Ministry for Environment
Republic of Indonesia

Indonesia's GHG Inventories at Regional Level

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Outline:

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2. National GHG Inventories
3. GHG Inventories at Regional Level:
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1. Background: National Circumstances

Challenge

- Characteristics of geography, economic and social
  - Characteristics of geo-biodiversity in three eco-regions (Sundaland, Wallacea, Sahul)
  - Characteristic of region in 34 Province and 511 City/District

Solution

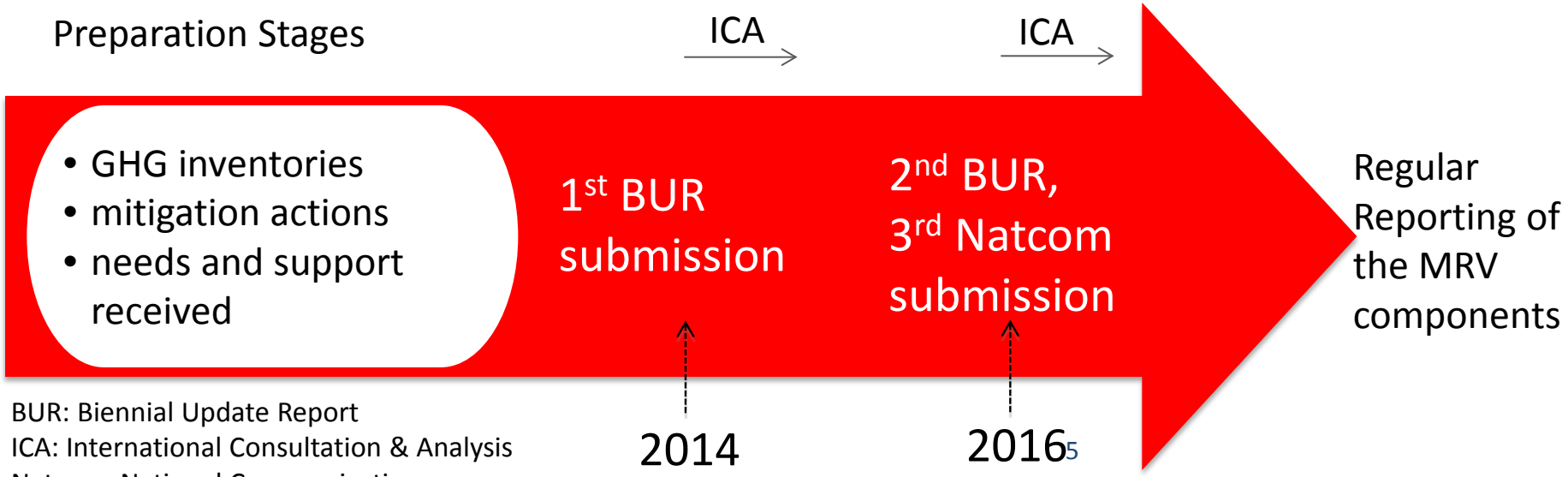
- Two approach of national GHG inventories
  - Top-down approach: using national agregare data with involvement of national ministries/institutions
  - Bottom-up approach: using regional data with involvement of local government/institutions.

2. National GHG Inventories

- Indonesia has submitted two GHG inventories to the UNFCCC
  - Initial National Communication (INC) in 1999
  - Second National Communications (SNC) in 2010

National GHG Inventories

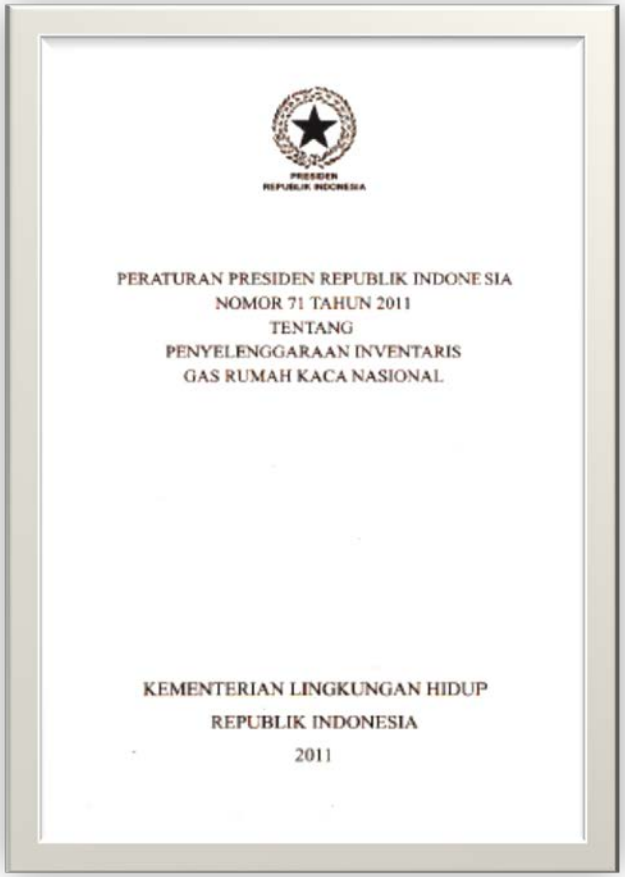
- Starting 2014, Indonesia as non-Annex I Parties will be required to submit GHG inventories every other year, as part of the Biennial Update Report.



