Joint OECD/IEA submission to UNFCCC: Ad-hoc Working Group for the Durban Platform for Enhanced Action (ADP), October 2013

This submission summarises recent work of the OECD/IEA Climate Change Expert Group (CCXG) that is of direct relevance to on-going discussions under the ADP. These and other CCXG papers are available for download at http://oe.cd/ccxg.

Introduction

The Organisation for Economic Co-operation and Development (OECD) and the International Energy Agency (IEA) jointly welcome the opportunity to submit information, views and proposals on matters related to the work of the ADP. This submission is made in response to the request for submissions in document FCCC/ADP/2012/3, including on mitigation, adaptation, finance, technology development and transfer, capacity-building, and transparency of action and support (Workstream 1) and on actions, initiatives and options to enhance ambition, including through the workplan on enhancing mitigation ambition, with a particular focus on 2013 (Workstream 2).

The Climate Change Expert Group (CCXG), formally known as the Annex I Expert Group, has been providing technical analytical input to the UNFCCC process since 1993. As the CCXG Secretariat, we are working on a range of topics of direct relevance to the UNFCCC negotiations. Our work is informed by the participation of a wide range of developed and developing countries in regular seminars. The submission has been compiled using published reports produced by the CCXG Secretariat, all of which provide information of value to the ADP in different areas of its work.

Establishing and Understanding Post-2020 Climate Change Mitigation Commitments

A new international climate change agreement that has legal force and is applicable to all countries is currently being negotiated under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC). The agreement is expected to address mitigation, adaptation, finance, technology, capacity building and transparency, and is due to be adopted at COP 21 in 2015 and come into effect from 2020. An effective agreement would include quantitative mitigation commitments[1] from all major emitters and result in concrete actions to reduce greenhouse gas (GHG) emissions while catalysing long-term transformations to low-carbon and climate-resilient economies.

All Parties to the UNFCCC have agreed that the increase in global average temperature should be limited to below 2 °C above pre-industrial levels. In order to understand whether countries' commitments are collectively sufficient to provide a chance of meeting this long-term global goal, estimations of the future global GHG emissions trajectory are needed. The way in which post-2020 mitigation commitments are set and the accounting rules adopted will have an impact on the uncertainty associated with this trajectory. Post-2020 mitigation commitments will also need to send a strong and clear long-term signal to the private sector and other investors that governments remain committed to meeting the 2 °C goal.

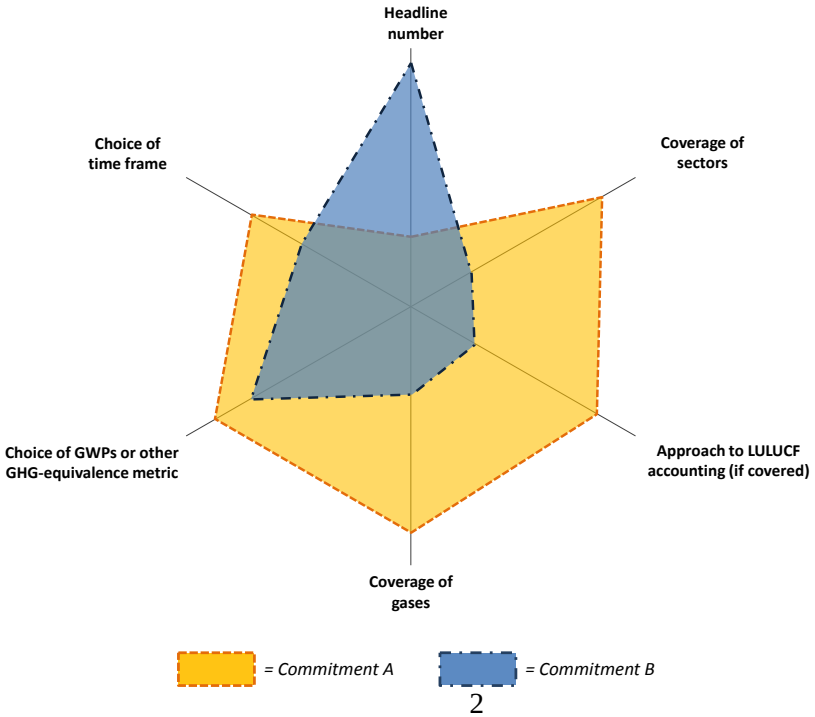
[1] Various terms have been used in this context by different countries, including "commitments", "contributions", "offers", "targets" and "actions". The term "commitment" is used here.

At the same time, flexibility is needed to cater for the increasingly diverse national circumstances of different countries. Therefore different types of mitigation commitments are likely to be put forward for the post-2020 period; for example, commitments could be expressed using different metrics (e.g. total GHG emissions, GHG emissions per unit GDP, installed capacity of renewable energy, area of forest cover) and different coverage in terms of sectors and gases (e.g. economy-wide targets for all GHGs, goals for CO_2 only in one sector, project-level actions). If all major emitters were to propose quantitative commitments in GHG terms, this would make it easier to measure progress towards both individual and global commitments.

There is always some uncertainty associated with ex-ante estimates of future emissions levels. However, some types of mitigation commitment create more uncertainty and pose greater accounting challenges than others. For example, if commitments are expressed relative to business-as-usual (BAU) levels then significant uncertainty can remain regarding the expected emissions level in the target year – particularly if the BAU baseline has not been published, or if the baseline has been published but may be revised before the target year. Intensity commitments (e.g. GHG emissions per unit Gross Domestic Product) link GHG outcomes to future GDP levels, which are difficult to predict. Commitments expressed in non-GHG terms (e.g. percentage of renewable energy in the energy mix) can be converted into GHG terms, but the assumptions involved in this conversion process are a further source of uncertainty. These sources of uncertainty are not an issue for commitments expressed in terms of total GHG emissions relative to a base year.

There can be a link between the level of ambition of mitigation commitments and the accounting approach used. This is because mitigation commitments have multiple dimensions such as the time frame, base year, coverage of sectors and gases, treatment of emissions and sinks from the land sector (if included in the coverage), and global warming potentials (GWPs) or other GHG-equivalence metric used, as well as use of units from market mechanisms. Figure 1 provides an example of one way to visualise the multiple dimensions of two or more mitigation commitments. In addition to these dimensions, the level of ambition of mitigation commitments depends on the national circumstances of the country concerned.

Figure 1: Some of the multiple dimensions of commitments: two hypothetical examples



The new agreement could include the concept of "bounded flexibility". In this paper, the term bounded flexibility means that Parties could agree on the values or ranges of values to be used for some of the dimensions of mitigation commitments, while maintaining flexibility for other aspects. The rationale for introducing bounded flexibility includes both technical and political reasons. On the technical side, having an internationally-agreed timeframe for commitments can make it easier to compare progress towards goals, reduce uncertainty associated with future emissions levels and simplify the operation of cross-border carbon markets. On the political side, there are likely to be certain expectations of some countries (e.g. developed countries with emissions reduction targets for 2020 should continue to have economy-wide emissions reduction targets in the future).

