

ONE GHG EMISSION DATA POLICY OF INDONESIA



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Outline:

- 1. Indonesian's NDC**
- 2. One GHG Emission Data Policy**
- 3. Documentation and Archievings**
- 4. Clossing**



I. Indonesian's NDC

Table 1. Projected BAU and emission reduction from each sector category

No	Sector	GHG Emission Level 2010*	GHG Emission Level 2030 (MTon CO ₂ e)			GHG Emission Reduction (MTon CO ₂ e)				Annual Average Growth BAU (2010-2030)	Average Growth 2000-2012*
			BaU	CM1	CM2	% of Total BaU					
		CM1				CM2	CM1	CM2			
1	Energy*	453.2	1,669	1,355	1,271	314	398	11%	14%	6.7%	4.50%
2	Waste	88	296	285	270	11	26	0.38%	1%	6.3%	4.00%
3	IPPU	36	69.6	66.85	66.35	2.75	3.25	0.10%	0.11%	3.4%	0.10%
4	Agriculture	110.5	119.66	110.39	115.86	9	4	0.32%	0.13%	0.4%	1.30%
5	Forestry**	647	714	217	64	497	650	17.2%	23%	0.5%	2.70%
	TOTAL	1,334	2,869	2,034	1,787	834	1,081	29%	38%	3.9%	3.20%

* Including fugitive

**Including peat fire

Notes: **CM1** = Counter Measure (*unconditional mitigation scenario*)

CM2 = Counter Measure (*conditional mitigation scenario*)

Nine Implementation Strategy of NDC

I. PENGEMBANGAN OWNERSHIP DAN KOMITMEN

- Kementerian/Lembaga, Pemda, Swasta, Masyarakat Sipil, Lembaga Keuangan

II. PENGEMBANGAN KAPASITAS

- Penguatan kelembagaan dan kapasitas SDM (elaborasi NDC_ sektor dan wilayah, KRP, IGRK, MRV, SRN, Implementasi NDC)

III. ENABLING ENVIRONMENT

- Peraturan-perundangan dan kebijakan terkait (UU No. 16/2016 ttg Ratifikasi Paris Agreement, PP. 46 /2016 ttg KLHS, dll)

IV. PENYUSUNAN KERANGKA KERJA DAN JARINGAN KOMUNIKASI

- Koordinasi dan sinergi antar sektor dan wilayah serta aktor/pelaku

One GHG Emissions Data Policy

VI. PENYUSUNAN KEBIJAKAN, RENCANA DAN PROGRAM (KRP) INTERVENSI

- Mainstreaming NDC ke dalam perencanaan pembangunan di 5 kategori sektor mitigasi dan adaptasi sektoral dan wilayah → untuk menjamin penganggaran (APBN –APBD) dan mobilisasi sumberdaya baik dari dalam negeri maupun internasional.

VII. PENYUSUNAN PEDOMAN IMPLEMENTASI NDC

- Pedoman untuk Pusat dan daerah (perencanaan, pelaksanaan, MRV, dan review NDC);

