

Pilot study of MRV development for composting projects

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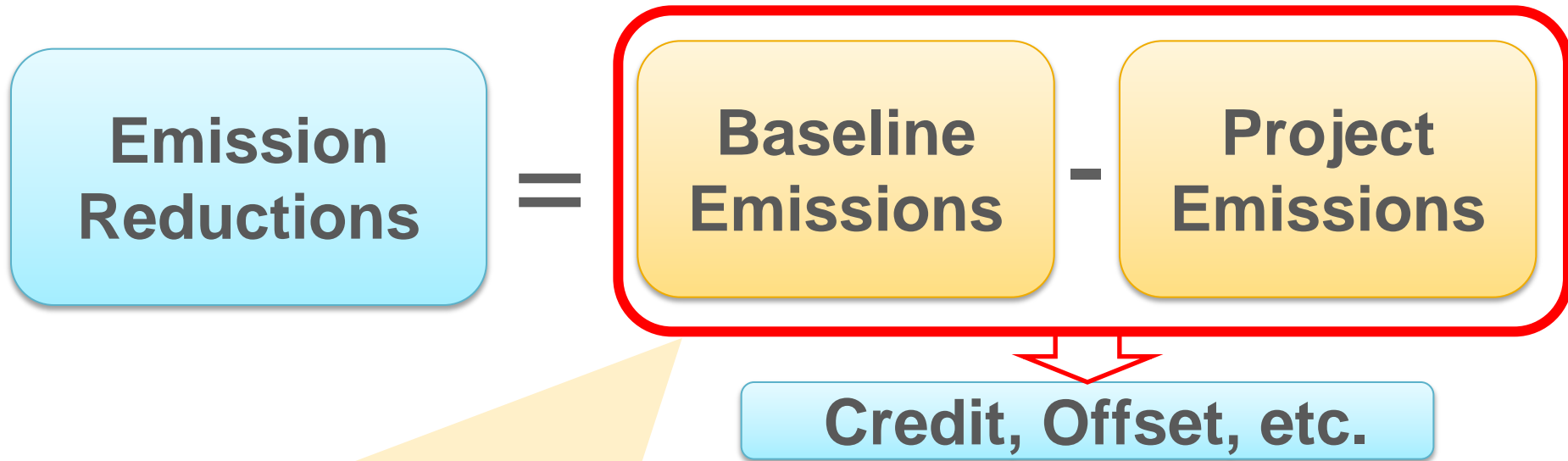
**Workshop on MRV development for new
market mechanisms**

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MRV for GHG emission reduction

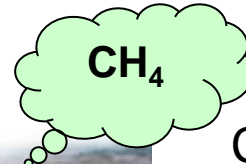
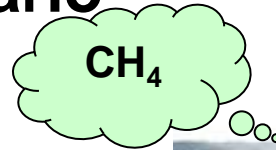


- ◆ Baseline and project emissions need to be **Measured** (**Monitored**) by project participant.
- ◆ Collected and recorded data sets are **Reported** to a designated operational entity.
- ◆ Those set of data including procedures is **Verified** and also Certified.

Overview of composting project

Baseline (reference) scenario

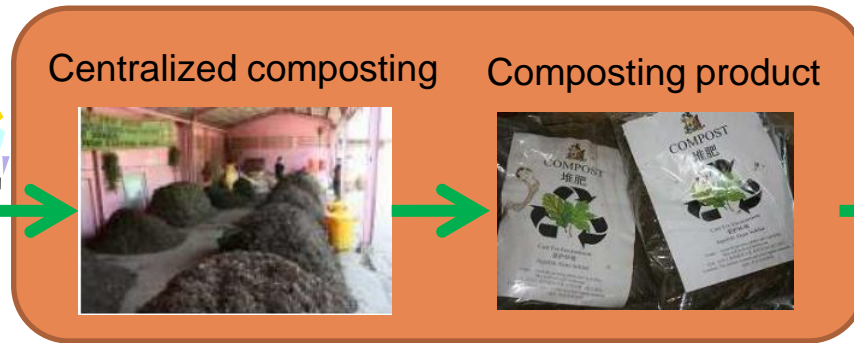
Solid Waste



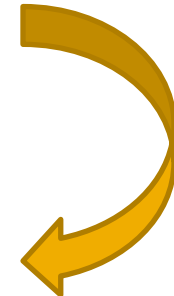
Credit from CDM or investment from new market mechanisms

Project scenario

Solid Waste



Agriculture



Benefits

- Reduce waste to landfill site
- Reduce GHG emission
- Increase productivity of crops

Requirement for MRV methodology under BOCM/JCM

Eligibility criteria

- Provide positive list
- Not require demonstration of additionality like CDM

Calculation of GHG emission reduction

- Set default values to take into account the condition of host parties in order to reduce burden of monitoring implementation
- Consider trend of GHG emissions

Monitoring

- Apply the default values in PDD (if any, project participants can monitor corresponding parameters by themselves)
- Apply sampling and simulation
- Utilize credible documents, e.g. invoice or bill

Background of field studies

Lao PDR

- No composting project is operated
- It is needed to design proper incentives for residents to separate waste in order to reduce amount waste

The Philippines

- There are several composting projects owing to enacted *the Ecological Solid Waste management Act (RA9003)*
- In some province, “No Segregation, No Collection” policy is implemented
- There are bundled CDM composting projects



It could be useful to refer data items monitored in CDM/non-CDM composting projects in the Philippines.

Data items of composting projects in the Philippines

	CDM project1	CDM project2	Non-CDM project1	Non-CDM project2
Amount of waste	O	O	X	O
Number of truck to composting site	O	X	O	O
Waste composition	O	O	X	X
Fuel consumption of truck	O	O	O	X
Power consumption of the site	O	O	X	X
Production of compost	O	X	O	O
GHG abatement cost	-	-	Around 600US\$/tCO ₂	Around 500US\$/tCO ₂

Data items of waste practice in Lao PDR

	Vientiane	Luang Prabang	Sayabury
Number of trucks to landfill site (Amount of waste)	O	O	O
Waste composition of household garbage (JICA survey)	O	O	X
Material recovery practice	X	X	O
Waste collection fees	-	10,000 kip/month	8,000 kip/month

Our proposal for MRV Meth.

Eligibility criteria

- All new composting projects in Lao PDR are eligible
- Composting project should have programme to facilitate waste separation practice at household level
- Collected wastes are from household and food market

Calculation of GHG emission reduction

- Set default value for waste composition based on CDM methodologies and JICA research

Monitoring

- For the most simplified case, the participant are required to monitor amount of waste to be composted

Demonstration using Luang Prapang case: 

If most of waste (50t/day = 18,250t/year) is composted....

Other possible improvement of MRV meth.

Further enhancement of MRV methodology

- Modification of the default values with reference to other feasible studies
- Implementation of other concept to identify emission reductions such as life cycle assessment
 - Data accuracy and project boundary need to be more elaborated

Possible expansion of MRV methodology to the other waste management practices

- MRV methodology for household composting
 - The monitoring cost would be higher
- MRV methodology for gasification or refuse derived fuel (RDF)

The way to forward

Design of composting project

- Design of comprehensive waste management practice, i.e. waste separation,
- Reduction of GHG abatement cost

Design of MRV methodologies under BOCM/JCM

- Joint committee would have responsibility to approve MRV methodology
- It is possible to develop new MRV methodology for any other sector with the experience of this composting project