- The Indonesian government has set a Presidential Regulation No. 71 of 2011 as the basis for the development of national GHG inventory system

PRESIDENTIAL DECREES NO. 71 OF 2011 – NATIONAL GHG INVENTORY

- A guidance to provide regular information on level, status, and trend of GHG emission and removals change, including carbon stock at national, provincial, and city level;
- A guidance to accounting process and procedure of GHG Inventories, task & authorities of governments at central as well as provincial and city, verification, reporting, and assistance to local governments


PRESIDEN
REPUBLIK INDONESIA

PERATURAN PRESIDEN REPUBLIK INDONESIA
NOMOR 71 TAHUN 2011
TENTANG
PENYELENGGARAAN INVENTARIS
GAS RUMAH KACA NASIONAL

KEMENTERIAN LINGKUNGAN HIDUP
REPUBLIK INDONESIA
2011

NATIONAL GHG INVENTORY SYSTEM (SIGN)

Role and Responsibilities under Presidential Regulation No.71/2011

	MoE	Line ministries	Province	District/City
Inventory Preparation	✓ Coordinating the implementation of National GHG inventory. ✓ Implementing the monitoring and evaluation towards GHG inventory processes and results. ✓ Coordination in the preparation of reports for National Communication ✓ Submission of reports for National Communication to the National Focal Point	✓ Conducting the GHG inventory ✓ Arranging a trend of change of emission and removal ✓ Developing inventory methodologies and emission factor or removal of GHG in coordination with the stakeholders.	✓ Performing GHG inventory at the provincial level ✓ Coordinating the implementation of GHG inventory at the district and city.	✓ GHG inventory implementation at the district and city.
Report	✓ Report of the results of GHG inventory to the Coordinating Minister for People's Welfare.	✓ Report of the result of GHG inventory to MoE once a year.	✓ Report of the result of GHG inventory from district/city to MoE once a year.	✓ Report of the result of GHG inventory to the Governor, once a year.
Guidelines	✓ Establishing national guidelines for the implementation of GHG inventory.	✓ Providing guidance to the GHG inventory implementation related task and function line ministries.	✓ Providing guidance to coordinate the GHG inventory implementation to district/city and stakeholders.	—

3. GHG Inventories at Regional Level

- Each province is responsible for performing GHG inventory at provincial level and to coordinate the implementation of GHG inventory at its city and district area.
- GHG inventory at regional and city/district levels has important role in implementation of national GHG inventory, especially to provide activity data and development of local emission factor.

3.1 GHG Inventories at Regional Level: Achievement

- GHG inventory activities that have been conducted in 33 Provinces in Indonesia has resulted historical actual data until 2010 for sector energy, AFOLU and waste
  - that is used to prepare Regional Action Plan for GHG Emission Reduction or known as “RAD-GRK”. in every province.
- In 2014, GHG inventories at regional level will be targeted to obtain the level of GHG emissions up to year N-2 (2012).

GHG Inventories at Regional Level: Achievement

- Capacity building conducted for local government on GHG inventory and GHG modeling
- Tools developed:
  - GHG Inventory Guideline based on the 2006 IPCC Guideline and GPGs
  - Manual for GHG Inventory in Waste Sector
  - Manual for calculation to ease the user using the guideline.

GHG Inventories at Regional Level: Achievement

National GHG Inventory Guideline in Bahasa

- There are five Guideline books:
  - Book I: General Guideline
  - Book II Volume 1: Energy
  - Book II Volume 2: Industrial Process and Product Use
  - Book II Volume 3: Agriculture, Foresttry and Other Land Uses
  - Book II Volume 4: Waste

GHG Inventories at Regional Level: Achievement

- Improving the accuracy of GHG inventory
  - Develop pilot project on waste sector in 2 Province (North and South Sumatera), cooperation with JICA under the Project of Capacity Development for Climate Change Strategies in Indonesia.
  - The results of these pilot activities are Indonesia has local values for waste composition and dry matter content data.
  - Currently it is focused to obtain waste stream data and development of local EF from domestic and industrial wastewater.

Pilot Project in North and South Sumatera

Dry matter content values from Pilot Project in North Sumatera & South Sumatera

Components	Average Dry Matter Content (% weight)	
	South Sumatera	North Sumatera
Food waste	23	59
Paper & Nappies	51	44
Garden & Wood	50	57
Textile	56	73
Plastic	84	89
Metals	76	57
Glass	100	97
Other	92	66

Waste Composition Results in North and South Sumatera

Components	% North Sumatera	% South Sumatera	% Average	*Default* IPCC 2006 For ASEAN
Food waste	55.77	58.85	**57.31**	43.50%
Paper & Nappies	13.37	14.99	**14.18**	12.90%
Garden & Wood	14.02	3.36	**8.69**	9.90%
Textile	3.20	1.79	**2.50**	2.70%
Plastic	0.52	0.34	**0.43**	0.90%
Metals	10.45	18.79	**14.62**	7.20%
Glass	0.34	0.40	**0.37**	3.30%
Other	1.48	1.05	**1.27**	4.00%
Food waste	0.83	0.42	**0.62**	16.30%

3.2 GHG Inventories at Regional Level: Improvement

- The challenge GHG Inventories at regional level:
  - Avoiding double counting (trans-boundary problem)
  - Consistency in methodology (generating activity data)
  - Capturing variability of local emission factors at national level calculation

GHG Inventories at Regional Level: Improvement

- Each province has developed their plain of improvement to provide a better inventory, within the framework of fulfillment the TACCC (Transparency, Accuracy, Completeness, Comparability and Consistency) principle.
- Capacity development in implementing GHG inventory at regional level is necessary to improve capacity in each province for implementing GHG inventory in accordance with IPCC GL 2006.

4. Conclusions

- GHG inventory at regional levels has important role in implementation of national GHG inventory, especially to provide activity data and development of local emission factor.
- There are needs for capacity building for human resources.
- Synergizing GHG inventory at regional levels with regional action plan for GHG emission reduction
- Enhancing international cooperation on GHG inventory development

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THANK YOU