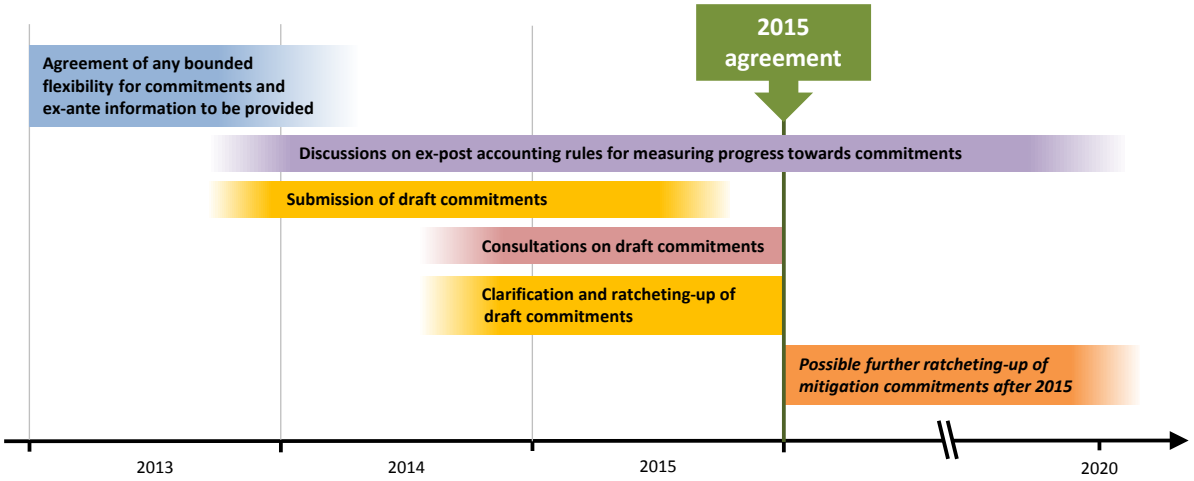
There are different ways in which bounded flexibility could be implemented. For example, one approach could be for Parties to agree on the time frame for commitments (e.g. all commitments are to be for the year 2030 or the period 2025-2030) and on the GWPs to be used for emissions accounting. It is possible that bounded flexibility could also be negotiated for other dimensions of mitigation commitments, depending on the varying national circumstances of countries. For some dimensions, countries could agree to transparency requirements if it is not possible to agree bounded flexibility.

The ex-ante provision of information on the various dimensions of climate change commitments can improve understanding of the commitments put forward and provide a basis for tracking progress towards them. In particular, if all major emitters were to provide an estimated range for their future annual GHG emissions in a given year (e.g. 2030), this would facilitate estimation of the future global emissions pathway. In addition, further information would be needed to enhance understanding of how countries intend to meet their commitments. This could include information regarding domestic climate policies and sources of finance, as well as an explanation of why the commitments put forward are fair and ambitious given the circumstances of the country concerned.

The 2015 agreement and the post-2020 emissions accounting framework are likely to contain a combination of nationally-determined and internationally-agreed aspects. Nationally-determined elements are a prerequisite for the widespread participation of countries in the agreement. At the same time, internationally-agreed elements are needed to ensure that the overall agreement is fair and that the collective ambition of the commitments made is sufficient to meet the long-term global 2 ºC goal. The key question for debate is not therefore whether the 2015 agreement should be "bottom up" or "top down"; it is which aspects of the new agreement should be nationally-determined, which aspects should be internationally-agreed, and what the role of the international negotiations is in both cases.

Time is short for countries to propose and negotiate commitments before 2015. An international process for establishing and understanding post-2020 commitments could consist of multiple stages. Figure 2 outlines possible stages. While commitments could be included in the agreement in some form at the end of 2015, work on increasing (or "ratcheting-up") the level of ambition of commitments through consultation and negotiation could continue beyond 2015.

Figure 2: A possible process with multiple stages



A key issue to be addressed is how to ensure that future nationally-determined commitments are collectively ambitious enough to put global emissions on a trajectory consistent with the 2 °C goal. International consultations on draft commitments could encourage governments to put forward ambitious draft commitments and subsequently raise the level of these draft commitments before they are included in the 2015 agreement. What the atmosphere "sees" are cumulative emissions; therefore less ambitious commitments in the near-term mean that stronger action will be needed in the future. The agreement could establish such a connection between subsequent rounds of commitments. Finally, in addition to enhanced action at the international level, a groundswell of action at the national and sub-national levels together with a shift in investment patterns from high-carbon to low-carbon activities will be needed to keep the 2 °C goal within reach.

For more information, see:

Briner, G. and A. Prag, (2013), "Establishing and Understanding Post-2020 Climate Commitments", available at http://oe.cd/ccxg.

Towards an Emissions Accounting Framework Applicable to all Parties

All Parties have existing reporting requirements under the UNFCCC. Requirements include provision of information on domestic emissions (i.e. GHG inventories) and stated emission reduction goals and targets. An accounting framework is needed in addition to the reporting provisions for domestic emissions and stated emissions targets or goals for two broad reasons. These are (i) to enhance understanding of the expected mitigation effects of country pledges ex ante, including any double claiming of abatement between pledges (such as through some types of international unit trades) and (ii) to accurately measure progress towards meeting those pledges.

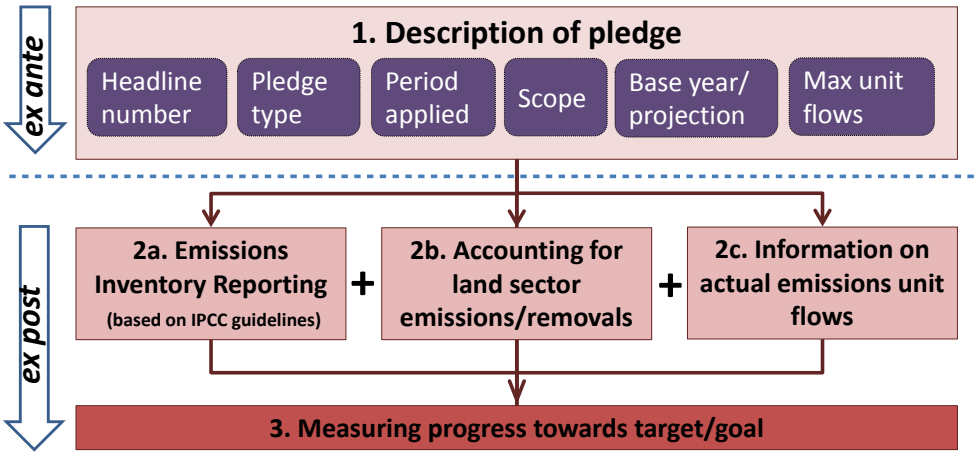
An accounting framework can also influence the participation of countries in a new agreement under the ADP. It could increase participation if designed to give recognition for actions taken by Parties that would not otherwise be captured (in particular for the land-use sector, where policy interventions can have impacts with significant time lags). An accounting framework could also decrease participation if seen by some Parties as not flexible enough to accommodate their circumstances, or

too intrusive on their domestic processes and policies. Adoption of a universally-applied accounting framework would not, however, by itself increase overall mitigation ambition. Faced with more stringent accounting rules, Parties might choose to alter the headline numbers used to define their pledges (such as changing from X% to Y% reduction), resulting in limited or no net change of ambition.