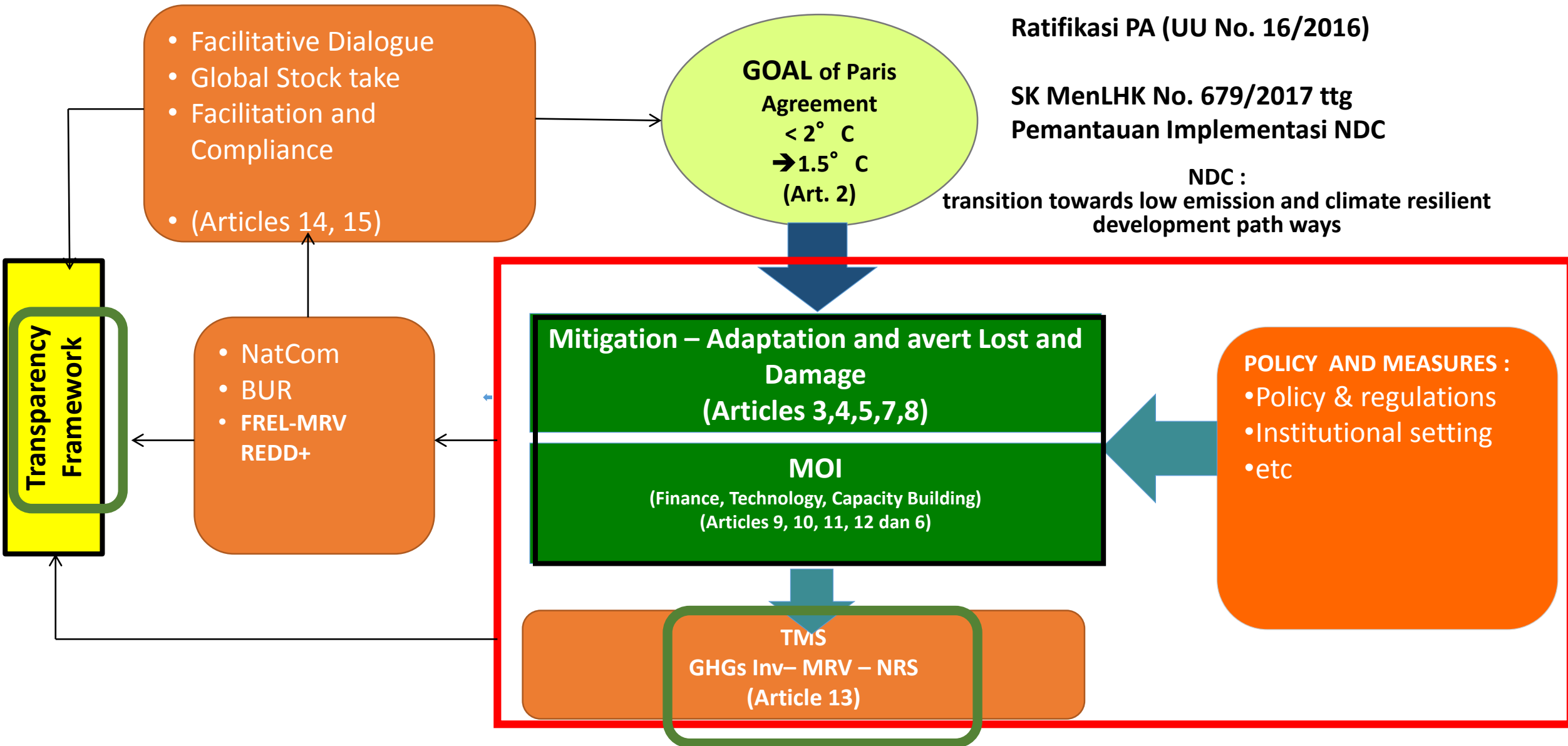
VIII. IMPLEMENTASI NDC

- Didasarkan pada hasil penyusunan KRP serta rencana implementasi NDC
- Dikoordinasikan oleh KLHK (terkait target pengurangan emisi dan kebijakan PI) dan BAPPENAS (terkait pembangunan nasional).

IX. PEMANTAUAN DAN REVIEW NDC

- Pemantauan progres implementasi NDC
- Menjelang tahun 2020 akan dilakukan review dan adjustment NDC bila diperlukan (tidak ada backsliding)

II. One GHG Emissions Data Policy



Objectives of One GHG Emission Data Policy

1. Data Accountability

- Data users can refer to standardized data information
- Acquired accuracy, details, upgrades and completeness of data

2. Data Integration

- Merging data from various custodian becomes easier
- Data can be consolidated and updated consistently
- The same data format makes it easy to pool data for different themes or subject matters

3. Effectiveness of Data Reporting

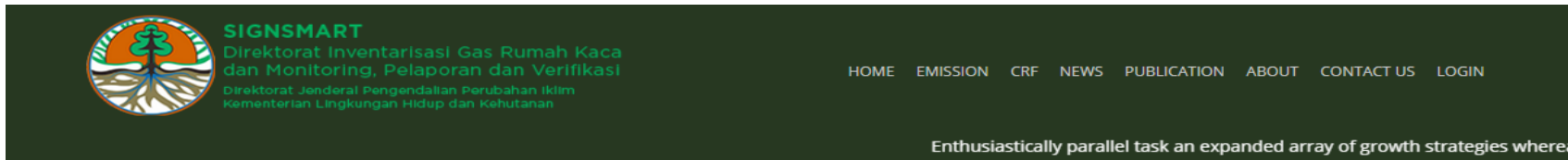
Improving effectiveness in the preparation of reports, both at national and international levels (NatCom and BUR) Data file format in line with the principles of open data reported periodically

