

Capacity building for greenhouse gas inventories in developing countries

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JICA VIETNAM GHG INVENTORY PROJECT

The JICA Project on GHG inventories

Objective	<ul style="list-style-type: none"> To strengthen the capacity of Vietnam to periodically prepare GHG inventories using accurate and time-series consistent data and estimation methods for GHG emissions and removals. 	
Term	<ul style="list-style-type: none"> 2010.10~2014.10 	
Project members & Roles	<u>Vietnamese side</u>	Roles and responsibilities
	DMHCC / MONRE	Oversight responsibility
	ISPONRE	Design for the national system proposal
	IMHEN, VEA	Emission estimation, quality control, preparation of the reports
	Relevant Ministries and Agencies	Data and information provision
	National Consultants	Data collection
	<u>Japanese side</u>	
	JICA	Technical, financial support

The goals of the JICA project

Develop the national system
<ul style="list-style-type: none"> Assess the current capacity of the existing system for preparing national GHG inventories. Prepare a roadmap for improving the national system for GHG inventory preparation. Draft and improve a manual for institutional arrangement for preparing national GHG inventories.
Enhance the technical capacity to prepare GHG inventories
<ul style="list-style-type: none"> Collect necessary data, organize the data into a database format, and prepare the national GHG inventory for 2005 and 2010. Conduct workshops on preparation and methodological study on accuracy and reliability of national GHG inventories. Draft an inventory report including the results, the methods/data used, and improvements.
Enhance the capacity to improve the GHG inventories
<ul style="list-style-type: none"> Conduct workshops on the improvement of the GHG inventories. Analyze and identify categories which should be given priority in the improvement. Draft and improve a national GHG inventory improvement plan.



Basic approaches

- On-the-job training to young researchers
- Sectoral short-term experts visited their counterparts for about 1 week, 4-6 times a year.
- Experiencing 2 inventory cycles with 1 improvement step
- Long-term experts took care about institutional arrangement issues and supplemented sectoral experts

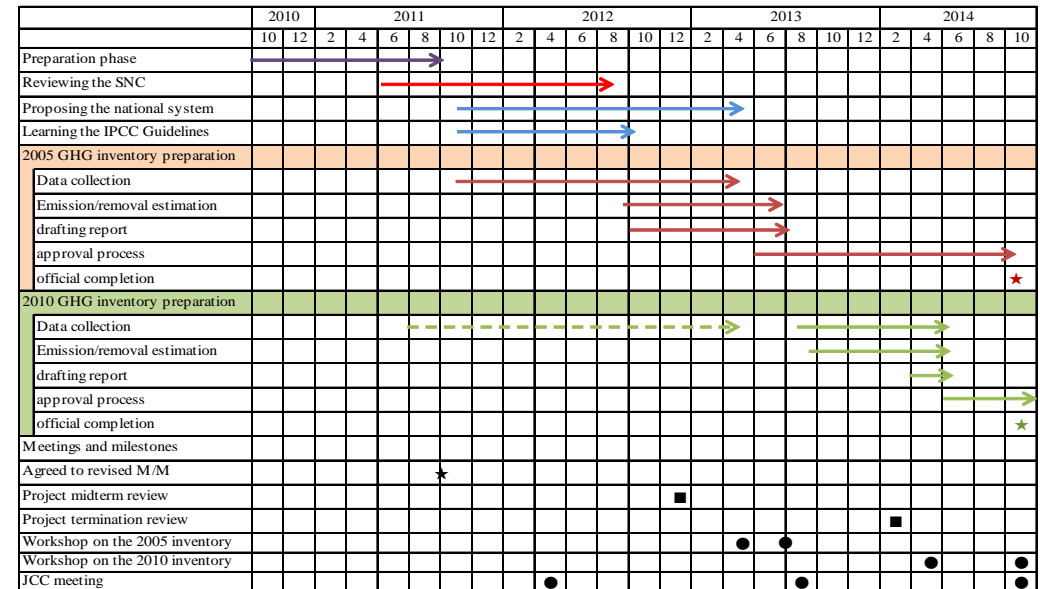
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Outputs and outcomes of the project

- A set of reports on recommendations for National GHG inventory system
- Detailed NIR 2005 and 2010 (following the structure of Annex-I to the extent possible and appropriate)
- Estimation files (in xls format)
- Preliminary inventory system that enables autonomous updating of inventory by the government of Vietnam

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Timelines for the inventories



Significance of the outputs/outcomes

- Contributed to timely submission of BUR1
- Base year emission data for projections (INDC, BUR1)
- Provided basis for future NC/BUR
- A number of participants passed the test for national GHG inventory reviewer
- Provided some suggestions for the legal document on national GHG inventory system

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Lessons for capacity building activities

- Several workshops may not be sufficient.
- Capacity building on methodological improvement is more challenging than on compilation.
- Training as ICA respondent would be also useful.
- Future responsibility can enhance engagement.
- Participants can contribute to review/ICA in the future.
 - Review/ICA would provide further capacity building opportunity even after the project.

