that are not already solved according to the technical nature of the activity). The user's purpose should not be considered in defining the EGSS boundary.
- 22. Excluded from the EGSS are activities that, while beneficial to the environment, primarily satisfy technical, human and economic needs or requirements for health and safety. Activities related to natural hazards and natural risk management, aiming mainly to prevent or reduce the impact of natural disasters on human health and activity are not included in the EGSS. Also, goods, technologies and services produced to extract, mobilise and exploit non-renewable resources are not included in the EGSS.

_

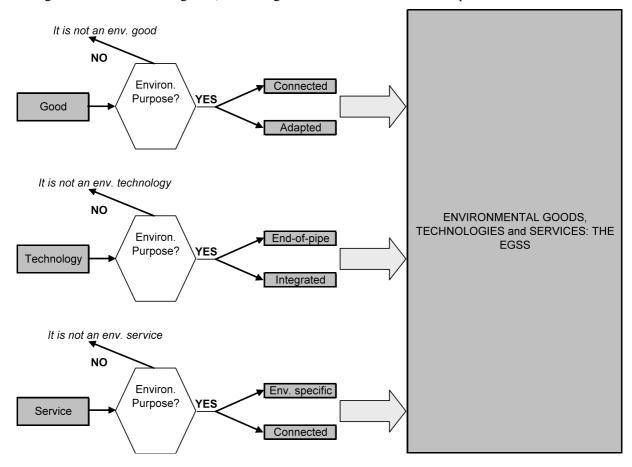
⁵ An exception is made for adapted goods – see paragraph 23.

⁶ A non-renewable resource is a natural resource that exists in a fixed amount that cannot be re-made, re-grown or regenerated as fast as it is consumed and used up (adapted from SEEA 2003). Some non-renewable resources can be renewable but take an extremely long time to renew. Fossil fuels, for example, take millions of years to form and so are not considered 'renewable'.

Classification of goods, technologies and services for EGSS

23. The goods, technologies and services produced in the EGSS are classified according to their function and characteristics as described in Figure 1:

Figure 1: Environmental goods, technologies and services within the scope of the EGSS



Connected products may be goods (durable or non-durable goods)⁷ or services. According to the System of National Accounts (SNA), connected products ones which are "clearly covered by the concept of the field under study, without being typical, either by nature or because they are classified in broader categories of products". In the case of the EGSS, a connected product directly serves an environmental purpose and has no use except for environmental protection or resource management. (For example, rainwater storage tanks, air pollution control devices)

Adapted goods⁸ are goods which are less pollutant or more resource efficient than equivalent normal goods which furnish similar utility⁹. Their primary use is not an environmental protection or resource management one. (For example, retreaded tyres, organic farming goods)

_

 $^{^7}$ The concept of "Connected products" can be found in SNA93 $\S\S\ 21.61\mbox{-}21.62;$ SERIEE $\S\S\ 2024\mbox{-}2034.$

⁸ The concept of adapted goods can be found in SERIEE §§ 2024-2034.

⁹ Adapted goods are more costly and an estimation of the environmental share or extra cost is undertaken in the EPEA accounts. In the EGSS statistics, the requirement of being more costly than equivalent normal goods should not be taken into account and the total amount of turnover, value added, employment and exports is to be taken and not only an environmental share.

Environmental "specific" services¹⁰ consists of the output of environmental protection or resource management "characteristic" activities. Characteristic activities are, according to SNA, those "typical for the field under study". In the EGSS, characteristic activities are activities whose purpose is an environmental purpose¹¹. (For example, installation of equipment for the production of renewable energy)

Environmental technologies are technical processes, installations and equipments (goods) and methods or knowledge (services) whose technical nature or purpose is environmental. Environmental technologies can be classified in:

- end-of-pipe technologies which are mainly technical installations and equipment produced for measurement, control, treatment and restoration/correction of pollution, environmental degradation and resource depletion. These installations and equipment operate independently of or are identifiable parts added to, production and end-life consumption cycles.¹². (For example, equipment to measure soil erosion, facilities for the containment of high-level radioactive waste)
- integrated technologies are technical processes, methods or knowledge used in production processes that are less pollutant and resource intensive than the equivalent average technology used by national producers. Their use is less environmentally harmful than relevant alternatives. (For example, catalytic NOx purifiers, cars with environmentally friendly cooling)
- 24. Some examples of these different EGSS products are provided here but a far more extensive presentation and description can be found in the Eurostat EGSS Handbook particularly Annexes 2 and 5.

