MRV issues on the establishment of new market mechanism

2nd Asia Forum on Carbon Update 2012
16 February 2012

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The concept of MRV is introduced to the national communications, CDM etc and finance in the climate change area.

Today’s focus

Context of MRV

- Measuring
- Reporting
- Verification

- GHG emissions
  → National Communications, Biennial (Update) Reports, etc

- Emission Reduction of GHG
  → Carbon market such as CDM and J-VER

- Aid funding
  → Green Climate Fund

- Others
Emission Reductions = Baseline Emissions - Project Emissions

- Baseline and project emissions need to be **Monitored** by project participant.
- Collected and recorded data is **Reported** to a designated operational entity.
- Those data including procedures is **Verified** and also Certified.
Process of MRV in CDM

- Project Planning, PDD Preparation
- Approval by host countries
- Validation
- CDM Registration
- Project Implementation, Monitoring, Monitoring Report Preparation
- Verification, Verification Report Preparation
- Issuance of CER

- Project Participant (PP)
- Host country DNA
- Designated Operational Entity (DOE)
- PP/DOE
- CDM Executive Board
- PP
- DOE
- CDM Executive Board
Num. Days from the end of monitoring period to issuance

- Monitoring report preparation period; end of monitoring period ~ date of monitoring report completion
- DOE verification period; date of monitoring report completion ~ date of request for issuance by DOE
- The CDM EB consideration period; date of request for issuance by DOE ~ date of issuance

Source: IGES CDM Project Database (as of 1 July 2011)
The structure of development process for monitoring procedures in CDM

Submit a methodological proposal to the Methodology Panel (MP)

Interactions between the EB and PDs is sometimes insufficient

Source: A.Michaelowa et.al (2009)
Example of difficulty of monitoring: 1
-Case of an energy efficiency project in India-

Utilization hours of each lamp in the sampling groups should be metered individually.
Monitoring information required includes house hold names, addresses, **GPS coordinates** and the name of the project area.

Source: A. Michaelowa et al. (2009)
Example of difficulty of monitoring: 2
-Case of solar home systems (SHS) -

SHS project: Install solar home systems to houses in rural off grid areas

It is difficult to monitor following parameters for all SHS installations in sparsely populated area

- Number of systems deployed
- Number of systems operational in the field
- Estimated fuel saving per available system

Source: J.W. Martnes et.al (2000)
Issues of MRV in CDM
-perspectives from monitoring process-

- Monitoring methodology is not practical in some cases and causes cumbersome to project developers (PDs).
  - Leads to high monitoring costs and risks for PDs
- Lack of clear guidelines for approaches of MRV such as actual sampling processes.
- Many parameters to be monitored cause long time checking process by DOE/UNFCCC secretariat
  - This issues are partially solved.

- Burdensome to CDM participants in terms of cost and labor
- Long time taken from monitoring to CER issuance
- Necessity of DOE’s high verification skill
The structure of development process for monitoring procedures in J-VER

J-VER Committee
- Make guidelines
- Develop monitoring procedures

Project Developers
- Conduct monitoring

Regularly feedback

Developing detailed guidelines

Interactions between the committee and PD is well. Thus, monitoring procedures are practical.
Example of biomass residues project

- CDM AM0036, J-VER E001: Fuel switch from fossil fuels to biomass residues in heat generation equipment

New process by CDM or J-VER

- Pretreatment
- Biomass residues storage
- Biomass residues transport to site

Existing process

- Smoke let out after dust and desulfurize
- Biomass residue and fossil fuels burning in boilers
- Fossil fuels used for ignition

Heat or electricity supply to equipment

Monitoring point
Highlights of J-VER monitoring guideline

• Applying practical monitoring procedures
  – J-VER committee applies parameters which have been already measured for business or operational purpose as much as possible

• For the parameters in new process because of implementation of J-VER, the guideline describe detailed and concrete monitoring procedures

  • Simplifying calculation of emissions from Transport (M1)
    – If the project boundary is within a single prefecture, the PP doesn’t need to consider the emission

  • Specifying the monitoring for supplemental fuel for biomass residues (M3 and M4)

  • Classifying Monitoring frequency for quantity of biomass residues (M2)

<table>
<thead>
<tr>
<th>Amount of biomass residues</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 ton~</td>
<td>Every month</td>
</tr>
<tr>
<td>100 ton~1,000ton</td>
<td>Every 3 months</td>
</tr>
<tr>
<td>~100ton</td>
<td>Every 6 months</td>
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</tbody>
</table>
Suggestions for MRV in new market mechanisms

• Simplified & practical monitoring method (based on the experiences in the CDM)
  ➢ Application of clarifying monitoring value
  ➢ Simplification and clarification of sample survey

• Top down approach with committee’s involvement with development of guidelines (based on the experience in the J-VER)
  ➢ Guidelines should reflect on actual condition of projects

➢ MRV should be designed to avoid imposing too much burden on project developers and to assure the quality of credits.

Other topics to be discussed

➢ Internationally acceptable credibility (Compliance with GHG related ISO standard is desirable)
➢ Capacity building in stakeholders such as Governmental organizations, Verification bodies