

# **Measurement, Reporting and Verification in a Post-2012 Climate Agreement**

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# Overview

- Introduction: Monitoring, reporting and verification (MRV) in the Bali Action Plan
- MRV in International Law
- MRV in the Climate Regime
- Options for MRV in a post-2012 climate agreement
- Conclusions

# MRV in the Bali Action Plan

- Provisions on mitigation in paragraphs 1(b)(i) and 1(b)(II) call for:
  - Measurable, reportable and verifiable nationally appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives, by all developed country Parties....[and]
  - Nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner.

# Purposes of MRV

- Means of tracking parties' progress individually and collectively
- Facilitate national action and planning
- Enable recognition of mitigation actions
- Link developing country action to international support
- Strengthen mutual confidence in countries' actions and the overall regime

# MRV in the Climate Regime

- UNFCCC and Kyoto Protocol have many MRV-related provisions for
  - GHG inventories
  - Accounting of Kyoto Protocol units
  - Mitigation Measures
  - Financial and Technology Commitments
- Provisions differ substantially between types of commitments and for Annex I and non-Annex I parties

# Annex I GHG Inventories

- Parties submit detailed inventories annually
  - All 6 GHGs
  - IPCC Guidelines and Good Practice Mandatory
  - Full time-series (base year to most recent)
  - Detailed documentation of methods, data sources, & inventory planning process
- Each inventory submission reviewed by expert team
  - Focus on assessing conformity of methods and data sources with the IPCC Guidelines
  - Some comparison to other international data sources and expected values (implied emission factors)
  - Conducted in country at least every 5 years

# Non-Annex I GHG Inventories

- Parties submit GHG inventory only as part of the national communication
  - Only 3 GHGs required
  - IPCC Guidelines and Good Practice not mandatory
  - Only one year required (1990 or 1994)
  - No requirement to provide documentation of inventory methods
- Inventories are not subject to review
  - Consultative Group of Experts provided forum for sharing of experiences and to identify capacity building needs

# Assessment of MRV of GHG Inventories

- **Annex I Parties**

- Reporting requirements set high standard for accuracy, completeness, comparability and transparency
- Current reporting and review provisions sufficiently rigorous to support verification of emission targets and mitigation measures
  - Review process is highly resource-intensive and may not be appropriate for all commitments or actions

- **Non-Annex I Parties**

- Current reporting requirements insufficient to produce high-quality national inventories
  - Additional funding necessary to strengthen and maintain ongoing in-country capacity for national inventory preparation
- Provisions do not provide adequate basis for verification of national mitigation actions or emission trends



# Accounting of Kyoto Protocol Units

- All transactions of units under the Kyoto Mechanism tracked by system of electronic registries and the International Transaction Log (ITL)
  - National registries subject to ongoing testing and monitoring to ensure that they conform with technical requirements
  - ITL checks transactions before they are carried out
- Annex I parties must report information on holdings and transactions of units
- System not fully operational until 2009, so difficult to assess performance fully
  - If all goes as planned, transactions will be checked in real-time
  - Reporting and review processes adds transparency, but do not significantly improve reliability

# Annex I Mitigation Measures

- Convention and Kyoto Protocol require Parties to undertake policies and measures to meet their GHG commitments
  - Menu approach: Parties not required to adopt specific measures
- Parties report in national communications:
  - National Policy Context
  - Measures by sector and gas
  - Where possible, quantitative estimate of effect on GHG emissions and projections
- Information on mitigation measures reviewed as part of national communication

## Assessment of MRV of Annex I Mitigation Measures

- Lack of specificity in commitments hinders development of clear metrics for measuring and reporting performance
  - Reported information is not comparable or complete
- No clear guidance for reviews
- Current provisions do not enable assessment or verification of effectiveness, nor a comparison of efforts across countries

# Non-Annex I GHG Mitigation Measures

- Parties report general information on steps taken to implement the Convention, including mitigation measures
  - Complete flexibility in what is reported
  - Wide variation in type and level of information provided
- No review process
- Assessment: Current provisions inadequate for verification of implementation of measures or effectiveness

# Financial and Technology Commitments

- Annex II Parties report on provision of support to developing countries in national communications
  - Bilateral
  - Contributions to the Global Environment Facility
  - Other Multilateral Funds and organizations
  - Private sector activities
- Quality and comparability of information is mixed
  - Data gaps and inconsistencies, particularly bilateral funding, and other multilateral (non-GEF) funding
  - No common standard for 'new and additional' or 'climate-related' funding
- Difficult to verify support that is not provided through GEF
  - Use of reporting standard developed by the OECD Development Assistance Committee encouraged but not required
- Assessment: Current provisions provide good basis for MRV, but insufficient

# Options for MRV in a New Climate Agreement

- Treatment of MRV depends on type of commitments and role of market mechanisms
  - To extent possible, MRV should build on existing practices in Convention and Protocol
- Emerging 'multi-track' framework of different commitments along different tracks, e.g.
  - Economy-wide emission targets for developed countries,
  - Non-target mitigation actions (NAMAs) for developing countries, possibly reflected in a 'registry'
- Some MRV provisions may be appropriate across all tracks, where others may be track-specific

