

# MOEJ/GEC BOCM DS/FS Programme 2012 for MRV Methodologies Development

UNITED NATIONS CONFERENCE ON SUSTAINABLE DEVELOPMENT  
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*as the Secretariat of the BOCM FS Programme*



# Initiatives for the Development of BOCM under the Ministry of the Environment, Japan (MOEJ)

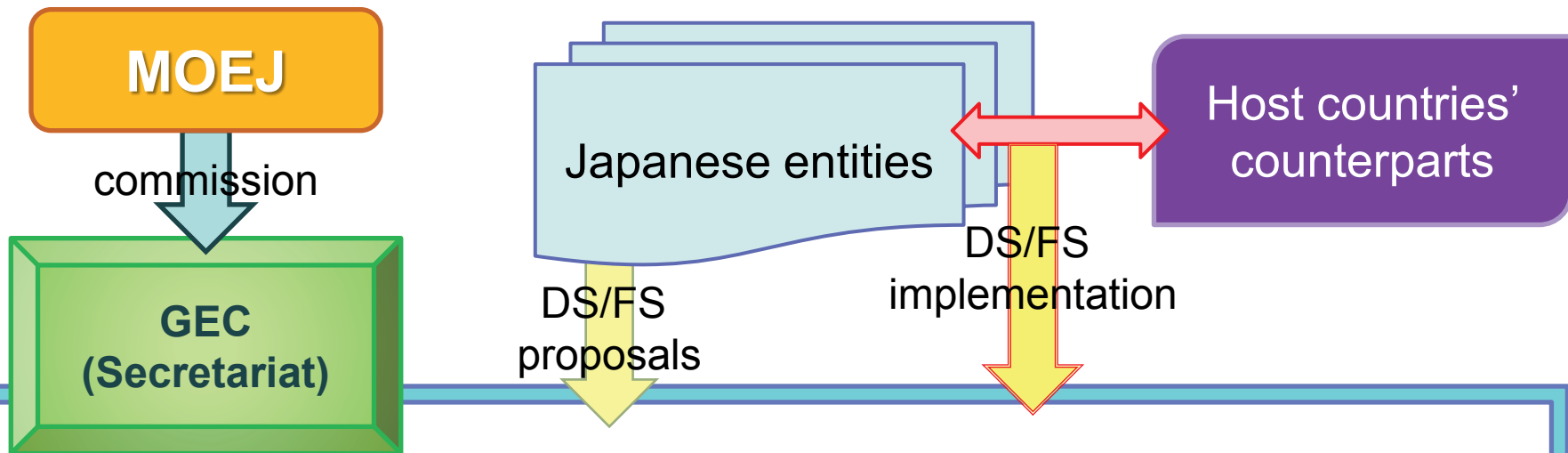
Feasibility Studies (FS) for BOCM MRV Methodology Development (**implemented by GEC**)

To establish the enabling environment for BOCM projects/activities in developing countries

Information platform for the BOCM (**OECC**)

Capacity Building for the BOCM (**IGES, etc.**)

# Overview of BOCM DS/FS Programme in 2012



- Invite public proposals on DS/FS from Japanese entities.
- Select the proposals to be officially adopted as qualified DS/FS
- Provide advice and supervision to the qualified DS/FS.
  - Through an expert committee and task force teams
- Consult with host countries to promote cooperative relationships
  - Through meetings with host countries' governments and stakeholders
- Outreach the DS/FS results
  - Through GEC website, UNFCCC Side Events, etc.

# FS Programme for New mechanisms (**B**ilateral **O**ffset **C**redit **M**echanism)

**JFY 2010**

**3** projects/activities were surveyed.

- Each FS entities made rough estimation of GHG emission reductions from target sector/project, and proposed concept of MRV of GHG emission reductions under New Mechanisms.

**JFY 2011**

**29** projects/activities were surveyed.

- Each FS entities surveyed following points; reference scenario, monitoring plan, calculation protocol and quantification of GHG mitigation effects, proposal of a MRV system, securing environmental integrity, etc..

**JFY 2012**

**10 MRV DSs & 11 BOCM FSs will be surveyed.**

- To develop MRV methodologies applicable to BOCM projects/activities.
- MRV Demonstration Study (DS) will be conducted in addition to the past FS programme.

