BIENNIAL UPDATE REPORT: INDONESIA EXPERIENCE

Directorate General of Climate Change
Ministry of Environment and Forestry

Ulaanbaatar, 27 July 2016

OUTLINE

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1. Background

- Indonesia became a party to the United Nation Framework Convention on Climate Change (UNFCCC) in Rio in 1992, which was ratified in 1994 through Law no. 6/1994
- Requirement to submit a National Communication and Biennial Update Report (BUR)
- The first National Communication has been submitted on October 27th, 1999.
- Indonesia's Second National Communication (SNC) has been submitted on November 1st, 2010.
- The First Biennial Updated Report (BUR-1) has been submitted on December 2015

2. Scope of Activities to Develop Indonesia First BUR

- National GHG inventory for 2000-2012;
- GHG mitigation policies and measures to address climate change;
- Description of national circumstances and other relevant information;
- Arrangement to Develop BUR.

2.1 GHG Inventory

- National and local institutional arrangements for GHG inventories designed and strengthened
- Improved accuracy of GHG inventory through improved methodologies for estimating GHG emissions
- Developed National GHG inventories for 2000-2012 series using 2006 IPCC inventory guidelines

2.2 GHG Mitigation

- Improved understanding of GHG emissions scenarios under BAU from sources and sinks; and future GHG mitigation options including their macro-economic impacts
- Increased capacity in measuring the achievement of GHG mitigation actions at sectoral and local level
- Designed GHG mitigation policies and measures at national level in the context of national action plans
- Documented the technology transfer needs, and financial support needed to deploy a portfolio of prioritized mitigation options for key sectors at national and local level