Implementation Strategi for One GHG Emission Data Policy



III. DOCUMENTATION AND ARCHIEVINGSGHGs

- **SIGN SMART:** *Sistem Inventarisasi GRK Nasional Sederhana, Mudah, Akurat, Ringkas, Transparan* (National GHGs Inventory System – Simple, Easy, Accurate, Concise, Transparent)
- Web-based applications to support national, provincial, district / city GHG inventories



Status Emisi Gas Rumah Kaca Indonesia Tahun 2013 (Ton CO₂e)

ENERGI PERTANIAN KEHUTANAN LIMBAH



SWITCH LANGUAGE

Bahasa Indonesia

English

SIGN SMART LOGIN

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ARCHIVES

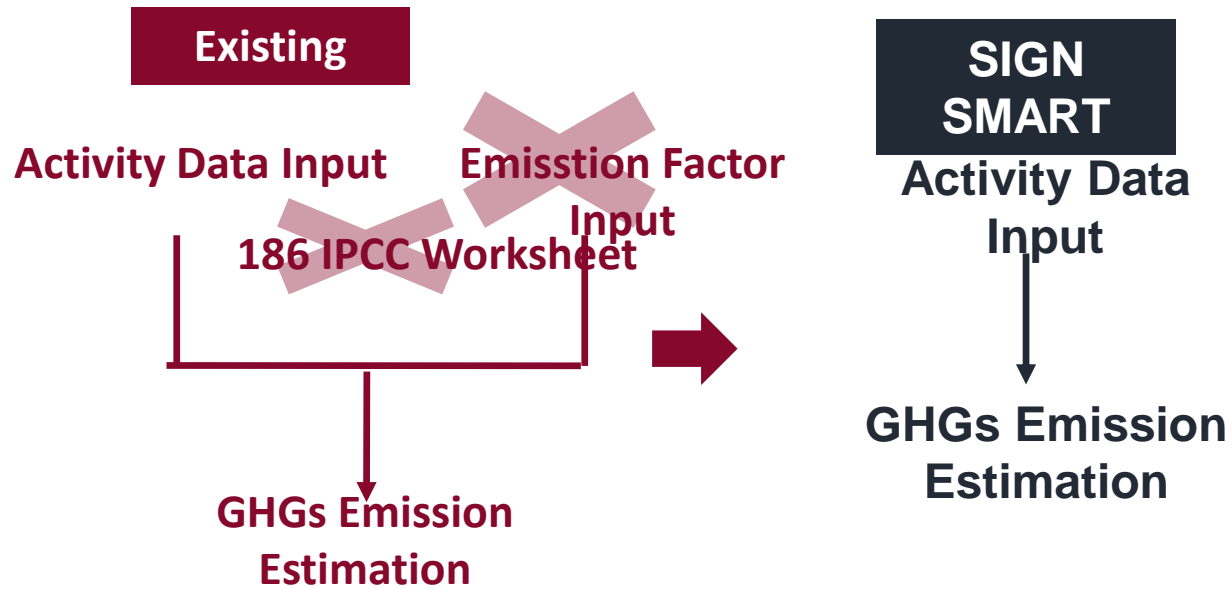
November 2015

SIGN SMART APLICATION



- Designed to support transparency, accuracy, consistency, and continuity (TACCC)
- Shorten the process of calculating GHG emissions
- Avoiding errors in input emission factors
- Web-based / online
- Data Input can be done offline & online
- Integration: databases, worksheets, graphics and images.
- Time series (2000 - 2014 etc)
- Digital data storage → resource savings
- Facilitate in data tracking → metadata facility

01. Simplifying the Step of Work (for 186 Worksheets and n years of inventory)



02. Storage and Distribution of databases electronically

Before SIGN-SMART

- The data base / print-shaped library is often not well archived.
- At the time of next year's inventory, the hassles to collect this library repeat.
- Difficulty in distributing top-down data to areas.