# 29 BOCM FSs in 2011 (MOEJ/GEC)

**Category**

- --Waste Management
- --Biomass Utilisation
- ★ --Transportation
- ▲ --Renewable Energy (RE)
- △ --Energy Efficiency
- --REDD+
- X--Others

**Mongolia:**

- △ Multi-Application of EE at Coal Thermal Power Plants
- △ Energy Saving at Buildings (Geothermal Heat Pump)

**China :**

- △ Energy Saving through Water-Saving Toilet Systems
- △ Energy Management and Control Systems at Factories
- X- CMM Electric Generation and Integrated EE Improvement

**India:**

- △ Utilisation of LED Lights at Office Buildings
- △ High-Performance Industrial Furnaces to Aluminium Industry

**Thailand :**

- Waste Management Activities in Thailand
- ★ Development of MRT Network
- ▲ Wind Power Generation in Low Wind Speed Condition
- △ Institutional Development of BEMS with Certificated Carbon Credits
- X Utilisation of Off-Peak Power from Storage Batteries & Introduction of Electric Vehicles

**Mexico :**

- △ EE Improvement at Households

**Sri Lanka :**

- Development of Castor Seed Industry Cluster
- ▲ Best Grid Electricity Mix Focusing on REs

**Viet Nam**

- REDD+ through Revegetation at Denuded Lands & Woody Biomass-based Power Generation in Son La Province
- X Utilisation of Blast Furnace Slags as Blending Material for Cement
- ★ Development of MRT Systems in Hanoi & Ho Chi Minh

**Lao PDR :**

- ★ Urban Transport Management

**Colombia:**

- ▲ Geothermal Power Generation

**Malaysia :**

- Energy Generation by Waste Management Activities

**Cambodia :**

- REDD+ in Prey Long Area

**South Africa :**

- △ Integrated EE Activities at Beer/Beverage Factories

**Brazil :**

- REDD+ in Acre State

**Angola :**

- REDD+ through Revegetation & Fuelisation of Woody Biomass Tips

**Indonesia :**

- Energy Application of Wastes & Wastewater Originated in Processing of Agricultural Products
- REDD+ in Central Kalimantan Province
- REDD+ and Bio-Fuel Production & Utilisation
- Avoidance of Peat Aerobic Digestion & Rice Husk-based Power Generation
- ★ Development of MRT Systems in Jakarta

**NOTE :**

- EE= Energy Efficiency
- MRT= Mass Rapid Transit
- BEMS= Building & Energy Management Systems

# Lessons Learnt from BOCM FS 2011

- **BOCM MRV Methodologies** which is applicable to BOCM projects/activities should be developed.
  - Since the basic concept of BOCM methodology has been shown by the Government of Japan, FS in 2012 aims to develop draft BOCM methodologies.
- **BOCM MRV Methodologies** should ensure MRV scheme, with simplifications and conservativeness:
  - Simplified monitoring (minimization of monitoring items by setting of default value(s), etc.)
  - Specific circumstances and/or conditions for each host country should be taken into account in the process of development of BOCM methodology.



**Modeled MRV project (MRV DS) is required.**

The draft BOCM MRV methodologies as the results of DS/FS 2012 are expected to be input to bilateral consultations on BOCM establishment.

# Points of MRV Meth Development

- Identification of the Reference Scenario
- Quantification of the Reference Emissions
- **Setting Default Values**
  - Specific to the project/activity?
  - Particular to the host country or the locality?
  - Subject to host country's approval?
  - Periodical update or review?
- **Minimising monitoring items & frequency**
  - Reduce burden for projects/activities owner.
  - Reduce cost for verification process.

