



NAMAs and MRV MANNER



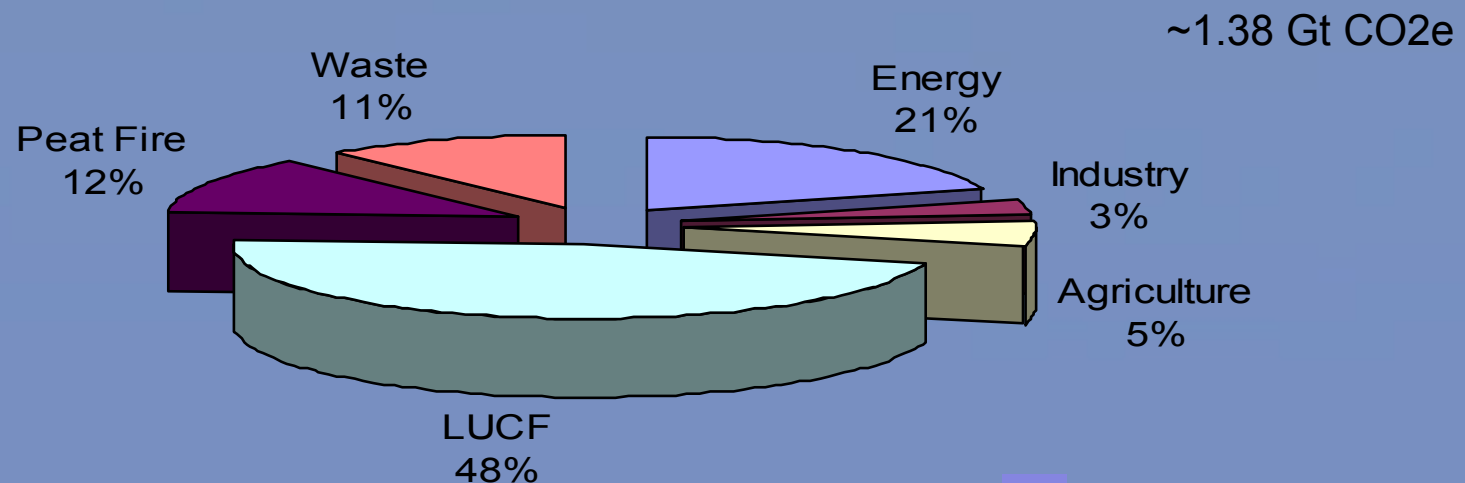
***Ministry of Environment,
Republic of Indonesia***