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Inventory, Improvement and MRV of mitigation

- Generally speaking, national inventory and mitigation projects are at different levels.
 - In view of purpose of inventory, it would be better if a mitigation activity, especially nation-wide one, is expressed in inventory in an adequate manner.
 - Studies for quantifying effect of mitigation actions would contribute to improvement of inventory.
 - Dealing with credit would be technically challenging.
- QA for GHG inventory and domestic V may be synchronized.

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OTHER COOPERATION ACTIVITIES OF JAPAN

Overview of the WGIA

- Capacity building for Measurability, Reportability and Verifiability -



Workshop title:	Workshop on Greenhouse Gas Inventories in Asia (WGIA)
Objective:	To support countries in Asia to improve the quality of inventories via regional information exchange
Organizers:	Ministry of the Environment of Japan National Institute for Environmental Studies A host country from participating countries
Participating countries:	Brunei, Cambodia, China, India, Indonesia, Japan, Republic of Korea, Lao P.D.R., Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand, Vietnam (15 countries)
Observers	UNFCCC Secretariat, IPCC Task Force on National Greenhouse Gas Inventories, USEPA, Australia, JICA, etc.
Number of participants	Approximately 100 to 120 people
Style:	Annual workshop since 2003 (the latest one is the 13th WGIA held in 2015)
Funds:	Ministry of the Environment of Japan

History of WGIA



WGIA1:	Phuket, Thailand, 13-14 Nov. 2003	Identified problems and needs of support
WGIA2:	Shanghai, China, 7-8 Feb. 2005	Shared information and experiences gained through inventory development
WGIA3:	Manila, Philippines, 23-24 Feb. 2006	Discussed technical matters on each sector inventory
WGIA4:	Jakarta, Indonesia, 14-15 Feb. 2007	Organized working groups and discussed sector specific issues
WGIA5:	Kuala Lumpur, Malaysia, 6-8 Sep. 2007	Identified needs for further inventory improvement
WGIA6:	Tsukuba, Japan, 16-18 July 2008	Reaffirmed the importance of inventory development
WGIA7:	Seoul, Republic of Korea, 7-10 July 2009	Shared information and experiences / Discussed sector specific and cross cutting issues
WGIA8:	Vientiane, Lao P.D.R., 13-16 July 2010	Shared information and experiences / Discussed sector specific and cross cutting issues
WGIA9:	Phnom Penh, Cambodia, 13-15 July 2011	Newly started "Mutual Learning"
WGIA10:	Hanoi, Viet Nam, 10-12 July 2012	Shared information and experiences / Conduct Mutual Learning
WGIA11:	Tsukuba, Japan, 5-7 July 2013	Shared information and experiences / Conduct Mutual Learning
WGIA12:	Bangkok, Thailand, 4-6 August 2014	Shared information and experiences / Conduct Mutual Learning
WGIA13:	Bali, Indonesia, 4-6 August 2015	Shared information and experiences / Conduct Mutual Learning

Overview of WGIA's - Mutual Learning Sessions -



Mutual learning on agriculture in WGIA12



Mutual learning on energy in WGIA12



Mutual learning on waste in WGIA12

- Studying another country's inventory, asking question on the inventory to compilers of the country, and getting their answers help you to obtain useful information/data that could be used for your own inventory preparation and to enhance your own capacity for inventory compilation.
- The ML sessions are held as closed meetings, so information provided by participating countries can be dealt with as confidential.

Pairing of Mutual learning sessions held in WGIA's

	Energy	Industrial Processes	Agriculture	LULUCF	Waste
WGIA9	Indonesia - Mongolia			Lao PDR - Japan	Cambodia, Indonesia, RoK
WGIA10	Cambodia - Thailand	Indonesia - Japan	Indonesia - Vietnam		China - RoK
WGIA11	Lao PDR - Thailand		China - Myanmar		Malaysia - Vietnam
WGIA12	Indonesia - Myanmar		China - Mongolia	Vietnam	
WGIA13	(General) Vietnam - Japan		Lao PDR - Indonesia	Cambodia - Mongolia	Myanmar - RoK

JICA projects

■ GHG inventory

- Vietnam
- Indonesia
- Thailand
- PNG / Mongolia (TBA)

■ National level NAMA

- Vietnam