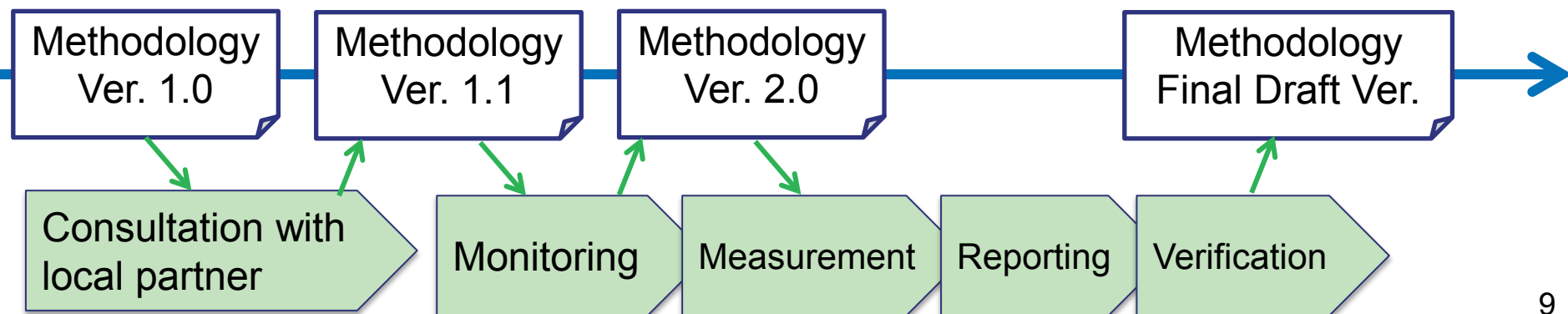
# Purposes of BOCM FS 2012

- To develop MRV methodologies applicable to BOCM projects/activities:
    - Eligibility criteria (positive list)
    - Quantifications of reference emissions, project/activity emissions, leakage emissions (if any), and emission reduction effects
    - Minimised monitoring items and frequency
      - As many default values and/or specific fixed values as possible should be found and set.
      - The default values should lead to conservative calculation results.
- Actual monitoring activity should be workable for a project/activity owner in a host country.



# Purposes of MRV Demonstration Study

- To demonstrate whether MRV process would be complete (or not):
  - **based** on existing project/activity,
  - **M**easurement of GHG emission reductions by monitoring activity → Creation of monitoring **R**eports → **V**erification by a third-party verifier (in the host country)
- To improve MRV methodologies through the MRV process