July 2010

Indonesia National GHG Inventory

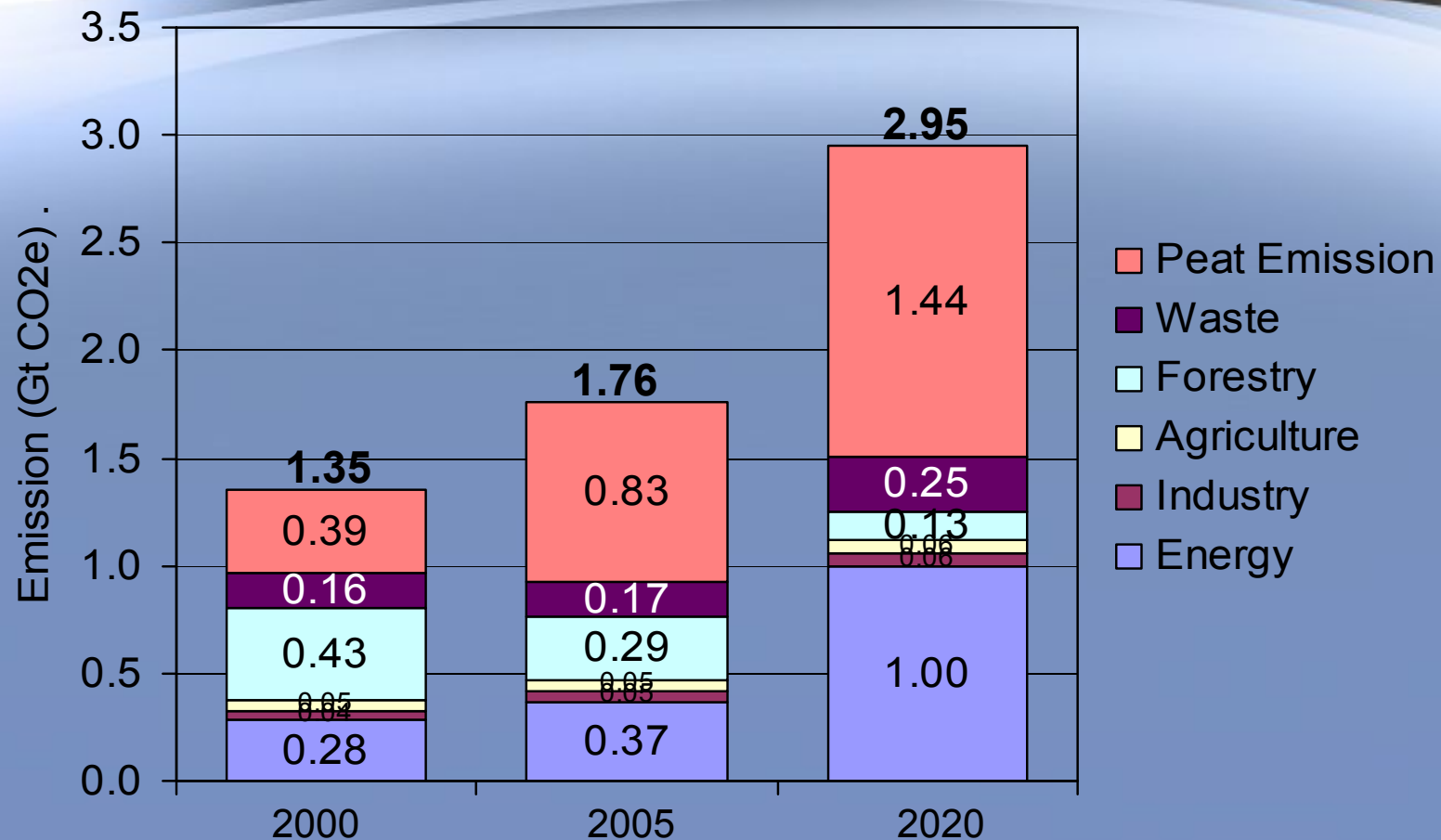
Table Summary for GHG Emission in 2000 (*Giga gram*)

	CO2 emission	CO2 removal	CH4	N2O	PFC	CO2e
Energy	247,522		1,437	10		280,938
Industry	40,342		104	0.43	0.02	42,815
Agriculture	2,178		2,419	72		75,420
LUCF	1,060,766	411,593	3	0.08		649,254
Peat Fire*	172,000					172,000
Waste	1,662		7,294	8		157,328
TOTAL	1,524,472	411,593	236,388	28,341		1,377,754



Indonesia Net Emission between year 2000 and 2020

(by projection it will be increased from 1.35 becomes 2.95 GtCO₂e)



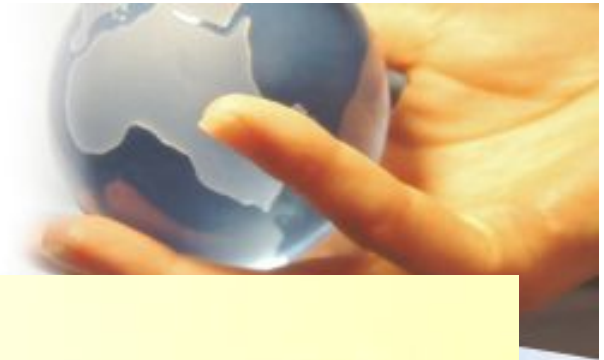
Key source categories are peat emission, forestry, energy and waste. Emission from peat fire was taken from van der Werf et al (2007). The figure in the charts did not include emission from liming and fertilizing

