



Inventory Working Group (cross-cutting issues) on Quality Assurance/Quality Control

Summary of Discussions

The 9th Workshop on GHG Inventories in Asia (WGIA9)

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InterContinental Phnom Penh, Phnom Penh, Cambodia

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Presentations

Elsa Hatanaka (GIO/CGER/NIES, Japan)

Introduction

Elsa Hatanaka (GIO/CGER/NIES, Japan)

Japan's QA/QC System

Dorjpurev Jargal (EEC Co., Ltd, Mongolia)

Inventory QA/QC Planning in Mongolia

Mihyeon Lee (KECO, Korea)

An Overview of the GHG Inventory QA/QC system in Korea

Takako Ono

(Project for Capacity Building of National Greenhouse Gas Inventory in Vietnam, JICA)

Improvement of QA/QC in Vietnam by JICA supported for National GHG Inventory

Mausami Desai (EPA, U.S.A.)

Highlights of QA/QC Procedures Applied in U.S. GHG Inventory System



Summary of the QA/QC WG Presentations

➤ Introduction

- Enhancement of NAI national communications and inventories are needed with the Decision 1/CP.16 of the Cancun Agreements agreed on by the COP, and with this, QA/QC systems will be increasingly important.
- Definition of QC and QA – QC is a system of routine technical activities to assess and maintain the quality of the inventory as it is being compiled, and QA is a planned system of review procedures conducted by personnel not directly involved in the inventory compilation/development process...*from 2006 IPCC Guidelines*
- Previously, QA/QC was taken up at WGIA4 (2007) briefly, and since then touched on in the context of each country's institutional arrangement for inventory preparation
- Aim of this session was to share experiences gained through preparing NCs/Inventories and identifying key elements for QA/QC systems



Summary of the QA/QC WG Presentations



➤ Japan's case

- QC is done mainly by the Greenhouse Gas Inventory Office (GIO), the Ministry of Environment, relevant ministries/agencies/organizations, the Committee for the Greenhouse Gas Emission Estimation, and private consultants.
- QC activities include General QC procedures (Tier 1) by compilers, and Category-specific QC (Tier 2) procedures by private consultants and relevant ministries and agencies. Relevant organizations and the Committee for the Greenhouse Gas Emission Estimation Methods also provide QC functions.
- The QA process was reformed in 2009, by inviting experts who are not involved in the inventory preparation process to conduct expert peer review, by 1) confirming the soundness of estimation methods, activity data, emission factors, and other items, 2) confirming the soundness of content reported in the CRF and NIR.



Summary of the QA/QC WG Presentations



➤ Mongolia's case

- Difficulties encountered in inventory preparation include the lack of system for data collection and checking
- General QC procedures (Tier 1) has already been implemented for the INC
- QA/QC Planning for the next NC has started - category-specific QC (Tier 2) procedures are proposed for the Energy (stationary combustion of fossil fuels and mobile combustion) and Industry sectors, and work has started on the waste, agriculture sectors etc.
- The Category-specific QC plans developed for the Energy and Industry sectors specify the QC activity, the QC procedure, the responsible organization, contributing organization, and a time frame.



Summary of the QA/QC WG Presentations



➤ Korea's case

- The waste sector inventory report is annually being prepared by the Ministry of Environment and submitted from KECO (Korea Environment Corporation) to GIR (Greenhouse Gas Inventory & Research Center).
- KECO is responsible for local government GHG inventory reports, together with the waste sector for the national inventory, and is therefore in the process of developing QA/QC procedures in accordance with the 2006 IPCC Guidelines.
- For the national inventory (waste sector), QC is currently conducted by personnel compiling the inventory, and QA is conducted by foreign experts/UNFCCC reviewers - in the case of the Korea-Japan inventory peer review, in addition to internal or domestic QA
- KECO also conducts QC for local inventories – and local inventories serve to check the national level inventory, even though the sum of local inventories is not designed to add up to be the national level inventory



Summary of the QA/QC WG Presentations



➤ Viet Nam's case

- A survey was conducted under the JICA GHG inventory project on what QA/QC activities were conducted during the SNC preparation.
- Activities which could contain QA/QC activities included:
 - ✓ preparing initial estimates and draft GHG inventory
 - ✓ organizing thematic workshops for GHG Inventory results and to receive review, comments, and in turn incorporating comments
 - ✓ finalizing GHG inventory, for submission to the UNFCCC as part of the SNC
- These activities – not only implemented by MONRE, but with the participation of other ministries etc, and were implemented following the work plan for SNC – they could be the basis for a future QA/QC system
- QA/QC activities – plans for further improvement under the JICA project



Summary of the QA/QC WG Presentations

➤ USA's case

- Tier 1 QC conducted on all sources and sinks, and at a minimum, a QC checklist is filled out
- Tier 2 QC recommended for key categories, or categories with significant methodological change, and may be implemented over multiple years
- QA conducted through expert review/public review
 - ✓ expert review – prior to publication and to public review, expert reviewers are sent the draft inventory and annex, improvements implemented as required prior to the public review, or added to the next year's inventory improvement plan
 - ✓ public review – prior to submission to UNFCCC and publication, draft GHG inventory available on the EPA website, comments received posted on EPA's website as well, improvements are implemented as required for final report, or added to the next year's inventory improvement plan



Summary of the QA/QC WG Discussions

- There are a lot of QA/QC activities already undertaken in each country in the form of, for instance:
 - ✓ Preparation of local inventories – effectively serving as checks for the national inventory
 - ✓ Stakeholder consultations - with ministries, agencies, relevant organizations, experts, at the various stages of inventory preparation
 - ✓ Preparing initial estimates and draft GHG inventory for comments, either for the closed/open setting
- Some countries have implemented Tier 1 QC, and are moving on to plan for category-specific QC (Tier 2)
- Documentation of procedures, what the source/sink categories are, AD and EFs etc, and archiving is key !
- Use existing activities as basis for developing a more formal QA/QC plan defining roles/responsibilities for those supporting inventory preparation

Thank you !
ご清聴有難うございました。