Valuing EGSS output

- 25. As discussed in the earlier section, the valuation of EGSS output is undertaken consistently with the principles of the 2008 SNA. However, because of the very specific purpose of EGSS output it can often be difficult to observe a clear transaction. There are two broad cases to consider. The first is where the EGSS output is separable from other goods and services such as a blade for a wind turbine. This good can be separately priced and valued and included in EGSS output.
- 26. The second case is where the EGSS output is a component within a larger product. For example, the inclusion of a catalytic converter in a car engine results in the car containing an environmental integrated technology but not one that is separately priced when the car is sold. Efforts must therefore be made to value only the catalytic converter as part of EGSS output the entire value of the car should not be included.
- 27. Other variables of interest within the EGSS framework are also measured following the principles of the 2008 SNA. It is noted that when considering the economic contribution of EGSS it is not appropriate to use output but rather the concept of value-added should be used. Value-added is equal to output less intermediate consumption. Value-added is the concept used to measure the economic contribution of other activities and is the concept underlying the aggregate measure of the economy, Gross Domestic Product (GDP).

¹⁰ The concept of "Specific services" is defined in SNA93 §§ 21.61-21.62; SERIEE §§ 2010-2023.

¹¹ See SERIEE § 2009-2014.

¹² Adapted from the definitions of SBS Regulation variables (21 11 0)

The relationship between EGSS and EPE statistics

- 28. An important connection must be made to the transactions recorded in measuring environmental protection expenditure (EPE). As noted earlier in the paper the objective in defining the EGSS is to consider the economic contribution of the sector and thus the framework outlined here is deliberately focused on the units involved in the production of environmental goods and services. EPE statistics on the other hand seek to understand the extent of expenditure on environmental protection as a share of all expenditure.
- 29. Therefore while EGSS and EPE measures both focus on the same environmental activities (noting that in aggregate EGSS is broader because it also includes resource management activities) the scope of transactions in the EPE is determined by the environmental protection purpose as assessed by the purchaser. On the other hand, as defined above the EGSS considers the purpose from the perspective of the producer and more specifically by considering the nature of the good, technology or service. While these two perspectives may align it may not always be the case.
- 30. It is particularly the case when considering the treatment of adapted goods. Adapted goods are included in both EGSS and EPE frameworks but are peculiar because by definition they do not have a primary use that is environmental protection unlike other goods and services in the EGSS and EPE. Within the EPE framework this peculiarity is dealt with by including only the "environmental share" of the expenditure within the EPE i.e. the extra cost of the adapted good compared to the equivalent normal good.
- 31. However, in the EGSS framework because the focus is on the producing units the calculation of the environmental share of adapted goods is not applied and the total value of the output of such goods is included.
- 32. Finally, when considering aggregate EGSS and EPE statistics the treatment of imports and exports must be noted. Aggregate measures of EGSS output for a country should, in principle, include both output sold in the domestic economy and output that is exported. On the other hand, aggregate EPE statistics will include expenditure on both domestically produced and imported environmental goods, technologies and services
- 33. Overall, while both EGSS and EPE statistics have a relatively common focus there are a range of reasons to indicate that care must be taken when comparing EGSS and EPE based statistics.

Classification of EGSS output

- 34. Within the domain of environmental protection the relevant classification of activities is the Classification of Environmental Protection Activities (CEPA 2000).
- 35. Earlier in this paper it was noted that work is currently underway to finalise a Classification of natural Resource Use and Management Activities and expenditures (CRUMA). One element of the proposed CRUMA is that resource management activities and resource use/exploitation activities are clearly distinguished.
- 36. For the purposes of the EGSS a classification based on the CRUMA but which excludes resource use activities has been defined. It has been labelled CReMA the Classification of Resource Management Activities and is presented in the Eurostat EGSS handbook. The broad structure of the CReMA is presented below.

