



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION
UNITED NATIONS

**SEEA Revision
Issue 14
Cover Note**

Cover Note

Issue #14 – Recording of depletion for renewable resources

Outcome paper for global consultation

Outcome Paper Issue #14: Recording of depletion for renewable resources

Issue description

The accounting recommendations on measuring resource depletion need to be extended also to renewable resources taking into considering how to treat the natural growth of uncultivated assets. Should natural growth be considered as production or should only part of it be seen as production (the part that exceeds the depletion)? or should it be recorded in the other changes in the volume of assets as in the case of discoveries of subsoil assets?

Background

The outcomes for this issue have strong connections to the issue of depletion for non-renewable resources that has also been identified as a key issue for the revision of SEEA. The discussion of that issue and associated outcomes and supporting material is found under Issue #13: Recording of depletion for non-renewable resources and readers are encouraged to consider this material in forming comments on this issue concerning depletion for renewable resources.

The scope of renewable resources considered in this issue is those natural resources which are harvested or extracted and which can regenerate over time. The most common examples are forests and fish stocks. It is possible that these natural resources might be extracted to extinction but even in these situations this will occur over a period of time and the stock of the natural resources will continually rise and fall through cycles of natural growth and extraction. Thus the situation is quite different from that of non-renewable resources such as mineral deposits.

The coverage of renewable resources under this issue does not extend to renewable energy sources such as wind, solar, wave and hydropower as the underlying natural resource in those cases is not considered to be a resource that grows over time and the level of the natural stock is invariant to the extent of capture.

Further on the issue of scope, when renewable natural resources are considered cultivated – for example plantation forests – the resources are considered to be produced assets and hence natural growth and additions are considered to be the output of a production process. If these cultivated natural resources are considered to be grown for harvest then, while they are growing they are treated as work in progress (i.e. part of inventories) and no consumption of fixed capital is recorded. On the other hand if the cultivated natural resources are considered to be themselves producing an output, eg dairy cattle producing milk, then they are treated as fixed assets and consumption of fixed capital is recorded. The treatment of cultivated natural resources is not considered further in this paper as the accounting treatment is well articulated in the 2008 SNA. (2008 SNA paragraphs 10.88 – 10.96 & 10.140)

Summary of outcomes

In the SNA all natural growth and additions to non-cultivated renewable natural resources are treated as other changes in volume (2008 SNA paragraphs 12.19 – 12.20). The value of sales from extracting the resource are considered market output of the extracting firm and any cost of using up the resource is treated as an economic disappearance of a natural resource in the other changes in volume account (2008 SNA paragraph 12.27). It is noted in paragraph 12.20 that while in principle the natural growth should be recorded on a gross basis – i.e. before the deduction of any cost of using up the resource – it is more likely in practice that a net entry of natural growth less the costs of using up the resource is the basis of recording.

The first outcome emerging on this issue is that the SEEA should record both the natural growth of renewable natural resources and the costs of using up the natural resources in extended production and generation of income accounts. This would allow the development of meaningful depletion adjusted measures of value added, operating surplus and saving, measures that are all consistent with the broader aims of the SEEA. If the SNA recording of natural growth in the other changes in volume of assets accounts was continued, the meaningfulness of these extended measures would be compromised. It is recognised that this outcome implicitly expands the boundaries of the 2008 SNA with regard to output and the recognition of the costs of using up natural resources.

Specific accounting for these two flows needs to consider whether a net or a gross approach to recording the flows is appropriate. In situations where the levels of extraction and natural growth are relatively balanced it may appear sufficient to use a net basis of recording. However, the conclusion of the London Group is that such an approach may mask the underlying economic transactions and environmental impacts and therefore a gross basis of recording is recommended. Therefore entries are required for both the value of natural growth and the cost of using up natural resources (value of extractions).

With regard to terminology it is proposed that the value of natural growth of renewable natural resources be labelled Other non-market output and be recorded in the production account of the extracting firm. This amount of output would also be recorded in the capital account to reflect an increase in non-produced non-financial assets. It is also proposed that the value of extractions be labelled Consumption of natural capital reflecting the decline in the value of the natural resource due solely to the extraction of the resource over time. Consumption of Natural Capital is recorded as a charge against income in the production account together with consumption of fixed capital.

Questions

1. Do you agree that the revised SEEA record both the natural growth and costs of using up renewable natural resources in extended production and generation of income accounts?
2. Do you agree that a gross basis of recording incorporating a value of extractions and a value of natural growth be used to account for the depletion of renewable natural resources?
3. Do you agree that under a gross basis of recording the value of extractions should be labelled “Consumption of Natural Capital” and that the value of natural growth should be labelled “Other non-market output”?
4. Any other comments?

To submit responses to these questions please complete the accompanying comment form available on the website.

Deadline for comments: 28 October 2010

Supporting papers

Depletion of renewable environmental resources, David Bain, ABS, Paper presented to the 12th London Group meeting (December 2007)

Recording changes to the stocks of natural resources, Peter Comisari, Andrew Cadogan-Cowper, ABS, Paper presented to the 12th London Group meeting (December 2007)

Draft outcomes papers: (A) Depletion of Renewable Natural Resources & Recording Changes to the Stocks of Natural Resources (B) Recording the Ownership of Mineral-Related Assets, Paper prepared by ABS and presented to the 3rd meeting of UNCEEA, June 2008