An accounting framework could include requirements for ex ante information describing the pledge, including the headline number (% reduction), the type of pledge (e.g. absolute or relative reductions), as well as its scope and period of application. Furthermore, an accounting framework could also require ex ante information on the approach to be used to measure emissions/removals from the land-use sector and the maximum expected use of tradable emissions units from market-based mechanisms. Ex post information could then be required to measure and report progress towards pledges. Figure 3 shows possible ex ante and ex post elements of an accounting framework. The extent to which rules or internationally-agreed procedures could apply may vary between the three stages.

Existing UNFCCC reporting procedures already provide some of the necessary elements to bring into operation such a framework. For example, the common tabular format (CTF) tables that will form part of developed countries' biennial reports require detailed ex ante description of the pledge. The CTF tables also require ex post information relevant to measuring progress, including annual GHG emissions, net unit flows and specific information relating to annual changes in land-use sector emissions and removals. However, the CTF tables are not sufficient to provide a comprehensive accounting framework for developed countries, and do not cover reporting by developing countries.

Figure 34: An emissions accounting framework, showing ex ante and ex post elements



Accounting for international flows of GHG units

Flows of GHG emissions units matter for UNFCCC accounting when units that originated outside of a Party's pledge boundary are counted as a direct contribution towards the achievement of that Party's pledge. This can occur from international transfers of units, from the use of domestic units that originated in sectors not covered by the national pledge (e.g. agriculture or soil carbon) or from the use of units generated in a different time period to the period of application of the pledge. Units transferred between linked domestic trading systems, or offsets purchased by entities covered by those systems, do not affect UNFCCC accounting unless one Party chooses to count those units as a direct contribution towards meeting a national pledge.

Two important issues to consider for accounting for unit flows within national pledges are the potential overlap of pledges and their period of application.

Overlap of pledges and avoiding "double claiming"

"Double claiming" of units could arise if units are counted towards the pledges of both countries involved in a transfer of emissions units. To clarify the aggregate mitigation expected from country pledges, it is therefore important to distinguish between pledges that take into account net flows of unit movements and those that do not. It can be assumed that the economy-wide targets of developed countries account for net flows of emissions units, as biennial reports require reporting of unit totals (distinguishing units "under the Convention" from other units). For developing countries, it is not clear whether 2020 pledges account for net unit movements or not. A full understanding of global mitigation effort would require this to be clarified and made transparent, so that any double claiming is clearly attributed.

Single-year versus multiple-year targets

The period of application to which pledges apply is important when considering how to account for use of transferable units. If a pledge is defined for a single year only, rather than applying to total or average emissions over a period, then the use of international emissions units (including offsets and units from trading systems) accrued over multiple years can be problematic. The problem is that what the atmosphere "sees" are cumulative emissions across all years, not just the emissions level in the target year, whereas emissions units have "vintages" depending on the year that the underlying reduction occurred.

Multiple-year pledges are therefore preferable for a number of reasons. They could improve the credibility of pledges by minimising the risk that emissions in a single target year be unrepresentative of underlying trends (due to abnormal weather in that year, for example), and by providing more frequent measuring of progress towards goals. Parties expressing multiple-year pledges would also be able to make greater use of international market mechanisms whilst maintaining a robust approach to accounting. Conversely, restricting the vintages that can be used by single-year pledges could distort emissions markets, due to strong demand in one particular year.

Accounting approaches for land-use emissions and removals

More than any other sector, land-use emissions and removals highlight the need to distinguish between the differing objectives of emissions reporting versus accounting. The land sector emissions profile includes a complex mix of anthropogenic and non-anthropogenic emissions and removals, lagged emissions from historical events, effects from past management practices (age class structure of forests), natural disturbances and other factors beyond human control. Whilst inventory reporting provides a detailed record of both anthropogenic and natural GHG emissions and removals from land areas over time, accounting focuses only on anthropogenic emissions/removals or changes in carbon stock resulting from human interventions, including decisions taken as a result of the mitigation target or goal.

Discussion of land-use emissions and removals has often focused on two dichotomies. One is the distinction between reporting based on land areas (used for UNFCCC), and accounting based on specific land-use activities (as used for the KP). The second is between "net-net" accounting, where net emissions (emissions minus removals) in the target period are compared to net emissions in a base year, and "gross-net" accounting where net emissions from the target period are not compared to a historical period/year.

Negotiations on the KP second commitment period have shown some convergence and a move away from these two distinctions. Together, the discussions on KP accounting and those on accounting for Reduced Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+) in developing countries indicate use of some similar elements. There is increasing recognition of the need to provide flexibility in accounting approaches by moving away from a strict dichotomy between "gross-net" and "net-net" towards approaches that compare net emissions in the pledge period to projected, forward-looking baselines (e.g. the forest management reference levels now introduced to the KP).

In addition to attracting the participation of a large number of Parties, it is important that any future UNFCCC accounting framework for land-use emissions and removals be designed to optimise the incentives provided. The framework should aim to avoid perverse incentives for land-use change where possible, while providing incentives and recognition for land-use mitigation actions. As an alternative to seeking a single comprehensive accounting system, an option would be to refocus the discussion not on a single, universal accounting framework, but rather on the need to ensure environmental integrity and provide transparency, credibility and flexibility across all different approaches. For example, the process could act to develop criteria under which it may be appropriate for a land-based approach to be taken by a specific Party, depending on that country's circumstances.

Building on biennial reporting

Agreeing CTF tables for developed countries' biennial reports in Doha was a step towards an integrated approach to unit accounting pre-2020 that can be built upon for a post-2020 agreement. However, the existing reporting processes are not in themselves sufficient to function as an emissions accounting framework.

The largest gap in the current reporting format is that the tables only apply to developed countries, and there are no current plans to develop such tables for developing countries. One problem arising from the application of detailed accounting to only a subset of Parties is that it can lead to "double claiming" of units by more than one Party. This could compromise the accounting for developed country targets if units are sourced in developing countries that also claim the reductions represented by the units. A common basis for accounting and reporting applicable to all Parties would therefore be advantageous for understanding flows and use of tradable units under a new agreement. Failing this, guidance for biennial update reporting could be developed to encourage developing country Parties to declare whether their mitigation goals account for unit flows.