SIGN SMART

- Data base / library stored in data matrix.
- At the time of next year's inventory, the data matrix can be invoked, so that only the data updating.
- Top - down data is immersed in SIGN SMART

Simplification of Worksheets IPCC Guidelines 2006

Sector	Agriculture, Forestry and Other Land Use				
Category	Methane Emissions from Enteric Fermentation and Manure Management				
Category code	3A1 and 3A2				
Sheet	1 of 1				
Equation	Equation 10.19		Eq. 10.19 and 10.20	Equation 10.22	
Species/Livestock category	Number of animals	Emission factor for Enteric Fermentation	CH ₄ emissions from Enteric Fermentation	Emission factor for Manure Management	CH ₄ emissions from Manure Management
	(head)	(kg head ⁻¹ yr ⁻¹)	(Gg CH ₄ yr ⁻¹)	(kg head ⁻¹ yr ⁻¹)	(Gg CH ₄ yr ⁻¹)
		Tables 10.10 and 10.11	$CH_{4\text{ Enteric}} = N_{(T)} * EF_{(T)} * 10^{-6}$	Tables 10.14 - 10.16	$CH_{4\text{ Manure}} = N_{(T)} * EF_{(T)} * 10^{-6}$
T	N _(T)	EF _(T)	CH _{4 Enteric}	EF _(T)	CH _{4 Manure}
Dairy Cows					
Other Cattle					
Buffalo					
Sheep					
Goats					
Camels					
Horses					
Mules and Asses					
Swine					
Poultry					
Other ¹					
Total					

¹ Specify livestock categories as needed using additional lines (e.g. llamas, alpacas, reindeers, rabbits, fur-bearing animals etc.)

Data Collection - Key Activities

Activity Data Collection

- Statistics
- Remote Sensing

Emission Factor

- Low emissions: IPCC defaults
- Large emissions: local / specific emission factors

