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LDC concerns related to MRV in the climate regime

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KEY POINTS

- The 2013 climate conference in Warsaw agreed on basic guidance on the **measurement, reporting and verification (MRV) of domestically supported Nationally Appropriate Mitigation Actions**, and on the **composition of the technical team of experts analysing Biennial Update Reports**.
- Key issues for LDCs related to the MRV of mitigation actions include the **development of simplified methodologies for LDCs under the Framework of Various Approaches** to ensure that LDCs can benefit, and **simplified greenhouse gas inventories with the provision of adequate resources** to help LDCs to keep their emissions under control as they develop.
- A consistent and transparent system for **MRV of support has not yet been developed**. In particular, clarity is needed on **definitions of "climate finance"** and of **"new and additional" finance**, and on **methodologies for the accounting of finance** provided by developed countries and leveraged in the private sector.
- The **LDC Group's active leadership and participation in promoting MRV of support** merits consideration. The Group could **initiate in-country verification of the climate finance** they receive, based on what they consider climate finance, to **expedite the development of international rules for accounting**, and to **fine-tune the definitions of climate finance**.
- Submitting **Biennial Update Reports**, where resources are available, can allow LDCs to **receive support that is better tailored to their requirements, and can be used more effectively**.

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Introduction

Measurement, Reporting and Verification (MRV) of greenhouse gas (GHG) emissions, mitigation action and of support emerged as a key pillar of the future climate regime in the Bali Action Plan (BAP), which was agreed at the thirteenth Conference of Parties (COP 13) to the UNFCCC in 2007, in Bali, Indonesia.[1] MRV in relation to mitigation action by developed and developing countries, and in relation to support for developing countries through technology, finance and capacity building, was a central feature of discussions in the run-up to COP 15 in Copenhagen, in 2009. At COP 16 in 2010, the Cancún Agreements set out specific provisions for enhanced reporting for both Annex I and developing countries, which were clarified further at COP 17 in Durban.[2]

The interaction between MRV of mitigation action and MRV of support requires careful balance. Many non-Annex I countries rightly state that MRV of support is a prerequisite for MRV of mitigation action by non-Annex I countries, and mitigation action should only be reported in cases where international support has been provided.[3] In the 2009 Copenhagen Accord (subsequently incorporated into a UNFCCC decision at Cancún in the following year) developed countries committed to a goal of jointly mobilising US$100 billion per year by 2020, to address the needs of developing countries "in the context of meaningful mitigation actions and transparency on implementation".

Negotiations under the UNFCCC are now moving towards a 2015 climate agreement that will be "applicable to all Parties". A key part of the 2015 agreement will be the arrangements to report and review how Parties have implemented their commitments. Furthermore, new mechanisms to achieve emission reductions cost-effectively, the so called Framework of Various Approaches (FVA) and New Market Mechanisms (NMM) are under discussion. MRV will be a key element for these mechanisms. This paper aims to inform LDC negotiators of the key issues relating to MRV from an LDC perspective. It discusses the possible benefits of MRV to LDCs and the specific challenges faced by LDCs, like shortage of resources and staff, pressing adaptation needs, and lower mitigation potentials.

The paper begins with a general description of MRV, and an overview of MRV under the UNFCCC. It then discusses practical issues related to MRV of emissions, mitigation and support. In the final section, the paper describes key areas under the UNFCCC where MRV-related aspects are still under discussion after COP 19 in Warsaw, provides an overview of country positions and the implications for LDCs, and potential considerations for the LDCs on MRV.

BOX: Introducing MRV

MRV is a tool to support informed decision-making. It establishes baselines to inform policy makers where action should be focused, and assesses changes to determine whether such action has been effective. MRV can, in theory, be applied to any kind of change – such as increasing access to energy, increasing income per capita; or to addressing air pollution, deforestation or biodiversity conservation. Depending on what is MRV-ed, the data required could be quantitative, qualitative or semi-qualitative.

The level of rigour required for an MRV process – that is, the reliability of the data – depends on the type of decision that the MRV is intended to inform. Where high levels of trust are called for, measurement methodologies will need to be more accurate and reviews of the reported data more strict.