A second gap is that the CTF tables do not provide for sufficient information on several other aspects relating to unit flows. These include the period for which a target applies, and the nature and traceability of emissions units, including assurance that they are issued and retired (used) only once (avoiding double-issuance and double-retirement). For land-use emissions and removals, the CTF tables currently allow developed country Parties to specify their accounting approach, and then to report emissions according to either the land-based or activity-based approach. At present, there is no guidance on which approach is preferred, or criteria for justification of particular approaches, and reporting provisions could be further developed in this regard.

For more information, see:

Prag, A., C. Hood and P. Martins Barata (2013), "Made to Measure: Options for Emissions Accounting under the UNFCCC", http://www.oecd.org/env/cc/Made%20to%20Measure_Final.pdf.

Design and governance of market mechanisms

The designs and governance structures of market mechanisms need to provide confidence to the international community that the tradable GHG units created represent real emissions reductions. This is important to facilitate (i) further **linking** of trading systems; and (ii) **unit accounting**, in cases where countries wish to use GHG units from market mechanisms to meet part of their national mitigation targets or goals put forward under the UNFCCC.

In addition to existing GHG market mechanisms, new emissions trading systems and crediting mechanisms are being implemented and planned at international, national and sub-national scales, both inside and outside the UNFCCC process. This diversity of mechanisms is leading to an increasing variety of unit types created using different standards and governance processes, and these differences mean that units from different mechanisms may not be fungible with one another. Designs and governance structures that incorporate international or mutually-agreed standards in order to help provide assurance of unit quality could therefore help to move towards more integrated and cost-effective carbon markets. Segmented markets with a wide range of standards could lessen the overall cost-effectiveness of market mechanisms and discourage private sector support and participation.

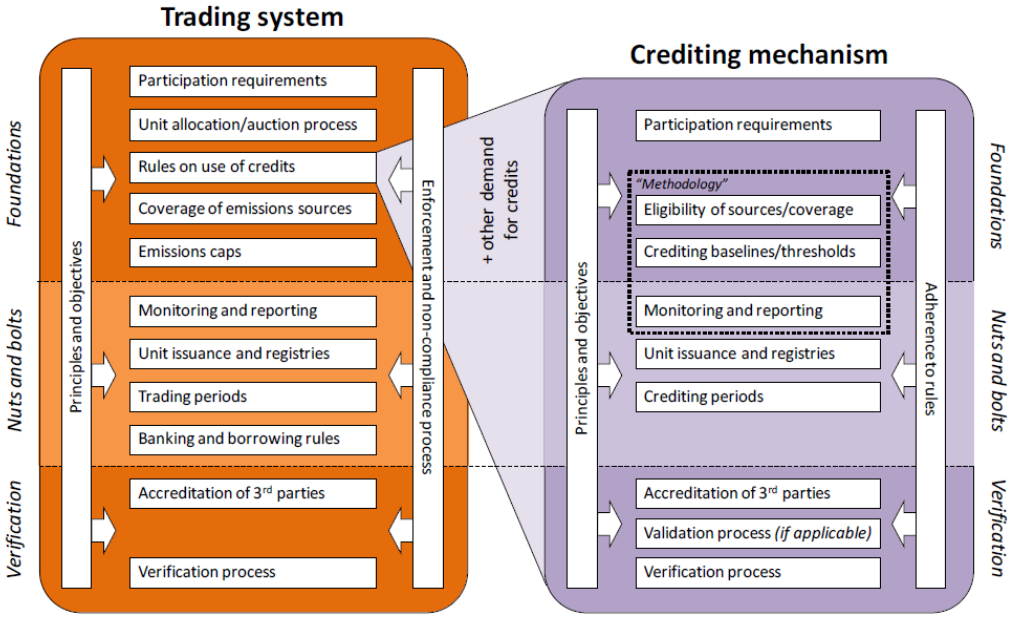
In parallel to the development of domestic market mechanisms and their bilateral linking, countries have agreed through the UNFCCC process to establish a "new market-based mechanism" under the authority of the Conference of the Parties (COP) and to consider a "framework for various approaches" including market-based approaches (UNFCCC, 2011a). A key challenge for the use of market mechanisms internationally will be how to co-ordinate this diversity of mechanisms to ensure that the mechanisms achieve their objectives and environmental integrity is assured.

Design elements of market mechanisms

To be effective, market mechanisms require procedures and rules that outline how the mechanism will work and how GHG units will be created and traded. The CCXG analysis separates trading systems and crediting mechanisms into design elements, as shown in Figure 2. Both types of mechanism are usually based on a set of principles and objectives which shape the detailed design elements. **Foundations** are the essential elements that describe the creation and nature of GHG units. **Nuts and bolts** comprise more technical design elements important for the smooth functioning of the mechanism. **Verification** covers the verification of emissions levels and other data reported by participants, and may also include the accreditation of third-party entities to carry out this task. Finally, implementation of mechanisms requires enforcement processes, which cover the regulatory processes for compliance (if applicable) and ensuring adherence to the mechanism rules.

For **trading systems**, an important design element is the set of rules describing how many credits can be purchased from outside the emissions cap (if any) and which types of credit are valid. The rules may specify that units from an existing crediting mechanism can be recognised as valid for compliance, or the rules may specifically create a new crediting mechanism specifically for that trading system. **Crediting mechanisms** and their design elements are depicted in Figure 4 as a subset of the rules for trading systems in order to emphasise that (i) crediting mechanisms rely on demand for their units to function, and (ii) that many crediting mechanism design elements are similar to trading system design elements. The principal source of demand to date for credits has been from entities covered by trading systems; however, demand can also come from governments or voluntary buyers.

Figure 4: Design elements of trading and crediting mechanisms



Source: Authors

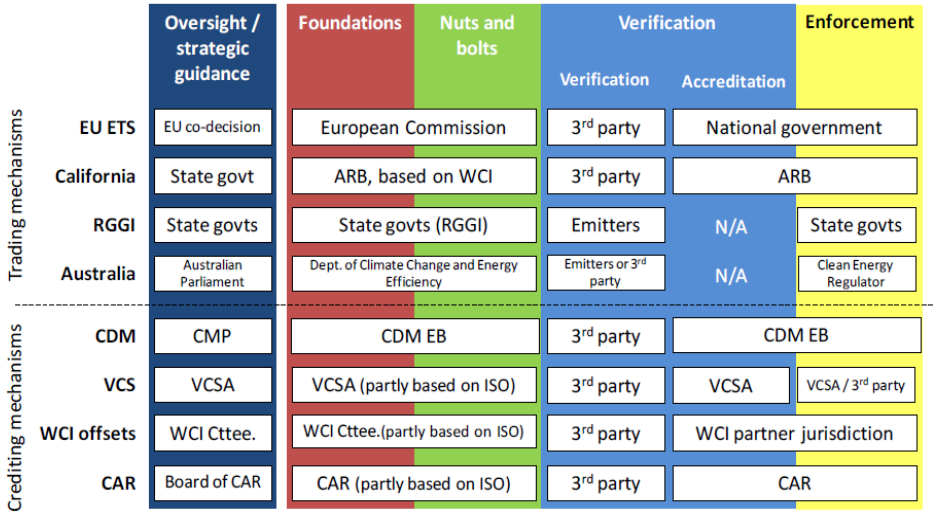
Governance of market mechanisms

The term "governance" is taken here to mean the institutional structure and decision-making processes needed for both design and operation of carbon market mechanisms, both of which are crucial to ensuring the quality and environmental integrity of GHG units. A distinction is made between mechanisms that are governed domestically and those governed internationally. Domestically-governed mechanisms can be designed and operated autonomously by national governments, sub-national governments or non-government entities, although tools may be adopted from existing international mechanisms and units from internationally-governed mechanisms may be recognised as valid to meet commitments under domestically-governed trading systems.