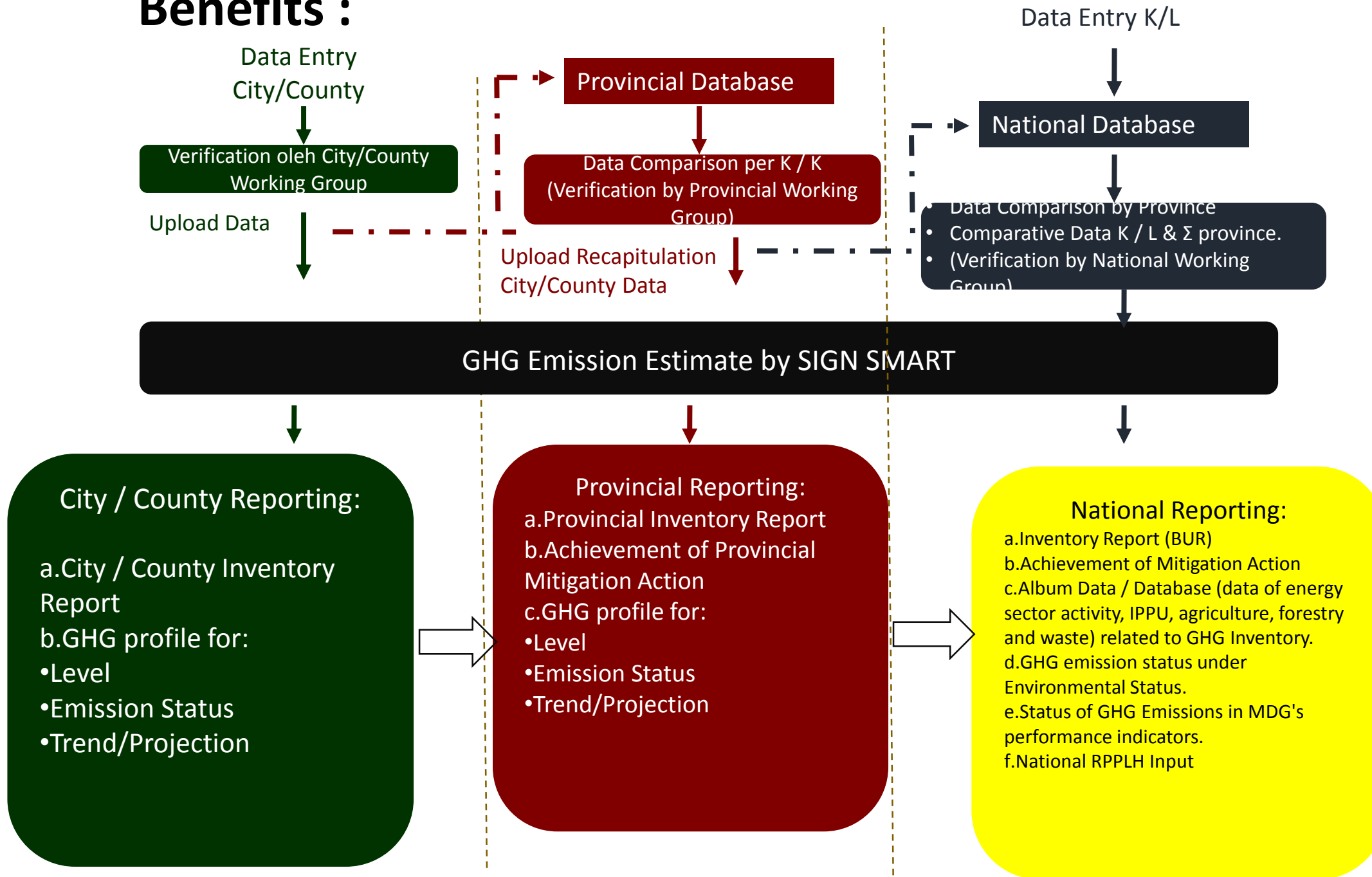
Consideration

- Consistent Time Series
- Uncertainty Analysis

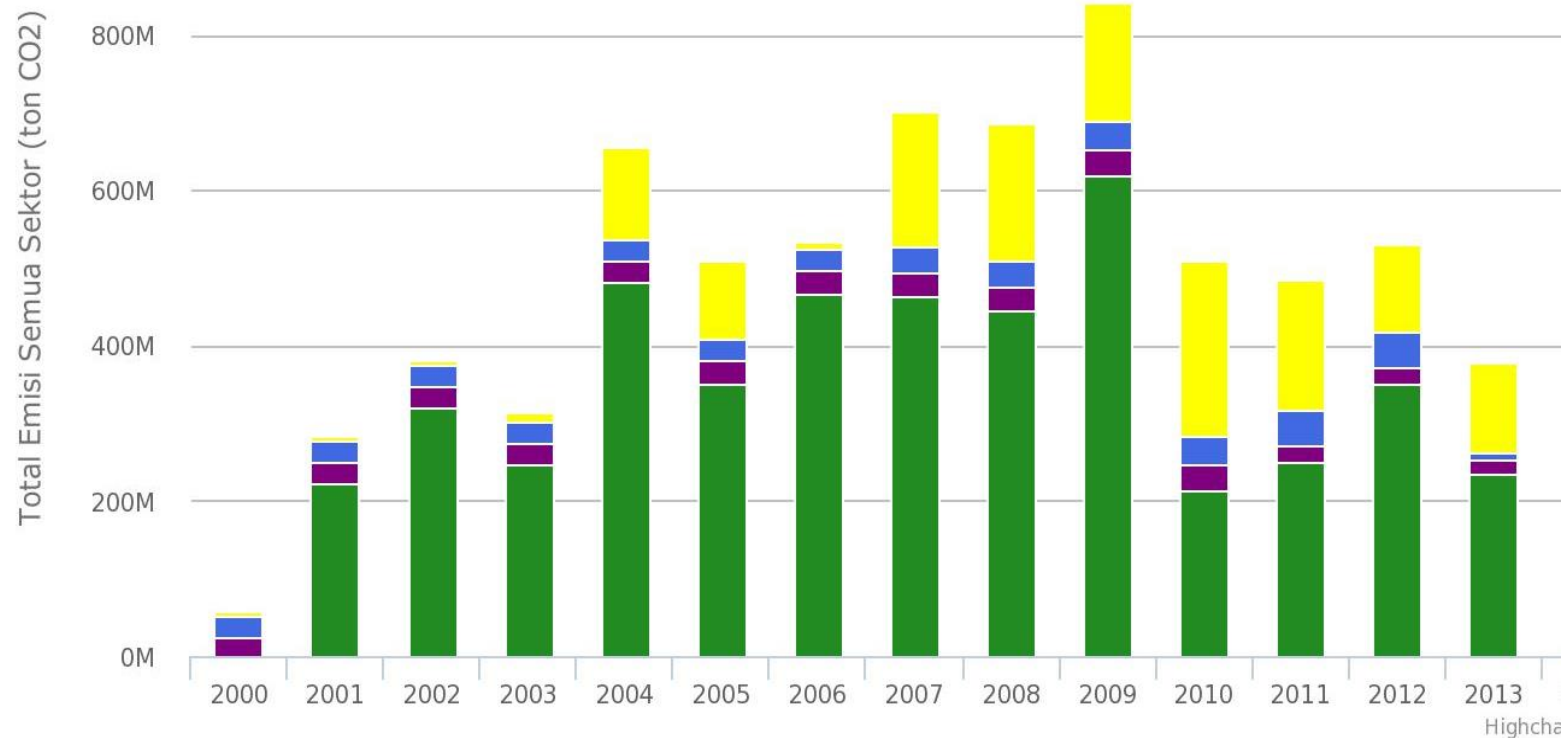
Specific data

- Measurement
- Model

Benefits :



Thousands
Worksheets->
550 Regency for
16 years data



Documentation:

Steps	Steps of Documentation	Descriptions
1.	Provide source/Sink category information	The information is stored in the form of metadata for each activity data inputted on SIGN-SMART
2.	Identify method choice and description	Described in national communication report or BUR
3.	List activity data	The information is stored in the form of metadata for each activity data inputted on SIGN-SMART
4.	List emission factors	Information is stored in the Emission Factor Data Base system
5.	List uncertainty estimates (optional)	-
6.	Provide any additional information	-
7.	Provide improvements to this analysis	All information on activity data, method selection, emission factor, uncertainty analysis etc. will be integrated in national GHG inventory system (SIGN-SMART)

Sources: template workbook of National GHG Inventory System, USAID and EPA on WGIA 15, 2017

Archiving:

Steps	Steps of Archiving	Descriptions
1.	Describe the existing archiving program and procedure	
a.	Previous Inventory	Archives in hard copies of documents used in GHG inventory
b.	Current inventory	<ul style="list-style-type: none">• Archives in hard copies of documents used in GHG inventory (not integrated with GHGs Inventory system)• Activity data are inputted in the GHG inventory system• Emission factor archives on the EFDB (include : source of file in pdf format)
