

MRV OF NAMAs

- Quantification and Verification of GHG impacts of Mitigation actions

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PRESENTATION STRUCTURE

- MRV of GHG emissions
- MRV Of NAMA Pledges
- MRV Of NAMAs
- Why MRV?
 - It is an international obligation that countries have voluntarily agreed to undertake.
 - More importantly it is an important tool for countries to assess the effectiveness of implementation as well as impacts on sustainable development benefits.

MRV OF DEVELOPING COUNTRY MITIGATION OBLIGATIONS UNDER UNFCCC

Tier	Process and procedures		Responsible entity
National MRV Tier = MRV of voluntary national mitigation obligations	V	ICA process as established by UNFCCC	IC: by UNFCCC A: by international Experts
	R	BUR (including GHG inventory and information on NAMAs) as per guidelines established by UNFCCC	National government
	M	GHG emissions as per IPCC guidelines NAMAs as per info from NAMA MRV Tier	National government
NAMA MRV Tier = MRV of individual NAMAs	V	As per process and procedures for verification by NMA	National MRV Authority (NMA) or entity designated by the NMA
	R	In accordance with reporting guidelines by NMA	NAMA implementing entity
	M	Using methodologies developed in accordance with guidelines by NMA	NAMA implementing entity

MRV OF GHG EMISSIONS

- Countries have been preparing GHG inventories, most developing countries twice - but on an adhoc basis.
- Regular reporting on GHG inventories required - essentially to create appropriate institutional arrangements for regular preparation of GHG inventories.
- IPCC Inventory guidelines provides detailed estimation tools. Most developing countries use Tier I, but useful for countries to move to Tier II or III.
- Key information required - activity data and country specific emission factors.
- A good starting point to identify key activity data needed, existing systems of collecting information (e.g, electricity authority, statistical organization, etc).
- Identify data gaps and appropriate institutions to collecting information.
- It is also important to assess the mechanisms for ensuring sound approaches for data collection and process to ensure quality of data.
- Better to use iterative approach in improving systems, rather than building the whole Rome in one day.

MRV OF NAMAS

- NAMAs - term used for two different types of actions
 - Nationally determined voluntary mitigation action to address GHG emissions (NAMA as PLEDGE); and,
 - Detailed implementation plans for specific mitigation actions (IMPLEMENTATION NAMA).
- NAMA PLEDGE
 - These submissions are expressions of intentions to implement mitigation.
 - Neither describe the steps nor include detailed plans to implement the mitigation actions.
 - E.g., South Korea - ER reduction below BAU emissions in 2020.
 - Countries have prepared policies and measures to meet Mitigation Pledges - e.g., 4 national climate change action plans of India.

MRV OF NAMA PLEDGE

- Depends on the nature of economy wide goal (EWG) - below BAU, Emission Intensity, Absolute Emission Cap, etc. E.g.,
 - For BAU based EWG - tracking can be based on national GHG inventories and a robust ex-ante BAU emission profile.
 - FOR GHG intensity goal - tracking based on national GHG inventory and internationally accepted norms of GDP estimation.
- For EWGs - a robust system for continuously preparing GHG inventory is important for MRV of NAMA.
- For international transparency and internal systems of feedback - important to have MRV of policies and programmes countries implement to achieve EWGs.

MRV OF NAMA PLEDGE

- Tier III GHG inventory system a good basis but not sufficient for measuring data to estimating impacts of policies and programmes.
- A detailed measurement system for indicators to track policies/programmes can also feed into GHG inventory preparation.
 - example RE based electricity - GHG inventory only tracks fossil fuel based electricity generation
 - example EE in residential and commercial sector - though trends of electricity use in these sectors could indicate gross level improvements - more detailed underlying data required for policy analysis and policy formulation.
- Such a system at sectoral level is most relevant to track climate change policy implementation and **support GHG inventory preparation.**

INSTITUTIONAL ARRANGEMENTS

- A system that synergies GHG inventory systems and sectoral MRV of policies and programmes most suitable.
- A National level coordinating entity to provide guidance for developing data collection systems and their QA/QC with distributed responsibility for collecting information is most effective.
- Central organisation responsible for measuring data (e.g. statistics team) should be involved.
- Private sector actors too could be involved for facility level data.
 - industrial sector to report on type of fuel used, amount of fuel used, efficiency measures taken, etc.
 - Manufacturing and sales actors could be involved on reporting on appliance efficiencies.

KEY ELEMENTS OF MRV IN NAMA DOCUMENT

- Key Elements of MRV in NAMA Document
 - Parameters to assess *progress of implementation*
 - Parameters/indicators to measure the Impacts
 - *National Sustainable Development benefits*
 - *GHG emissions impacts*
 - *Measuring and Reporting Plan*
 - Description of *verification* process

WHERE TO START - PROGRESS INDICATORS

- Progress indicators
 - Track the NAMA **outputs** and status of NAMA implementation of NAMA **activities**
 - The outputs describe the **services to be produced** by the NAMA through the implementation of the activities during or on the completion of NAMA implementation
 - Progress indicators may also **relate to impact** indicators if the impact is assessed on the basis of reaching certain milestones
- Standard in all projects and programmes - such as GEF or other bilateral funded climate change activities

DEVELOPING MEASUREMENT PLAN

- What should a Measurement Plan include?
 - **What** information and data to collect?
 - **How** to collect information and data? - direct measurement, survey, secondary sources of information
 - **Who** is responsible for collecting information and data? - depends on actors involved in the NAMA implementation
 - **How long** to store and how to store the information and data (electronically, paper trail, etc)
 - **QA & QC** procedures - to ensure quality of data

Verification

DEVELOPING REPORTING PLAN

- If **Domestic MRV** system is established
 - MRV will be **according** to the domestic system
 - Will that be the case for Supported NAMAs - most likely, with maybe **additional requirements** from international support provider
- If No Domestic MRV system established - A reporting plan should include
 - **What** to report (based on measurement plan)
 - **How** to report (reporting templates)
 - **How often** to report - frequency
 - **Whom** to report - National as well as International entities (in case of supported NAMA)

DEFINING VERIFICATION PROCESS

- In **accordance with** Domestic MRV system, if one is established
- Else, NAMA should include information on Verification process, which should include:
 - **Pre-verification** - verification of measurement and reporting plans?
 - **Post-verification** -
 - **Scope** of verification (desk review of reports, physical checking of data collection systems and data, or cross - verification of data through other means, etc)
 - **Entity** to undertake Verification
 - **Outcome** of the Verification process

DOMESTIC MRV SYSTEM

- Process, procedures and guidance
 - Establishing baselines and developing measurement plans
 - Reporting formats and procedures
 - Process and procedures of verification
 - Procedures for accreditation of verifying entities
- Institutional Arrangement
 - Central entity responsible for overseeing development and implementation of rules and procedures to operate the DMS
 - Support structures (technical panels and experts) to aid in preparation

Thanks

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