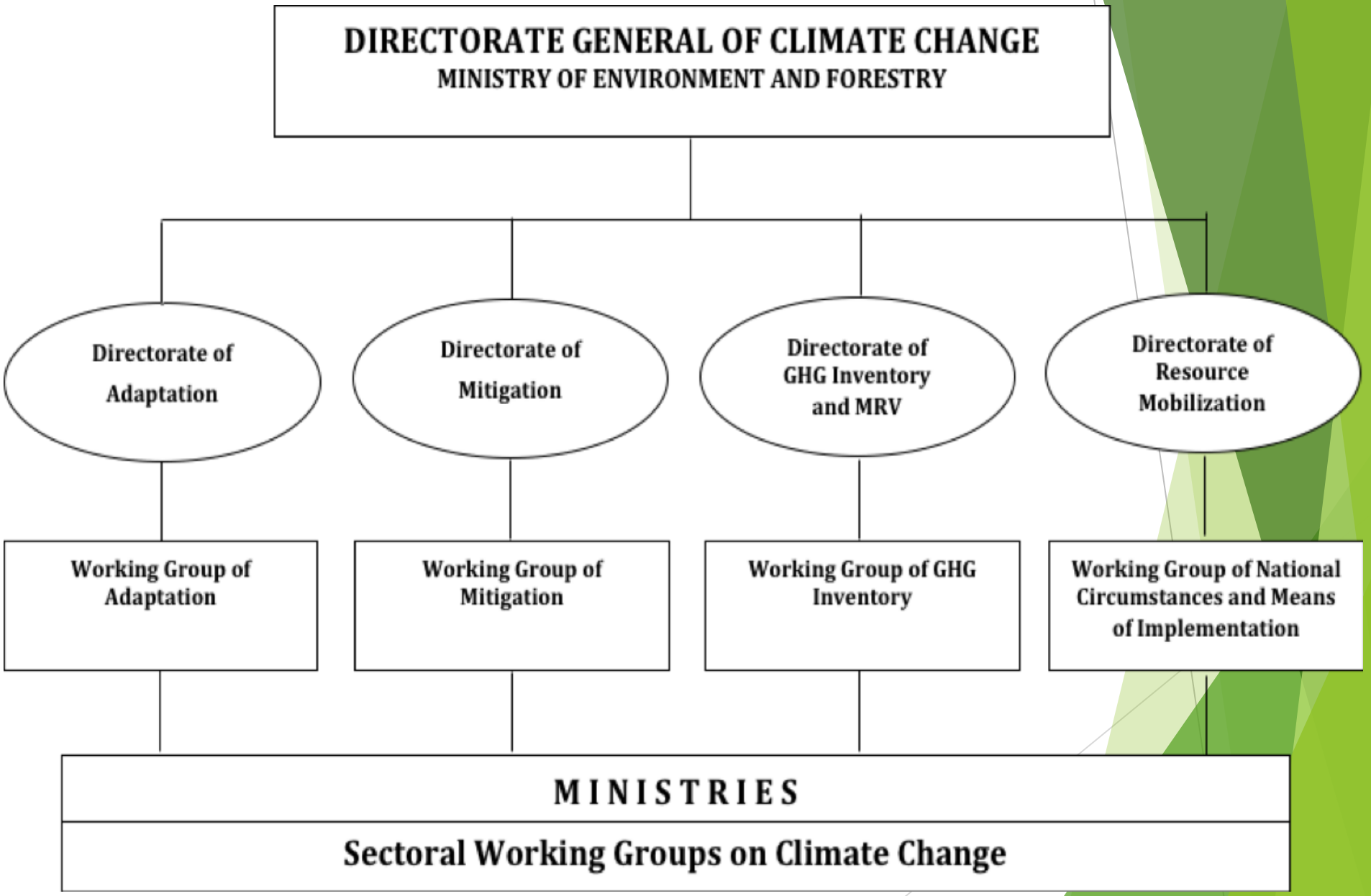
2.3 National Circumstances

Update report with the information regarding:

- general condition of Indonesia in connection with GHG emission and mitigation (e.g. economic growth, population, fuel consumption, land rehabilitation etc. and
- policies that may have an effect of the GHG emission (energy policies, forest management policies etc.)

2.4 Arrangement to Develop BUR

Working Group-1	Working Group-2	Working Group-3
National GHG Inventories	GHG Mitigation Policies and Measures to Address Climate Change	National Circumstances


DIRECTORATE GENERAL OF CLIMATE CHANGE
MINISTRY OF ENVIRONMENT AND FORESTRY
Directorate of Adaptation
Directorate of Mitigation
Directorate of GHG Inventory and MRV
Directorate of Resource Mobilization
Working Group of Adaptation
Working Group of Mitigation
Working Group of GHG Inventory
Working Group of National Circumstances and Means of Implementation
MINISTRIES
Sectoral Working Groups on Climate Change

3. Brief Information of Indonesia First BUR

NATIONAL GHG INVENTORY

- **Method:** The National Greenhouse Gases Inventory was estimated using Tier 1 and Tier 2 of the 2006 IPCC Reporting Guidelines and the IPCC GPG for LULUCF.

- **Emission Factor (EF):**
  - Energy: IPCC Default ~ Revision for transportation since there are changes in activity data
  - IPPU: IPCC Default: Revision for cement and aluminum since new EF is applied after 2008 due to the implementation of CDM
  - Agriculture: Local EF (particularly for Rice) and analysis at provincial level
  - LUCF: Local EF
  - Waste: Local EF ~ revision of methodology using FOD (First order decay) as replacement of mass balance method

- **Period of Analysis** : 2000-2012 (2000-2005 Recalculation from SNC)

NATIONAL GHG INVENTORY

Summary of 2000 and 2012 GHG Emission in (Gg Co2-e)

Sector		Year		Percentage	
		2000	2012	2000	2012
1	Energy	298.412	508.120	29,8	34,9
2	IPPU	40.761	41.015	4,1	2,8
3	Agriculture	96.305	112.727	9,6	7,8
4	LULUCF (including peat fire)	505.369	694.978	50,5	47,8
5	Waste	60.575	97.117	6,0	6,7
Total without LULUCF & including peat fire		496.053	758.979	100	100
Total with LULUCF & including peat fire		1.001.422	1.453.957		

