

LMDC Informal Note on Methodological Issues under the Paris Agreement for Transparency

April 2021

Egypt on behalf of the Like-Minded Developing Countries (LMDC)

This informal note from the LMDC is without prejudice to the application of Rule 16 to transparency-related issues coming from COP25 in Madrid and does not affect the legal status and treatment of such issues under such Rule 16. This informal note is intended solely to provide the views of the LMDC in relation to the issues covered herein and furthermore does not prejudice any further views or submissions that the LMDC may have on the matters covered by this agenda item.

In this submission, we first would like to propose overall consideration on operationalizing the flexibility, and then provide specific views on development of common tabular format (CTF) for inventories, NDC and support.

I. Overall consideration

1. Views on operationalizing the flexibility

Paragraph 89 of Decision 1/CP.21 clearly states that developing country Parties shall be provided flexibility on scope, frequency, and level of detail of reporting. Therefore, when submitting reports and tables, developing countries Parties shall be provided flexibility on level of detail of reporting while following the modalities, procedure and guidelines (MPGs). Moreover, paragraph 92 (a) of decision 1/CP.21 requests that the MPGs to take into account the importance of improving reporting over time. Although the reporting tables are common, they shall not put limitations on the application of self-determined flexibility provided for the developing countries when reporting, which means that common tables come with flexibility options for those developing countries that need it in light of their capacities.

When reporting using common tables, the flexibility options provided for developing countries that need it in light of their capacities should include, inter alia:

- Being encouraged, rather than being required mandatorily, to report using the very detailed reporting tables, such as sectoral background data for GHG inventory;
- Having the option not to provide the table when the information is only encouraged to be provided under the MPGs (such as projections), instead of leaving the whole table blank;
- Being allowed to self-determine the option for applying flexibility including deleting the rows or columns containing information which only encouraged to be provided under the MPGs (such as types of greenhouse gases, projection year or estimates of expected and achieved GHG emissions reductions), instead of leaving the rows or columns blank;
- Developing countries could use a new notation key “FX” in specific cells when reporting the information in the common tabular format in accordance with the flexibility provisions in MPGs.

Examples for flexibility options that can be practiced by developing countries are shown below:

a. Less reporting of GHGs

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂	CH ₄	N ₂ O
Total Energy			
A. Fuel combustion activities (sectoral approach)			
1. Energy industries			
a. Public electricity and heat production			
b. Petroleum refining			
c. Manufacture of solid fuels and other energy industries			
2. Manufacturing industries and construction			
a. Iron and steel			
b. Non-ferrous metals			
c. Chemicals			
d. Pulp, paper and print			
e. Food processing, beverages and tobacco			
f. Non-metallic minerals			
g. Other (please specify)			
3. Transport			
a. Domestic aviation			
b. Road transportation			
c. Railways			
d. Domestic navigation			
e. Other transportation			

