Conclusions of the meeting of the SEEA-CF Technical Committee on the development of a global SEEA database on land accounts – 17 June 2019

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In August 2017, the FAO released two sets of global land cover data following the SEEA-CF land cover classification, with detailed information on the mapping to this classification. Both of them are compiled from satellite images. The first set of data contains information derived from MODIS (which is part of the NASA Earth Observing System) for the period 2001-2012, and the second one contains information produced by the Geomatics department of the Catholic University of Louvain as part of the ESA Climate Change Initiative for the period 1992-2015.

The FAO considers these two products as demonstration products, providing a first step towards SEEA land accounts. In particular, the mapping of the Land Cover Classification System (LCCS) to the SEEA-CF land cover classification is of interest per se and could be used by others working on the development of SEEA land accounts.

Other products exist and may also be suitable for measuring land cover and land cover change at national and regional levels[1].

Even though the aim of the UNCEEA is to release a single set of SEEA land accounts for each country (official accounts when available, and estimated accounts otherwise), several data sources could be used as input for the compilation of these accounts. Combining different data sources with relative advantages and disadvantages will lead to better quality accounts.

The SEEA-CF Technical Committee recommends using the following criteria for the development of a global SEEA database on land accounts:

1. The database released on the SEEA website needs to be complemented with detailed metadata explaining what is being measured and at which resolution, how the mapping to the SEEA classification is done, which data sources and estimation methods are used, and what are the recommended uses and limitations of the product.

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[1] Diogo and Koomen (2016) review existing land cover datasets in 51 OECD and G20 countries. They show how these products differ in terms of spatial and temporal resolutions, land cover classifications, measurement methods and reported accuracy.

2. The estimation methodology that is used to complement existing official accounts needs to be carefully assessed against official statistical sources, in order to better understand its accuracy[2].

3. The information in the database needs to be consistent over time. In other words, land cover changes between two periods need to be meaningful. Indeed, the information on land cover changes is often considered as the ultimate goal of SEEA land cover accounts. It is what allows to assess risks to the provision of ecosystem services and biodiversity.

The Committee is not in a position to give a technical advice on the pros and cons of the different data sources that can be used as inputs for the compilation of global SEEA land accounts, and recommends that the UNCEEA contacts experts on land cover information to address this issue, based on the previous quality criteria. This technical review of the data sources should only take place once the SEEA-EEA ecosystem unit classification has been finalised, because this classification may replace or complement the SEEA-CF land cover classification. In this respect, it would be useful if the UNCEEA could clarify whether and when the SEEA-CF land cover classification should be revised, and the process to follow for this revision.

Finally, the Committee considers that a web-platform where users could exchange experiences on the use of different land cover sources would be useful. The information on the pros and cons of different sources for different countries is currently very difficult to find.

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[2] This is one Principles for the creation and maintenance of global SEEA databases on the SEEA website, to be discussed at the 2019 UNCEEA meeting.