

Key findings from MLP exercises

Mutual Learning Program for Enhanced Transparency (MLP) on Reporting mitigation actions under Article 13

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In cooperation with Ministry of Environment and Forestry on Indonesia, Pollution Control Department of Thailand, Ministry of Environment of Japan, Mitsubishi UFJ Research and Consulting

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Outline

- Mutual Learning Program (MLP) exercise
- MLP participants in FY 2021
- General schedule of the MLP
- Key findings from the MLP exercise
- Group discussion guidance

Overview of MLP exercise

Drafting a **table and report** on mitigation actions (MAs) in the waste sector based on the proposed common tabular format (CTF) at SBSTA* 2021

Benefit: Practical exercise to prepare the reporting MAs in future BTRs

Scope of MAs: Covering all MAs in the waste sector (up to the participants)

Focused MPGs provisions:**

Focusing on Para 82 (a-i), Para 83 (a-c), Para 85, Para 86

Output: An informal draft report and table (excel based on the SBSTA draft CTF) for learning purposes

* SBSTA 2021, <https://unfccc.int/sites/default/files/resource/IN.SBSTA2021.i14b.1.pdf>

** UNFCCC (2018) Decision 18/CMA.1. Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement, https://unfccc.int/sites/default/files/resource/l23_0.pdf

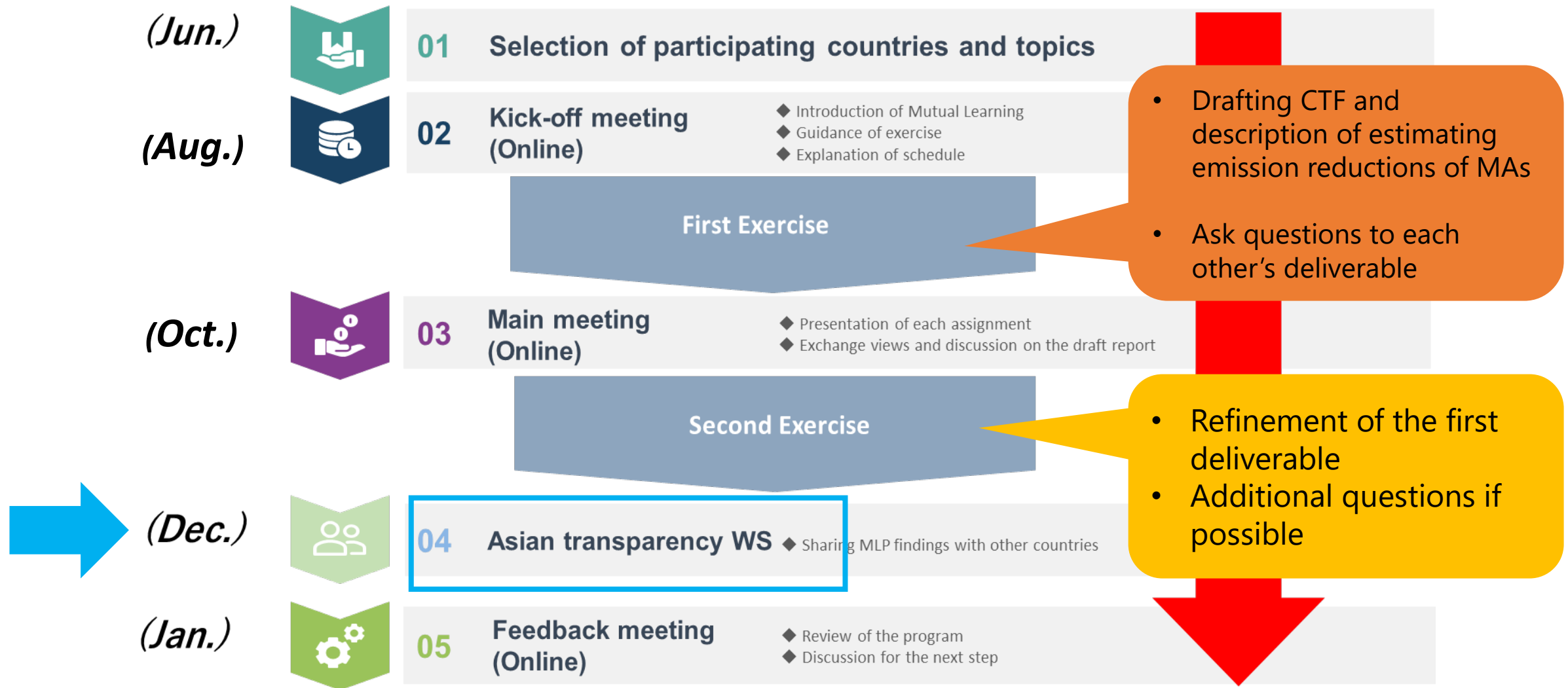
Focused MPGs* provisions in MLP exercise