NATIONAL GHG INVENTORY 2012

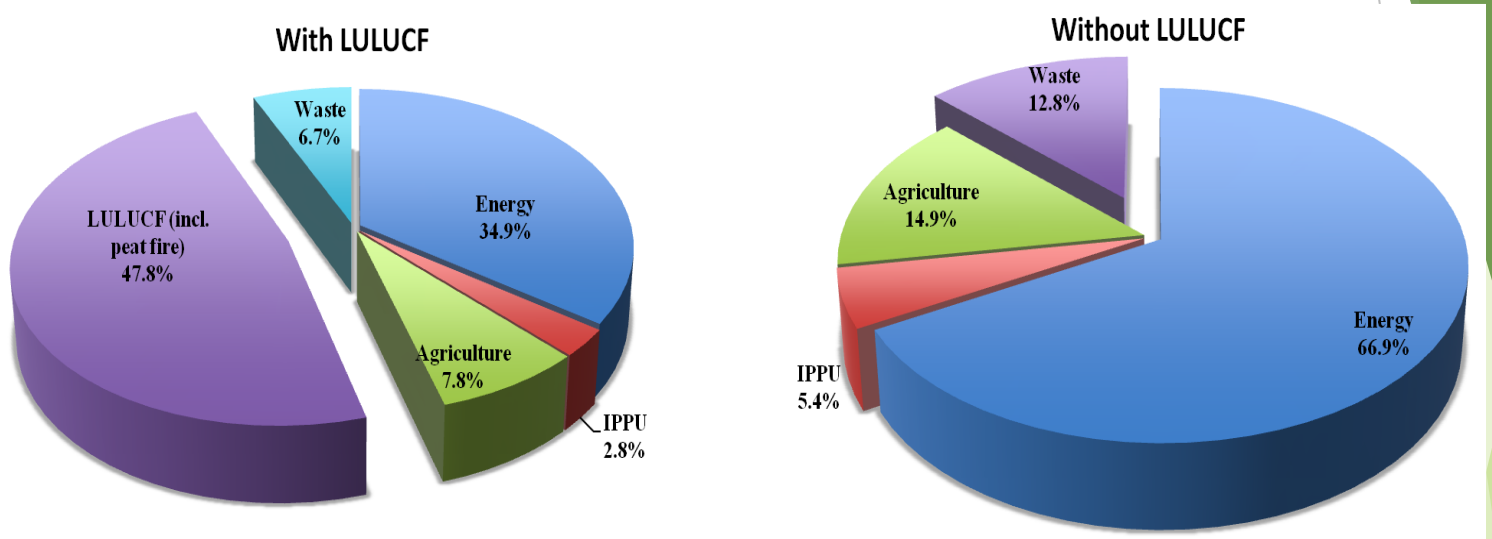


Figure 1. Sectoral emission contribution to National Emission in 2012

- Contributed of Main Sector **LUCF and Peat Fire (47,8%)** followed by Energy **(34,9%)**, **Agriculture (7,8%)**, **Waste (6,7%)**, dan **IPPU (2,8%).**

- **Without LUCF,** Contributed **Energy** sector **was 66,9%** by total emission, and followed by **Agriculture (14,9%)**, **Waste (12,8%)** dan **IPPU (5,4%).**

