



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION
UNITED NATIONS

**SEEA Applications and
Extensions**

Comment form

Comment form for the Consultation Draft

Deadline for responses: 31 January , 2013

Send responses to: seea@un.org

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Your country/organization:	Global Footprint Network, Switzerland
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To submit responses please save this document and send it as an attachment to the following e-mail address: seea@un.org.

The comment form has been designed to facilitate the analysis of comments.

In Part I general comments on the structure and content of the draft document are sought. In Part II any other comments, particularly those of a technical nature should be included.

Relevant documents

Before submitting responses you are encouraged to read

Cover Note to the Consultation Draft

SEEA Applications and Extensions – Consultation Draft

Part I: General comments

In the box below please supply any comments on the structure of the document, the balance of material and the coverage of the draft including any thoughts on missing content.

Comments on the style, tone, and readability of the text are also welcome.

Please reference paragraphs numbers or section numbers as appropriate.

<p>The current draft of the SEEA Applications and Extensions is very clear in explaining the aim of the document and the usefulness of the material reported in it. I found particularly useful the initial framing of the role of this document and its link with the SEEA central framework. The document is really helpful for at least two categories of stakeholders: indicator developers and final users. Chapter 3 is a particular example of a chapter that will be highly useful for indicator developers.</p> <p>However, to further increase the readability of the document, hyperlinks could be added, for instance to the various SEEA central framework chapters referenced on page 6, paragraph 1.14 and following.</p>
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Part II: Other comments

In the box below please supply any additional comments including those of a more technical nature.

Please reference your responses with the relevant paragraph number or section number.

Page 10, Figure 2.1 Information pyramid: the figure seems to imply that SEEA is the only Accounts/accounting system. However one could argue that there are others as well (for instance the Ecological Footprint could be considered an accounting systems in itself, although not as comprehensive as the SEEA Central Framework). The fact that SEEA is not the only "Accounts" could be clarified in the Figure by modifying the text to read: "Accounts (e.g., SEEA)".

Page 15, paragraph 2.32: I would like to highlight the fact that we can consider the Ecological Footprint as an intensity indicator, indicating the amount of earth's regenerative capacity needed to produce a unit of product output (e.g., a tonne of wheat) or even a unit of economic activity (gha per \$ GDP). The value added of the Ecological Footprint is that it can then benchmark such intensity (and the overall production) with the amount of regenerative capacity (or biocapacity) locally available. As such, compared to the situation you are describing in this paragraph, the Ecological Footprint can give an indication in absolute term in that it can tell you whether or not production activities, given their intensity, stay within the local biocapacity budget. This is one of the main acknowledged strengths of the Ecological Footprint and should be mentioned somehow in the report.

From paragraph 2.34 to 2.44 examples of environmental and resource efficiency indicators are reported. I suggest the Ecological Footprint could be included as an example of resource efficiency indicator as its features are pretty much in line with those of the Material productivity or intensity indicators listed in 2.39. What differ is mainly the unit of measure, but the Footprint approach is similar and tries to look, in a combined way, at both biotic resources and waste sequestration capacity at the same time.

Page 17, para 2.46: Prominent examples of consumption-based indicators are consumption-based carbon and GHG indicators as correctly reported but also all other consumption based indicators (or Footprint-type indicators) such as the carbon Footprint (this is essential a consumption based carbon indicator), water footprint, land footprint, nitrogen footprint, material footprint and Ecological Footprint, to name the main one. I suggest adding some text of this sort to avoid communicating the message that consumption-based indicators are only energy or carbon related. There are indeed indicators with this approach that measure biotic resources as well. At least four papers have been recently published in support of my statement:

- Weinzettel, J., Hertwich, E.G., Peters, G.P., Steen-Olsen, S., Galli, A. 2013. Affluence drives the global displacement of land use. *Global Environmental Change*. <http://dx.doi.org/10.1016/j.gloenvcha.2012.12.010>.
- Galli, A., Weinzettel, J., Cranston, G., Ercin, E. 2013. A Footprint Family extended MRIO model to support Europe's transition to a One Planet Economy. *Science of the Total Environment*. <http://dx.doi.org/10.1016/j.scitotenv.2012.11.071>.
- Schoer K, Weinzettel J, Kovanda J, Giegrich J, Lauwigi C. Raw material

consumption of the European union - concept, calculation method, and results. *Environ Sci Technol* 2012; 46(16):8903–9.