Proposed CReMA from EGSS Handbook

- 10: Management of waters
- 11: Management of forest resources
 - 11 A: Management of forest areas
 - 11 B: Minimisation of the intake of forest resources
- 12: Management of wild flora and fauna
- 13: Management of energy resources
 - 13 A: Production of energy from renewable sources
 - 13 B: Heat/Energy saving and management
 - 13 C: Minimisation of the intake of fossil resources as raw material for other use than energy production
- 14: Management of minerals
- 15: Research and development
- 16: Other natural Resource Management activities

Classification of EGSS producers and the treatment of household production

- 37. As in the 2008 SNA the producers in the EGSS can be classified by industry and by institutional sector. The industry classification poses no particular issues that are different from the general definition of industry statistics although it is noted that there may be interest in breakdowns in the type of activity undertaken by relevant units. Thus identifying the principal, secondary and ancillary activities may be of interest; and within these activities determining the market and non-market components may be useful. In all cases the relevant definitions of the 2008 SNA should be applied. A special note with respect to the industrial classification of household production for own use is made in paragraph 42.
- 38. In terms of institutional sectors, the sectors defined in the 2008 SNA are appropriate. Particular note however is made of the household sector. It is the case that households could also be considered as producers in the EGSS in cases where they produce environmental goods and services for their own use. Such examples could be: heat from solar panels (adapted good), installation of the equipment to produce heat from solar panels (connected service), insulation activities (environmental specific service), organic farming (integrated technology) and organic farming goods (adapted good).
- 39. In these and similar situations the activity may or may not be considered to be within the scope of the production boundary of the SNA. Where environmental goods and services are produced for sale or barter by household producing units they are already included in the EGSS as household unincorporated market enterprises.
- 40. However, where the production is for own final use by the household, the production boundary is defined according to whether the product is a good or a service. Where a household produces a good for own final use it is considered to be within the production boundary (eg heat from solar panels). Where the product is a service for own final use it is considered to be outside the production boundary (the only exceptions being the services produced by owner-occupied dwellings and the domestic services produced by employing paid staff).

- 41. For SEEA purposes it is recommended that where an environmental good, technology or service is produced by a household for own final use and is in scope of the SNA production boundary, then the relevant activity should be classified following standard industry and activity classifications (see paragraph 43). This may be particularly relevant in recognising the production of electricity and collection of water on own account.
- 42. For those environmental technologies, goods or services produced on own account that are outside the SNA production boundary, the activity is considered outside the scope of the EGSS. Nonetheless, depending on the nature of the activity countries may be interested in collecting relevant information.
- 43. In terms of the industrial classification of household production for own final use; if the production is of reasonably significant size such that a primary activity can be determined then the activity should be classified to the relevant ISIC class. However, in general it is likely that the activity will be quite small such that a primary activity of the household cannot be determined. In this case the activity should be classified to ISIC Division 98: Undifferentiated goods and services producing activities of private households for own use.
- 44. It is noted that the Eurostat EGSS Handbook defines two producing sectors: General Government and Corporations. Strictly speaking these sectors do not align to the 2008 SNA sectors of similar names. The Eurostat Corporations sector includes units in the Non-financial corporations sector, the Financial corporations sector, relevant producers of environmental products in the General Government sector (for example, units involved in water treatment), Household Unincorporated market enterprises and Non-profit institutions serving households (NPISHs). The Eurostat General Government sector includes those units undertaking administrative and management roles in relation to the environment who are in the SNA General Government sector.

E. Recommendations

45. The following recommendations are made in relation to the proposed EGSS for the revised SEEA.

Recommendation 5.1: That the term Environmental Goods and Services Sector (EGSS) should be used to label the group of environmental producers.

Recommendation 5.2: That in the revised SEEA an EGSS should be defined with a scope equal to the production of environmental goods, technologies and services for the environmental activities of environmental protection and resource management.

Recommendation 5.3: That in determining the main purpose of an activity the primary focus should be on the technical nature of the activity and, in border line cases, the producer's intentions. Focus should not be placed on the user's intentions.

Recommendation 5.4: That in accounting for the transactions and units within the EGSS all of the relevant concepts and definitions should be consistent with the relevant detail of the 2008 SNA.

Recommendation 5.5: That activities within scope of the EGSS should be classified by the Classification of Environmental Protection Activities (CEPA) and the Classification of Resource Management Activities (CReMA).