EMISSION TREND 2000-2012

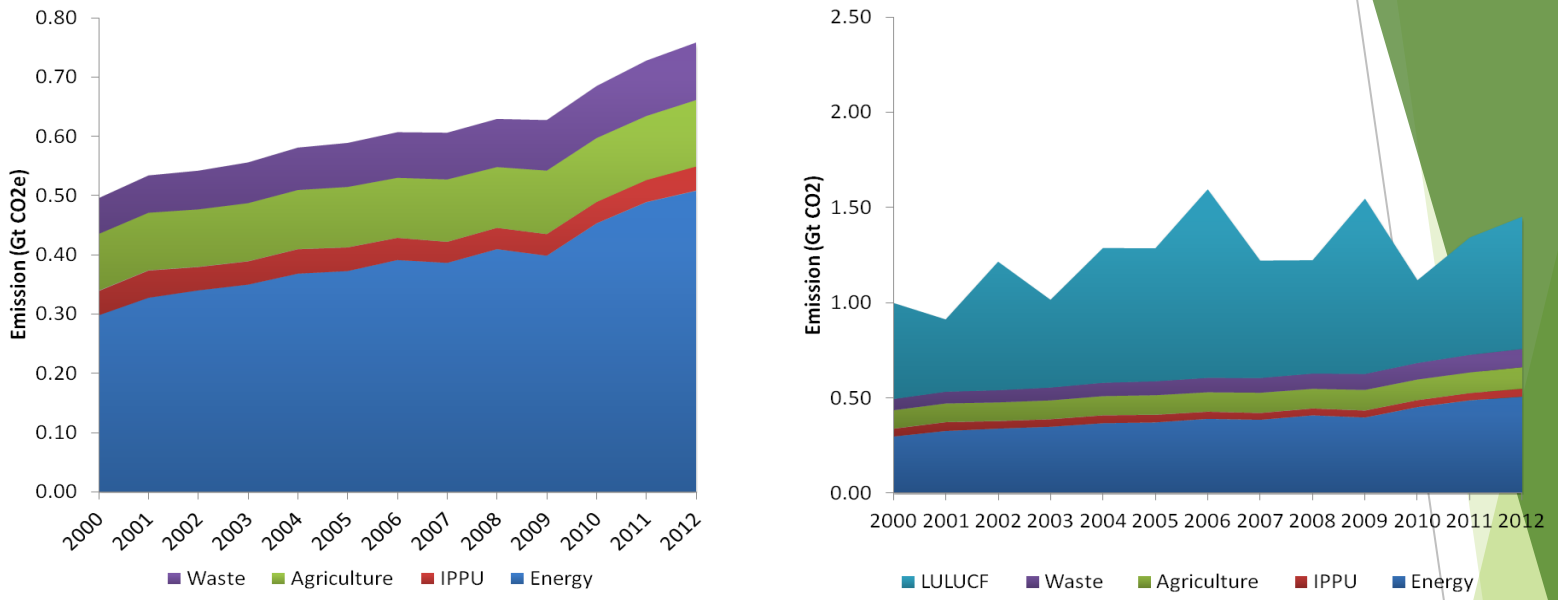


Figure 2. Emission trend without LUCF (left) and with LUCF (right)

- The GHG emissions from energy, agriculture and waste, increased at the annual rates of 4.6%, 1.3% and 4.0% respectively, while those from industrial sector was relatively less than 1%.
- Without LUCF, the annual emissions over the period of 2000-2012 increased consistently with a rate of about 3.6% per year.
- With LUCF, the annual emissions fluctuated considerably due to high inter-annual variability of emissions from LUCF sector.

KEY CATEGORY AND UNCERTAINTY

- **Key Category Analysis (*KCA*)**

  Main Source of GHG Emission :

No.	With LULUCF	
1	CH4 Emission and removals form soils	79%
2	CH4 Peat Fire	65%
3	CO2 Forest and grassland conversion	52%

No.	Without LULUCF	
1	CO2 Energy Production	75%
2	CO2 Transportation	58%

- **Uncertainty**

	Year		Trend
	2000	**2012**	**2000-2012**
Without LULUCF	19,1%	14,9%	21,7%
With LULUCF	19,8%	17,4%	16,5%

MITIGATION ACTIONS AND THEIR EFFECTS

- Presidential Regulation No. 61 year 2011→ Emission reduction target at level up to 26% in 2020 and further up to 41% by international support.
  - Total emission reduction that has been achieve in 2010-2012 was 41.29 $MtCO_2$-e or 13,76 Mt CO_2-e annually.
- There were other 27 mitigation actions in which 4 activities were supported by NAMA and 23 were non-Presidential Regulation.
  - The resulted emissions reduction over that period was reported to be about 5.09 Mt CO_2-e or about 1.70 Mt CO_2-e annually.
- Most of the reported emissions reduction achievement subject to verified.

4. Lessons Learnt

- Capacity development for ministries (sectors) and local governments on GHG inventories and mitigations
- Increase capacity of sector in developing sectors GHG Inventory including baseline/reference emission level as basis for measuring the achievement of mitigation actions;
- Enhance capacity of agencies responsible for collecting and understanding data and in developing templates to facilitate data collection; and
- There is a need to develop functional database for tracking information on GHG emissions, effects of mitigation actions, financial flows, and capacity building and technology transfer activities.

4. CLOSING

- Indonesia First BUR provide update in term of progress in implementing mitigation actions and status of GHG emission
- Improvement of Transparency, Accuracy, Consistency, Completeness and Comparability
- Improvement of Institutional Arrangement to develop BUR and National Communications

THANK YOU