The governance structure of a market mechanism generally needs to strike a balance between a number of factors. These include the **sovereignty** of the government authority (where there is an element of international governance); the ability to demonstrate the **quality** and **environmental integrity** of units being created; the potential **fungibility** of the units with others internationally; the **cost-effectiveness** of the mechanism's procedures; the **reliability** and **predictability** of the mechanism's institutions; and the extent to which mandatory **compliance** is necessary.

Existing mechanisms have sought to achieve this balance in different ways and using different governance structures (see Figure 5). Most have a high-level body providing strategic guidance and holding ultimate authority and responsibility for the mechanism. Some (e.g. the European Union Emissions Trading System (EU ETS) and the Western Climate Initiative) have an international or multi-state body through which participating governments agree the foundations and nuts and bolts, while the responsibility for implementation and enforcement lies with individual governments. Others, such as the Australian carbon pricing mechanism, are designed and enforced by separate entities within a national government.

Figure 5: Distribution of governance roles in some existing market mechanisms



Amongst crediting mechanisms, the Clean Development Mechanism has one central body which oversees nearly all design and enforcement aspects, whereas others assign these roles to different bodies. Accredited third-party entities play a role in verification for most existing mechanisms, with the exception of the New Zealand and Australian systems and the Regional Greenhouse Gas Initiative (RGGI) in the US where emitters mostly self-verify but face penalties if inconsistencies are found.

Towards international standards?

The use of international standards for certain design elements could facilitate two-way linking between trading systems (whereby units become mutually fungible) without necessarily imposing international governance structures. In this way, new mechanisms designed in accordance with the standards (or existing mechanisms that meet or surpass the standards) would be in a better position to demonstrate the quality of the units being issued, even if the mechanism's governance structure remains under domestic authority. One-way links between trading systems (whereby units from system A can be used in system B but not vice versa) require only a unilateral decision by system B and the use of standards may therefore be less important. Should countries decide to introduce an international review process to assess the eligibility of GHG units from domestic mechanisms for meeting mitigation targets/goals under the UNFCCC, use of such standards could also facilitate this.

Similarities in the design and governance structures of existing mechanisms show that design elements of market mechanisms have already crossed national borders, with pre-existing rules and standards adopted by national regulators. However, the difficulty of agreeing standards multilaterally (such as through the UNFCCC process) is likely to vary between the different design elements. The politically-sensitive nature of the elements categorised as foundations and enforcement could make it difficult to agree standards for these elements multilaterally, although examples do exist of agreement across more than one jurisdiction. For the "nuts and bolts" and verification, some international standards already exist and the prospects for achieving convergence under the UNFCCC may be brighter. Whilst agreement and subsequent use of standards for the "nuts and bolts" and verification elements would help to increase international credibility and transparency of mechanisms, it is unlikely that these standards by themselves would provide a strong level of confidence in unit quality.

For more information, see:

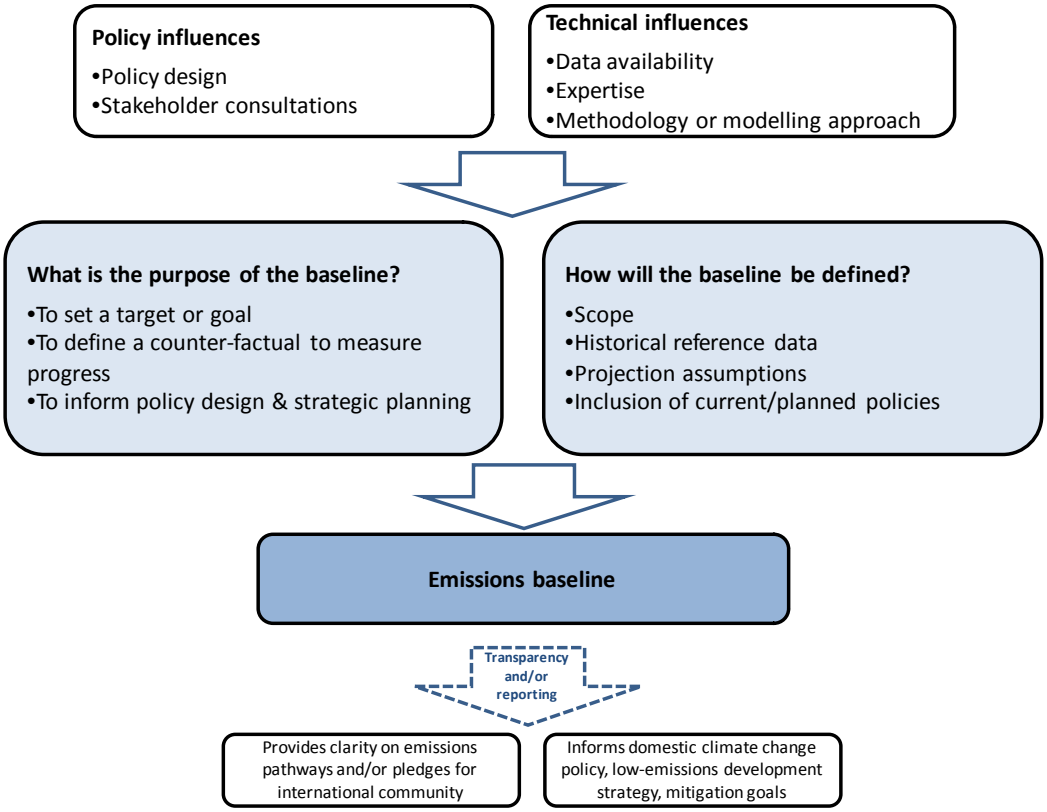
Prag, A., G. Briner and C. Hood (November 2012), "Making Markets: Unpacking Design and Governance of Carbon Market Mechanisms", http://www.oecd.org/env/cc/(2012)4%20-%20Market%20Mechanisms_AE%20(2).pdf.