b. Less disaggregated level of data

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel combustion activities - sectoral approach
(Sheet 1 of 4)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS	
	Consumption		CO ₂ ⁽¹⁾	CH ₄	N ₂ O	CO ₂ ⁽¹⁾	CH ₄
	(TJ)	NCV/GCV ^(b)	(t/TJ)	(kg/TJ)		(kt)	
I.A. Fuel combustion	84120165.57	GCV				5185964.49	360.60
Liquid fuels	36127167.30	GCV	62.74	2.96	1.47	2266501.30	106.91
Solid fuels	15869025.35	GCV	90.50	1.00	2.41	1436083.41	15.90
Gaseous fuels	29623378.62	GCV	49.70	1.93	1.01	1472295.62	57.08
Other fossil fuels ^(d)	298703.29	GCV	37.11	0.01	3.47	11084.16	0.00
Peat ⁽⁵⁾	NO,NA	GCV	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA
Biomass ⁽⁶⁾	2201891.01	GCV	91.61	82.07	3.17		180.70
I.A.1. Energy industries	2595360.54	GCV				1900672.99	17.74
Liquid fuels	291158.49	GCV	81.27	0.42	0.21	23661.12	0.12
Solid fuels	14916643.41	GCV	90.54	0.57	2.48	1350478.40	8.57
Gaseous fuels	10472974.99	GCV	50.24	0.86	2.69	526125.24	8.99
Other fossil fuels ^(d)	57300.89	GCV	7.12	NA	NA	408.24	NA
Peat ⁽⁵⁾	NO,NA	GCV	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA
Biomass ⁽⁶⁾	257282.76	GCV	97.74	0.20	0.25	25145.72	0.05
a. Public electricity and heat production ⁽⁷⁾	22734884.79	GCV				1733365.19	14.97
Liquid fuels	271308.28	GCV	81.27	0.42	0.21	22047.98	0.12
Solid fuels	14844752.64	GCV	90.54	0.57	2.48	1343969.77	8.53
Gaseous fuels	7304240.23	GCV	50.24	0.86	2.69	366939.21	6.27
Other fossil fuels ^(d)	57300.89	GCV	7.12	NA	NA	408.24	NA
Peat ⁽⁵⁾	NO,NA	GCV	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA
Biomass ⁽⁶⁾	257282.76	GCV	97.74	0.20	0.25	25145.72	0.05
I.A.1.a.i. Electricity Generation	22734884.79	GCV				1733365.19	14.97
Liquid Fuels	271308.28	GCV	81.27	0.42	0.21	22047.98	0.12
Solid Fuels	14844752.64	GCV	90.54	0.57	2.48	1343969.77	8.53
Gaseous Fuels	7304240.23	GCV	50.24	0.86	2.69	366939.21	6.27
Other Fossil Fuels	57300.89	GCV	7.12	NA	NA	408.24	NA
Peat	NO	GCV	NO,NA	NO	NO	NO	NO
Biomass	257282.76	GCV	97.74	0.20	0.25	25145.72	0.05

c. No need to report non-mandatory tables

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES AND PRODUCT USE - EMISSIONS OF HFCs, PFCs, SF₆ AND NF₃
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-1bumer	HFC-125	HFC-134	HFC-134a	HFC-143	HFC-143a	HFC-152	HFC-152a	HFC-161	HFC-227ea	HFC-236eb	HFC-236ea	HFC-236fa	HFC-245cb	HFC-245cb
	(g) ⁽³⁾																	
Total actual emissions of halocarbons (by chemical) and SF ₆	45.89	472.58	NO	NO	1061.02	2.71	2966.14	NO	658.99	NO	108.39	NO	31.63	NO	NO	4.50	NO	123.35
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9. Fluorochemical production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
By-product emissions	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Fugitive emissions	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry																		
3. Aluminium production																		
4. Magnesium production																		
7. Other																		
E. Electronics industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1. Integrated circuit or semiconductor																		
2. TFT flat panel display																		
3. Photovoltaics																		
4. Heat transfer fluid																		
5. Other (as specified in table 2(I))	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Product uses as substitutes for ODS⁽²⁾	45.89	472.58	NO	NO	1061.02	2.71	2966.14	NO	658.99	NO	108.39	NO	31.63	NO	NO	4.50	NO	123.35
1. Refrigeration and air conditioning	44.84	461.79			1036.79	2.65	2898.42		643.95		105.92		30.91			4.40		120.54
2. Foam blowing agents	0.06	0.64			1.44	0.00	4.94		0.90		0.15		0.04			0.01		0.17
3. Fire protection	0.23	2.35			3.27	0.01	14.72		3.27		0.54		0.16			0.02		0.61
4. Aerosols	0.46	4.78	NO	NO	10.73	0.03	30.00	NO	6.66	NO	1.10	NO	0.32	NO	NO	0.05	NO	1.25
5. Solvents	0.29	3.02			6.78	0.02	18.96		4.21		0.69		0.20			0.03		0.79

d. flexibility to choose different options

TABLE 3 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂	CH ₄
	3. Total agriculture	8842.31
I. Livestock		9312.01
A. Enteric fermentation		6661.43
1. Cattle ⁽¹⁾		6430.03
Option A:		
Dairy cattle		
Non-dairy cattle		
Option B:		
Mature dairy cattle		
Other mature cattle		
Growing cattle		
Option C (country-specific):		
Other (as specified in table 3(I).A)		6430.03
Dairy Cattle		1705.70
Non-Dairy Cattle		4724.33
Steer Stocker		IE
Heifer Stocker		IE
Beef Cows		IE
Dairy Replacements		IE
Beef Replacements		IE
Steer Feedlot		IE
Heifer Feedlot		IE
Bulls		IE
Dairy Cows		IE
2. Sheep		42.24
3. Swine		102.29
4. Other livestock		86.87

All of the above should be consistent with the appropriate legal requirement (shall, should, encouragement, etc.) as defined in the MPGs. All above tables are examples of how to operationalize flexibility in reporting. However, this does not mean that these tables are mandatory for reporting. Only when a party opts for reporting non-mandatory tables, the proposed examples for applying flexibility can be used.

