



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION
UNITED NATIONS

**SEEA Revision
Issue 2
Cover Note**

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Issue #2: Classification of physical flows

Outcome paper for global consultation

Outcome Paper Issue #2: Classification of physical flows

Issue description

The SEEA-2003 distinguishes between four types of physical flows: ecosystem inputs, natural resources, products and residuals. Ecosystem inputs and natural resources constitute flows from the environment to the economy. The boundary between them is not clear cut. Products are classified according to CPC as are flows within the economy. Residuals are not clearly defined as they seem to cover flows within the economy and from the environment to the economy. Furthermore, the definition of waste covering both products (with positive value) and residuals (with zero and negative value) is not clear cut. A number of questions need to be addressed, in particular: Should the distinction between ecosystem inputs and natural resources be maintained? Should the definition of residuals and waste -products and residual- be revisited and clarified? Which classification(s) should be used for waste in the SEEA tables (i.e. CPC/HS or EWC Stat)? How should a correspondence be developed between the two? Should the classification of physical flows hold for any type of measurement units used in the various accounts (e.g. water and energy accounts as well as MFA)?

Background

At the core of most environmental analysis is the study of the extraction of natural resources and other ecosystem inputs from the environment, their use and conversion within the economy and society generally and the ultimate release of materials back into the environment.

Because the System of Environmental and Economic Accounts (SEEA) is bringing together both environmental analysis which is generally in physical terms and economic analysis which is most commonly in monetary terms there is a need to consider very precisely the boundaries around the flows just described. If this is not done then it is likely that the recognized boundaries between the economy and the environment will differ in physical and monetary terms thus limiting the usefulness of joint analysis.

As well, since analysis in physical terms may be undertaken across a number of fields, for example, energy and water, comparison across these fields of research would be enhanced through the adoption of common boundaries for the physical flows.

Defining the boundaries around these physical flows and the associated classifications of the materials that are “flowing” has been an important part of the revision of the SEEA. The discussion in the outcome paper is structured to present a general framework of physical flows, relevant definitions and the three relevant classifications.

It is recognized that the central nature of physical flows within the SEEA means that there are a number of dependencies between outcomes and proposals presented in this paper and the proposals made under other issues investigated during the SEEA revision process. Some of these consistency

issues have been addressed but a number will need to be considered through the course of drafting the revised SEEA.

Summary of outcomes

The breadth of this issue has led to the formation of quite a number of recommendations as listed below. There are also two important areas on which no clear recommendations have emerged and country feedback on these areas is sought through global consultation.

Recommendation 2.1: That in the revised SEEA natural inputs should be defined as comprising materials and energy inputs that flow from the environment to the economy comprising resources, unused extraction, energy inputs and ecosystem inputs.

Recommendation 2.2: That in the revised SEEA products should be defined as comprising materials and energy inputs that flow within the economy, including flows related to own account production, and which have positive economic value.

Recommendation 2.3: That in the revised SEEA residuals should be defined as comprising materials and energy (primarily in the form of residual heat) that flow either within the economy or from the economy to the environment and are discarded or emitted materials with no monetary value.

Question 2.4: Do you have comments on the choice of either the harvest approach or the ecosystem approach to the recording of flows associated with cultivated resources for the general purposes of physical flow accounting in the SEEA?

Recommendation 2.5: That the revised SEEA should apply the definitions of waste, wastewater, emissions and return flows as presented in the outcome paper in paragraphs 36 – 44.

Recommendation 2.6: That, in the revised SEEA natural inputs should be classified following the classification described in Section C of the outcome paper and presented in Annex 1.

Recommendation 2.7: That in the revised SEEA products should be classified according to CPC for material flow accounts.

Question 2.8: Do you have views and suggestions on the classification for use for energy modules in energy accounts considering that it is not possible to develop a correspondence between SIEC and CPC?

Recommendations 2.9: That CPC should be used to classify waste that has a positive value and EWC-Stat should be used to classify waste that has a negative value.

Recommendation 2.10: That in the revised SEEA residuals should be classified following the classification described in Section E of the outcome paper and presented in Annex 2.

Questions

1. Do you agree that in the revised SEEA natural inputs should be defined as comprising materials and energy (including fuel and non-fuel) inputs that flow from the environment to the economy comprising resources, unused extraction, energy inputs (fuel and non-fuel) and ecosystem inputs?
2. Do you agree that in the revised SEEA products should be defined as comprising materials and energy inputs that flow within the economy, including flows related to own account production, and which have positive economic value?
3. Do you agree that in the revised SEEA residuals should be defined as comprising materials and energy inputs that flow either within the economy or from the economy to the environment and are discarded or emitted materials with no monetary value?
4. Do you have comments on the choice of either the harvest approach or the ecosystem approach to the recording of flows associated with cultivated resources for the general purposes of physical flow accounting in the SEEA?

5. Do you agree that the revised SEEA should apply the definitions of waste, wastewater, emissions and return flows as presented in the outcome paper in paragraphs 36 – 44?
6. Do you agree that, in the revised SEEA natural inputs should be classified following the classification described in Section C of the outcome paper and presented in Annex 1?
7. Do you agree that in the revised SEEA products should be classified according to CPC for material flow accounts?
8. Do you have views and suggestions on the classification for use for energy modules in energy accounts considering that it is not possible to develop a correspondence between SIEC and CPC?
9. Do you agree that CPC is used to classify waste that has a positive value and EWC-Stat should be used to classify waste that has a negative value?
10. Do you agree that in the revised SEEA residuals should be classified following the classification described in Section E of the outcome paper and presented in Annex 2.
11. Any other comments?

To submit responses to these questions please complete the accompanying comment form available on the website. You are encouraged to submit a short response to the questions (yes/no/no comment) even if you have no further comments to submit.

Deadline for responses: 17 January 2011