2.	Provide the Archive System Plan	
a.	coordinator role and responsibilities	The Archiving Coordinator is responsible for ensuring that all filing procedures are performed for inventory and all supporting documents and spreadsheets are well maintained. The activity and spreadsheet data are stored in the GHG Inventory (SIGN-SMART) system. Responsible for filing system is Directorate of Inventory of GHG and MPV

Archiving: Continued ...

Steps	Steps of Archiving	Descriptions
b.	Archive Procedures	All documents are kept by each coordinator at the Directorate of GHG Inventory and MPV
c.	Overall Archive Procedures Checklist	Checklists are performed digitally on GHG Inventory (SIGN-SMART) systems. Information is stored in the form of metadata each activity data used in GHG inventory.
3.	Provide improvements to the inventory archive system	
a.	Archive System Task	The archiving system will continue to be enhanced with the digital archive system
b.	Potential Improvement	Integration of archives in a system of GHG inventory digitally

IV. Closing

1. Indonesia using IPCC Guideline 2006 and Supplement 2013, and worksheet already documented on SIGN SMART.
2. One Data GHG Emission Policy urgent and important to TACCC for National and International
3. Documentation and archiving should be Integrated on national system (SIGN SMART)
4. Indonesia Need Capacity Building to Improve GHG Inventory and MRV, including for documentation and archiving