II. Tables for greenhouse gas inventory

Developing countries were required to only provide summary tables in the past, which is significantly different than developed countries who have been using detailed CRF tables for more than 20 years. Till now, developing countries generally still lack sufficient capacity to provide detailed reporting. Respecting this fact, the requirements for developing countries should be undertaken in a progressive manner, and provide time for developing countries to first use general and easy tables and then move to more detailed and difficult ones over time. In the meantime, capacity building for developing countries in reporting tables or using reporting tools and support for implementation of the required infrastructure to be able to use such complicated tables should be provided to accelerate this process.

Based on current practice, the common tabular formats for inventory could include the following: summary tables, cross-cutting tables, sectoral summary tables and sectoral background tables. When reporting, each Party shall provide summary tables and cross-cutting tables (see Annex 1 of this submission for the suggested table formats), provided that developed country Parties will continue to use the CRF tables for their sectoral reporting. Additionally, some tables, such as tables for indirect gases, should not be mandatory. And due to the fact that developing countries are lacking capacities in reporting sectoral background tables, flexibility should be provided for developing countries in reporting sectoral summary and background tables.

III. Common tabular format tables for tracking progress in implementing and achieving nationally determined contributions

Paragraph 77 of MPGs clearly asks each Party to provide the information in a structured summary to track progress of NDC. The format of structured summary should be decided by the Party, including using graphs, tables, textual description, or referring to some paragraphs or parts in the BTR in a structured manner. The key is to effectively display the progress of self-determined indicators, so the formats of display should be in accordance with the types of indicators.

An example for a structured summary for tracking progress of NDC in a narrative format is given below:

Consider a policies and measures type of NDC where the target is the implementation of a four-phase fuel subsidy removal policy in the energy sector. The structured summary for tracking progress to achieve such NDC when reporting in 2026 in a narrative format can be as follows:

Qualitative Indicator (para 66)

Implementation Phase (I, II, III, IV)

Starting Point (Para 67)

No Subsidy Removal Policy in 2020

Most Recent Information in 2026 (Para 68)

Phase II implemented

Comparison Against Starting Point (Para 69)

2 Phases of the subsidy removal policy have been implemented in 2026 compared to no policy in 2020

For End Year (para 70)

Phases 1 to IV have been implemented – Target Achieved

The table of policies and measures have reached some preliminary consensus during SBSTA 50. The non-mandatory provisions in MPGs, such as paragraph 83 (a)-(c), or expected and achieved GHG emissions reductions for developing countries under paragraph 85, should be considered differently when developing the tables so that Parties can choose to include or not include those columns when using the table to report.

Regarding the table of projection, since developing countries have flexibility in reporting this information or in reporting years and methodologies, developing countries should be allowed to not report this table or adjust the rows or columns if they wish to report.

IV. Tables for reporting on support provided and mobilized, and support needed and received

For information on support provided or mobilized, common reporting tables should be designed in accordance with paragraph 123, 124, 125, 127, and 129 of MPGs. Developed countries should continue to provide the information as required in 19/CP.18 and 9/CP.21 in addition to other information required in the MPGs, and to provide additional information in documentation box as required in paragraph 121 of MPGs. The principle of no-backsliding shall be respected in the design of these tables, as well as the aim of promoting transparency, comparability and avoiding double counting. Similarly, all the information contained in the paragraphs referred to above should be a part of the reporting tables, as decision 18/CMA.1 dictates.

