# The 8th Workshop on GHG Inventories in Asia (WGIA8)

# Capacity building for measurability, reportability and verifiability

13-16 July 2010, Vientiane, Lao P.D.R.

The Ministry of the Environment of Japan (MOEJ) and the National Institute for Environmental Studies (NIES), jointly with the Water Resources and Environment Administration (WREA), convened the 8<sup>th</sup> Workshop on Greenhouse Gas Inventories in Asia (WGIA8) on 13-16 July 2010 in Vientiane, Lao P.D.R., as a Capacity building workshop for Measurability, Reportability and Verifiability (MRV). The workshop was attended by 93 experts from thirteen WGIA-member countries (Cambodia, China, India, Indonesia, Japan, the Republic of Korea (RoK), Lao P.D.R., Malaysia, Mongolia, Myanmar, Philippines, Thailand, and Viet Nam), as well as the United Nations Framework Convention on Climate Change (UNFCCC), the Intergovernmental Panel on Climate Change (IPCC), the United Nations Development Programme (UNDP), the United States Agency for International Development (USAID) and the Regional Capacity Building Project for Sustainable National Greenhouse Gas Inventory Management Systems in Southeast Asia (SEA GHG Project). The Greenhouse Gas Inventory Office of Japan (GIO) under the Center for Global Environmental Studies (CGER), NIES functioned as WGIA Secretariat.

The objectives of the workshop were:

- to report progress made by member countries since the WGIA7,
- to report their latest GHG inventories (hereinafter "inventories"),
- to discuss future activities beyond the latest inventories,
- to exchange MRV-related information, and
- to discuss sector-specific issues.

The welcome address was delivered by Mr. Yusuke Nakamura, Deputy Director of Climate Change Policy Division, MOEJ, followed by the welcome address delivered by Mr. Syamphone Sengchandala, Director of Climate Change Office, Department of Environment, WREA. The workshop was chaired by Mr. Kiyoto Tanabe, NIES Researcher of the GIO.

The experts discussed various subjects of interest to Asian countries, including the recent progress made by member countries, possible future activities in each member country and the WGIA itself, and sector-specific issues. The outcomes of the discussions about each subject are summarized below.

Through the discussions of these subjects, the experts reaffirmed the importance of the inventory as a key tool for promoting mitigation actions in a MRV manner. They also recognized the usefulness of mutual learning that can be conducted among member countries in order to improve their inventories in a more efficient manner, and the importance of making continuous efforts in improving inventories even after the completion of their latest national communications (NCs)<sup>1</sup>. They stressed the necessity of WGIA's continuation, as it provides a good opportunity for government officials and researchers who are in charge of national inventory development in the member countries, and experts from international organizations to get together and exchange updated information with each other. Through this workshop, the network of WGIA-member countries was further strengthened, and it was strongly felt that the continuation of WGIA would further enhance the collaboration among regional inventory experts.

The workshop was closed with closing remarks by Mr. Syamphone Sengchandala, WREA, and by Dr. Yukihiro Nojiri, Manager of GIO.

### **Recent Progress in the WGIA-member Countries**

Recent progress in inventory development was shared by Cambodia, China, India and Republic of Korea. Cambodia and China reported that they would be able to complete their second NCs within this year. They introduced their current institutional arrangements, results of their latest inventories, and the issues still to

<sup>&</sup>lt;sup>1</sup> When this workshop was held, Republic of Korea was preparing its third NC, Myanmar was preparing its initial NC, and the other member countries were preparing their second NCs.

be addressed and their possible solutions. India is the first country to have prepared and published a detailed national inventory report among the member countries. They stated that they were aiming at voluntary compilation of the inventory report every two years. They presented the results of the 2007 inventory published this year and raised some issues to be addressed for its further improvement. Republic of Korea reported that their institutional arrangement had been put into place under the "Green Growth Vision" and the Greenhouse Gas Inventory & Research Center of Korea, which conducts sustainable national inventory compilation and relevant research activities, was established. Since all of these countries' inventory development and their institutional arrangements were largely enhanced, their information was found to contain information that would be extremely valuable for the other member countries.

## Future Activities within and among WGIA-member Countries

Many of the NCs under preparation in the member countries are to be submitted to the UNFCCC Secretariat within this year and some of the countries have already completed the inventory chapter to be included in their NCs. The experts agreed on the necessity of making continuous efforts for inventory improvement in an efficient manner, and future activities that could be conducted in each country, among the member countries and by the regional supporting programs including the WGIA, were discussed.