Action Plans for GHG Emission Reduction 26-41%



Sectors	Emission Reduction Target (Giga ton CO2e)		Action Plans	Responsible Institution
	26%	15% (total 41%)		
Forestry and Wetland	0.672	0,367	Forest and land fire management, water management, forest and land rehabilitation, industrial timber plantation, society forest, combating illegal logging, deforestation prevention, public empowerment	Min.of Forestry, MoE, Min.of Agriculture, Min.of Public Work
Waste	0.048	0.030	Sanitary landfill, 3R implementation, TPA, city integrated waste water management	Min.of Public Work, MoE
Agriculture	0.008	0.003	Low carbon varieties of <i>Paddy</i> introduction, water conservation, enhancement of organic fertilizer used, open land for plantation only in land without forest, critical land and land degradation. Implementation of open land without fire	Min.of Agriculture, MoE
Industry	0.001	0.004	Energy efficiency, renewable energy	Min.of Industry
Energy and Transportation	0.038	0.018	Biofuel, develop public transport and road quality and, higher standard for fuel efficiency, demand side management, energy efficiency, renewable energy development	Min.of Energy and Mineral Resources, Min.of Transportation, Min.of Public Work
	0.767	0.422		4

Background



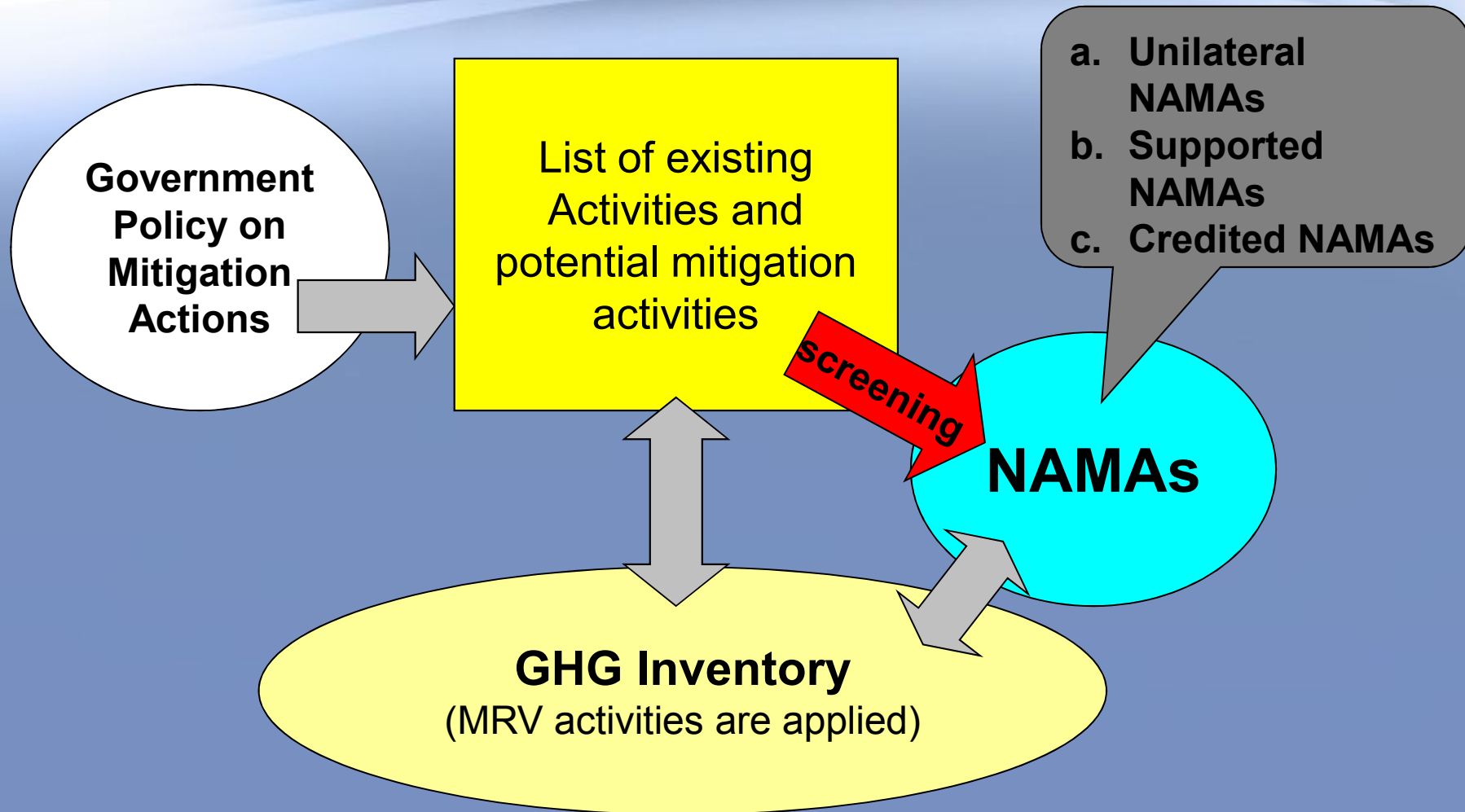
BALI ACTION PLAN (1 b ii)

Nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner;

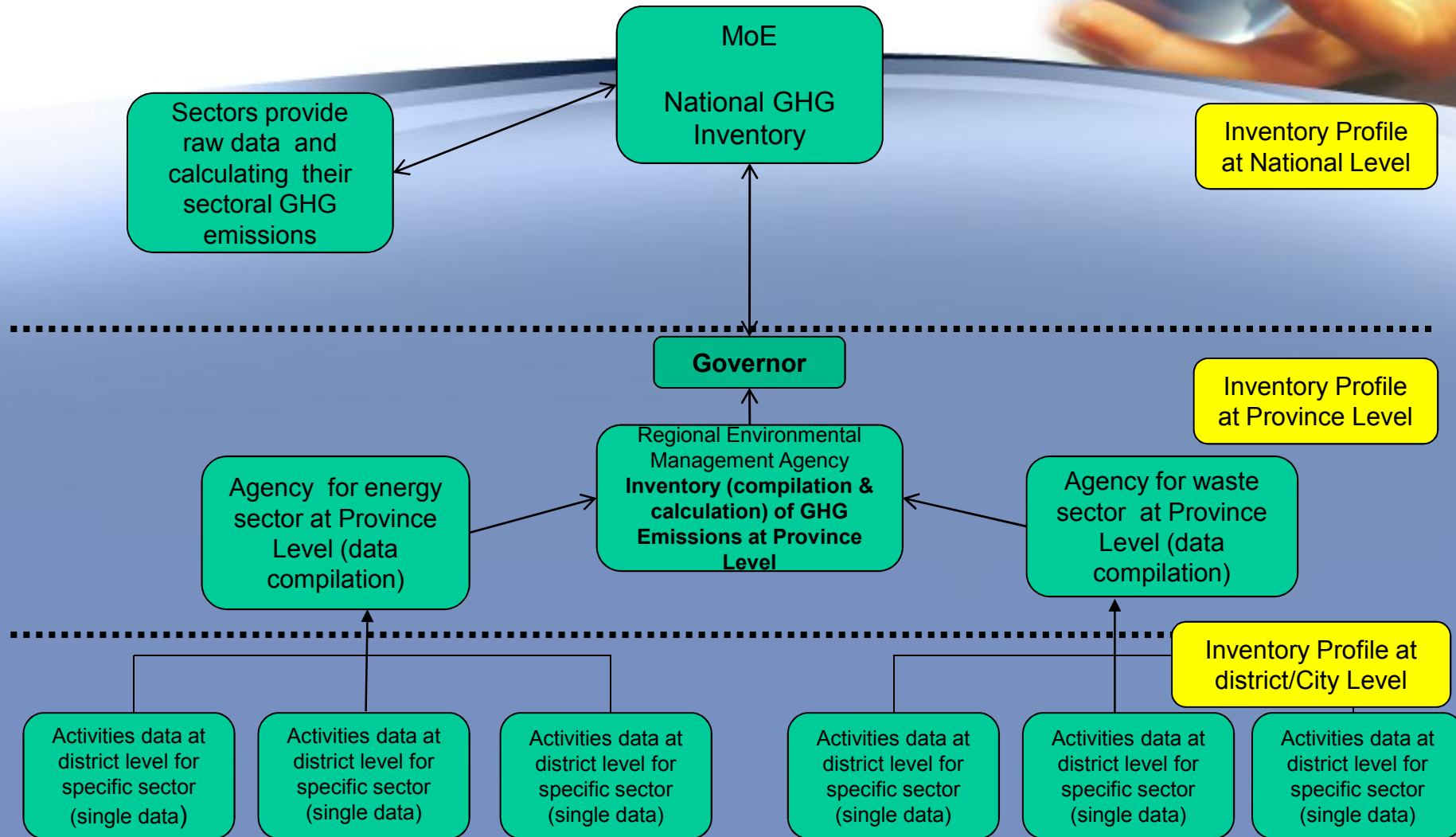
NATIONAL POLICY

- National GHG emissions reduction target of 26% below BAU emissions in the year 2020
- Act Number 32 year 2009, concerning Environmental Protection and Management: Government organizes the national GHG Inventory.


ROLE TO DETERMINE NAMAs



GHG Inventory Scheme



- Transmission of activities single data (eg energy, waste etc) from district/city to agency at province level.



Implementation of National GHG Inventory and GHG Emissions Reduction Calculation in a MRV manner

Objectives:

- Provides information about the level and status of national GHG emissions, in national, provinces and districts level that are continuously reported in a MRV manner.
- Provides information on projected future greenhouse gas emissions.