Improving transparency of projected forward-looking GHG emissions baselines

Emissions baselines are reference emissions levels. They can have different uses at the national level, including to inform domestic climate change policy and strategic planning as well as to provide emissions information internationally. Whilst different types of baseline are possible, the CCXG analysis focuses on forward-looking baselines used to inform climate policy and to determine progress towards meeting goals against a business-as-usual (BaU) or projected baseline. As some developing countries have now defined national mitigation goals relative to a future projected business-as-usual (BaU) level of emissions, the underlying assumptions and methodologies used in setting these emissions baselines have direct relevance for assessing both the country's and the aggregate global emissions mitigation effort. A better understanding of these baselines is therefore now of increased importance to the international community.

The process of setting baselines using projections is subject to a large number of inputs, which combine both technical approaches and assumptions as well as aspects subject to political influences. Defining the purpose and determining the assumptions and methods used will impact the resulting emissions baseline. This process can be influenced by policy design considerations and stakeholder consultations, as well as by technical capabilities and availability of data. Figure 6 illustrates these influences and decision points in setting a baseline.

Figure 6: Influences and decisions in setting a baseline



Currently, there is limited international guidance available on setting national GHG baselines. Variance in the transparency of baseline approaches and assumptions used by different countries is therefore significant. This lack of transparency makes it difficult to understand emissions pledges and actions defined as relative to BaU, and difficult to compare emissions scenarios across countries.

Moving towards international guidance on setting baselines could improve their transparency, clarity and comparability, while still allowing countries to maintain a diversity in approaches. The CCXG analysis discusses good practice and presents options for how guidance might be developed for each of the following elements in setting a national emissions baseline:

- Start year and timeframe for emissions projections
- Scope of emissions sources covered
- Assumptions related to key drivers for emissions projections
- Treatment of domestic climate policy measures
- Modelling framework and/or projection methodology used
- Uncertainty and sensitivity analysis
- Consultation and/or review
- Updating the baseline

For each element, the paper presents two options which can be considered as "tiers" that move from less detailed to more detailed guidance. The first tier describes guidance that would leave maximum flexibility for individual countries, whilst encouraging transparency. The second tier offers more detailed guidance for countries with greater domestic resources and capabilities, aiming at increased consistency and ease of understanding of different countries' baseline projections. Countries could adhere to the tiers according to their capabilities, although they would be encouraged to follow the more detailed approach. While this tiering concept loosely resembles that used for GHG inventories in the IPCC inventory guidelines, the proposed baseline guidance tiers represent different levels of detail, rather than accuracy or data quality. More detailed guidance does not necessarily lead to "better" baselines, though it may help to improve understanding of different baselines.

For more information, see:

Clapp C. and A. Prag (2012), *Projecting Emissions Baselines for National Climate Policy: Options for Guidance to Improve Transparency*, http://www.oecd.org/env/cc/CCXG%20(2012)3%20National%20Baselines.pdf

Improving MRV systems for tracking climate finance

At COP16 in 2010, developed countries formalised a collective climate finance commitment made previously in Copenhagen of "mobilising jointly USD 100 billion per year by 2020 to address the needs of developing countries...from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources".[2] However, there is currently no definition of which "climate" activities, flows, or other interventions could count towards the USD 100 billion; what "mobilising" means; or even which are the "developed" countries that are covered by this commitment. Recent analysis by the CCXG highlights the low level of comparability between institutions' estimates of "mobilised" climate finance caused by the absence of standard definitions for key terms in the agreement and methods for their measurement, reporting, and verification (MRV) guidelines. Considering the important role played by MRV in the UNFCCC context for building trust and transparency, as well as for improving mutual accountability, the CCXG has also identified a number of action items for improving the tracking of climate finance.

Harmonising definitions for more comparable climate finance data

The lack of clear guidance at the UNFCCC level on definitions and methods for reporting makes it difficult to gather complete and comparable data across financial institutions and developed country Parties. Further, tracking systems are limited and, even when they are in place, tend to focus on different or more aggregated data, such as the overall financing of projects broken down by public and private sources.

Agreeing on key definitions at the level of an individual institution will also take time and resources, as would enhanced tracking and reporting of data on private climate finance. There is therefore likely to be resistance to making improvements in this area in the absence of top-down guidance, particularly if estimating the level of mobilised climate finance is not a core interest for a particular institution.

[2] UNFCCC (2010), *Decision 1/CP.16*, http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2

Ultimately, which activities, interventions and instruments will count towards the USD 100 billion commitment will be a political decision. However, if some eligible categories of climate finance are not reported or are reported in an inconsistent manner, it will be difficult to assess progress towards the USD 100 billion commitment regardless of whether a country-level or collective reporting system is adopted.

In the absence of such guidance, efforts to estimate how much financing has been mobilised towards meeting the USD 100 billion commitment have resulted in incomparable results. Some actors assume that their intervention has mobilised all associated financing. This may be in part due to their mandate to participate in projects that would not have advanced without public intervention. Other financiers adopt a more conservative approach by utilising methodologies that include or exclude financing based on a variety of aspects, including those outlined in Table 1 below.

Table 1: Variation between methodologies to assess and estimate mobilisation

Methods related to…	**More Conservative**	**Less Conservative**
Causality	Assessing whether an activity is additional; only counting the climate relevant sub-component; providing a justification for the direct value-added of an intervention	Assessing mobilisation based on total project costs
Attribution	Estimating a *pro rata* share of mobilised finance based on the level of involvement of an actor in relation to other public financiers or only counting mobilised private sector finance that originates from the Annex II public institution's home country	Assuming an intervention has mobilised all external financing or counting mobilised private finance from all geographic sources
Public or private	Systematic and disaggregate tracking of whether other actors are public or private, which facilitates any effort to minimise double counting	Not tracking whether other actors are public or private, which makes avoiding double counting in multi-donor projects more difficult
Point of estimation	Excluding financing that predates an intervention in a deal as well as 'tapering' of financing mobilised in subsequent investment or funding rounds	Including all financing that was raised before and after an intervention

Source: Caruso and Ellis (2013).

Improving the clarity of biennial reporting guidelines for finance

The UNFCCC has established reporting guidelines relating to the provision and receipt of climate finance. These are for developed countries' national communications and biennial reports as well as for developing countries' national communications and biennial update reports. As showed below in Table 2 the guidelines address on national reporting of public climate finance provided from Annex II countries (including both bilateral contributions as well as contributions to multilateral institutions) and on private finance leveraged by bilateral finance. The guidelines, however, do not cover reporting of some key sources of private finance such as private climate finance mobilised by multilateral sources. Further, the guidelines do not cover provision of information by all "developed" countries - only the climate finance mobilised by Annex II countries. Another limitation is that the guidelines request only selected information from non-Annex I countries, focusing on their receipt (inflows) of

climate finance from developed countries, the Global Environment Facility, and other multilateral institutions such as the Green Climate Fund.[3]

Table 2: UNFCCC reporting guidelines for different categories of climate finance

Type	**Origin**	**Channel**	**Current reporting guidelines (Annex I countries, biennial reports)**
Public	Annex II	Bilateral	"shall"
		Multilateral	"shall"
	Other developed countries	Bilateral and multilateral	none
	NAI	Mobilised by developed countries	none
Private	Annex II	Leveraged* by bilateral	"should"
		Leveraged by multilateral	none
	Other developed countries	Mobilised by other (non-Annex II) developed countries	none
	NAI	Mobilised by developed countries	none

* The use of this term in this table reflects its use in relevant UNFCCC decisions (i.e. UNFCCC, 2011). Source: Caruso and Ellis (2013)

Current reporting guidelines under the UNFCCC are therefore not sufficient to give a complete picture of climate finance mobilised towards the USD 100 billion commitment made by developed countries. In the absence of a more complete reporting and tracking framework, it will be difficult to identify the full progress that developed countries are making towards meeting this commitment, and therefore to enhance trust and transparency on this issue.