The level of rigour required, meanwhile, defines how the MRV approach should be designed. This applies to every element of MRV. The highest level of rigour for **measurement** is provided by project- or installation-level data, while statistics and estimates (such as extrapolated values or default values) provide a decreasing level of rigour. A high level of rigour is also typically associated with annual data collection, while a lower level of rigour might allow larger intervals between data collection. In **reporting**, rigour mainly depends on the level of detail required in the report and the frequency of reporting. **Verification** can mean a review by an accredited independent third-party if high rigour is required. For lower levels of rigour, verification can be performed by a separate entity with the relevant expertise, or within the same entity performing measurement and reporting.

In order to be **cost-effective**, an MRV approach should be designed to achieve just the right level of rigour required for the decisions it aims to inform, rather than over-engineering to deliver unnecessary accuracy. Existing structures and information should be used as far as possible. The National Greenhouse Gas (GHG) Inventories of Annex I countries under the UNFCCC provide a good example in this context – in most countries, the data is not collected especially for the Inventory, but rather for national statistics to inform energy, air quality or climate change policies.

An appropriately designed MRV system can build trust between Parties in a multilateral process and enhance the potential for greater collective ambition by increasing transparency, facilitating communication and transfer of best practices, and reducing misunderstandings and the risk of "free riders".

Existing MRV provisions under the UNFCCC

MRV requirements before Cancún

Before the agreement to enhance reporting requirements in Cancún, the principal reporting requirements under the international climate regime related to the submission of National GHG Inventories by Annex I countries and National Communications by both Annex I and non-Annex I countries.

The National GHG Inventories by Annex I countries, governed by Article 7 of the Kyoto Protocol and related guidance, are the most established of the reporting processes in the climate regime.[4] The Inventories provide an annual overview of national GHG emissions (of carbon dioxide, methane, nitrous oxide, perfluorocarbons, hydrofluorocarbons and sulphur hexafluoride) in the energy, industry, agriculture, land-use, land-use change and forestry and waste sectors. The data collection is based on methodologies set out by the Intergovernmental Panel on Climate Change (IPCC).

A Common Reporting Format (CRF) is used for the emissions data, and a National Inventory Report (NIR) is included for methodologies, assumptions, and further information relevant to understanding the compilation of the inventory. An Expert Review Team, (ERT) composed of inventory experts accredited with the UNFCCC, review the CRFs and NIRs annually, focusing on accuracy, consistency, comparability and completeness. The participation of inventory experts also has a strong learning component as the experts – frequently national experts working on GHG inventories in other countries – gain an understanding of approaches and experiences of other Parties, while sharing their own.

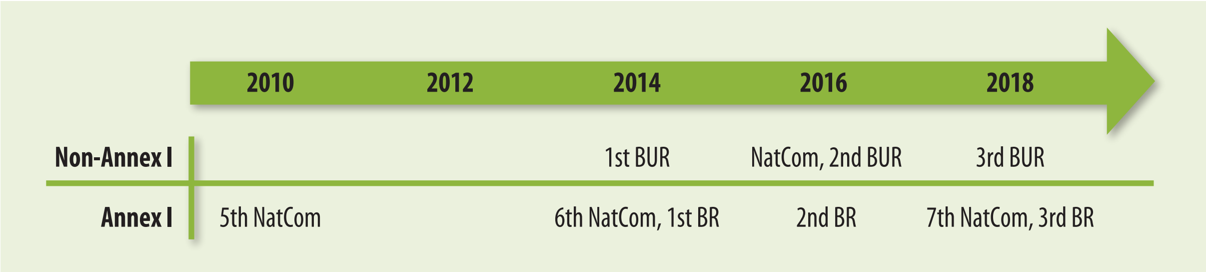
Under UNFCCC Article 12.5, Annex I countries are also required to submit National Communications, which are intended to report on their progress towards their Kyoto Protocol targets.[5] The Annex I National Communications include a summary of the national GHG inventory and projections; a description of national circumstances, and policies and measures and their impacts; and information on finance and technology contributions.