References

Environmental Goods and Services Sector –Data collection handbook, Eurostat 2009

 $\underline{http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-RA-09-012$

Environmental Goods and Services Sector, Julie Hass, Anda Marina Georgescu, Mats Eberhardson, Paper presented to the 14th London Group Meeting, April 2009.

The Environmental Goods and Services Industry – Manual for Data Collection and Analysis, OECD/Eurostat, 1999.

The European System for the Collection of Information on the Environment – SERIEE 1994, Eurostat, 1994

Annex: The Eurostat Handbook on EGSS

The recently finalized Eurostat EGSS handbook provides methods to develop new data collection systems on EGSS at the national level. To a large degree the handbook follows the principles of the OECD/Eurostat 1999 Manual because it is intended to represent the reference handbook used by national statistics offices to carry out studies on EGSS. At the same time it is intended to be a further development of the OECD/Eurostat 1999 Manual.

The handbook provides an analysis of the concepts related to the EGSS, supplemented by a definition and a classification of the sector, practical hands-on and methodological guidance for data collection. It contains definitions, examples and recommendations to ensure that data are compiled and maintained on a consistent basis between countries.

The handbook also explains the scope and the reasoning behind the terms of the standard reporting tables. The reporting tables essentially aim at identifying some important variables (employment, turnover, value added and exports) by different sectors and activities within the EGSS. It also provides extra information necessary to allow a consistent collection and interpretation of the data to be reported by countries.

The Handbook recommends methods and approaches for analysis. A great deal of effort has been put into increasing coherency and providing users of the handbook with practical recommendations. Consequently, the Eurostat handbook provides far more detail that is required in the revised SEEA and it is suggested that the handbook act as a reference document for those responsible for compiling data for the SEEA.

It is not possible to offer a standard compilation method that can be applied to the circumstances of all countries without adaptation. There are two main reasons this cannot be done. First, the EGSS does not follow standard classifications of products and services (CPC,HS, PRODCOM) or standard industrial classifications (ISIC, NACE). Second, there are various approaches used by countries to identify the populations of economic units to be included within the scope of the EGSS.

Thus, the handbook outlines the various options that may be available for the collection of data on the EGSS but these issues need not be covered in the revised SEEA.

The following figure provides an overview of the different sub-systems and classifications used in EGSS. What is clear from this figure is that EGSS statistics can be considered from a variety of perspectives since it is a cross-cutting type of activity that requires a variety of different ways of collecting data and piecing them together to provide a complete picture of the sector.

The remainder of the annex includes examples of the reporting tables to give an indication of the type of data that might be compiled within an EGSS framework.

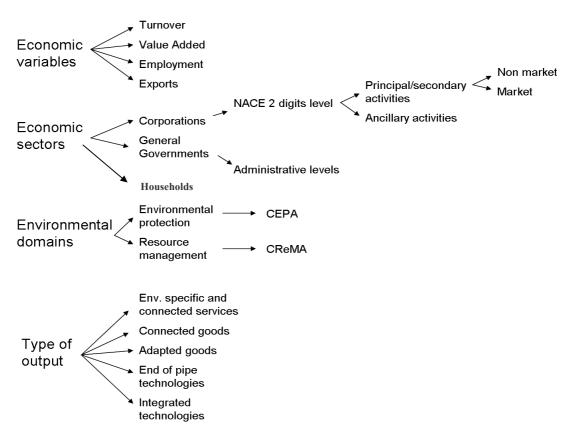


Figure A1: Different levels of details for presenting the data on the EGSS

Source: Graphic showing the proposed standard tables. Adapted from presentation to Eurostat Working Group on Environmental Expenditure Statistics.