- Provides information on the achievement of GHG emission reductions through climate change mitigation activities



Measurable, Reportable dan Verifiable

Implementation of MRV by bringing forward the principles of Good Governance

Measurable:

- ✓ Mitigation activities to be undertaken can be calculated by measuring the level of GHG emission reductions compared to BAU.
- ✓ Calculations done with data gathered from the sector activity, the provincial governments and district governments

Example (1) :

Data collection from the domestic waste sector → categorizing activity data:

1. Type of garbage.
2. Waste composition.
3. Technology used.
4. Location (coordinates)
5. Mitigation Plan
6. Other supporting data.



Example (2):

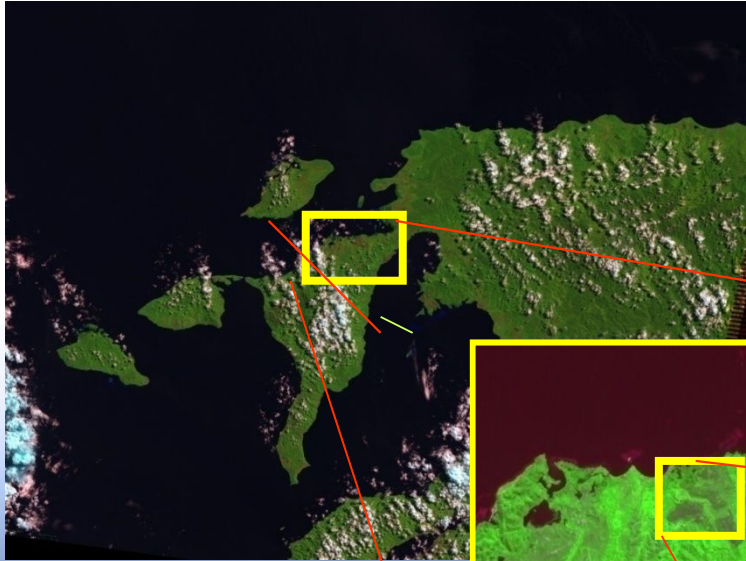
LULUCF sector activity data collection → categorizing activity data:

