

**Conclusions and Recommendations**  
**Third meeting of inventory lead reviewers**  
**Bonn, Germany**  
13-15 April 2005

The third meeting of inventory lead reviewers was held in Bonn, Germany, from 13-15 April. Thirty-six experts, split evenly between Annex I and non-Annex I Parties were invited to the meeting. Thirty-four experts were able to attend. In addition, representatives of the IPCC GHG Inventory technical support unit attended the meeting as observers.

The meeting addressed both procedural and technical issues related to the annual review of greenhouse gas inventories of Parties included in Annex I to the Convention, including the experiences in the review of the inventory of the European Community. The secretariat also presented preliminary information on its planning for the initial reviews under the Kyoto Protocol. The conclusions of the meeting are presented below.

***Managerial and Logistical Issues***

The Lead Reviewers (LRs) emphasized the importance of documenting and archiving the technical and procedural records of the inventory review process. LRs recognized that many of the secretariat's existing procedures, such as the review transcript, support the documentation needs of the review process, but encouraged the secretariat to continue to work to ensure that sufficient and systematic procedures are in place to meet the future records management needs of the reviews under the Convention and Kyoto Protocol.

The LRs agreed that the review transcript is an important tool for the review process, and that the changes in format greatly facilitated the use of the transcript by Expert Review Teams (ERTs). LRs agreed to continue to encourage experts to complete their review transcripts during the reviews.

LRs requested the secretariat, in consultation with the LRs of the team, to update information in the table of review findings following completion of the review report for each Party. In particular, LRs requested the secretariat to indicate where an issue was considered resolved in the final review report.

***Treatment of Comments by Parties***

In relation to the review of individual inventories, LRs recommended that the secretariat facilitate efficient procedures for ERTs to respond to comments of Parties in a transparent and consistent manner. They also requested the secretariat to encourage Parties to provide their comments in a more structured and focused manner, and to clearly and concisely indicate any requested changes to the review reports.

LRs agreed that ERTs should consider all comments provided Parties. To this end, they recommended that the following guidance be followed by ERTs, and reflected in the review handbook:

- All substantive comments received should be considered by LRs and by the appropriate sectoral expert(s). ERTs should provide a brief written response to the Party on how it has considered/addressed comments, and indicate where and how the review report was revised. This response should also provide clear explanations for cases where the review report has not been modified in response to a Party's comment.

- In cases where Parties have acknowledged, in multiple cases, the problems identified by the review teams and indicated their intentions to make future improvements, the ERT could give recognition of this fact in the review report.
- The ERT should ensure that any revisions to the review report are provided to the Party for its consideration and comment prior to the report's finalization.

### *Experiences with the review of the European Community (EUC) Inventory*

LRs agreed that the IPCC Guidelines and the IPCC Good Practice Guidance (GPG) recommends the use of well-documented national methods, country specific emission factors and national activity data to prepare greenhouse gas (GHG) inventories, particularly for higher-tier methodologies. This constitutes one of the main principles of good practice guidance. Therefore, if an inventory is compiled from several national inventories that were prepared with country-specific data and methods, in accordance with national circumstances and GPG, the compiled inventory should be more accurate than if it were prepared using default methods, parameters and aggregated data sets

To facilitate a common approach to the reviews, the LRs recommended that the following guidance be applied by ERTs and included in the review handbook:

- When considering a GHG inventory that is compiled from different national inventories, the ERT should consider the information provided by the Party on the methods used in the national inventories to assess whether they conform with GPG. In this regard, the ERT should consider the categories that are key at the level of the compiled inventory, and the contribution of individual national inventories to the total emissions in these key categories. Where estimates of individual national inventories represent a high proportion of emissions in a key category (e.g., the relative contribution of the estimates of these inventories ranked by level account for 60% – 75 % of emissions in the category), the ERT should assess whether these estimates were prepared using an appropriate (e.g. higher-tier) method. In some cases, when the ERTs considers that additional information is needed, this may require the consideration of the individual national inventories and/or the previous review reports of those inventories.
- ERTs should continue to request the provision of transparent and appropriate information in the NIR to facilitate assessment of appropriate methodologies, as described above, and to minimize the need to consider individual national inventories or review reports in future reviews of an inventory compiled from national inventories. The ERTs should also consider when needed information on the main problems identified in national inventories, and efforts being undertaken to address these problems.
- The IPCC good practice guidance provides guidance on ways to address data gaps in an inventory, such as the use of proxy data and statistical procedures to interpolate or extrapolate existing data. In cases where a gap-filling procedure has been applied to generate missing inventory data, the ERT should assess the justification for applying the procedure and whether the specific method used for a source is applied consistent with GPG.

**LRs noted** that the UNFCCC secretariat will continue to consult with the EUC on ways to facilitate the review of the inventory, taking into account the input from the LRs on this matter.

### ***Review of the Land-use, land-use change and Forestry sector in 2005***

LRs recognized that the changes to the reporting requirements for the LULUCF sector will create challenges for ERTs in 2005, as Parties will be reporting using the new requirements for the first time.