Eurostat standard reporting tables on EGSS statistics

Index of the standard reporting tables



| | Datasheet | Description | |
|----------------------------|-------------------------|---|-----------------|
| Introduction | <u>Intro</u> | Introduction about the Eurostat data collection on the environmental goods and services sector | for information |
| Explanatory notes | <u>Notes</u> | Notes on how to fill in the standard tables | for information |
| Methodology | <u>Methodology</u> | National authorities are kindly asked to provide information on the methodology used for gathering the data reported in the standard tables | to be filled in |
| Examples (Corporations) | Corporations - examples | This data sheet provide some examples of activities, godds and services to be included in the EGSS and their classification by environmental domain | for information |

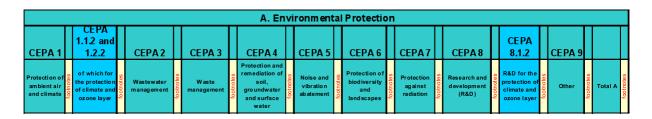
| Variable | Title | Description | Туре |
|-------------|----------------------------|--|-----------------|
| T | Corporations - Turnover | Data sheet for turnover of the industries | to be filled in |
| Turnover | Government - Tumover | Data sheet for tumover of the govemment | to be filled in |
| Value Added | Corporations - Value Added | Data sheet for value added of the industries | to be filled in |
| Value Added | Government - Value Added | Data sheet for value added of the government | to be filled in |
| Employment | Corporations - Employmen | Data sheet for employment of the industries | to be filled in |
| Employment | Government - Employment | Data sheet for employment of the government | to be filled in |
| Exports | Corporations - Exports | Data sheet for exports of the industries | to be filled in |
| | TOTAL - Tumover | Total tumover by sector | for information |
| TOTAL | TOTAL - Value added | Total value added by sector | for information |
| IOIAL | TOTAL - Employment | Total employment by sector | for information |
| | TOTAL - Exports | Total exports by sector | for information |

Overview of Standard Reporting Table (Example: Total – Turnover)

| EGSS | | A. Environmental Protection | | | | | | | | | | | | |
|-------------------|---|---------------------------------------|---|--------------------------|---------------------|---|-------------------------------|---|------------------------------------|--------------------------------------|---|--------|---------|--|
| Turnover Unit: | INDEX | CEPA 1 | CEPA 1.1.2 and 1.2.2 | CEPA 2 | CEPA 3 | CEPA 4 | CEPA 5 | CEPA 6 | CEPA 7 | CEPA 8 | CEPA 8.1.2 | CEPA 9 | | |
| | TOTAL | Protection of ambient air and climate | of which for the protection of climate and ozone layer | Wastewater management | Waste management | Protection and remediation of soil, groundwater and surface water | Noise and vibration abatement | Protection of biodiversity and landscapes | Protection against radiation | Research and development (R&D) | R&D for the protection of climate and ozone layer | Other | Total A | |
| Corpora | itions | | | | | | | | | | | | | |
| | env. specific and connected services | | | | | | | | | | | | | |
| | connected goods | | | | | | | | | | | | | |
| | adapted goods | | | | | | | | | | | | | |
| | end-of-pipe technologies integrated technologies | | | | | | | | | | | | | |
| | TOTAL | | | | | | | | | | | | | |
| | of which ancillary activities | | | | | | | | | | | | | |
| | of which non-market activities | | | | | | | | | | | | | |
| General | Government | | • | | • | | | | | • | | | | |
| | env. specific and connected services | | | | | | | | | | | | | |
| | connected goods | | | | | | | | | | | | | |
| | adapted goods | | | | | | | | | | | | | |
| | end-of-pipe technologies | | | | | | | | | | | | | |
| | integrated technologies | | | | | | | | | | | | | |
| | TOTAL | | | | | | | | | | | | | |
| | of which ancillary activities | | | | | | | | | | | | | |
| Corpora | itions & General G | overnme | nt | | | | | | | | | | | |
| | env. specific and connected services | | | | | | | | | | | | | |
| | connected goods | | | | | | | | | | | | | |
| | adapted goods | | | | | | | | | | | | | |
| , | end-of-pipe technologies | | | | | | | | | | | | | |
| | integrated technologies | | | | | | | | | | | | | |
| | TOTAL | | | | | | | | | | | | | |
| | of which ancillary activities | | | | | | | | | | | | | |
| | of which non-market activities | | | | | | | | | | | | | |