Before Cancún, developing countries were expected to submit National Communications on a voluntary basis, with a reduced scope compared to Annex I.[6] While developing countries generally acknowledge that the collation and presentation of information required for a National Communication is very valuable, barriers to regular reporting include lack of expertise, costs, and the time and resources needed to compile the documents.

MRV requirements after Cancún

Regular reporting requirements for developing countries were agreed for the first time at COP 16 in Cancún, together with enhanced reporting requirements for developed countries. Developing countries are now required to submit National Communications every four years (starting in 2016) and Biennial Update Reports (BURs) every two years (starting in December 2014). Allowances are made for LDCs and Small Island Developing States, who can submit BURs at their discretion. Developed countries are also required to submit Biennial Reports (BRs) every two years (the first BR was due in January 2014). Additionally, it was agreed at COP 19 that developed countries should prepare biennial submissions on their updated strategies and approaches for scaling up climate finance from 2014 to 2020.[7] Figure 1 on the next page shows when each group will have to submit National Communications and BRs/BURs.

Figure 1: Timeline for submission of National Communications and BRs/BURs



It is worth noting that while the requirements for MRV of GHG emissions in the form of national inventories have largely been agreed, there is no specific detailed guidance agreed on methodologies for assessing the effects of mitigation actions. This applies to both mitigation actions in non-Annex I countries and the assessment of effects of policies and measures in developed countries. A first step in this direction was made at COP 19 in Warsaw where voluntary guidance was agreed for the MRV of domestically supported NAMAs.[8] The guidance is brief and mainly summarises the key elements of a national MRV system. It mentions the establishment of an institutional structure for MRV as well as data collection and documentation of methodologies for domestic NAMAs. Developing countries are encouraged to undertake verification of domestic NAMAs and use national experts and domestically developed verification processes to increase cost-effectiveness. The guidance also encourages developed countries to provide additional funding for its application.

The requirements for BRs/BURs and their review provide an example of the potential for designing diverse approaches to MRV, tailored to the needs of the process and the capabilities of the Parties. For instance, the International Assessment and Review (IAR) process for the BRs of developed countries is intended to promote comparability and build confidence. It therefore adopts a more rigorous approach, which includes a review of the BRs for compliance. In comparison, the International Consultation and Analysis (ICA) process for the BURs of non-Annex I countries aims to increase transparency of mitigation actions and their effects. It thus reflects a lighter touch than the IAR process and focuses on assessment and discussion of BUR contents, including the identification of capacity building needs.

The requirements for the composition of the Technical Team of Experts (TTE) which will carry out the technical analysis under the ICA were agreed at COP 19 in Warsaw.[9] They ensure a good understanding of the conditions developing countries face in drafting National Communications and BURs in particular by involvement of the Consultative

Group of Experts (CGE – a group responsible for providing technical support to developing countries in compiling their National Communications). It was agreed that each TTE would include at least one member of the CGE. The CGE will also develop obligatory training for TTE members, and it is mandated that a majority of TTE members should preferably be from developing countries.

More specific requirements related to the content of the BUR and the ICA process have been agreed in Warsaw with regards to reducing emissions from deforestation and forest degradation (REDD). [10] They apply where a developing country is seeking to obtain and receive payments for results-based actions related to REDD. In this specific case a higher accuracy is needed, which is reflected in detailed technical requirements for both reporting and review.

A comparison of the reporting and review requirements for Annex I and non-Annex I Parties is presented in Table 1 on the next page. A review of both the ICA and IAR process will take place after the first cycle – by 2016 for the IAR, and by 2017 at the latest for the ICA.[11]

Table 1: Comparison of BRs and BURs, and their review

	Annex I Parties	Non-Annex I Parties
Content	**Biennial Reports** • National circumstances • Summary of national GHG inventory • Mitigation actions implemented or planned • Emissions reductions/removals achieved • Financial, technological and capacity building support provided to developing countries • Institutional arrangements	**Biennial Update Reports** • National circumstances, relevant institutional arrangements related to reporting • Update of National GHG Inventory, including National Inventory Report • Mitigation actions: Methodologies, results achieved, estimated outcomes • Constraints and gaps, including support needed and received • Domestic MRV approaches
Review	**International Assessment and Review** • Scope: Emissions and removals, assumptions, conditions and methodologies related to the attainment of progress, reduction target • Two-step process: 1. Technical review 2. Multilateral assessment during a session of the UNFCCC Subsidiary Body for Implementation (SBI) Countries undergo IAR individually	**International Consultation and Analysis** • Scope: GHG inventory, reporting on mitigation actions, domestic MRV system, support received • Two-step process: 1. Technical analysis 2. Facilitative sharing of views during dedicated workshops under SBI Countries participate in the ICA individually, while SIDS and LDCs might participate in the ICA as a group of countries at their discretion

