Greenhouse gas Inventory Office of Japan





15th Workshop on Greenhouse Gas Inventory in Asia 13th July, 2017 Naofumi Kosaka (Rapporteur, GIO/CGER/NIES)

Opening Session

Chair: Mr. Hla Maung Thein (Myanmar)

- Importance in the role of GHG inventory in mitigation policies and measure was shared. And development of a network for inventory experts through the WGIAs was indicated.[Mr. Hiroshi Ito (Japan)]
- Japan's achievement of reduction in emissions was introduced and "Long-term Low-carbon Vision" clarified the role of Japan in addressing climate change. [Mr. Takumi Ichikawa (Japan)]
- Integrated approaches in strategies and action plans for achieving sustainable development goals in Myanmar were introduced. [Mr. Than Aye(Myanmar)]

Opening Session

- In Japan, carbon tax has already been launched and the subsidies from the tax revenue are used for private sector's research and development of low carbon technologies. An introduction of additional carbon pricing is under discussion.
- In Myanmar, the overarching committee produces national environmental policy and under the national level environmental conservation and climate change committee, six working committees were formed and they produce policies including climate change, green economy strategies, waste management strategies, etc. The coordination among these policies is challenging. Each working committee monitors and evaluates the progress of policy implementation.

Session 1 – Updates on NCs and BURs

Chair: Mr. Takahiko Hiraishi (IGES)

- Brunei's INC includes 2010 inventory compiled by Brunei National Energy Research Institute (BNERI), using Revised 1996 IPCC GLs and 2000GPG. [Mr. Muhammad Nabih Fakhri Matussin (Brunei)]
- Beside the SNC submission for 2010 inventory, Philippines institutionalized the Philippine Greenhouse Gas Inventory Management and Reporting System (PGHGIMRS) in 2014. [Ms. Maria Delia Cristina M. Valdez (Philippines)]
- Cambodia's SNC includes inventory for 2000 using the Revised 1996 IPCC GLs. Also, the INDC identifies potential actions for GHG mitigation to addressing climate change. [Mr. Leang Sophal (Cambodia)]
- China's first BUR includes inventory for 2012, and covers GHG emission control actions and their effects in the period 2011-2015, and targets and tasks by 2020. [Prof. Gao Qingxian (China)]

Session 1 – Updates on NCs and BURs

- In China, many institutions are involved in the BUR preparation. The ministries and the relevant research institutes closely coordinate. Also, the members are not so changed since the previous reports, therefore consistent reporting was done.
- Some countries want to apply the 2006 IPCC Guidelines, or combination of 1996 Revised IPCC Guidelines and 2006GLs in the next reports.
- Though the UNFCCC reporting guidelines do not formally request to use the 2006GLs to non-Annex I Parties, the reporting GL are the minimal requirements and the Parties may use the 2006GLs. The SBI42 conclusion refers to the need of capacity building on 2006GLs. Updated Emission Factors can be found in 2006 GLs and calculation tools to use 2006 GLs are provided, such as IPCC Inventory Software and IPCC Emission Factor Database.

Session 2 – Good practice for ICA process

Chair: Prof. Rizaldi Boer (Bogor Agricultural University)

- From their experience in ICA process they found that the process helped identifying area that need for improvement and for capacity building. [Dr. Joko Prihatno (Indonesia)]
- The ICA process helped enhance Malaysia's understanding of reporting requirements to increase its transparency. [Dr. Elizabeth Philip (Malaysia)]
- The experience of ICA including numbers and contents of questions was shared. [Dr. Patthra Pengthamkeerati (Thailand)]
- Some of capacity building projects and trainings for strengthening transparency were introduced. And updated information about status of negotiation on the transparency framework were shared. [Mr. Dominique Revet (UNFCCC)]

Session 2 – Good practice for ICA process

- During the technical analyses, some countries received the question on non-GHG (CO, NOx, NMVOC, SOx) /SF₆ emissions. TTE's intention may be the question of completeness.
- UNFCCC's capacity building activities were discussed.

Session 3 – Fluorinated Gas Emissions from non-Annex I Parties

Chair: Dr. Sumana Bhattacharya (Iora Ecological Solutions) <u>Summary of presentations</u>

- Although some WGIA countries are reporting F-gases such as HFCs, PFCs, and SF₆, it is still difficult to grasp the general picture of the emissions. [Ms. Elsa Hatanaka (GIO)]
- The Kigali Amendment to the Montreal Protocol will be requiring a phase down of HFCs production/consumption¹⁾, and Japan will be enhancing its policies and measures in response. [Mr. Masahiko Suzuki (MoE Japan)]
- F-gas emissions occur from manufacturing industries and F-gas product use, and although actual emissions estimation is more complex, the current IPCC Inventory software enables this. [Mr. Kiyoto Tanabe (IPCC/TFI)]

Summary of presentations (cont.)