- 1.Land Management.
- 2.Land Use (HTI, Protected Forest, etc).
- 3.Data logging area.
- 4.Mitigation Plan (the rate of deforestation and planting)
- 5.Other supporting data.
- 6.Each required clarity of the location (coordinates)

Reportable: Reporting of mitigation activities carried out by sector, region and other stakeholders that include the level of emissions reduction and technology needs and funding for implementation of mitigation activities.

Verifiable: Perform verification between the original plan of activities both in terms of reduction targets, funding and technology needs as compared with the results of the implementation of mitigation activities.

CITRA SATELLITE UTILIZATION



Citra satellite LANDSAT
Resolution 30 meter



Citra satellite SPOT-4
Resolution 20 meter



Citra satellite IKONOS
Resolution 1 meter

- TIER 1 : CITRA LANDSAT (All areas in Indonesia)
- TIER 2 : CITRA SPOT (Changes monitoring)
- TIER 3 : IKONOS (Specific areas for factor emission calculation)

NATIONAL MRV CYCLE

GHG Emissions Inventory Data last two years and Projection of GHG Emissions for the next 10 years

National Mitigation Action Plan document and / or compiled by considering the priority areas of sectors and regions

Determining the status and level of GHG emissions from the implementation of mitigation
(MEASURABLE)

Verification of the achievement of GHG emission reduction by the Independent Institute / National Expert Panel / consultant
(VERIFIABLE)

The verification results are reported to MoE

NATIONAL REPORT OF IMPLEMENTATION OF MITIGATION AND REDUCTION ACHIEVEMENTS (MoE)
(REPORTABLE)

Report on achievement emissions target by 26% in 2020

Submitted by MoE

GHG NAP Team
Coordinated by
Ministry Coordinating
for Economic Affairs

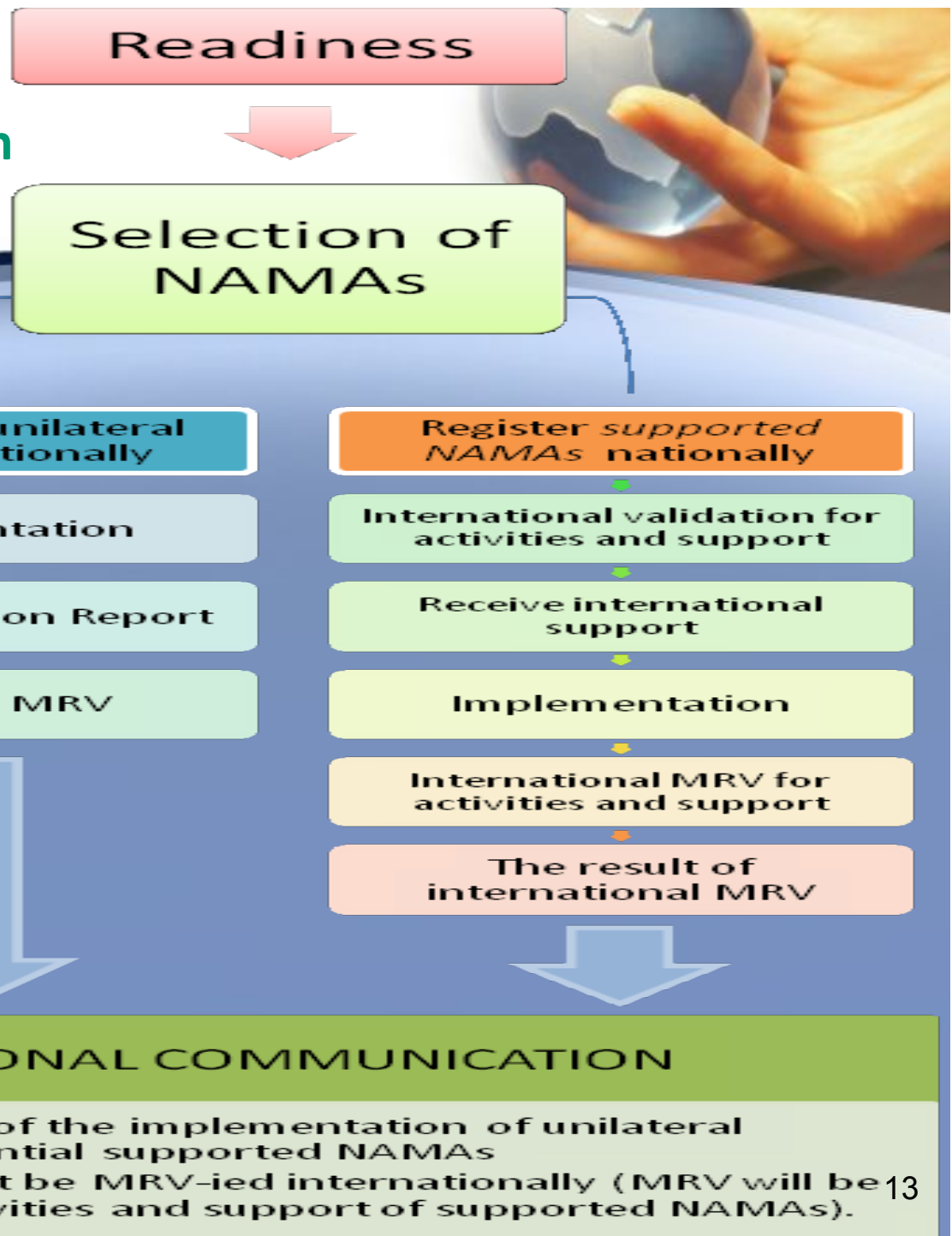
Biennial report and the status levels of GHG emissions

