

Technical Assessment of IPCC Inventory Guidelines: Sectoral Issues

IPCC Scoping Meeting for a Methodology Report(s) to refine
the 2006 IPCC Guidelines for National Greenhouse Gas Inventories,
29-31 August 2016,
Minsk, Belarus

Baasansuren Jamsranjav
Technical Support Unit, IPCC TFI

Overview

- Technical assessment has been conducted through combination of an **online questionnaire survey** (from 30 January to 27 February 2015) and **expert meetings**
- Three expert meetings on sectoral issues held in 2015 and 2016
 - Expert Meeting for Technical Assessment of IPCC Inventory Guidelines (Energy, IPPU, Waste Sectors), 29 June -1 July 2015, Geneva, Switzerland
 - Expert Meeting for Technical Assessment of IPCC Inventory Guidelines (AFOLU Sector), 13-16 July 2015, Sao Paulo, Brazil
 - Expert Meeting to follow up on specified issues from the 2015 expert meetings, 25-26 April 2016, Wollongong, Australia

On-line Questionnaire Survey

- The survey aimed to collect inputs from inventory experts about the need and feasibility of methodological development or refinement for specific categories and gases
 - 832 comments on sectoral issues

	Number of respondents	Number of comments
Energy Sector	76	206
IPPU Sector	42	128
AFOLU Sector	137	380
Waste Sector	43	112
Other Sector	5	6
Cross-Sectoral	58	155
TOTAL	243	987

- Task Force Bureau (TFB) considered the results of the survey and developed a provisional list of issues for consideration more in detail at the expert meetings

Expert Meetings in 2015

- The meetings aimed:
 - To assess the maturity of scientific advances and availability of new data
 - To identify any specific areas or issues that should be prioritized in TFI's future work
 - To consider cross-sectoral issues including improvement of the inventory tools of the IPCC
- Considered comments submitted by experts in response to the online questionnaire survey to make recommendations to TFB on:
 - Categories for which the science is sufficiently mature and data are available to recommend refinement or development of inventory guidance
 - Where such refinement or development would lead to a noticeable improvement to inventory guidance
 - Specific type of refinement that is needed (e.g. update or addition of default emission factors)
 - How these refinements could be made (e.g. Methodology Report)
- Outcomes of the expert meetings were considered by TFB and reflected in the TFI's work programme for 2016

Expert Meetings in 2015: Outcomes (1)

- Some of the issues need to be addressed by producing a new Methodology Report(s). It is necessary to:
 - develop new or additional guidance on sources and/or gases that are not covered by the *2006 IPCC Guidelines* (e.g. GHG emissions from unconventional oil and gas production, GHG emissions from hydrogen production, N₂O emissions from industrial wastewater treatment)
 - refine guidance to reflect significant scientific or technical developments since the *2006 IPCC Guidelines* were produced (e.g. guidance on land representation linking land classification system and digital maps)
 - update or add default data of emission factors and other parameters for some categories (e.g. fugitive emissions from oil and gas, substitutes for ozone depleting substances used for refrigeration and air conditioning, N₂O emissions from wastewater treatment, values for litter, deadwood, biomass expansion factors (BEF)/biomass conversion and expansion factors (BCEF), direct and indirect N₂O emissions from managed soils)

Expert Meetings in 2015: Outcomes (2)

- Some other issues can be addressed by utilizing other means (IPCC Supporting Materials) including
 - Emission Factor Database (EFDB)
 - TFI's webpage on Frequently Asked Questions (FAQs)
 - Technical bulletins or expert meeting reports
- Some issues require further intensive consideration by relevant experts before starting refinements. Consequently, after TFB's further consideration, the following 4 areas were identified:
 - Unidentified sources of perfluorocarbons (PFCs)
 - Emissions from soils
 - Land representation
 - Emissions from flooded land

Expert Meeting in 2016: Follow-up Meeting

- Focused on the four main areas identified
- To make recommendations to the TFB on whether the issues need to be addressed in a new Methodology Report(s)
- Key considerations were:
 - Whether the science is sufficiently mature and data are available to recommend refinement or development of inventory guidance
 - Whether such refinement or development would lead to a noticeable improvement of the *2006 IPCC Guidelines*
 - Specific type of refinement or update that is needed (e.g. update or addition of default emission factors/parameters, provision of a new method)

Expert Meeting in 2016: Outcomes of the Follow-up Meeting

- Some issues need to be addressed in a new Methodology Report(s):
 - **Unidentified sources of PFCs** (e.g. new guidance on “non-anode effect” for emissions from aluminium production, new guidance on emissions from rare earth elements production, update of some default emission factors)
 - **Emissions from soils** (e.g. alternative method for estimation of C stock change in mineral soils under cropland and grassland, update of default C stock change factors, disaggregation of emission factor for N inputs for direct N₂O emissions from managed soils)
 - **Land representation** (e.g. elaboration of existing guidance on Chapter 3 of Volume 4 including elaboration on the guidance on linking land classification system with remote sensing and digital maps, use of global data sets, products and tools for land use representation, elaboration of guidance on activity data uncertainties and how to use Tier 1 and 2 methods with Approach 3)
 - **Emissions from flooded land** (e.g. new guidance on flooded land)
- Some other issues can be addressed by utilizing other means such as TFI FAQs website (e.g. list of potential sources of training materials on land representation)

Technical Assessment: Outcomes

- Co-Chairs Summary of the experts meetings available at TFI website <http://www.ipcc-nggip.iges.or.jp/meeting/meeting.html>
- Annotated list of the issues identified for a Methodology Report(s) available at Electronic Discussion Group (EDG) website <http://www.ipcc-nggip.iges.or.jp/forumtree/>
 - 31 major issues are identified (there are sub-issues)
 - Energy: 6
 - IPPU: 9
 - AFOLU: 13
 - Waste: 3

Thank you

<http://www.ipcc-nggip.iges.or.jp>