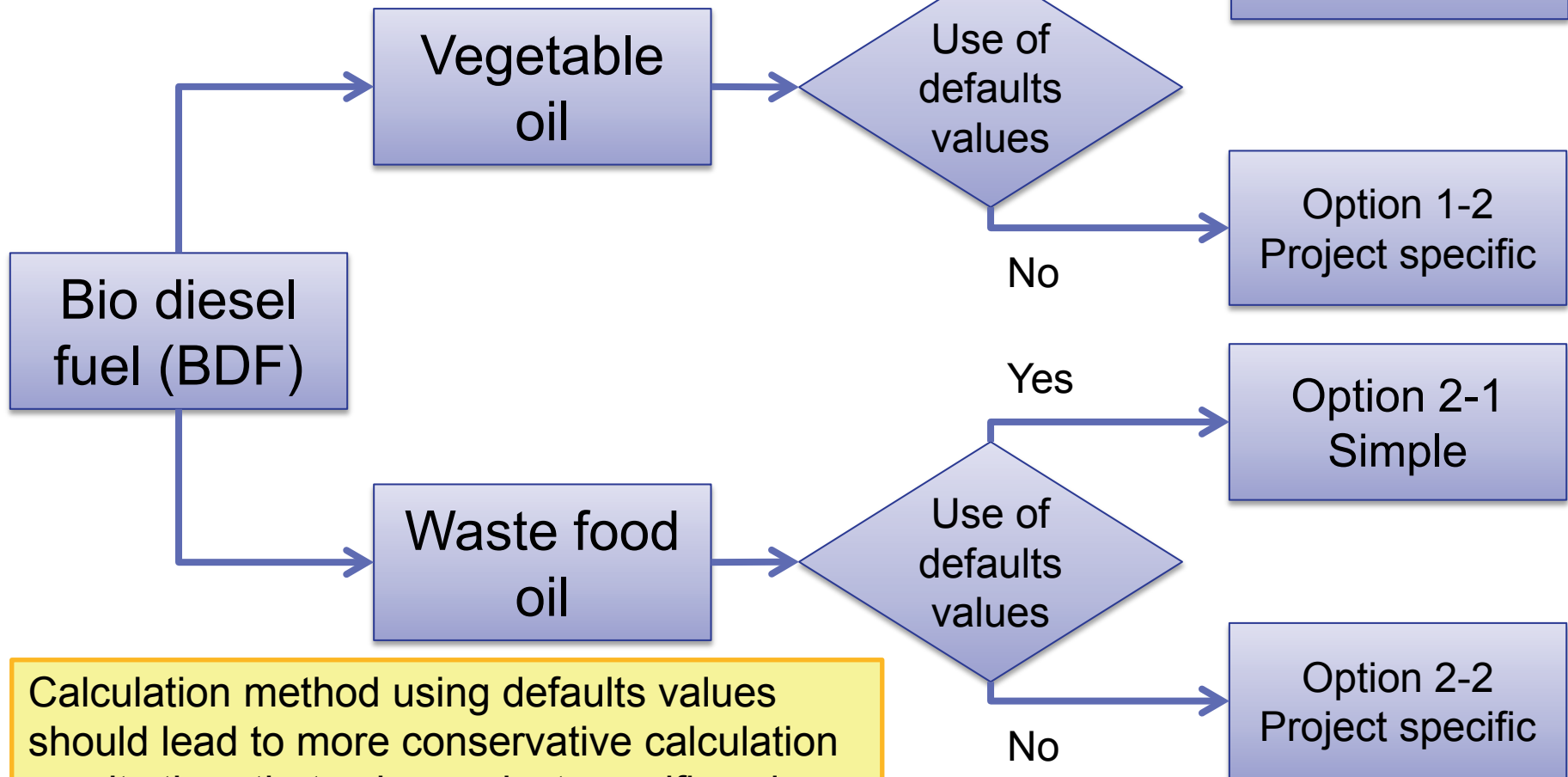


# MRV Methodology format (draft)

1. Title of Methodology
2. Summary of the Methodology for the Project
3. Eligibility Criteria
4. **Selecting a Calculation Method**
5. Necessary Data for Calculation
6. Terms and Definitions
7. Project Boundary
8. Reference Scenario
9. Reference Emissions and Calculation
10. Project Emissions and Calculation
11. Leakage Emissions Reductions
12. Calculating Emission Reductions
13. Monitoring

# Selecting of Calculation Method (Sample)

Project developers can select the best-suited calculation method for a project by using the flow chart below.



Calculation method using defaults values should lead to more conservative calculation results than that using project specific values.

# A Sample of BOCM MRV Methodology

Calculation Spreadsheet for GHG Emission Reductions: Simplest example

Option 1-1: Bio-Diesel_Plant Oil_Result			
<b>1. Monitoring and input after project start</b>			
	Description of data	Value	Unit
	Project consumption of biodiesel in year y		kl/y
<b>2. CO2 emission reductions</b>			
	CO2 emission reductions	Unit	
	0	tCO2/y	

**→ BOCM MRV Methodology equips the Spreadsheet with automated calculation functions, which easily show the ER calculation results**

# <FYI> Final Reports of BOCM FS 2011 and Challenges of DS/FS 2012

Final reports of BOCM FS 2011 are available through the GEC website, at <http://grec.jp>.



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**What's New ?**

- Bandung Eco-town Evaluation Workshop (23 February 2012)
- Penang Eco-Town Workshop (23 February 2012)
- Publication: "MOEII/GEC Feasibility Study Programme on New Mechanism and CDM in 2011" (28 November 2011)
- Publication: "CDM/JI Manual for Project Developers and Policy Makers - 2011" (28 November 2011)
- Official Side Event will be held at 18:30, Tue. 29 Nov., on the occasion of the UNFCCC COP17 at Durban, South Africa (24 November 2011)
- Publication: "GEC Newsletter No.30" (25 October 2011)
- Publication: "Annual Report 2010" (2 September 2011)
- Ha Long Bay Project (JICA Grass Roots Project) - Organized a mangrove planting event - (30 August 2011)

News Archives

NETT21  
GEC Environmental Technology Database

GESAP  
Website on Water and Sanitation

*Thank you very much  
for your attention!*



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