- **Para 82 (a-i): Information on MAs in the tabular format**
 - ✓ (a) Name; (b) Description; (c) Objectives; (d) Type of instrument; (e) Status; (f) Sector(s); (g) Gases affected; (h) Start year of implementation; (i) Implementing entity or entities.
- **Para 83 (a-c): Additional information on MAs**
 - ✓ (a) Costs; (b) Non-GHG mitigation benefits; (c) How the mitigation actions interact with each other, as appropriate
- **Para 85: Expected and achieved GHG emission reductions for MAs in the tabular format**
- **Para 86: Description of methodologies and assumptions used to estimate the GHG emission reductions due to each MA**

MLP Participants in FY 2021

Country/organization	Roles
Indonesia (Ministry of Environment and Forestry)	Participants
Thailand (Pollution Control Department)	Participants
Japan (Ministry of Environment)	Participants
Mitsubishi UFJ Research and Consulting (MURC)	Participants/ Secretariat
Institute for Global Environmental Strategies (IGES)	Participants/ Secretariat

Overall schedule of MLP



The draft of the 1st exercise

20210924 Draft CTF of MAs in waste sector Thailand(DWW&MSW)_MURC_IGES.xlsx - Excel

File Home Insert Page Layout Formulas Data Review View ACROBAT Tell me what you want to do... murun Share

F5 X ✓ fx Implemented

Mitigation policies and measures, actions and plans, including those with mitigation co-benefits resulting from adaptation actions and economic diversification plans, related to implementing and achieving a NDC under Article 4 of the PA (a, b)

No.	Name	Description ^(c,5,6)	Objectives	Type of instrument ⁽⁹⁾	Status ⁽⁸⁾	Sector(s) affected ⁽⁶⁾	Gases affected	Start year of implementation	Implementing entity or entities	Costs ⁽⁷⁾	Non-GHG mitigation co-benefits ⁽⁸⁾	Information on interactions of MAs ⁽⁸⁾	Estimates of achieved GHG reductions ⁽¹⁰⁾ (not cumulative in kt)
1	Increasing the sewerage coverage areas (to the full capacity of the treatment plants) construct new central Wastewater treatment plant	1) Increase the collection of wastewater into the system / expand the service area. 2) Increase the number of central wastewater treatment systems in key areas by promoting using an aerobic wastewater treatment or reducing greenhouse gas emissions technology.	To reduce using anaerobic wastewater onsite treatment technology ().	1) Educating LAOs and general public on domestic wastewater management. 2) Support LAOs for effective wastewater treatment plant management 3) Constrain in using economic instrument (wastewater treatment fee)	Implemented	Waste	CH4	2021 (NDC Roadmap on Mitigation 2021-2030)	LAOs/BKK/WMA/PCD/ONEP				15
2	Increasing Composting of Organic Fraction of Municipal Solid Waste	Reduce the direct landfilling of organic municipal solid waste by increasing composting. Reduce methane emissions associated with the biological decomposition of organic fraction of municipal solid waste in landfill sites.	To reduce methane emissions associated with the biological decomposition of organic fraction of municipal solid waste in landfill sites.	Policy and Capacity Building	Implemented	Waste	CH4	2021 (NDC Roadmap on Mitigation 2021-2030)	Local Governmental Organizations such as BMA, municipalities etc. and private waste disposal facilities.		MSW is treated properly, reducing pollution and landfill space. Compost can be utilised in the agriculture sector. Circular Economy concept.		0

Format table of MAs Example

Draft table (CTF) on mitigation action reporting (Thailand)

1. Mitigation action number: 1

Mitigation action name	Gas affected	Reference from excel sheet
Composting	CH ₄	- Cell B5

Description of methodologies and assumptions used to estimate the GHG emission reductions due to each MA

Methodology:

Emission Reductions = Emissions in BAU (baseline scenario) – Emissions in the inventory year

Baseline scenario	Inventory scenario
Emission level in (SDWS + composting + open burning) at baseline scenario.	Emission level in (SDWS + composting + open burning) in the year of inventory.
Emission level in SDWS:	Emission level in SDWS:
<ul style="list-style-type: none"> CH₄ emissions_T = [∑CH₄ generated_T] (1 - O_x) CH₄ generated_T = DDOC_{mdecompT} * F * 16/12 DDOC_{mdecompT} = DDOC_{maT} - 1 * (1 - e-k) DDOC_{maT} = DDOC_{mdT} + (DDOC_{maT} - 1 - e-k) DDOC_m = W * DOC * DOC_f * MCF 	<ul style="list-style-type: none"> same as methodology at baseline scenario. Emission level in composting: same as methodology at baseline scenario. Emission level in open burning: same as methodology at baseline scenario.
Source: IPCC 2006 guideline, V5, Ch3, page 3.8 – 3.10.	
Emission level in composting:	
Emission _{CH₄,N2O} = (Total amount of waste composted * EF _{CH₄,N2O}) - R	
Source: IPCC 2006 guideline, V5, Ch4, page 4.5.	
R = total amount of CH ₄ recovered in inventory year (R = 0)	
Emission level in open burning:	
Emission _{CO₂,CH₄,N2O} = Amount of waste open burned * EF _{CO₂,CH₄,N2O}	

