MRV Development and New Market Mechanisms in Asia

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May 2012

Overview of MRV development by IGES

- IGES has been conducting MRV development/capacity building research for new market mechanisms/NAMAs in Asia since 2011
  - Focusing on MRV of GHG reduction/emissions under emerging new market mechanisms/NAMAs in Asian developing countries

Overview of MRV development by IGES

- Wide range of GHG-MRV related research components
  - Application of MRV methodologies developed in J-VER to Asian countries
  - Development of MRV methodologies using the concept of the standardized baseline
  - Development of GHG-MRV in transport sector NAMAs
  - Development of GHG-MRV for co-benefit type of wastewater treatment plants
  - Development of GHG-MRV of urban development policy
  - Review of Existing MRV system for NAMAs in China and India

Objective of MRV development by IGES

- MRV methodologies for GHG emissions reduction/ emissions under new market mechanisms/NAMAs should:
  - Be simplified, objective, practical and credible
  - Have lower uncertainty and ensure environmental integrity
  - Accelerate deployment of lower carbon technologies, products and services
  - Take into account specific national circumstances in individual host countries
- Such MRV methodologies are to be developed in this research activities in Asian developing

General approach for development MRV methodologies

- Utilisation of the current practice on data monitoring as much as possible in individual host countries
  - What is monitored? How to monitor? Who monitors?
  - Find out what data are actually monitored at what level of accuracy/uncertainty/traceability
  - Clarify what additional data are definitely necessary at the minimum cost for robust MRV
- Critical review of the existing MRV methodologies in CDM and other GHG schemes as a basis of further development

General approach for development MRV methodologies

- Use of appropriate "default values" whenever applicable, in conservative manner within a certain level of uncertainty

- Utilisation of the concept of "standarised baselines" whenever applicable referring CDM guideline

Outcomes and ways forwarded

- Application of MRV methods developed in J-VER
  - Thailand will launch T-VER scheme in 2013
  - J-VER methods for energy efficiency are adjusted reflecting Thailand's current monitoring practice
  - Validation/Verification guidelines for T-VER are developed based on those of J-VER with capacity building for local GHG V/V bodies
  - "Trial MRV" on real GHG projects will be conducted by the developed T-VER methods in this year
  - Expected outcomes of "trial MRV":
    - Identification of further adjustment of the MRV methods
    - Capacity building for T-VER participants to conduct MRV

Outcomes and ways forwarded

- Development of MRV methods using the concept of standardized baseline in collaboration with the governments of Cambodia, Lao PDR and Mongolia
  - Specific sectors are selected for establishment of SBL
    - Lao PDR: Solid waste management sector
    - Mongolia: Efficiency improvement/replacement of districted heat-supply coal boilers
    - Cambodia: Bio-gas fuel switching at rice mill sector
  - Establishing SBL referring "CDM guideline for SBL"
  - Taking into account limited data availability and current data monitoring practice, default values (e.g. BL emission factor) will be developed for each country in this year based on further on-site survey

Outcomes and ways forwarded

- Development of GHG-MRV in transport sector NAMAs
  - Reviewed the existing CDM methodologies for transport sector
  - Assessed transport data currently monitored in city-level in the selected cities in Asian countries
  - Found that considerable experiences already available to MRV GHG in transport projects under CDM and other schemes --> will utilise appropriate existing methods and capacity
  - Initial wave of NAMAs will most likely to be project based
  - Will take "pro-active" in effort to continuously simplify and update MRV methodologies for transport sector

Outcomes and ways forwarded

- Development of GHG-MRV for co-benefit type of wastewater treatment plants (WWTPs)
  - Various WWTPs in Thailand are assessed for establishing MRV of GHG reduction/co-benefit by WWTPs
  - Reviewed existing CDM methods for wastewater treatment
  - Proposed MRV development
    - Characterise wastewater quantity and quality
    - Select treatment system
    - Define purpose of MRV (domestic/supported NAMA, crediting?)
    - Prioritise parameters into general and specific parameters according to the defined purpose of MRV (incl. co-benefits parameters)
    - Indentify monitoring method and frequency
  - Further update of the proposed MRV development and conceptualisation of NAMA for wastewater will be taken in this year

Outcomes and ways forwarded

- Development of GHG-MRV of urban development policy
  - Reviewed existing MRV methodologies for urban sector
  - Trial GHG quantification as case studies in Indonesia and Japan
    - Limited availability of data and lower incentives for quantification
    - MRV methods for CDM is too complicated for quantification of urban policy
    - Simple quantification methods with internationally traceability need to be developed
  - Reviewed current practice of GHG-MR at sub-national level in China, India, Indonesia and Philippines
    - No GHG reporting at sub-national level
    - No local governments have engaged in NC, NAMA planning
    - Minimal level of knowledge on management at sub-national level
  - Having these results, MRV methodologies for city planning and low carbon development are being conducted in Indonesia, Thailand and Vietnam in this year

Outcomes and ways forwarded

- Review of Existing MRV system for NAMAs in China and India (not for GHG but energy use)
  - Domestic MRV system in China: MAE for energy intensity targets
    - Mitigation actions should be based on robust domestic MAEs systems
    - National MAE systems in developing countries may face significant capacity gaps that need to be filled
  - Both countries face the problem of data correctness
  - Research is continued on development of MRV institutional structure under NAMAs and national climate change policies in China, Indonesia, Lao PDR, Mongolia and Thailand in this year

Conclusions

- Effective implementation of new market mechanisms/NAMAs remains uncertain until a credible GHG-MRV framework is established

- The most important question still left to be answered: What is a credible GHG-MRV framework given the current practice of data monitoring and limited data availability/uncertainty/traceability?

- Based on the outcomes, our research continues in this year…