- Steen-Olsen K, Weinzettel J, Cranston G, Ercin AE, Hertwich EG. Carbon, Land, and Water Footprint Accounts for the European Union: Consumption, Production, and Displacements through International Trade. *Environ Sci Technol* 2012; 46: 10883–91.

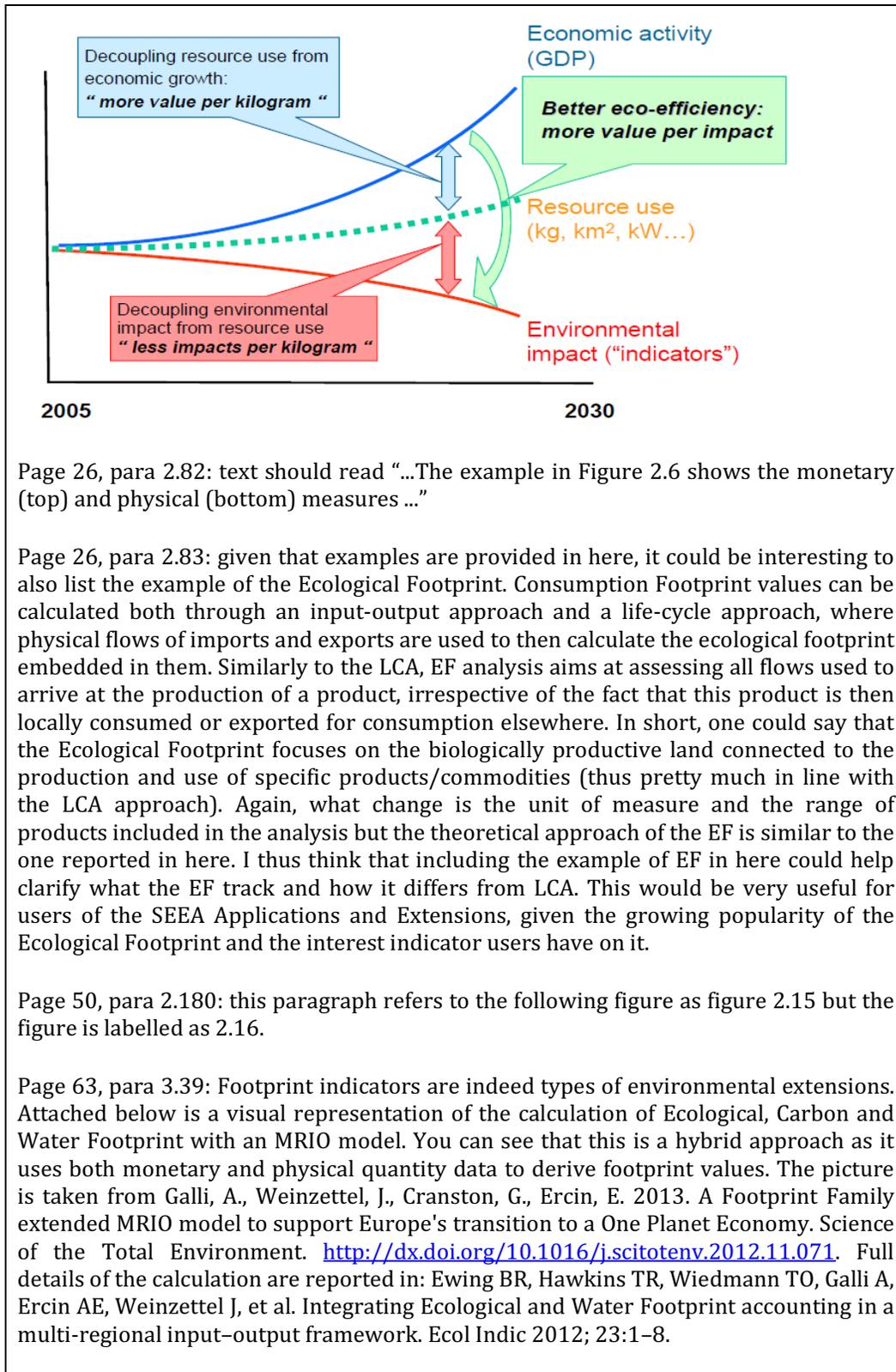
Page 17, para 2.47: footprint-type of indicators are indeed consumption-based indicators. They might be tracking different issues but they are the same. If not, then you should briefly explain how footprint indicators differ from consumption-based indicators.

