

Recommendation of the SEEA-CF Technical Committee on the OECD methodology to estimate SEEA air emission accounts

The SEEA-CF Technical Committee discussed the OECD methodology to estimate SEEA air emission accounts on 26 January 2018, based on a detailed paper provided by the OECD to present its methodology and results. In this document, estimated and official air emission accounts are systematically compared for countries that already compile and release these accounts. These are mainly European countries. For these benchmark countries, the OECD methodology gives very good results.

Following this initial discussion, written comments were collected by e-mail. The following points were raised by the members of the SEEA-CF Technical Committee. The OECD replied in writing on 15 March 2018. Additional comments were finally made at a teleconference of the SEEA-CF Technical Committee on 5 June 2018. They have been taken into account.

1. Inventory-first vs. Energy-first approach to derive air emission accounts

Several members of the SEEA-CF Technical Committee highlighted the fact that air emission accounts may be derived from energy accounts and that air emission and energy accounts should be consistent.

The OECD acknowledged that it relies on UNFCCC inventories as its main input to estimate air emission accounts. Nevertheless, the OECD also investigated other options before choosing this one. In particular, the OECD tried to estimate CO₂ emission accounts starting from the IEA estimates of CO₂ emissions from fuel combustion, which the International Energy Agency (IEA) derives from its energy balances. Results were very similar to the current ones for this type of emissions. This may not be surprising given the fact that the IEA is heavily involved in the verification of the UNFCCC inventories and ensures consistency with the energy balances. Results presented at the 2016 meeting of the OECD Working Party on Environmental Information (WPEI) and the 2017 meeting of the UNCEEA confirm this conclusion.

The problem with the IEA estimates of CO₂ from fuel combustion is that, by nature, they cannot cover CO₂ emissions from other sources (e.g. industrial processes). The same would be true if the OECD started from SEEA energy accounts. Therefore, UNFCCC inventories are needed in any case, at some point. The other advantage of UNFCCC inventories is that they cover many other gases and pollutants than CO₂. This is why, in the end, the OECD decided to use these inventories as its main input.

The main drawback of a methodology relying on inventories is that it can only be applied to Annex-I countries to the UNFCCC and very few other countries (e.g. Kazakhstan). Nevertheless, the need to find a second-best methodology for non-Annex-I countries does not prevent the OECD from using the proposed methodology for Annex-I countries. A possible option could be to release estimated CO₂ emission accounts based on IEA data on fuel combustion, or estimated energy accounts. This would allow to cover up to 110 countries, but the estimated accounts would only cover a single category of CO₂ emissions. Further research is needed in this area.

2. AFOLU/LULUCF emissions

The OECD estimated air emission accounts do not cover AFOLU/LULUCF emissions for the time being. The same is true for the official SEEA air emission accounts in the European Union (Eurostat's

guidelines). It is true that the omission of AFOLU/LULUCF emissions would be problematic for some countries (e.g. Brazil, Indonesia), for which the OECD is not able to estimate air emission accounts so far.

The OECD took note of the work made by FAO and ISTAT regarding the allocation of AFOLU/LULUCF emissions to ISIC industries, in line with the SEEA-Agriculture, Forestry and Fishing (SEEA-AFF). The corresponding estimates are available in FAOSTAT and the OECD will explore the possibility to use them.

At the same time, the need to clarify the relationship between air emission accounts in the SEEA-CF and the SEEA-AFF on one hand, and with SEEA-EEA carbon sequestration accounts on the other hand, is included in the research agenda of the SEEA-CF Technical Committee, and the OECD will be happy to participate in future discussions on this topic.

3. Allocation of road transport emissions to ISIC industries

The OECD methodology to allocate road transport emissions to ISIC industries is based on an average of allocation keys for three European countries (Denmark, France and Sweden). Although this methodology gives very good results for European countries, the OECD agrees that these allocation keys may not be appropriate for some non-European countries, especially for emerging countries. The OECD would be happy to use different allocation keys if interested countries agreed to share them. Alternatively, if countries would like to improve the OECD estimates in using their own allocation keys, the OECD could share with them estimated air emission accounts where road transport emissions would not be allocated.

4. Residence-territory adjustment

As a first step, the OECD plans to release estimated air emission accounts on a territory basis, and only for countries that do not yet release official air emission accounts on a residence basis. This will be carefully stated in the OECD metadata. Nevertheless, the OECD is currently investigating the possibility to estimate the residence-territory adjustment in air emission accounts. The SEEA-CF Technical Committee considers this research area as relevant for both air emission and energy accounts.

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Based on the above, the SEEA-CF Technical Committee supports the OECD initiative, considers the OECD methodology as technically sound, and recommends that the UNCEEA formally endorses this methodology as a way to complement global SEEA databases at its 2018 meeting. The SEEA-CF Technical Committee also encourages countries not yet compiling air emission accounts to use the OECD results as a starting point for the compilation of official air emission accounts taking advantage of all available national data sources.

The OECD will individually contact countries for which it intends to publish estimated air emission accounts. In any case, estimated air emission accounts will be flagged as OECD estimates on the OECD website and will only be published for countries that do not release official air emission accounts.

The SEEA-CF Technical Committee encourages the OECD to also develop methodologies to estimate (1) air emission accounts for non-Annex-I countries to the UNFCCC, and (2) the residence-territory adjustment for all possible countries.