Current biennial reporting guidelines for developed country Parties under the UNFCCC allow for the possibility of either individual or collective reporting of mobilised finance. However, there is no further guidance on what could be reported collectively, nor on who would be best placed to report "grouped" information. Previous analysis (Clapp et al., 2012) has indicated that attributing private flows to specific countries can be complicated for several reasons, including multiple ownership and confidentiality issues. Information on such flows may also lie outside governments (e.g. at multilateral development banks or in the private sector). Further work on this topic could therefore be useful, including on how to address the variability in different actors' definitions relevant to estimating mobilised climate finance.

Discussions at the CCXG Global Forum in March 2013[4] suggested that collective reporting of mobilised climate finance could be useful in overcoming some of the difficulties related to both double counting and attribution. Collective reporting could allow Parties to satisfy biennial reporting guidelines under the UNFCCC while optimising the cost-effectiveness of any tracking and reporting system that is developed.

[3] UNFCCC (2011), *Decision 2/CP.17*, http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf.

[4] Climate Change Expert Group Global Forum, 19-20 March 2013, OECD Conference Centre, Paris. Agenda and presentations available online at: http://oe.cd/ccxg

Way forward for the MRV of climate finance

Previous analysis by the CCXG (Clapp et al., 2012) has highlighted a number of potential action items to move forward on developing a robust climate finance tracking system, including:

- Working towards increased transparency and clear definitions for climate finance under the UNFCCC framework spanning both the type of flows to be included (public and private) and the types of activities that are eligible to be counted (e.g. mitigation, adaptation, enabling activities, reporting).

- Making decisions about what institutions or actors should be tracking and reporting, and with what frequency.

- At a more technical level, exploring various avenues of tracking climate finance within a more comprehensive MRV system under UNFCCC, including considering what levels of detail and uncertainty are feasible/acceptable, and identifying which precedents set by previous tracking systems should be taken forward.

- Taking concrete steps towards more robust tracking and reporting on public and private sector flows, notably through: i) internationally-harmonised reporting on international public finance flows channelled through multilateral or regional development banks; and ii) an agreed methodology for public sector leveraging of private finance and pilot data collection to test the methodology.

Improving communication between relevant groups (e.g. joint-MDB working group, the International Development Finance Club, and the OECD Development Assistance Committee) and UNFCCC bodies to help identify relevant work underway that can be built on by the international community in its efforts to scale up investment in climate responses and to improve the tracking and reporting of these efforts.

In addition to making progress on definitional and reporting issues related to the USD 100 billion commitment, further work may also be needed in other areas. This includes the broader areas of how to scale up climate-friendly investments, and tracking how finance is facilitating and achieving the target to limit warming to below 2˚C. The issue of how effective climate finance outflows and inflows are in meeting these goals may also need to be considered.

For more information, see:

Caruso, R and J. Ellis (2013) *Comparing Definitions and Methods to Estimate Mobilised Climate Finance*, http://oe.cd/ccxg-climate-finance-definitions.

Clapp, C., J. Ellis, J. Benn, and J. Corfee-Morlot (2012) *Tracking Climate Finance: What and How?* http://www.oecd.org/env/cc/50293494.pdf

Climate finance effectiveness

Significant expansion of climate finance for developing countries is needed in order to enable a shift towards low-emission, climate-resilient development pathways. To facilitate this transition, developed countries formalised a commitment to mobilise USD 100 bn per year by 2020 at the 16th Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC).

Quantifying the level of climate finance mobilised is important for transparency in assessing progress towards this commitment. However, while the quantity of climate finance is important, quantity alone is not sufficient to achieve the climate objectives of the Convention: it is a "means to an end" and not an end in itself. Ensuring the underlying quality, or effectiveness, of climate finance will also be crucial.

What is climate finance effectiveness?

Adequately addressing the range of issues to mitigate and adapt to climate change and achieving the scale of climate finance required to do so will necessarily involve a variety of different communities (e.g. development, climate, and the private sector). These communities represent the perspectives of developed and developing countries, as well as both public and private sources of climate finance. In its simplest sense, effectiveness of climate finance can be defined as the extent to which an intervention achieves its stated aim(s). Thus, according to their varying aims or objectives, each community may emphasise different aspects when assessing the effectiveness of their intervention.

The development and climate communities, as well as some actors in the private sector, have laid out their perspectives on important issues related to enabling and delivering effective climate finance. A key pillar to this is the development community's Paris Declaration on Aid Effectiveness (2005). This was agreed to by more than 130 countries and lays out agreed principles for effective development finance that also cover climate-related aid: these principles relate to country ownership, alignment, harmonisation, results and mutual accountability. The subsequent Busan Partnership on Effective Development Co-operation (2011), agreed to by 150 countries, outlines the importance of climate finance as well as extending the scope of these principles beyond aid to cover development finance and development co-operation more broadly.

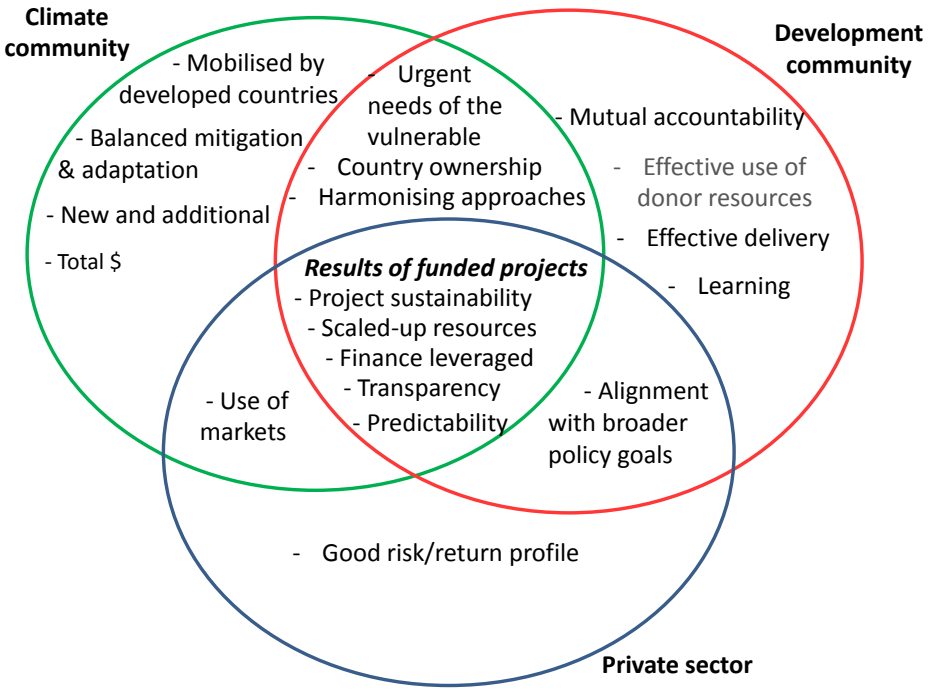
The climate community (i.e. those involved in the UNFCCC climate negotiations) has agreed on principles governing climate finance. These include both general principles as well as those developed in the context of funds established by the UNFCCC process such as the Green Climate Fund and the Global Environment Facility. Within the climate community, the framing of effectiveness has changed over time, primarily reflecting changes in the development community's provisions on aid effectiveness. Additionally, while not homogenous, some within the private sector have adopted certain principles or environmental and social safeguards (e.g. the Equator Principles). However, a key requirement for effective private investment generally involves maximising risk-adjusted returns.