Specific provisions related to MRV of support

A number of gaps remain with regard to MRV of technical, financial and capacity building support – for instance, on key definitions, data and methodologies for developed countries to report on support provided, and data, methodologies and capacity for developing countries to estimate their support needs and report on support received. An overview of the gaps and requirements related to MRV of support is provided in Table 2 on the next page.

A Standing Committee on Finance (SCF) was established at COP 16 in Cancún to assist the COP, among other things, in improving the MRV of support provided to developing country Parties.[12] At COP 18 in Doha, the SCF was requested to prepare Biennial Assessments and overviews of climate finance flows, and consider ways of strengthening methodologies for reporting climate finance.[13] The first Biennial Assessment will be published in late 2014, drawing on developed country BRs, among other sources.

Table 2: MRV of support

	Annex I Parties (Support provided)	Non-Annex I Parties (Support needed and received)
Measurement	Common tabular format[14] Submission on appropriate methodologies and systems used to measure and track climate finance by May 2014[15] Methodologies for reporting financial information to be adopted by COP 20 in 2014[16]	[No decision]
Reporting	Biennial Report and biennial submissions on updated strategies and approaches for scaling up climate finance from 2014 to 2020.	Biennial Update Report
Verification	International Assessment Review	International Consultation and Analysis

Three areas of MRV: emissions, actions and support

In practice, there are three distinct areas where MRV provisions will apply in the climate regime: GHG emissions; the effects of mitigation actions; and support. This section presents an overview of each of these areas and implications for LDCs.

MRV of emissions

Detailed provisions already exist under the climate regime for the MRV of national GHG emissions, and are constantly updated based on practical experiences in compiling inventories. Beyond the purposes of reporting to the UNFCCC, the inventories also provide countries with an overview of emissions at the national, sub-national and sectoral level, and help them in designing and MRV-ing options to limit GHG emissions in future.

Mitigation is considered a secondary concern in LDCs, given their comparatively low per capita emission levels. However, a simple and cost-effective GHG inventory could be a helpful first step in keeping GHG emissions under control in future, as LDCs develop.

MRV of mitigation actions

Specific guidance to assess the effectiveness of mitigation actions does not yet exist for developed or developing countries under the UNFCCC. Voluntary guidance on the MRV of domestically supported NAMAs has been agreed at COP 19, but provides rather general advice.

An important lesson from experience in Annex I countries is that it is often very difficult to determine the emissions reductions achieved by a specific policy or measure. Typically, emissions of a specific sector or sub-sector are influenced by a number of factors, including economic, social and technical development. It is not easy to attribute emissions reductions to a single factor, or to develop comparable baselines needed for the assessment of emission reductions achieved.

Well-designed mitigation actions could also achieve additional benefits, beyond emissions reductions, and contribute to goals such as energy security, health, increase in agricultural production, and job creation. To LDCs, such effects are likely to be far more relevant than the mitigation benefit itself.

Where mitigation actions receive international support, it is likely that some form of MRV is a condition to receiving this finance. The nature and degree of rigour will depend upon the nature and provider of the support, and the national circumstances of the recipient, among other things. Unless the requirements from different providers of support are aligned, recipients of support will have to invest considerable effort in MRV processes, which might well exceed their capacities. LDCs should therefore engage with efforts to develop harmonised MRV requirements, and set up integrated national processes that will allow them, to the extent possible, to fulfil different MRV requirements using the same institutional structures, capacities and data.

MRV of support

The MRV of support relates to developed country commitments to provide finance, support on technology transfer as well as capacity building to developing countries – such as the commitment to mobilise US$100 billion annually by 2020 made in Copenhagen. The 2015 agreement is also likely to include commitments related to support.

