Session 7 - Air Emissions Accounts

Existing air emissions reporting obligations, corresponding background material and classifications

International (at least European) reporting obligations on air emissions

- Kyoto-Protocol Reporting to UNFCCC[1],
- EMEP Reporting according to UNECE/CLRTAP[2]
- REGULATION (EU) No 691/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 6 July 2011 on European environmental economic accounts[3]

Handbooks and Guidebooks

- Eurostat Manual for Air-Emissions-Accounts, Version 2009[4]
- Annual National Inventory Report (NIR) to be submitted to UNFCCC[5]

Classifications

- NFR/CRF sectors to be reported to LRTAP and UNFCCC,
- SNAP activity codes (represent still very often) national basis for emission balances
- NACE Rev.1.1[6]

Use of Air Emission Accounts (up to now)

Generation of environment economic measures

- Relation between emissions and corresponding economic aspects (emission intensities, i.e., tons of CO2 related to turnover in €),
- Distribution of emissions over the economic sectors (e.g. NACE 2-digit level)
- Attribution of emissions to specific aggregates like households, consumption, investments, …

Construction of new (economy oriented) emission balances

- Emission balances according to residential concept[7]
- Consideration of emissions related to import and export occurring outside national territory, but (of course) related to national economy

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[1] http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/7383.php
[2] http://www.emep.int/
[3] Annex 1 – Module for Air Emission Accounts
http://eur-lex.europa.eu/Result.do?T1=V2&T2=2011&T3=691&RechType=RECH_naturel&Submit=Search
[4] Up to now (2013) only partially updated – Version 2009 will be attached to this document
[5] The NIRs represent the scientific documentation for the corresponding Reports – they can be downloaded from the website mentioned under 1
[6] The Eurostat Manual mentioned above contains in its Annex (1) a correspondence table between SNAP, CRF/NFR and NACE
[7] Kyoto Reporting covers in principal all emissions under control of the national authority

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Shortcomings of the existing Air Emission Accounts

- Statistical units (economic sectors) contain usually besides the primary activity also secondary and ancillary activities. The estimation of emissions for economic sectors can be quite difficult, if also secondary and ancillary activities have to be considered.
- The interpretation of historical changes in emissions and corresponding emission intensities of such complex economic sectors is quite difficult. The (development of the) structure of these complex sectors has to be considered.
- Comparisons between countries regards sector related emissions and emission intensities are even more difficult.

The Air Emission Accounts in the SEEA-CF

- Table 3.6.1 Air emission Accounts (p.78): The column "**Accumulation**" and its content is problematic! If it is the intention to cover all air emissions resulting from the agglomeration of residuals than a lot more places and areas (not only active landfills) should be included (e.g. polluted areas[8]). And, the greenhouse gases, which are currently in the focus of environmental protection, are really **accumulating** in the atmosphere. Here the confusion seems to be programmed.
- The term **"residual"** (defined in 3.2.4) contains practically non-usable material like "wastes", "polluted liquids" and "air emissions". The idea of constructing a general supply-use table (Table 3.2.1, p. 42) by utilizing the 3 sectors "natural inputs", "products" and "residuals" leads at least to linguistical problems which might be substantial: a) Can a "natural input" act as a supplier for a "flow from the environment" and b) can it be that a "residual" utilizes "residual flows to the environment"? For me it seems problematic to handle the terms "natural input" and "residual" as processes. Residuals are things which remain without any intention. Instead of speaking of "residuals" as sector one should utilize the expression "residual recovery" and for the sector "natural input" one should better say "natural removals".

[8] Germany has more than 10.000 abandoned areas (former landfills), which are permanently controlled.