The following are specific comments related to the tables for FTC support:

- All support reported in the tables to be developed under this agenda item should be limited to climate finance only, therefore, projects that do not calculate climate related results or indicators and hence, have no knowledge of their impact on national or global climate objectives should not be reported.
- In the case where a project has a climate component or is partially a climate change endeavour, it should only report a proportional value of its support as climate relevant, in line with agreed upon methodologies and considerations for the issue, therefore avoiding an overestimation of climate finance because it would not be consistent with the climate results that those investments would report.

- Just as support needed and received has information at the project level and includes use, impact and estimated results so should reporting on support provided and mobilized. This should be a column added for each activity in all the relevant tables.
- Information on year is needed in all tables, the most practical would be for it to be on the title of the table and have that table include only data from that year. If data is available for another year, it should be reported in a different table. When information includes several years, it should only be reported once, or a portion corresponding to that year should be included only.
- There should be a footnote under amount, clarifying that the reporting of grant equivalency is voluntary
- On the table related to paragraph 123 of MPGs:
 - The first column should read recipient country or region and have a footnote clarifying that region should be reported when data at country level is not available. As it stands, it seems a prerogative between region or country. Our understanding is that when region is reported, country information is non-existent, and therefore, the underlying assumptions section of the report should explain why this is the case.
 - Under funding source and under financial instrument, there should be a parenthesis next to "other" saying (please specify).
- On the table related to paragraph 124 of MPGs:
 - The column of recipient is open to interpretation, and it seems as if the name of the project is enough when it would be meaningless without recipient countries included. A footnote explaining that the categories detailed below should be considered but that recipient countries should always be reported would be useful.
 - Under funding source and under financial instrument, there should be a parenthesis next to "other" saying (please specify).
- On the table related to paragraph 125 of MPGs:
 - This paragraph refers only to support mobilized through public interventions and therefore this table should not include support provided. This is reported in the previous three tables.
- On tables relating to paragraphs 127 and 129, recipient country is needed, otherwise, information is incomplete.

In this submission, we also would like to share some experience on using tables in reporting support needed and received in developing countries' BURs. For example, in China's second BUR, there are four tables in reporting financial support received including Financial Support Received by China within the Financial Mechanism under the Convention, Grants Received by China from Multilateral Institutions, Concessional Loans Projects Received by China from Multilateral Institutions, Supports Secured by China from Bilateral Cooperation Programs for Addressing Climate Change. Each table similarly includes four columns: project name, finance source, project amount, and project cycle, as shown below:

Table 4-1 Financial Support Received by China within the Financial Mechanism under the Convention (10,000 dollars)

	Project Name	Finance Source	Project Amount	Sub-project Cycle
1	Joint Demonstration Project of Fuel Cell Vehicles of China	GEF	823	2016-2020
2	Project on Advancing Transformation of Semiconductor Lighting Market and Promoting Energy-saving and Environment-friendly New Light Sources	GEF	624	2016-2020
3	Demonstration Project on Cooperation of Green Logistics Platforms of Zhejiang	GEF	291	2016-2020
4	Promote the Project to Develop Clean, Green and Low-carbon City of China through International Cooperation	GEF	200	2016-2017
			

Table 4-2 Grants Received by China from Multilateral Institutions (10,000 dollars)

	Project Name	Finance source	Finance Amount	project Cycle
1	Strengthening Capacity in the Implementation of the Green Financing Platform for the Greater Beijing-Tianjin-Hebei Region	ADB	50	2016-2018
2	Promoting Partnerships for South-South Cooperation	ADB	40	2015-2019
3	Developing Cost-Effective Policies and Investments to Achieve Climate and Air Quality Goals in the Beijing-Tianjin-Hebei Region	ADB	83	2016-2018
4	Shaanxi Energy Efficiency and Environment Improvement	ADB	60	2015-2016

	Financing Program			
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Table 4-3 Concessional Loans Projects Received by China from Multilateral Institutions (million dollars)

	Project Name	Finance Source	Finance Amount	Project Cycle
1	Ningbo Sustainable Urbanization Project	WB	150	2016-2021
2	Hebei Air Pollution Control Project	WB	500	2016-2018
3	Huaxia Bank Air Pollution Control Project	WB	500	2016-2022
4	Hebei Clean Heating Demo Project	WB	100	2016-2021

Table 4-4 Supports Secured by China from Bilateral Cooperation Programs for Addressing Climate Change (10,000 dollars)