Reporting on financial commitments by developed countries is also covered under Article 12 of the UNFCCC, which calls on them to communicate details of measures taken in accordance with their financial commitment under UNFCCC Article 4.3 to the COP.[17]

MRV of support is particularly essential for LDCs to ensure that they receive the support they need to implement their National Adaptation Programmes of Action (NAPAs), National Adaptation Plans (NAPs), and to embark on a low carbon development pathway. BURs offer developing countries the opportunity to express their specific needs related to finance, technology or capacity building for mitigation or adaptation. Reporting on the support received requires national oversight and coordination, a process that could also help in making the use of the support more efficient, targeted and effective. It could therefore be beneficial for LDCs to consider submitting BURs, where resources allow, despite the discretion granted.

MRV of support can be viewed from two angles: the support provided by Annex I; and the support received by non-Annex I. In theory, the two should yield the same results if the same MRV standards are applied (i.e. support provided should be the same as support received). However, several problems remain with regard to an effective MRV system.

The first problem relates to the lack of common definitions of which developed country contributions should be counted as climate finance, and when this is "additional" to contributions made towards Official Development Assistance (ODA). In the past, for instance during the period of "fast start finance" (FSF) between 2010-2012, developed countries have used several different approaches while counting their climate finance contributions. This has made it very difficult to assess whether they have met their financial commitments. In the context of FSF, developed countries claim that they have exceeded their commitments, while LDCs claim that they have received little or none of the funding promised, and that the proportion of finance provided for adaptation, the key concern for LDCs, is considerably smaller than finance for mitigation. This experience illustrates the importance of a robust MRV system for support to ensure accountability and transparency.

Agreeing a common definition of "climate finance" is complex, as finance to address climate change currently flows through multiple channels and are delivered to developing countries in multiple forms, including ODA, public and private funds, carbon market finance, grants, loans, equities, guarantees, and insurance. Common methodologies to assess and attribute private sector investment leveraged by public sector finance do not yet exist. Where climate finance is one of several aims of support provided, a common approach is needed to assess the share of the support that can be counted towards climate finance.

Currently, the Organisation for Economic Cooperation and Development's Development Assistance Committee's (OECD DAC) indicator system is most commonly used to assess flows as being either fully or partly dedicated to climate, but the system does not provide guidance on how to determine the specific share of climate finance. The definition of what counts as "new and additional climate finance" also relies on the definition of climate finance itself. To date, no baselines or guidance on the assessment of additionality exists.

To date, the verification process for financial contributions reported by Annex I countries in their National Communications has been rather light touch, and it is important that MRV of contributions is carried out with sufficient rigour to ensure developed country compliance with their commitments on support. Whether the level of detail on support provided in these reports is sufficient to assess compliance will become apparent only after the first IARs have been carried out.

MRV in the forthcoming negotiations

This section provides an overview of the MRV-related elements that will be discussed at COP 19 in Warsaw in November 2013, and in future UNFCCC meetings. Some of these relate to a single aspect of MRV of emissions, mitigation actions or support while others, such as the 2015 agreement, cover all three of them. The elements relate to:

1. MRV of finance
2. MRV of technological support
3. Framework for Various Approaches and New Market Mechanism
4. MRV under the 2015 agreement

1. MRV of finance

Key decisions have yet to be taken in order to ensure MRV of financial support provides meaningful, transparent and accurate data. This includes decisions on the definition of climate finance, and when climate finance is considered additional. The SCF is likely to consider such definitions while developing the first Biennial Assessment of climate finance flows in 2014, potentially providing draft definitions to the COP for further discussion and agreement.