Part of NatCom

National Council for CC

UNFCCC₁₂

How Developing Countries lowering the carbon emission (Indonesia's Perspective)



Conclusion (1)



1. In preparing guidelines for implementation of GHG Emissions Inventory and MRV, we need:
 - a. Clear mechanism start from data collection until the preparation of reporting.
 - b. Coordination of data collection and distribution of authority
 - c. Financial support
2. Capacity Building for stakeholders to do the GHG emissions inventory and the implementation of the National MRV at the national, provincial and district /city level.
3. In carrying out MRV will required an accuracy data from all sectors (time, location/coordinate, carbon stock coefficient)
4. MRV for energy utilization requires data: Fossil fuels utilization as fuel combustion and fugitive emission
5. Defining sectors to be inventory which is synergized with international agreement and national circumstances.
6. GHG Inventory and MRV activities should be done based on consistency, transparency, and certainty principles.

Conclusion (2)



7. The 26% emission reduction target by 2020 could be achieved through:
- a. Sustainable peatland management
 - b. Reduction in rate of deforestation and land degradation
 - c. Development of carbon sequestration projects in forestry and agriculture
 - d. Promotion in energy efficiency
 - e. Development of alternative and renewable energy sources
 - f. Reduction solid and liquid waste
 - g. Shifting to low-emission transportation mode

Conclusion (3)



8. Indonesia has a number of 'promising' potential activities such as REDD implementation → Need International Cooperation for Technology Transfer such as Methodology for REDD monitoring; Capacity Building and Funding
9. Need to improve the way of communication between government and proponent
 - ✓ how to solve all problems raised by proponent
 - ✓ how to bring the issue to UNFCCC such as for methodology issues that keep changing
 - ✓ how will be the mechanism of crediting NAMAS as carbon offset
10. In compliance market with a fixed carbon price we should also consider to include social and other environmental standard such as biodiversity to be valued
11. Sustainable development toward low carbon development should be based on green economy strategy will be a solution for climate change issue.



Thank You

..... Save Our Earth

Further information:

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