	Project Name	Finance Source	Finance Amount	Project Cycle
1	Sino-Swiss Low Carbon Cities Project	Switzerland	693	2015-2019
2	EU-China Emission Trading Capacity Building Project	European Union	534	2014-2017
3	Europe-China Eco-Cities Link (EC-LINK) Project	European Union	999	2014-2017
4	Chongqing & Guangdong Low-Carbon Product Certification Project	European Union/ UNDP	96	2013-2014

In addition, China also included tables of prioritized mitigation and adaptation technology needs, as shown below:

Table 4-5 List for Prioritized Mitigation Technology Needs

Sectors/ Industries	Technology type	Core technology and description
	1,000 MW high-parameter & large-capacity	Design and manufacturing of associated boilers and steam turbines: the main technical equipment includes high-parameter and large-capacity ultra super critical boilers and steam turbines. Boilers can provide high-

Energy	ultra super critical power generation technology	efficiency working substance with steam pressure higher than 30 MPa and temperature higher than 620 °C.
	Combined gas and steam cycle power generation technology (150 MW level)	Key components including high-temperature components, controlling systems and rotors: the power generation system adopts lower heating value (LHV) gas in a combined cycle power plant (CCPP), such byproduct gases as those from blast furnaces of iron and steel enterprises are transferred through the iron and steel energy pipe network, purified with a dust collector, pressurized, and mixed with the air that is purified with air filter and pressurized, before entering into the combustion chamber of the gas turbine for mixed combustion; high temperature & high pressure flue gas expands and works in the gas turbine, drives the air compressor and the generator for single-cycle power generation.
	Shale gas development technology	Equipment and technology in shale gas development: CO ₂ -ESGR technology refers to the injection of CO ₂ , which features great flowing through shale reservoir pores and better absorption into shale matrix, into the shale reservoir to expel and replace shale gas. The technology not only improves shale gas yield and daily production, but stores CO ₂ in the reservoir.
	Nuclear power generation technology	By research and development of the large forgings for key nuclear power equipment and key parts, such key technology for the melting, forging, machining and bending of large stainless steel forgings are to be grasped.
	Steam turbine systems retrofit	Advanced steam turbine design (including blade profile and stage number) is employed to improve the structure of the steam turbine, the tightness of its cylinders and its efficiency.
	

Table 4-6 Demand List for Prioritized Adaptation Technologies Needs

Industries	Sub-industry	Core technology and description

	Agricultural Water-saving Technology	Degradable mulch production technology: degradable moisture conservation materials include photo degradable and biodegradable mulch. Degradable mulch is mainly used to raise the ground temperature, store water and conserve moisture, reduce the evaporation of soil water, improve the physico-chemical properties of soil, suppress weeds and increase plant photosynthetic efficiency, thus improving the survival rate of afforestation and promoting the growth of saplings.
	Selection and breeding of stress resistant agricultural varieties	Technologies including insect-resistant cotton, illness-resistant rice, scab-resistant wheat and drought-resistant wheat and corns: These technologies are about designing and building new varieties with specific traits by virtue of identified genes. For example, the toxin genes of resisting <i>helicoverpaarmigera</i> can be implanted into the genome of cotton seeds to produce cotton with insect resistance. Peasants can apply less pesticide or none while planting the variety of cotton, which not only protects the environment but also increases peasants' income.
Agricultural Forest and Ecological Environment	Forestry ecosystem	Develop climate-adaptive measures on forest management by applying landscape disturbance model LANDIS-II, and set different adaptive forest management plans for forest felling and fell application: (1) Scale control measure. Form gaps in different spatial position and scales by felling, with the purpose of diversifying the stand age structure and species and improving the forest's resistant to climate change (2) Stand age control measure. Fell the mature stands to boost and accelerate their update on the progress towards climax, so as to improve the forest's resistance to influences brought by climate change. (3) Composition Control Measure: Decide whether a variety is felled or retained based on its responses to climate change and the simulated result of management value. (4) Forest management technologies considering both forest products and service supply ability: Apply the process-based forest model LandClim to analyse the forest dynamic and its goods and services function under different climate change and management scenarios, the intrinsic connection between wood production and forest diversification as well as the most valuable capability for goods and services