These definitions are essential for the development of accounting methodologies for financial support from developed countries. Submissions on such accounting methodologies are invited by May 2014, while a decision is expected at COP 20 in Lima, Peru, in 2014. To ensure consistency, the development of these methodologies should be closely linked to the work of the SCF on the Biennial Assessment. However, the current timelines pose a challenge, as the draft of the Biennial Assessment is only expected in June 2014.[18]

Options: In June and July 2013, the SCF called for inputs in the development of a Work Programme on MRV of Support and the Biennial Assessments and overview of climate finance flows in 2014. Submissions were provided by six institutions, including the OECD.[19] The submissions clearly indicate the need for definitions of climate finance and additionality. While calling on the SCF to develop these definitions in the first Biennial Assessment, submissions generally advocated a broad coverage of sources and instruments related to climate finance – including, for instance, South-South-flows and private finance, and pointed to existing initiatives and methodologies that the SCF could consider as a starting point.

COP 19 aimed to broaden the activities of the SCF with regards to MRV of support, by inviting it to consider ways to increase its work in this area beyond the Biennial Assessments.[20] The SCF was specifically requested to develop operational definitions for climate finance and private sector finance mobilised by public interventions, and invited to focus its second forum on mobilising climate finance for adaptation in both the public and private sectors. Developed countries were requested to prepare biennial submissions on their updated strategies and approaches for scaling up climate finance between 2014 and 2020. There will also be Biennial High Level Ministerial Dialogues on climate finance throughout this period.

Considerations for LDCs: Coordination of the process of MRV of support by the SCF could ensure consistency, transparency and accuracy in meeting the support needs of LDCs, and merits the Group's support. This includes consideration and suggestions of further activities the SCF might take up in the future. The Group's active leadership and participation in the development of definitions for climate finance and additionality of climate finance, and their incorporation in common and pragmatic accounting methodologies for developed countries, also merits consideration. For instance, LDCs could initiate in-country verification of the finance they receive, based on whether they consider it climate finance. This could expedite the process of developing international rules for accounting, and help in fine-tuning the definitions of climate finance over time. To be most beneficial to LDCs, a definition of climate finance should cover a broad range of financial flows, with strict requirements to establish whether these flows are related to climate, and are additional.

2. MRV of technological support

COP 7 in Marrakech, Morocco, in 2001 encouraged developing countries to "undertake assessments of country-specific technology needs, subject to the provision of resources, as appropriate to country-specific circumstances." COP 13 in Bali, in 2007, further encouraged non-Annex I Parties to carry out technology needs assessments (TNAs). The TNAs are expected to lead to the development of national Technology Action Plans (TAPs) that prioritise technologies, recommend an enabling framework for the diffusion of these technologies and facilitate identification of good technology transfer projects and their links to relevant financing sources.[21]

Options: The UNFCCC Secretariat is currently preparing an updated synthesis report of the TNAs completed so far. This synthesis report was presented to the meeting of the

Subsidiary Body for Scientific and Technological Advice (SBSTA) during COP 19 in Warsaw, in 2013.[22] A decision on next steps will be taken after the full consideration of this report, at SBSTA 40 in May 2014.[23] Discussions are likely to include MRV approaches for technology support received.

Discussions on technology transfer under the Ad-hoc Working Group in the Durban Platform also touched upon the MRV of technological support, where the Like-Minded Developing Countries called for a dedicated work programme on this area.[24]

Consideration for LDCs: Technological support related to adaptation and low carbon energy sources is a priority for the LDC Group. A robust system for MRV of technological support, which includes verification by both the contributor and the recipient, could go a long way in ensuring that these priorities are addressed.

3. Framework of Various Approaches and New Market Mechanism

At COP 17 in Durban, in 2011, Parties agreed to consider a Framework of Various Approaches (FVA)), to enhance cost-effectiveness of, and promote, mitigation actions. The FVA is expected to serve as an umbrella covering different types of mitigation actions while ensuring that certain standards are met. Among other things, the approaches should deliver real, permanent, additional and verified mitigation outcomes, avoid double counting of efforts, and achieve a net decrease and/or avoidance of GHG emissions.[25]

The New Market Mechanism (NMM) is discussed as one potential approach under the FVA. Parties agreed that the NMM should be coordinated under the UNFCCC, participation should be voluntary, and that it must promote sustainable development.[26] The discussions point towards an upscaled mechanism targeting mitigation action in "broad segments of the economy". A definition of what this means exactly remains to be agreed on, but it indicates actions potentially taking place at the sectoral or sub-sectoral level rather than at project level, as in the case of the Clean Development Mechanism (CDM).[27] However, agreement has not been reached on whether project-level action similar to CDM will also be an option under the NMM,[28] or whether and how the NMM and CDM will co-exist.[29]

It is likely that MRV will play an important role in the operation of both FVA and NMM. Although the NMM and FVA are discussed separately in the negotiations, and the questions related to their MRV will differ, we discuss both in the same section in this paper, as at this early stage of the discussions certain questions relevant to LDCs apply to both.