## Mutual Learning among the WGIA-member Countries

The mutual learning, in which inventories of two or more countries are perused and suggestions are made to each other for further improvements, has been voluntarily conducted by Japanese and Korean inventory experts twice so far, and its usefulness for the inventory improvement for both countries was pointed out. Therefore, the implementation of this activity among other member countries was proposed and its possibility was discussed. The WGIA Secretariat suggested that this activity could be implemented back-to-back with the next WGIA and the Secretariat could invite relevant inventory experts from the countries that expressed their interests in this activity. The matching of countries and the selection of subject categories were discussed and some concrete suggestions were made. These matters will be further discussed by the Secretariat and the member countries by taking into account additional suggestions that could be obtained even after the workshop.

## Hands-on Training: Mutual Learning for NCs (The Inventory Chapter)

A simulative mutual learning exercise was conducted by looking at inventories from three countries that the Secretariat had selected. It was noted by the experts that perusing other countries' inventories was useful in order to discover points of improvement for their own inventories.

# JICA's Regional Supporting Projects

JICA reported that they would implement capacity building projects related to climate change in three member countries (Indonesia, Thailand and Viet Nam). This time, the project being conducted in Indonesia was introduced. This project is aiming at contributing to inventory improvement by enhancing data collection through developing appropriate institutional arrangements in Indonesia.

### Continuation of Inventory Development

As was also the case in the previous workshop, some experts pointed out that it was crucial for each country to secure funds to ensure the continuity of inventory-related work. In this context, the experts were strongly encouraged to take advantage of one of the conclusions made by the Subsidiary Body for Implementation under the UNFCCC at its 30<sup>th</sup> session (June, 2009)<sup>2</sup> which allows non-Annex I Parties to submit project proposals to the Global Environmental Facility (GEF) for the funding of their subsequent NCs before the completion of their current NCs.

### Usefulness of Inventory

Many experts stressed the importance of expanding the WGIA activities to enhance the usefulness of the inventory, e.g., activities to link inventories to mitigation planning and policy making support.

### Development of Inventory Manual in each Country

The usefulness and importance of inventory manual which summarizes the inventory compilation flow of a country were pointed out. Sharing such manual among colleagues will be useful. The countries which did

<sup>&</sup>lt;sup>2</sup> See FCCC/SBI/2009/8, paragraph 21.

not have such a manual were encouraged to make one in order to ensure the compilation of inventories in a continuous manner.

#### Sector-specific Issues (Inventory, Agriculture, LULUCF, and Waste Sectors)

#### Inventory (Cross-cutting Issues)

The legal basis for and appearance of institutional arrangements of each country were reported, and the institutional arrangements for the inventory and the problems for the continuity of the inventory compilation process were discussed. The importance of the continuity of inventory compiling systems and different institutional arrangements according to national circumstances was confirmed. Discussions were made not only for the national inventory but also for the utility of local inventories.

#### Agriculture Sector

The experts shared their experiences with measurements and the development of emission factors (EFs) for various categories. They further discussed the applicability of one country's EFs to the neighboring countries, the possibility of collaborative research, and the possibility of mutual learning for this sector. It was pointed out that exchanging detailed information on the development of country-specific EFs and the activity data (AD) collection flow could contribute to each country's inventory improvement and that the development of country-specific EFs by taking into account their application to the mitigation actions was desired.

#### Land Use, Land-use Change and Forestry (LULUCF) Sector

The usefulness of remote sensing (RS) and geographic information systems (GIS) was reaffirmed to overcome the common issues for member countries, namely, lack of AD and emission/removal factors. Information on new developments of these technologies and on available data was shared, and experiences and lessons learnt from applying these technologies to LULUCF inventory were also shared by Thailand and Indonesia. Myanmar introduced their first inventory results. RS and GIS data which are available free of charge were introduced and their applications were encouraged. The importance of cooperation of experts in LULUCF and Agriculture inventories, RS, GIS, and REDD (Reduced Emissions from Deforestation and forest Degradation) was pointed out for an efficient inventory improvement.

#### Waste Sector

Results of the analysis grasping each country's inventory development status were reported by the Secretariat. Experts confirmed the necessity of the elimination of "NE" (not estimated) categories and of the application of estimation methodologies with higher tiers according to each country's inventory development status. Information exchange and cooperation among countries, which have similar industrial structure and are in a similar climate zone, was proposed. Furthermore, as a future activity of this working group, the enhancement of discussions for inventory improvement for mitigation actions in a MRV manner was suggested.