

### **Summary of Working Group Session 1**



**Chalor Jarusutthirak** 

# First half :

Introduction	Dr. Takefumi Oda (GIO)
GHG inventories at national and regional/city level	Dr. Junko Akagi (IGES KUC)
ICLEI's activities on GHG inventories at regional or city level	Ms. Michie Kishigami (ICLEI)
Roles of GHG inventories at regional or city level for developing future GHG emission/removal projection	Dr. Shuichi Ashina (NIES/AIM)

# Second half :

Thailand's GHG inventories at regional or city level	Mr. Chessada Sakulku (TGO, Thailand)
Indonesia's GHG inventories at regional or city level	Mr. Dida M. Ridha (Indonesia)
National GHG Inventory in 2011 and Local GHG Inventory	Dr. Tae-Hoon Kim (Republic of Korea)
India's GHG inventories at regional or city level	Dr. Sumana Bhattacharya (India)

# GHG inventories at national and regional/city level : Dr. Junko Akagi

- GHG inventory at regional/city level
- National mandate / "voluntary action" (not international requirement)
- As a part of low-carbon action plan
- Policy instrument
- Management tool for low-carbon society
- Attractive investment for improving local environment & quality of life
- Developing a GHG inventory at city level : certain freedom
- No direct linkage between national and regional/ city level inventories

 "Vertical" information exchange: help improve GHG accounting skills of national / local government (e.g. data collection, institutional arrangements) ICLEI's activities on GHG inventories at regional or city level : Ms.Michie Kishigami

# Roles of ICLEI-Local government for sustainability as association of local governments

- Connecting leaders
- Accelerating actions
- Gateway to solutions

#### **Support of ICLEI for Low Carbon Cities**

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#### Global Protocol for Community Scale GHG Emissions(GPC)

A global framework for accounting and reporting city and community scale GHG emissions
To help cities to measure and report GHG emissions in a standardized way
To make the data more consistent, credible and comparable between cities



#### Online emissions inventory software to

help Local Governments to account Greenhouse Gas Emissions (GHGs), Common Air Pollutants (CAP) and other Volatile Organic Compounds (VOC)



#### *Carbonn* Cities Climate Registry

Global voluntary on-line reporting system for local and sub- national governments

#### **Reporting items:**

- GHG target, action plan
- GHG Inventory
- Action reports
   (evaluation with GHG emission reduction)

Roles of GHG inventories at regional or city level for developing future GHG emission/removal projection : Dr. Shuichi Ashina

Situation of GHG emissions from Asia: 38% of global emissions in 2005, projected to be double in 2050

### Low Carbon Society (LCS)

An approach for reduction of GHG emission Lead to resolution of other key developmental challenges e.g. improving energy access, reducing local pollution, eradicating poverty

### **LCS Transition**

Focused and common vision of the society

- Cooperation
- Awareness of the roles

Concrete vision and roadmap : national / regional scale

**Challenges**: Regional characteristics should be considered for designing regional/city LCS scenarios Regional/city scale visions and roadmaps faces a big issue on arrangement of GHG inventories

### **Roles of GHG inventory for LCS design**

- one of the key information for the LCS design
- indicate current situation of GHG emission
- indicate which sectors/areas should be changed for reducing GHG emission.

#### AIM modeling (Asia-Pacific Integrated Modeling)

approaches for

estimation of regional/city scale GHG inventories designing regional/ city LCS scenarios

Case studies: experiences on developing future GHG emission/removal projection in Iskandar Malaysia and Fukushima-area in Japan

# Thailand's GHG inventories at regional or city level: Mr. Chessada Sakulku

GHG inventory at municipal level is TGO initiative as the first approach to help municipal governor develop toward Low Carbon City

#### Benefits of GHG inventories at regional or city level

- help municipal governors spot the current GHG emission
- emphasize the local development plan toward Low Carbon City
- build the capacity for municipal officers on emission & mitigation
- help municipal governor implement the mitigation project
- tools of capacity building and monitoring progress of development plan

### **Constraints of GHG inventories at regional or city level**

- data are not available at municipal level
- cannot support to National GHG Inventory : GHG accounting and reporting standard
- data gaps and overlapping between neighboring province
- municipal governor engagement is a key factor of success

### Indonesia's GHG inventories at regional or city level : Mr. Dida M. Ridha

Each province is responsible for performing GHG inventory at provincial level (33 provinces, 3 sectors: energy, AFOLU, waste)

GHG inventory at regional or city level has important role in implementation of national GHG inventory, especially to provide activity data and development of local emission factors.

### **Constraints/ Challenges**

- Double counting (trans-boundary problem)
- Consistency in methodology (generating activity data)
- Capturing variability of local emission factors at national level calculation.

### **Needs for improvement**

- Capacity building
- Synergizing GHG at regional action plan for GHG emission reduction
- International cooperation on GHG inventory development

### National GHG Inventory in 2011 and Local GHG Inventory (Korea) : Dr. Tae-Hoon Kim

### Local GHG Inventory

- Enforcement of low carbon, "green growth law".
- Local governments are required to prepare "local government's green growth plan, including GHG inventory and quantified GHG emission.
- Local government play important role in developing
   "National green growth strategy" with the help of Korea
   Environmental Corporation (KECO)
- Utilization as basic data for defining emission sources and establishing a reduction strategy for local government

### **Constraints / Challenges:**

- Lack of skilled experts in local government Foster local climate change & inventory experts
- Non-comparable inventories among local governments Development of GHG inventory procedure to estimate national and local inventories.

Publish "Local government inventory guideline" to achieve high reliability and comparability GHG inventories

### India's GHG inventories at regional or city level : Dr. Sumana Bhattacharya

India aims to reduce its GHG emission intensity by 20-25% by 2025 with respect to 2005.

#### A bottom-up assessment



Smaller the Unit in focus- Better the manageability, & Easier Measurability, Reporting and Verifiability, Co-benefits of bottom-up assessment

#### Gaps

Policy gaps : Each state need to be mandated

**Institutional Gaps :** No institution within the states mandated to report GHG emission inventory

Capacity gaps:

Financial & Technology Gaps :

# Q&A

<b>Questions/ Comments</b>	Answers / Discussions
How do we get quality data for inventories at the local level?	<ul> <li>Local data collection is a challenge - statistics rarely exist, data is scattered and there is no Database</li> <li>The data quality can be gradually improved over time</li> <li>The national inventory side should</li> <li>support local inventory making based on experience</li> </ul>
How do we get simple models for local emission scenarios?	NIES-AIM Team has made a snap-shot model available by excel on its web-site

Q&A

Questions/ Comments	Answers / Discussion
-When national	-It is important to highlight the co-benefits
inventories are the	when promoting local inventories
international priority,	-Better data lead to better policy
what are the	development
incentives for	-There is more chance to attract money with
promoting local	local inventories
inventories?	-It serves as a database for informed
	decision-making and serves co-benefit
	purposes such as health improvement

### Q&A

Questions/ Comments	Answers / Discussion
What are the reactions of the local government to	<ul> <li>Depends heavily on leaders and mandate.</li> </ul>
be asked to make local inventories?	- Depends on readiness and interest of leaders

Other comments

-We may not have to be too concerned about the coherence between national and local inventories, but the purpose for local inventories should be emphasized

- -Local inventories can use national data
- -More analysis needs to be done for instance for the transport sector -Maybe we can call in practitioners who calculate local inventories at next year's workshop



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