The discussions on the FVA and the NMM remained at an abstract level during COP 19 and no decisions were laid down. A workshop on the FVA held before the Warsaw conference suggested sharing information on "approaches" through a platform as a first practical step towards implementation of the FVA.[30] Further steps discussed at Warsaw involve development of validation criteria for recognition of approaches under the Framework, and development of common accounting standards, rules and guidance.

Options: Like the FVA, the NMM should achieve net emission reductions. This means that not all emission reductions generated through the NMM will be usable for offsetting GHG emissions of other Parties. Various options to generate such a net emission reductions exist – for instance by applying a discount factor to emission reductions achieved[31] or using overambitious baselines, where the calculated emission reduction for which certificates are issued is lower than the real emission reduction.

As a market mechanism, there is agreement that stringent MRV is required for the NMM to ensure that no double counting occurs. Detailed MRV approaches remain to be discussed. The EU suggests a common set of rules and an international scrutiny process.[32] Several Parties indicate that the NMM might benefit from using existing structures as well as experiences from the CDM. While this will help to support building a cost-effective mechanism, it does not address how a number of questions that could not be answered under the CDM will be tackled. Chief among them are the questions related to setting baselines, reducing transaction cost and ensuring environmental integrity as well as contributing to sustainable development. New questions related are also likely to arise, given the upscaled scope of the NMM. For example, measurement methodologies will have to be specific enough to satisfy the high level of rigour required by a market mechanism, while being flexible enough to be applicable at a sectoral or sub-sectoral level.

Further issues related to the NMM, for example the definitions of "broad segments of the economy" and regulatory requirements, were discussed at a dedicated workshop before COP 19.[33] The discussion generally favoured granting the host country more responsibility in adapting definitions at the national level and specifying rules according to national needs.

Finally the FVA raises a further questions related to MRV of support. Potentially, the financing received by developing countries through the NMM or other approaches under the FVA could be at least partly considered as support provided. This relates back to the need of finding common definitions related to MRV of support.

Considerations for LDCs: It is important for non-Annex I countries which are considering taking up a reduction commitment to understand the potential impacts of participation in a market mechanism like the NMM. Where GHG reductions lead to the issuance of certificates which are sold on the market, these emission reductions cannot be used towards that country's reduction commitment. Depending on the circumstances, this could lead to a country "selling" its low-cost reduction potentials and having to use more costly reduction potentials in order to achieve its own target.[34] Participation in market mechanisms like the NMM therefore requires careful consideration of costs and benefits. Insights resulting from National GHG Inventories can support such consideration. While this negotiation item may not be of immediate relevance to LDCs, it should be considered from a long-term perspective. LDCs might therefore consider the benefits of supporting the use of a relevant share of overall emissions reductions by the host country as "net emission reductions", and ensuring the use of pragmatic approaches for the determination of this share.

A number of experiences under the CDM might be considered while designing the FVA and the NMM (see, for instance, the LDC Paper on *Lessons from the CDM in LDCs, for the design of NMM and FVA*). The LDCs have attracted only a small number of CDM projects, not only due to the limited mitigation potential in LDCs, but also the high transaction costs – related in part to MRV. The contributions to sustainable development generated by CDM projects have not always lived up to expectations. The discussions on the FVA in general and the NMM in particular present an opportunity to further strengthen the role of host countries in designing and implementing mitigation actions, and thus promoting meeting their specific needs with regards to sustainable development. Of course, strengthening the role of the host country also bears a risk: under certain conditions investment flows might be valued higher than sustainable development needs. LDCs could therefore benefit from an MRV system for NMM that calls for proof that additional value, beyond emission reductions, has been achieved and that no harm has been done. LDC negotiators might therefore wish to strengthen the role of MRV of non-GHG effects, whilst ensuring pragmatic and cost-effective approaches.