# GHG Inventories Across Tracks

- While not strictly necessary for MRV of non-target mitigation actions, regular & comprehensive GHG inventories by all major GHG emitters provides strong foundation for mitigation
  - Stimulus for ongoing data collection & maintenance of in-country inventory capacity
  - Basis for identifying national mitigation opportunities
  - Supports broader objective of Convention
- GHG inventories for developing countries need not be as frequent or detailed as those of Annex I countries, but should be improved substantially
  - Additional funding required, at least initially

# MRV for Emission Targets

- Current Annex I inventory reporting and review provisions provide adequate basis for MRV of absolute targets
  - Additional data (GDP, sectoral output) needed if other types of targets adopted
- Kyoto accounting (ITL and registries) provides sufficient oversight of transactions under Kyoto mechanisms
- If other countries take on national emission targets and trade, reasonable that they be required to conform to same standards



# MRV for Non-Target Mitigation Actions

- Considerations:
  - Important to MRV action, outcome or both? Verification of implementation may give little indication of effect on emissions
  - Ex post or ex-ante? Ex-ante measurement may be important to establish nature of action, level of effort or starting conditions
  - Process needed for defining appropriate metrics – either through negotiation of actions, or reporting requirements
  - To what extent should MRV provisions for NAMAs be differentiated by type of action or country circumstances? For instance, should different provisions apply to NAMAs that are undertaken unilaterally and those that are undertaken with international support?

# Reporting of Non-Target Mitigation Actions

- In general, the more specific and quantified the mitigation measure, the easier it will be to define a metric for MRV
- National communications too broad and inconsistent across parties to facilitate MRV
- Could create a separate NAMA report
  - Detailed information on goals, status and implementation of NAMAs using agreed indicators, specific to type of action
  - GHG inventory information should be used to substantiate performance where possible
  - Submitted biennially or triennially

## Verification of Non-Target Mitigation Actions

- Parties will need to decide when verification can be conducted nationally and when international verification is needed
  - Bali action plan does not refer to international verification
  - Interest of Parties in ensuring transparency and confidence among Parties suggest that some sort of international review of reported information or national verification procedures is needed
  - Different approaches may be appropriate for NAMAs that are undertaken unilaterally and those supported by international assistance

## Verification of Non-Target Mitigation Actions

- National level verification may be sufficient for unilateral NAMAs
  - Agreement needed on type of information to be collected and verification procedures
  - Party verifies and reports on performance of NAMAs, and procedures for verification
  - International review to assess whether Parties are conforming to measurement and verification requirements
  - A mechanism for direct input from in-country stakeholders to the international review would increase transparency and accountability

# Verification of Non-Target Mitigation Actions

- For NAMAs undertaken with international support, international verification expected
  - Could use existing review team model
    - Well-established process with confidence & support of parties
    - In-country visits provide greater access to documentation and national experts
    - But resource-intensive, especially in-country
  - Consultative Group of Experts could be extended
    - CGE mandate would need to be expanded to include true review function
    - Additional GHG mitigation expertise required

# Linking MRV of NAMAs and Support

- To the extent that NAMAs are contingent upon international support, could link MRV of action and support
  - ‘Registry’ could be vehicle to help match mitigation actions and funding and establish performance indicators for implementation
  - Ongoing implementation of NAMA be may be contingent upon MRV of support; continued provision of funding contingent upon MRV of NAMA

# Options to Link MRV of NAMAs and Support

- Financial mechanism and NAMA review body could report to one another
  - Financial mechanism would report to review body on funding provided collectively and to individual countries for specific actions
  - Review body would report to financial mechanism on party's progress in implementation
- Single body could serve as financial mechanism and review body
  - Montreal Protocol Fund model - Developing countries propose actions consistent with general obligations, actions and funding levels negotiated together; disbursement of funds dependent on ongoing reporting and verification of progress.
  - GEF currently reports to COP on funding of projects, but not on project performance, despite having institutions and procedures in place

# Financial and Technological Support

- MRV more straightforward for funding channeled through designated institutions
  - Commitments to specific funding levels or formulae easily verified
- Cooperation of Multilateral Banks would improve comparability and verifiability of reported climate support
- For bilateral aid, common and specific definitions of 'climate-related' and 'new and additional' needed
  - Mandatory use of the Rio Markers to enable cross-checking with OECD Creditor Reporting System
- If levy applied through emission trading or other mechanism, ITL could be used to calculate and possibly collect the levy
  - E.g. share of the proceeds from CDM projects



# Conclusions

- Build on existing procedures where appropriate
  - We know what is working and what's not
  - In some areas, deficiencies due to vagueness of commitments, not problems with reporting/review
- Different MRV approaches may be warranted for different types of actions and commitments
  - All MRV approaches must be perceived as sufficiently rigorous
- Parties will need to balance need for rigor with limited resources
  - Aim for MRV provisions that provide sufficient confidence in respective efforts and in the overall regime, but do not needlessly divert resources from other critical objectives

# For More Information

[www.pewclimate.org](http://www.pewclimate.org)