	Water Source Engineering Construction	Solar photovoltaic water lifting, irrigation and water saving technology: photovoltaic water lifting is about converting the solar radiant energy into electric energy which drives water pump for irrigation. Solar photovoltaic water lifting system is comprised of photocell, controller and solar photovoltaic water pump.
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Annex I: Suggested format for GHG inventory tables

I. Summary tables of GHG sources and sinks

1. Mandatory gases (in kt)

The row of this table (as shown in the left column) was designed in accordance with IPCC categories, as energy sector use three-level titles and other sectors use two-level titles. The columns are mandatory gases in accordance with the provisions of MPGs, including the flexibility provisions provided for developing countries, as shown below:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES ¹	CO ₂	CH ₄	N ₂ O
Total national emissions and removals				
1. Energy				
A. Fuel combustion				
1. Energy industries				
2. Manufacturing industries and construction				
.....				
B. Fugitive emissions from fuels				
.....				

C. CO ₂ Transport and storage				
2. Industrial processes and product use				
.....				
3. Agriculture				
.....				
4. Land use, land-use change and forestry				
.....				
5. Waste				
.....				
6. Other (please specify)				
Memo items:				
.....				

2. Mandatory gases (in CO₂eq)

¹ In accordance with paragraph 48 of MPGs, developing countries Parties shall be provided for flexibility in reporting gases.

The row of this table (as shown in the left column) was designed in accordance with IPCC categories, as energy sector use three-level titles and other sectors use two-level titles. The columns are mandatory gases in accordance with the provisions of MPGs, including the flexibility provisions provided for developing countries, as shown below:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES ²	CO ₂	CH ₄	N ₂ O	...	Total
Total national emissions and removals					
1. Energy					
A. Fuel combustion					
1. Energy industries					
2. Manufacturing industries and construction					
.....					
B. Fugitive emissions from fuels					
.....					
C. CO ₂ Transport and storage					
2. Industrial processes and product use					
.....					
3. Agriculture					
.....					
4. Land use, land-use change and forestry					
.....					
5. Waste					
.....					
6. Other (please specify)					
Memo items:					
.....					
Total CO ₂ equivalent emissions without land use, land-use change and forestry					
Total CO ₂ equivalent emissions with land use, land-use change and forestry					

3. Indirect gases and precursor gases³

The row of this table (as shown in the left column) was designed in accordance with IPCC categories, as energy sector use three-level titles and other sectors use two-level titles. The columns are indirect gases and precursor gases in accordance with the provisions of MPGs, as shown below:

GREENHOUSE GAS SOURCE AND SINK	NO _x	CO	NMVO	...
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² In accordance with paragraph 48 of MPGs, developing countries Parties shall be provided for flexibility in reporting gases.

³ In accordance with paragraph 51 and 52 of MPGs, indirect gases and precursor gases are not mandatory requirements for all Parties.

CATEGORIES			C	...
Total national emissions and removals				
1. Energy				
A. Fuel combustion				
1. Energy industries				
2. Manufacturing industries and construction				
.....				
B. Fugitive emissions from fuels				
.....				
C. CO ₂ Transport and storage				
2. Industrial processes and product use				
.....				
3. Agriculture				
.....				
4. Land use, land-use change and forestry				
.....				
5. Waste				
.....				
6. Other (please specify)				
Memo items:				
.....				

4. Emission trend

The row of this table (as shown in the left column) was designed in accordance with IPCC categories, as energy sector use three-level titles and other sectors use two-level titles. The columns are years of emission trends in accordance with the provisions of MPGs and each gas should be reported in one table (including total emissions), as shown below:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Year 1	Year 2	Most recent year
Total national emissions and removals				
1. Energy				
A. Fuel combustion				
1. Energy industries				
2. Manufacturing industries and construction				
.....				
B. Fugitive emissions from fuels				
.....				
C. CO ₂ Transport and storage				

2. Industrial processes and product use				
.....				
3. Agriculture				
.....				
4. Land use, land-use change and forestry				
.....				
5. Waste				
.....				
6. Other (please specify)				
Memo items:				
.....				

II. Cross-cutting tables

1. Methodologies and emission factors

This table is used to report methodologies and emission factors used.