Whether financing provided under approaches under the FVA is considered as support provided or not can make a difference with regards to overall support received by developing countries. The related discussion on definitions of MRV of support clearly merit the attention of LDCs.

4. MRV under the 2015 agreement

At COP 17 in Durban in 2011, Parties agreed to start a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the UNFCCC, which is applicable to all Parties. This future agreement is to be negotiated by 2015 and implemented from 2020 onwards. Commitments under this agreement might go beyond mitigation, potentially including further areas like adaptation and the provision of financial support. The Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) was established to oversee the negotiation of this agreement, and discussions are still at an early stage. The co-chairs of the ADP indicated in an informal note published in August 2013 that science, equity, national circumstances and flexibility, effectiveness and participation are emerging as guiding elements in the design of the agreement.[35]

Options: As targets become more multi-faceted, so does the discussion on MRV. A vast array of options for commitments exist for mitigation alone, including legally binding commitments, absolute and relative voluntary targets, actions and policies and measures. Further areas of commitment mean an even higher level of complexity. Parties' submissions focused on mitigation commitments before COP 19, while the discussion broadened on to further areas of commitment in Warsaw.

Submissions made by Parties previous to COP 19 indicated that MRV is considered a relevant element of the future agreement by both developed and developing countries. Several submissions suggested to use experience from MRV under the Kyoto Protocol to build on the MRV process for the future agreement.[36] Statements made during a high-level Ministerial Dialogue, held on 21 November 2013 at COP 19, reflected that Parties generally see the need for "top down common rules for MRV, compliance and accounting".[37]

Parties remain divided as to whether these rules should be commonly applied. The EU can be seen as an example of Parties seeking common application of the rules. It suggests that all Parties should implement domestic MRV systems, including setting up a National GHG Inventory and reporting emissions data, which should undergo a review process. The MRV requirements should be eventually consolidated into a common set of rules.[38] A number of developing countries, on the other hand, prefer reduced or no MRV rules for non-Annex I Parties, in line with the principle of common, but differentiated responsibilities.[39]

Considerations for LDCs: Discussions at COP 19 focused on the possible nature of obligations under a 2015 agreement and less on their MRV. Where discussion on MRV took place, they were focused on mitigation. The discussion on detailed MRV requirements under a 2015 agreement has therefore yet to take place. To LDCs, potential commitments on adaptation or support and their MRV requirements are likely to be of higher relevance than commitments related to mitigation. MRV requirements in these areas are less well developed than for mitigation and will require further discussion.

Generally, MRV rules will have to be applicable on a technical level to both current developed as well as developing countries, and ensure, among other, transparency as well as comparability, while avoiding burdening particularly developing countries with high costs. In order to keep costs low, consideration of the ample experience of Parties, the UNFCCC Secretariat, and the institutional structures related to the Kyoto Protocol seems a most relevant point.

Discussions indicate that overburdening developing countries by MRV requirements could impede negotiations on the 2015 agreement, or even lead to Parties rejecting the agreement as a whole. LDCs, in particular, will not have the resources for MRV available. LDC negotiators might therefore wish to ensure that MRV requirements are linked to the provision of adequate funding, at least for a certain timeframe. They may also suggest consideration of simplified MRV. With regards to mitigation this might include requirements for countries with lower emissions per capita, including the use of simplified measurement methodologies (such as the lowest tiers in the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*[40]), reporting on a limited scope of information, and less detailed or less frequent reviews.

Summary

While MRV related to emissions and mitigation actions may not seem very relevant to LDCs at present, they may be considered from a long-term perspective, when emissions increase as development progresses. MRV of support, meanwhile, is a very important issue for LDCs to ensure that Annex I countries fulfil their commitments related, among other things, to climate finance, and allow LDCs to adapt to the impacts of climate change, and pursue sustainable development. The area of MRV of support under the negotiations remains neglected, however, and many decisions remain to be taken. The active participation and leadership of LDC negotiators is essential to drive the discussions further, and ensure that their specific needs are taken into account fully.

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