Page 17, para 2.48: The rationale for adding together direct and indirect flows by using a consumer-based approach when investigating environmental flows such as, for instance, land grabbing and land displacement is that, by looking at these environmental issues through the consumer lenses, it is possible to understand how consumer behaviours in country A are causing environmental issues (e.g., land use and land cover change, land degradation, biodiversity loss, and the alike) in country B as reported, for instance, in two recently published papers:

- Weinzettel, J., Hertwich, E.G., Peters, G.P., Steen-Olsen, S., Galli, A. 2013. Affluence drives the global displacement of land use. *Global Environmental Change*. <http://dx.doi.org/10.1016/j.gloenvcha.2012.12.010>.
- Rulli, M.C., Savioli, A., D’Odorico, P., 2013. Global land and water grabbing. *Proc. Natl. Acad. Sci*, 110(3), 892-897.

CBA (consumer based accounting) is becoming more and more recognized (see for instance Wiedmann, T., 2009. A review of recent multi-region input–output models used for consumption-based emission and resource accounting. *Ecological Economics* 69, 211–222.) and acknowledged as relevant for nations/regions interested to understand the global impact of their behaviours as well as is useful in complementing territorial based approaches by including all driving forces for demands on ecological assets associated with consumption activities.

Figure 2.2 on page 19: readability of the figure would improve by distinguishing (with colours) the economic component from the environmental component. Right now, the line labelled as no decoupling is misleading. The line should be labelled increase environmental damage (or something like that) and, “no decoupling” should be the term used to describe a situation in which economic growth is positive and env. Damage is rising (not a line in itself). Finally, you could find interesting an alternative way of representing decoupling, which I have attached below: it consider the concept of double decoupling: you can decouple economic growth from material and energy use and, you can decouple material and energy use from negative environmental damages due to their use. The picture below is drawn from the EU Thematic Strategy on the Use of Natural Resources:



Page 26, para 2.82: text should read “...The example in Figure 2.6 shows the monetary (top) and physical (bottom) measures ...”

Page 26, para 2.83: given that examples are provided in here, it could be interesting to also list the example of the Ecological Footprint. Consumption Footprint values can be calculated both through an input-output approach and a life-cycle approach, where physical flows of imports and exports are used to then calculate the ecological footprint embedded in them. Similarly to the LCA, EF analysis aims at assessing all flows used to arrive at the production of a product, irrespective of the fact that this product is then locally consumed or exported for consumption elsewhere. In short, one could say that the Ecological Footprint focuses on the biologically productive land connected to the production and use of specific products/commodities (thus pretty much in line with the LCA approach). Again, what change is the unit of measure and the range of products included in the analysis but the theoretical approach of the EF is similar to the one reported in here. I thus think that including the example of EF in here could help clarify what the EF track and how it differs from LCA. This would be very useful for users of the SEEA Applications and Extensions, given the growing popularity of the Ecological Footprint and the interest indicator users have on it.

Page 50, para 2.180: this paragraph refers to the following figure as figure 2.15 but the figure is labelled as 2.16.

Page 63, para 3.39: Footprint indicators are indeed types of environmental extensions. Attached below is a visual representation of the calculation of Ecological, Carbon and Water Footprint with an MRIO model. You can see that this is a hybrid approach as it uses both monetary and physical quantity data to derive footprint values. The picture is taken from Galli, A., Weinzettel, J., Cranston, G., Ercin, E. 2013. A Footprint Family extended MRIO model to support Europe's transition to a One Planet Economy. Science of the Total Environment. <http://dx.doi.org/10.1016/j.scitotenv.2012.11.071>. Full details of the calculation are reported in: Ewing BR, Hawkins TR, Wiedmann TO, Galli A, Ercin AE, Weinzettel J, et al. Integrating Ecological and Water Footprint accounting in a multi-regional input-output framework. Ecol Indic 2012; 23:1–8.

