## **GHG Inventory in Malaysia**

#### 5<sup>th</sup> Workshop on Green House Gas Inventory 6-7 September 2007





### **Presentation Outline**

Inventory Development

GHG Inventory in Malaysia
National Communications

Inventory of 1994 and 2000

**Constraints and gaps in inventory development** 

Improvements in the Second National Communication



# **GHG Inventory in Malaysia**

 Malaysia signed the United Nations Framework Convention on Climate Change (UNFCCC) on 9 June 1993 and ratified it on 17 July 1994.

 The national GHG inventory was established during the preparation of the Initial National Communication to the UNFCCC, which was based on 1994 database.

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National Response Strategies to CLIMATE CHANGE

Malaysia



# History of GHG Inventory Initial National Communication

Completed and submitted in June 2000, which included:

- 1. National Circumstances
- 2. Inventory of Greenhouse Gas Emissions
- 3. Environmental & Sustainable Res. Mgt.
- 4. Impacts of Climate change on Key Economic Sectors in Malaysia Land use Waste
- 5. Identifying Strategies to Address Issues – mitigation options
- 6. Education, Training and Public Pa
- 7. Research and Systemation@loser



# **Current GHG Inventory**

Second National Communication (proposed)

- To be completed in Sept 2009, which covers:
- 1. National Circumstances & Scenarios
- 2. National Greenhouse Gas Inventory (2000)
- 3. Measures to Mitigate Climate Change

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4. Assessment Vulnerability and Measures to Facilitate Adequate Adaptation to Climate Change

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- 5. Other Information relevant to Achievement of the Convention
- 6. Constraints & Gaps; Technical & Capacity Needs

# Sub Sectors – GHG Inventory

#### Energy

- Industrial Processes
- Land Use Land Change Forestry
  - Waste
    - Industrial waste Food and beverage, oil palm mills and rubber factories
    - Landfills
    - Domestic and industrial waste water

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#### Agriculture

- Rice fields
- Livestock ruminants, pigs, chickens and horses

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### **Constraints and Gaps in Inventory Estimation**

Gaps and Constraints	Description	Potential Measures for improvement
Data Organisation	•Mismatch in sectoral detail across different published documents	Design consistent reporting     formats
	<ul> <li>Inconsistency in top-down and bottom-up data sets for same activities</li> </ul>	•Design consistent reporting formats
	•Data scattered in many agencies	Database for reporting raw data     adopts IPCC requirements
Non-availability of relevant data	Data for refining inventory to higher tier levels	Data depths to be improved, some require data surveys
Non-accessibility of data	<ul> <li>Lack of institutional arrangements for data sharing – time consuming to compile data</li> <li>Time delays in data access</li> </ul>	<ul> <li>Establish protocols and establish effective networking with data providers</li> <li>Involve industry and monitoring institutions</li> </ul>



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## **Constraints and Gaps in Inventory Estimation**

Gaps and Constraints	Description	Potential Measures for improvement
Technical and institutional capacity needs	Training in data gathering for relevant institutions in GHG inventory methodologies and data formats	Arrange extensive training programs
Non-representative emission factor /coefficients	Inadequate data for representative emission measurements in the sectors	Conduct measurement for key categories and develop local EF

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### Improvements In Second National Communication

Gaps and Constraints	Description
Data Organisation	<ul> <li>GHG Inventory assigned to lead sectoral agency</li> <li>sectoral disaggregation of data for higher Tiers</li> <li>Consistent key categories established for each sector</li> <li>Centralized database is being developed</li> </ul>
Non-availability of relevant data	Data requirements for GHG inventory would be sourced through Department of Statistics for future GHG Inventories
Non-accessibility of data	Better institutional arrangements for data sharing established
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### Improvements In Second National Communication

	Gaps and Constraints	Improvements	
7	Technical and institutional capacity needs	Training in planning, preparation and analysis of GHG inventory Training on data gathering for sub-sectors in GHG inventory methodologies and data formats Improvement in inventory for Energy and LULUCF sub- sectors	
	Non-representative emission factor/coefficients	Conduct measurement for key categories and develop local EF	

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