To facilitate a common approach to the reviews, the LRs recommended that the following guidance be applied by ERTs and included in the review handbook:

- The IPCC GPG and the UNFCCC reporting guidelines allow for voluntary reporting of emissions and removals from certain categories. ERTs should not criticize a Party for not reporting emissions and removals, or notation keys for these categories. If a Party reports any of these categories, the ERT should give appropriate consideration to the category. If a Party has used notation keys for these categories, they should be used consistently.
- The UNFCCC reporting guidelines provide that, in the event that a Party provides the new CRF tables for the most recent inventory year only, the Party should provide information on mapping the LULUCF categories in the GPG guidance to those in the 1996 Guidelines. The ERT should assess whether the mapping back is consistent with GPG. The ERT should consider previously submitted LUCF information in this regard.
- ERTs should be aware of the relationship between the LULUCF sector and the Agriculture sector. Specifically, both the LULUCF expert and the Agriculture expert should check whether emissions and removals from have been reported in the correct category, in accordance with the GPG and the UNFCCC reporting requirements.
- ERTs should also be aware that Parties will be reporting using the LULUCF format for a trial period in 2005 established by decision 20/CP.9

To facilitate the reviews of the LULUCF sector, LRs requested the secretariat to distinguish between mandatory and non-mandatory categories in the status reports, and to indicate whether mapping back information has been provided in cases where a Party has not provided CRF tables for all previous years.

LRs recommended that the secretariat develop the review handbook for the LULUCF sector, to the extent possible, for use in the 2005 reviews. LRs recognized that it will not be possible to fully elaborate the handbook for this sector until after consideration of the experiences of the 2005 reviews.

LRs also requested that the secretariat continue to consult with the Food and Agricultural Organization, and other relevant international sources, regarding opportunities to cooperate on data sharing, and to provide information on these consultations for further consideration at the next meeting of lead reviewers. LRs noted that the conclusions of the 2<sup>nd</sup> meeting of LRs on consideration of international data sources are relevant in this regard.

LRs agreed to further consider issues related to the review of the LULUCF sector following experiences in the 2005 reviews.

### *Assessment of methodological choice*

LRs recognized that the GPG encourages the use of higher-tier methods, including country-specific (CS) methods and data for key categories. In assessing the method used in the preparation of an estimate, the ERT should consider whether the category is key for the Party, and thus a candidate for use of a higher-tier method.

- In the case where CS methods and data are used, the ERT should consider the documentation available and assess whether the method is applied and documented according to the principles of GPG, and appropriate in light of the Party's national circumstances.
- In the case that a Party uses default method or data, the ERT should consider the Party's rationale and whether the use of such defaults is justified for the category, in light of the Party's national circumstances.

### *Review of the Base year*

LRs requested the secretariat to ensure that additional review tools and procedures are also available to facilitate review of the base year inventory.

The LRs recommended that if an ERT identifies a problem in the base year inventory during the 2005 review, the ERT should provide recommendations to the Party on how to address the problem.

### *Adjustments*

LRs agreed that the process of gaining experiences with adjustments conducted during the 2004 reviews was useful and should continue during the 2005 reviews, with the consent of Parties concerned. To the extent possible, LRs recommended that all expert review teams be involved with the adjustment exercise, and that the exercise focus on the base year.

LRs recommended that the results of the experiences with adjustment should continue to be provided in a separate report and should not be published as an official document. Additionally, LRs agreed that the adjustment exercise should simulate the process under Article 8 of the Kyoto Protocol as closely as possible. In particular, the ERTs should ensure communication and interaction with the Party concerned, including recommendations on how a problem could be corrected, with the aim of resolving identified problems, and thus avoiding the need for an adjustment.

The LRs agreed that the results obtained from the adjustments exercise to date (e.g. the adjustment test reports) could be used for the development of the training course and resource materials for use by ERTs. To this end, LRs recommended that the secretariat compile the existing materials into a user-friendly format, organized by sector, as a reference for future ERTs. LRs also recommended that the secretariat provide ERTs with a template to record information on the 2005 adjustment exercises, based on that used in 2004.

LRs also provided the following guidance for use by ERTs during the adjustment process in 2005. This guidance is provisional, and will be considered further at the next meeting of LRs.

- Regardless of whether a problem identified in the inventory would trigger an adjustment, the review should follow standard procedures, such as consideration of time-series consistency, and any inventory problem be reflected in the review report

together with a recommendation how to overcome the problem. This is particularly important for the review of the base year.

- Less transparent documentation of data and information (e.g. with regard to emission factors and inventory parameters) in the base year and subsequent years may make the review and assessment of that information difficult. Similarly, there could be potential inconsistencies in time-series due to different data collection methods in the early years. LRs agreed that the use of national historical data is usually preferable to extrapolated data. ERTs should consider these issues on a case-by-case basis, taking into account the GPG splicing tools for ensuring time-series consistency (e.g. extrapolation methods.) ERTs should also encourage Parties to make best efforts to demonstrate the suitability of base year data.
- The choice of the conservativeness factor for the calculation of an adjustment should follow the provisions of the technical guidance on adjustments as closely as possible, but may require expert judgement. Where an inventory component that is not strictly an emission factor or activity data is subject to an adjustment, the choice of the conservativeness factor should be based on the ERT's collective judgment.
- Extrapolation for the calculation of an adjustment should, to the extent possible, follow the guidance provided in the GPG, but expert judgement may be required. In general, a larger number of data points is more suitable for extrapolation. The ERT should apply expert judgement to determine the best method for extrapolation, including the appropriate number of consecutive data points, taking into consideration that any discontinuities in the data may limit the number of appropriate data points. In this regard, the ERT should consider possible drivers and consult with the Party concerned in order to better understand the trend.
- Although the technical guidance on adjustments gives priority to Tier 1 methods for the calculation of adjustments, strict application of the provisions of the technical guidance may, in some cases, result in inappropriate results. For example, dependent on the estimate of emissions in the base year, the use of potential approach (tier 1) to calculate estimates for F-gases for a year of the commitment period may yield an overly conservative adjustment. In this case, an alternative method (e.g., tier 2, cluster) may be more appropriate.