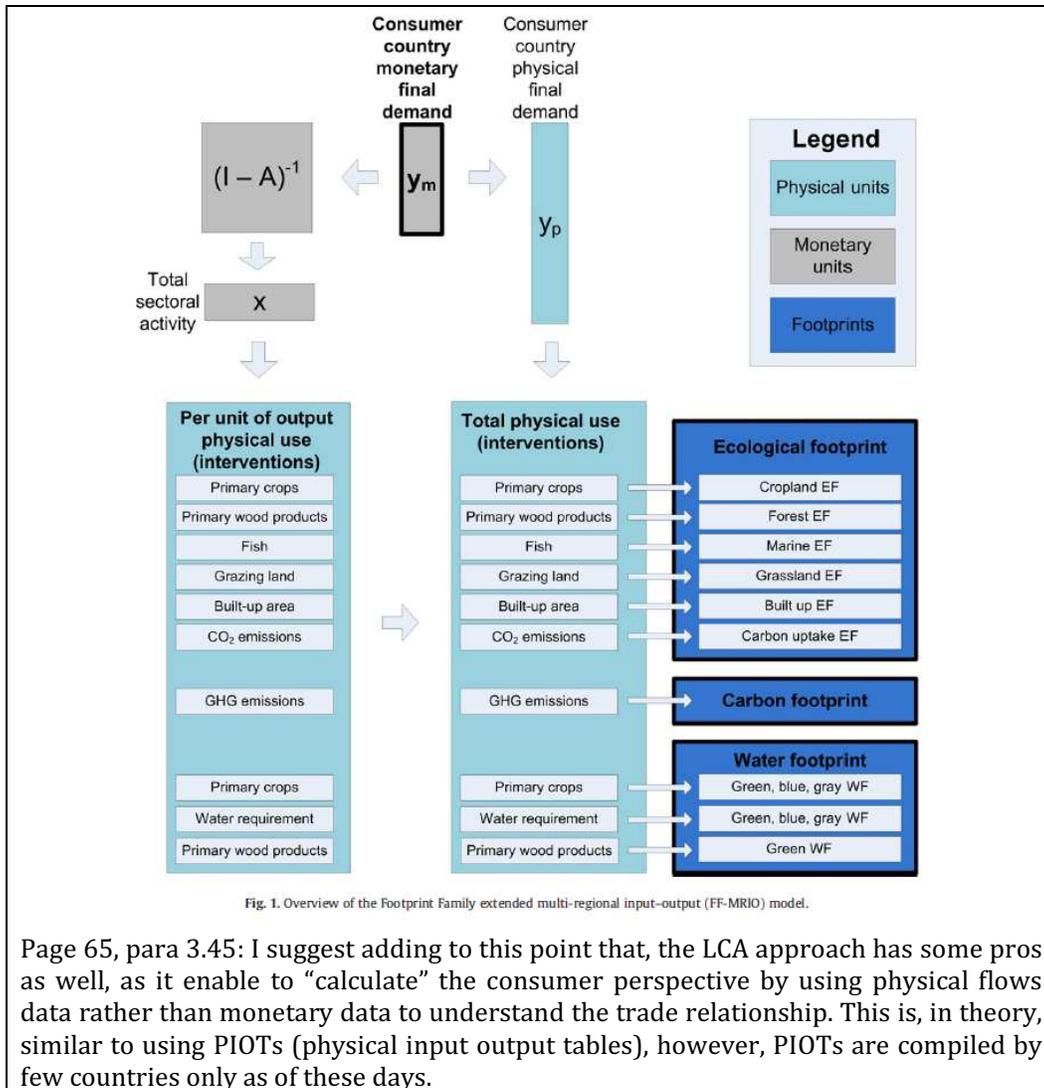


Fig. 1. Overview of the Footprint Family extended multi-regional input-output (FF-MRIO) model.

Page 65, para 3.45: I suggest adding to this point that, the LCA approach has some pros as well, as it enable to “calculate” the consumer perspective by using physical flows data rather than monetary data to understand the trade relationship. This is, in theory, similar to using PIOTs (physical input output tables), however, PIOTs are compiled by few countries only as of these days.