| EGSS | | B. Resources Management | | | | | | | | | | | | | |
|----------|-----------------------------------|-------------------------|--------------------------------|---|--|--|---|--|---|---|------------------------|--------------------------------------|---|----------|----------|
| Turnover | | | | CReMA 11 | CReMA 11 | | | CReMA 13 | CReMA 13 | CReMA 13 | | | CReMA | | |
| Unit: | INDEX | CReMA 10 | CReMA 11 | Α | В | CReMA 12 | CReMA 13 | | В | С | | CReMA 15 | 15.5.1 | CReMA 16 | 1 |
| | TOTAL | Management of waters | Management of forest resources | Management of non-cultivated forest areas | Minimisation of the intake of forest resources | Management of wild flora and fauna | Management of fossil energy resources | Production of energy from renewable sources | Heat/Energy saving and management | Minimisation of the intake of fossil resources as raw material | Management of minerals | Research and development (R&D) | R&D for the production of energy from renewable sources | Other | Total B |
| Corpora | ations | | | | | | | | | | | | | | |
| | env. specific and | | | | | | | | | | | | | | 1 |
| | connected services | | | | | | | | | | | | | | i |
| | connected goods | | | | | | | | | | | | | | |
| | adapted goods | | | | | | | | | | | | | | 1 |
| | end-of-pipe technologies | | | | | | | | | | | | | | 1 |
| | integrated technologies | | | | | | | | | | | | | | ſ |
| | TOTAL | | | | | | | | | | | | | | |
| | of which ancillary | | | | | | | | | | | | | | |
| | activities | | | | | | | | | | | | | | |
| | of which non-market activities | | | | | | | | | | | | | | 1 |
| Gonoral | Government | | | | | | | <u> </u> | | | | | | | |
| General | env. specific and | | | | | | | | | | | | | | |
| | connected services | | | | | | | | | | | | | | |
| | connected goods | | | | | | | | | | | | | | L |
| | adapted goods | | | | | | | | | | | | | | 1 |
| | end-of-pipe technologies | | | | | | | | | | | | | | l |
| | integrated technologies | | | | | | | | | | | | | | <u> </u> |
| | TOTAL | | | | | | | | | | | | | | l |
| | of which ancillary | | | | | | | | | | | | | | ĺ |
| C | lactivities ations & General G | | | | | | | | | | | | | | |
| Corpora | env. specific and | overnme | <u>nt</u> | | | 1 | | | | | | | | | |
| | connected services | | | | | | | | | | | | | | i |
| | connected goods | | | | | | | | | | | | | | ſ |
| | adapted goods | | | | | | | | | | | | | | ſ |
| | end-of-pipe technologies | | | | | | | | | | | | | | ſ |
| | integrated technologies | | | | | | | | | | | | | | 1 |
| | TOTAL | | | | | | | i e | | | | | | | 1 |
| | of which ancillary | | | | | | | | | | | | | | |
| | activities | | | | | | | | | | | | | | |
| | of which non-market activities | | | | | | | | 1 | | | | | | i |
| | activities | | | | | | | l | l | | | | | | |

Overview of natural environmental protection CEPA classes (Standard Table columns)



Overview of natural resources management CReMA classes (Standard Table columns)

| | B. Resources Management | | | | | | | | | | | | |
|----------------------|--------------------------------------|--|---------------|------------------------------------|---------------------------------------|---|-----------------------------------|--|------------------------|--------------------------------|---|-------------|---------|
| CReMA 10 | CReMA 11 | CReMA 11 | CReMA 11 B | CReMA 12 | CReMA 13 | CReMA 13 A | CReMA 13 | CReMA 13 C | CReMA 14 | CReMA 15 | CReMA 15.5.1 | CReMA 16 | |
| Management of waters | Management of forest resources | Management of position of positions of posit | | Management of wild flora and fauna | Management of fossil energy resources | Production of energy from renewable sources | Heat/Energy saying and management | Minimisation of the intake of fossil resources as raw material | Management of minerals | Research and development (R&D) | R&D for the production of energy from renewable sources | Other 3 | Total B |

Overview of type of activity and of type of output breakdowns (standard table rows) for Corporations and General Government

| Corporations | |
|---------------------------------------|--------------------------------------|
| | General Government |
| of which ancillary activities | Geriei ai Government |
| of which non-market activities | of which ancillary activities |
| en v. specific and connected services | env. specific and connected services |
| connected goods | connected goods |
| adapted goods | adapted goods |
| end-of-pipe technologies | end-of-pipe technologies |
| integrated technologies | integrated technologies |