Draft report on description of methodologies and assumptions (Indonesia)

Key discussion points

- 1. Emission reductions from mitigation actions (MAs)**
- 2. Tracking and monitoring MAs implementation**
- 3. Data collection system for tracking MAs progress**

Emission reductions of MAs

- To estimate emission reductions from mitigation actions (MAs), that the methodologies in the GHG inventory based on the IPCC guideline can be used
- Setting assumptions and scenarios in methodologies is the key to estimate emission reductions (e.g. type of waste and treatment)
- Emission reductions from MAs should be reflected/linked to the national inventory by sharing data on MAs to the inventory
- If it is not reflected, the effect of implementing MAs is not shown on the inventory

Tracking MAs implementation

- Established a national legal framework (e.g. domestic climate policy, NDC roadmap)
- Developed indicators* for each MA to track its progress under a national climate policy
- Developed 5-year targets for each MA under the NDC roadmap
- Need to establish annual evaluation system of MAs progress by using these indicators*
- Based on feedback from the annual evaluation, low performing MAs can be revised in the following years

*Indicator refers one of key parameters that affects MAs emission reduction

Data collection for tracking MAs

- Manual data collection (e.g. excel sheet) is common for tracking MAs progress, but moving toward a digital system
- Combination of manual and digital data collection systems, depending on the sector
- Developed a digital platform to collect data on MAs from both governmental and non-governmental stakeholders (e.g. starting from one sector)
- Household surveys are being conducted for estimating emission reductions of MAs

Future implementation of MLP

- More practical exercise and tangible output based on adopted guidance (Article 13 CTFs) is significant
- Need and demand of MLP participating countries is important to design exercises and program discussion
- To pair countries based on their interests and the level of understanding of the subject is important

The group discussion

Timetable (JST): **16:15 - 17:00**
 17:00 - 17:30

Group discussion (45min)

Report back, Discussion and Summary (30min)

	Group 1	Group 2	Group 3	Group 4
Facilitators	Noriko Tamiya-Hase (MOEJ)	Chisa Umemiya (IGES)	Temuulen Murun (IGES)	Fatima-Zahra Taibi (UNEP-DTU)
Rapporteur	Takashi Morimoto (MURC)	Yuqing Yu (UNFCCC-RCC)	Rully Dhora Carolyn (Indonesia)	Per Wretlind (UNEP-DTU)

Discussion topic 1

1. What are the priorities to track and monitor mitigation actions (MAs) implementation/progress in your country?

Examples:

- A. To develop legal documents to track and monitor MAs implementation (e.g. domestic legal framework, NDC roadmap)
- B. To establish institutional arrangement to mandate relevant ministries (e.g. structuring roles and responsibilities)
- C. To develop necessary infrastructure to collect data and information on MAs progress (e.g. data collection system for monitoring MAs progress)
- D. To develop methodologies for estimating emission reductions on MAs (e.g. utilizing the IPCC guideline)
- E. Other if any

Discussion topic 2

2. How will your country reflect emission reductions from MAs to your country's national GHG inventory?

Examples:

- A. Emission reductions from MAs have not been tracked yet
- B. Emission reductions from MAs are being tracked, but the data are not reflected to the GHG inventory
- C. Emission reductions from some MAs are being tracked only for limited sectors (e.g. energy sector) and the coverage will expand. The sectoral data are (will be) reflected to the GHG inventory
- D. Emission reductions from all MAs are being tracked and the data are (will be) reflected to the GHG inventory
- E. Other if any

The group discussion

- ❖ **The group discussion will be in a separate zoom room, please wait for a few minutes**
- ❖ **You will be automatically moved to the break-out groups**
- ❖ **In case you are lost, please come back to the plenary room. Host will allocate you to your break-out group.**

Thank you for your attention.

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Climate and Energy area, IGES

Mutual Learning Program for Enhanced Transparency

<https://www.iges.or.jp/en/projects/transparency>

Annex: Example

Mitigation action (MA): Implementing bio-plastic programme to reduce CO₂ from plastic incineration

Base year: 2015

Emission reduction target by 2030: XXX t-CO₂

Indicator to track MA progress: Domestic consumption of bio-plastics

Estimation of emission reduction: Emission under BAU - Emission under MA scenario

Emission under MA scenario: (Amount of incinerated plastic waste – domestic bio-plastics consumption)*Emission Factor

Reflecting emission reductions of MA to the inventory: The parameter of domestic consumption of bio-plastics should be included in a calculation of the GHG inventory in order to reflect MAs emission reductions