- India has phased out consumption of CFCs and halons and is planning for HCFC consumption phase out. Emissions of HFCs, PFCs, and SF6 are assessed in the inventory, and HFC consumption will be phased down 85% by 2047 under the Montreal Protocol's Kigali Amendment. [Dr. Sumana Bhattacharya (Iora Ecological Solutions)]
- China's HFC emissions during 2005–2013 have increased, and are projected to be a significant component of future GHG emissions. [Prof. Jianxin Hu (China)]
- Korea's F-gas emissions have a general upward trend, and the accuracy could be improved with the acquisition of AD for specific sub-categories. [Ms. Min-Sun Kim (Korea)]

Session 3 – Fluorinated Gas Emissions from non-Annex I Parties

- Fluorinated gas emissions from refrigeration and air conditioning occur at any countries and the need for estimating the emissions from this source is highlighted.
- The 2006 IPCC Guidelines will contribute to improve the accuracy of emission estimations. The 2006 GLs and IPCC software help to estimate actual emissions.
- Korea collect data from private sectors directly in not only voluntary basis but also mandatory basis such as K-ETS (partially also by utilizing the production and trading data).
- Kigali amendment's target is set as production and consumption. The target under UNFCCC is set as emissions (bank is considered).
- Collaboration is needed between the GHG inventory community and Montreal Protocol/mitigation community to enhance the work of both groups. Noted that GWP values of Kigali Amendment are those of IPCC AR4.

Session 4 – GHG Inventories, Projections and Mitigation Actions

Chair: Dr. Sirintornthep Towprayoon

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(King Mongkut's Univ. of Tech. Thonburi)

- To achieve the 2 degree Celsius target under the Paris Agreement, reduction of emissions of all GHGs (including fluorocarbon) is needed. Recovery and decomposition of fluorocarbon emissions need to be promoted in this context. To develop fluorocarbon emissions inventory is important for non-Annex I countries as well. [Dr. Tatsuya Hanaoka (NIES)]
- Market Mechanisms and also international Carbon Trade may have a crucial role in implementation of mitigation actions in Iran. [Mr. Mohammad Sadegh Ahadi (Iran)]
- Australia has over 25 year of experience evolution of Australia's national inventory system. Australia's National Inventory System and its supporting institutional arrangements will always be a work in progress. [Mr. Haakon Marold (Australia)]

Summary of presentations (cont.)

- A work on production of the 2019 Refinement to be completed in May 2019 has been started. [Dr. Baasansuren Jamsranjav (IPCC/TFI/TSU)]
- Some typical technical mistakes most inventory teams make including mistakes relating to preparation of mitigation/NDC actions have been highlighted. And some practical recommendations on national inventories/NC/BUR management have been suggested. [Mr. Stanford Mwakasonda (UNEP/UNDP GSP)]

Session 4 – GHG Inventories, Projections and Mitigation Actions

- To collect data for estimating potential emissions (=production + imports – exports – destruction) of F-gases is easier than for actual emissions (count as emissions at the time of emitting).
- As potential emissions do not take into account bank and are less accurate, actual emissions is encouraged to use.
- Even if only potential emission estimates can be obtained, policies should be planned based on those estimates while efforts should be made to estimate actual emissions.
- Emission estimation is by weight of gas by gas basis. The choice of GWP metrics is quite policy relevant.
- Ideally, It is desirable to use the same metrics among policies (GHG inventory reporting, Kigali Amendment, CDM, etc.) in future for consistency purpose.

Session 4 – GHG Inventories, Projections and Mitigation Actions

- Tier 2 estimation methodologies for some categories under non-AFOLU sectors have been incorporated in the IPCC Inventory Software.
- If assumption for long term projection is less confident, a possible solution is to focus on qualitative assessment rather than quantitative.
- Continuous motivation is a possible solution to keep experts' engagement for long-term.
- For reporting, UNFCCC parties should use UNFCCC reporting GL which refer to IPCC GL. Using IPCC GL for domestic purpose is up to country domestic purposes. In Japan, emissions are presented in both domestic and UNFCCC categorization.