The methodologies should be reported using following notation keys: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T2 (IPCC Tier 2), T3 (IPCC Tier 3), CS (Country Specific), M (model), CR (CORINAIR), OTH (Other).

The emission factors should be reported using following notation keys: D (IPCC default), CS (Country Specific), M (model), CR (CORINAIR), OTH (Other).

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂	
	Method applied	Emission factor		
Total national emissions and removals				
1. Energy				
A. Fuel combustion				
1. Energy industries				
2. Manufacturing industries and construction				
.....				
B. Fugitive emissions from fuels				
.....				
C. CO ₂ Transport and storage				
2. Industrial processes and product use				
.....				
3. Agriculture				

.....				
4. Land use, land-use change and forestry				
.....				
5. Waste				
.....				
6. Other (please specify)				

2. Key categories

This table is used to list all key categories by level or trend assessment, as L represents level assessment and T represents trend assessment:

KEY CATEGORIES OF EMISSIONS AND REMOVALS	Ga s	Criteria (L/T)	Key category excluding LULUCF	Key category including LULUCF
Key category 1	Ga s	L	√	
.....				

3. Recalculations

The row of this table (as shown in the left column) was designed in accordance with IPCC categories, as energy sector use three-level titles and other sectors use two-level titles. The columns are gases which have been recalculated by Parties, as shown below:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂					
	Previous submission	Latest submission	Difference	Difference(1)	Impact of recalculation on total emissions excluding LULUCF(2)	Impact of recalculation on total emissions including LULUCF(3)
	CO ₂ equivalent (kt)			(%)		
1. Energy						
A. Fuel combustion						
1. Energy industries						
2. Manufacturing						

industries and construction						
.....						
B. Fugitive emissions from fuels						
.....						
C. CO2 Transport and storage						
2. Industrial processes and product use						
.....						
3. Agriculture						
.....						
4. Land use, land-use change and forestry						
.....						
5. Waste						
.....						
6. Other (please specify)						
Memo items:						
.....						

III. Sectoral tables for sources and sinks

These are tables that could be used by developing countries as appropriate in light of their capacities and in the exercise of their flexibility. Developed countries should continue to use the CRF Tables that they have been using for purposes of reporting under the Convention and the Kyoto Protocol.

1. Mandatory gases

The row of this table (as shown in the left column) was designed in accordance with IPCC categories, as energy sector use four-level titles and other sectors use three-level titles. The columns are mandatory gases (need to be reported in both kt and CO₂eq) in accordance with the provisions of MPGs, including the flexibility provisions provided for developing countries, as shown below as an example for the energy sector:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES ⁴	CO ₂	CH ₄	N ₂ O
Total Energy			
A. Fuel combustion activities (sectoral approach)			
1. Energy industries			
a. Public electricity and heat production			
.....			
2. Manufacturing industries and construction			
a. Iron and steel			
.....			
3. Transport			
a. Domestic aviation			
.....			
B. Fugitive emissions from fuels			
1. Solid fuels			
a. Coal mining and handling			
.....			
C. CO ₂ Transport and storage			
1. Transport of CO ₂			
.....			
Memo items:(1)			
.....			

2. Indirect gases and precursor gases

The row of this table (as shown in the left column) was designed in accordance with IPCC categories, as energy sector use four-level titles and other sectors use three-level titles. The columns are indirect gases and precursor gases in accordance with the provisions of MPGs, as shown below:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES ⁵	NO _x	C O	NMVO C
Total Energy			
A. Fuel combustion activities (sectoral approach)			

⁴ In accordance with paragraph 48 of MPGs, developing countries Parties shall be provided for flexibility in reporting gases.

⁵ In accordance with paragraph 51 and 52 of MPGs, indirect gases and precursor gases are not mandatory requirements for all Parties.

1. Energy industries			
a. Public electricity and heat production			
.....			
2. Manufacturing industries and construction			
a. Iron and steel			
.....			
3. Transport			
a. Domestic aviation			
.....			
B. Fugitive emissions from fuels			
1. Solid fuels			
a. Coal mining and handling			
.....			
C. CO ₂ Transport and storage			
1. Transport of CO ₂			
.....			
Memo items:(1)			
.....			