There is significant and growing common ground between the different communities (Figure ES-1). For example, all agree that scaled-up climate finance is needed, that both public and private sources can play a key role, and that the (self-) sustainability of a project and transparency is important. However, different communities may naturally place greater emphasis on different aspects of effectiveness. For example, meeting the urgent and immediate needs (especially adaptation needs) of climate-vulnerable countries is important to the development and climate communities, but may not necessarily be a priority of the private sector. These differences in emphasis and priority could make distilling a common definition of climate finance effectiveness challenging, and whilst common and clear understanding is important, it is not clear that a single definition is necessary.

In practice, institutions within these communities often design and manage interventions to address multiple aims. Such multi-dimensional approaches to effectiveness involve a combination of objectives, such as mobilising resources, maximising broader development benefits, achieving climate-related objectives, and/or building capacity. For example, a monoculture plantation might be an effective intervention that focuses solely on maximising mitigation potential. However, interventions balancing multiple objectives (e.g. mitigation, biodiversity, development) may favour

mixed plantation or agro-forestry activities that provide greater biodiversity and other benefits (food, medicinal plants, etc.).

Figure 5: Aspects of climate finance issues emphasised by different communities



Where does the concept of effectiveness apply?

In addition to varying definitions of what effectiveness entails, the concept of effectiveness can be applied at different stages involved in the planning, delivery, and use of climate finance. These include co-operating internationally; enhancing national institutions, processes, and enabling environments; designing interventions and allocating resources; and measuring results. The development community in both developed and developing countries emphasises the importance of supporting country ownership and alignment with national priorities, as articulated in agreed aid effectiveness principles. The underlying logic in these principles is that international co-operation and capacity building within national and local institutions can help to establish enabling environments that channel, deliver and manage climate finance more effectively. Focusing on institutional aspects of effectiveness will also be crucial in creating the conditions and capacities necessary for transformational changes within countries.

How is climate finance effectiveness assessed?

Assessments of whether a specific intervention is effective or not will be influenced by its specific aims and the stage at which the intervention is targeted. Even when interventions are targeted towards similar aims, assessments of effectiveness may differ due to a number of internal and external variables. These include the:

- Context within which an intervention occurs. This can include national, institutional or local/site-specific issues. At the national level, it is difficult for donors to meet the aid effectiveness principle of aligning their inputs with country priorities if a developing country has not yet established such priorities. At the institutional level, varying national

circumstances or enabling environments can enhance or inhibit an intervention's success (e.g. a regulatory environment's influence on an intervention's ability to mobilise private finance). Site-specific environmental factors can also influence the performance of an intervention (e.g. a wind turbine will generate varying amounts of electricity depending on the prevailing wind speed).

- Time horizon of the assessment. Some climate interventions can give rise to immediate results (e.g. energy efficiency projects). However, some interventions will target results that can only be assessed after an extended period of time (e.g. constructing infrastructure that can withstand a 1-in-100-year flood). These different time horizons for the results of an intervention mean that effectiveness levels will vary depending on when results are assessed. Choosing an appropriate point in time for assessment can be particularly complicated for climate finance interventions aimed at long-term transformational impacts.

- Scale at which effectiveness is assessed. Depending on its aims, an intervention may seek results at the project, national, or international scale. This will have implications for how its effectiveness is assessed. For example, an intervention that seeks to promote transformational change in a given sector may be judged effective at the project-level if it produces the expected outputs (e.g. off-grid renewable electricity, number of people trained in drought-resistant agriculture). However, if the intervention is not replicated at scale, the transformational impacts of the intervention will be limited.

Challenges and way forward

The multi-faceted nature of how effectiveness is viewed, the stages at which it can be applied, and how it is assessed results in a number of complexities. These can be grouped into three main challenges:

- Accommodating the different governing principles and priorities of a variety of actors (those who provide, channel and use climate finance) involved in a climate finance intervention.

- Balancing a need to demonstrate immediate results attributable to specific interventions (which may be easier to assess for project-level outputs) with broader aims (which may be better assessed at a sectoral or national level). Such aims could include promoting lesson learning and supporting effective processes (e.g. at sectoral or national levels), which often requires mainstreaming climate concerns, aligning with government priorities, and/or achieving longer-term transformational impacts.

- Identifying the most appropriate ways of focusing scarce resources to maximise results across multiple dimensions (e.g. climate, development, economic, and financial).

In terms of the way forward for assessing effectiveness, there is already a significant body of information upon which to build. For example, many providers of public international climate finance have identified the different results (e.g. climate, development, social, economic) that can be expected from different types of interventions. Identifying lessons from this experience and learning from this will be important. Assessing results, as well as identifying effective pre-conditions and modalities for delivering climate finance, can be an iterative process and involve making trade-offs. Key questions for future development of frameworks to assess effectiveness are:

- To what extent do principles of development effectiveness (which apply to international public climate-related aid and other official flows) apply to or influence private climate finance mobilised by public climate finance, measures and policies?

- Should results frameworks used to assess the effectiveness of climate interventions focus solely on the climate results of an intervention, or also encompass broader development benefits?

- How flexible should assessment tools be (to deal not only with different types of interventions, but changing national and international priorities and frameworks over time)?

- How to further increase harmonisation of results frameworks at different scales and levels (e.g. project-level monitoring and evaluation; donor, intermediary, and fund-level systems; and national development plan goals) both within the area of climate finance, and in other relevant areas (e.g. post-2015 sustainable development goals)?

- Over what scales and time horizons to fund, implement, and track results of climate interventions?

For more information see:

Ellis, J., Caruso, R. and S. Ockenden, "Exploring Climate Finance Effectiveness", available at http://oe.cd/ccxg.